Death and Suicide: An Exploration of Attitudes among Counseling Students

A dissertation presented to
the faculty of
The Patton College of Education of Ohio University

In partial fulfillment
of the requirements for the degree
Doctor of Philosophy

Eric T. Beeson
May 2014

© 2014 Eric T. Beeson. All Rights Reserved.
This dissertation titled
Death and Suicide: An Exploration of Attitudes among Counseling Students

by
ERIC T. BEESON

has been approved for
the Department of Counseling and Higher Education
and The Patton College of Education by

Christine S. Bhat
Associate Professor of Counselor Education

Renée A. Middleton
Dean, The Patton College of Education
Abstract

BEESON, ERIC T., Ph.D., May 2014, Counselor Education

Death and Suicide: An Exploration of Attitudes among Counseling Students

Director of Dissertation: Christine Suniti Bhat

The purpose of this cross-sectional study was to evaluate the role of five dimensions of death attitudes (fear of death, death avoidance, approach acceptance, neutral acceptance, and escape acceptance) in the prediction of three dimensions of suicide attitude (acceptance of suicide, condemnation of suicide, and preventability of suicide) among a cross-section of counseling students’ after controlling for the effects of six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, and six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training. A stratified random cluster sample of 183 counseling students enrolled in programs accredited by the Council for the Accreditation of Counseling and Related Programs (CACREP) and the Council for Rehabilitation Education (CORE) completed a 97-item survey online. Death attitudes were measured using the Death Attitude Profile-Revised (DAP-R; Wong, Reker, & Gesser, 1994) and suicide attitudes were measured using the Attitudes Towards Suicide Scale (ATTS; Renberg & Jacobsson, 2003).

Results from hierarchical multiple regression analyses indicated that participants’ death attitude scores accounted for statistically significant variance in participants’
acceptance of suicide scores and condemnation of suicide scores above and beyond the effects of the twelve covariates; however, counseling students’ death attitude scores did not account for statistically significant variance in participants’ attitudes towards the preventability of suicide scores. Escape acceptance was the only dimension of death attitudes that had no statistically significant effect in the prediction of counseling students’ suicide attitude scores. Several covariates, including suicide potential, religious beliefs associated with Christianity, suicide training, personal suicidal behaviors, and exposure to the suicidal behaviors of clients, also had statistically significant effects in the prediction of counseling students’ suicide attitude scores. The theoretical, research, and clinical implications of these findings for professional counselors, counselor educators, and counseling students are discussed.
Dedication

Most importantly, this project is dedicated to the people throughout the world who long to discover meaning in their lives, who have died by suicide, who have experienced suicidal behavior, who have continued the journey, and who have dedicated their lives to walking alongside of others.
Acknowledgments

First, I would like to acknowledge the love and support of my dear wife and family, who have been very supportive of me during the completion of this project. Although I didn’t always respond so nicely to their gentle reminders to type a few pages, their encouragement fueled the ferocious finger tapping that resulted in this dissertation.

Second, I would like to thank my advisor, Dr. Christine Suniti Bhat, for her continued confidence in my ability. Her realism paired with my idealism fostered my motivation and belief that this project could be completed. In many ways I wanted to complete this dissertation just as much for her as I did for myself.

Third, I’d like to express my deepest appreciation to my dissertation committee members, who made a tremendous commitment to walk alongside of me during this process. Thank you Dr. Yegan Pillay; our impromptu discussions regarding the existential issues of life led to the creation of this project. Thank you Dr. Gordon Brooks; your passion and expertise rekindled my interest in statistics and guided the development, interpretation, and application of these findings to the counseling profession. Thank you Dr. David Carr; your willingness to participate provided an invaluable perspective regarding the implications of this study outside of the counseling profession.

Next, I would like to thank all of the program directors and students that participated in this study. Without your willingness and support, I would not have completed this project.

Finally, I attribute the completion of this project not only to my ability and support, but to the spiritual energy at my core that has blessed me with compassion and
grace beyond measure. This has truly inspired my development as a professional counselors and future counselor educator. May I continue this journey and share the blessings that I have experienced with others!
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>Dedication</td>
<td>5</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>6</td>
</tr>
<tr>
<td>List of Tables</td>
<td>11</td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
<td>12</td>
</tr>
<tr>
<td>Overview of the Current Body of Literature</td>
<td>13</td>
</tr>
<tr>
<td>The Changing Conceptualization of Suicide</td>
<td>14</td>
</tr>
<tr>
<td>Purpose of the Current Research</td>
<td>17</td>
</tr>
<tr>
<td>An Ethical Obligation</td>
<td>18</td>
</tr>
<tr>
<td>Limitations of Previous Research</td>
<td>21</td>
</tr>
<tr>
<td>Current Knowledge Gap</td>
<td>25</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>25</td>
</tr>
<tr>
<td>The Selection of Variables</td>
<td>27</td>
</tr>
<tr>
<td>Research Questions</td>
<td>31</td>
</tr>
<tr>
<td>Null Hypotheses</td>
<td>32</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>32</td>
</tr>
<tr>
<td>Delimitations of the Study</td>
<td>33</td>
</tr>
<tr>
<td>Glossary of Terms</td>
<td>36</td>
</tr>
<tr>
<td>Chapter 2: Review of the Literature</td>
<td>42</td>
</tr>
<tr>
<td>Death Attitudes</td>
<td>43</td>
</tr>
<tr>
<td>Suicide Attitudes</td>
<td>96</td>
</tr>
<tr>
<td>The Impact of Attitudes on Professional Behaviors</td>
<td>139</td>
</tr>
<tr>
<td>Current Training Experiences</td>
<td>149</td>
</tr>
<tr>
<td>Chapter 3: Methodology</td>
<td>158</td>
</tr>
<tr>
<td>Research Design</td>
<td>160</td>
</tr>
<tr>
<td>Sampling Plan and Procedures</td>
<td>162</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>165</td>
</tr>
</tbody>
</table>
Data Collection Procedures……………………………………………………………………………….178
Participants………………………….. ………………………………………………………………………..179
Data Analysis Procedures…………………………………………………………………………………..183
Chapter 4: Results………………………..… …………………………………………………………………193
Null Hypotheses…………………………..……. …………………………………………………………………194
Preliminary Analyses ……………………………………………………………………………………………194
Principal Component Analyses……………………………………………………………………………207
Primary and Supplemental Analyses……………………………………………………………………..210
Chapter 5: Discussion and Conclusion……………………………………………………………………232
Overview of the study………………. ………………………………………………………………………232
Discussion of the Primary and Supplemental Findings……………………………………………….234
Research Question 1…………………………………………………………………………………………244
Research Question 2………………………………………………………………………………………….250
Research Question 3………………………………………………………………………………………….256
The Effect Size of Death Attitudes across Studies…………… ………………….………………..260
Discussion of the Descriptive Characteristics…………………………………………………………263
Contributions to the Current Body of Literature…………………………………………………………268
Implications of the Findings………………………………………………………………………………268
Limitations ……………………………………………………………………………………………………276
Future Directions…………………………………………………………………………………………285
References……………………………………………………………………………………………………289
Appendix A: Death Attitude Profile-Revised (DAP-R)……………………………………………………313
Appendix B: Attitudes Towards Suicide Scale (ATTS)……………………………………………………317
Appendix C: Recruitment Emails…………………………………………………………………………327
Appendix D: Permission to use the DAP-R………………………………………………………………330
Appendix E: Permission to use the ATTS………………………………………………………………….332
Appendix F: Final Qualtrics Survey…………………………………………………………………………337
Appendix G: Institutional Review Board Approval Forms………….. ……………………………..361
Appendix H: Exposure to the Suicidal Behaviors by Type………………………………………………364
Appendix I: Personal Suicidal Behaviors by Suicide Potential………………………………………….365
Appendix J: Exposure to the Suicidal Behaviors of Clients .............366
Appendix K: Data Exploration Graphs........................................367
Appendix L: Mean Suicide Attitude Scores by Group and One-Way ANOVA ......389
Appendix M: Item Factor Loadings for PCA of DAP-R..................392
Appendix N: Item Factor Loadings for PCA of 37-item ATTS.............394
Appendix O: Item Factor Loadings for PCA of 13-item ATTS.............396
Appendix P: Assumption Graphs for Acceptance.......................396
Appendix Q: Assumption Graphs for Condemnation.........................408
Appendix R: Standardized Coefficient Changes in the Prediction of Condemnation....419
Appendix S: Assumption Graphs Preventability.................................420
List of Tables

Table 1: Frequency of Participants by State and ACES Region............................... 197
Table 2: Correlation Coefficients for Death Attitudes and Suicide Attitudes.......... 200
Table 3: Correlation Coefficients for Suicide Attitudes and Covariates............... 202
Table 4: Intercorrelations between Personal Variables and all Covariates......... 203
Table 5: Intercorrelations between Professional Variables and all Covariates....... 205
Table 6: PCA of the DAP-R Results........................................................................ 208
Table 7: PCA of ATTS Result.................................................................................. 210
Table 8: Regression Model Comparison for Predicting Acceptance.................... 213
Table 9: Final Prediction Model for Acceptance of Suicide............................... 219
Table 10: Regression Model Comparison for Predicting Condemnation............... 221
Table 11: Final Prediction Model for Condemnation of Suicide....................... 227
Table 12: Step-wise Regression for Predicting Preventability........................... 230
Table 13: Comparison of PCA of DAP-R with Previous Research...................... 237
Table 14: Comparison of PCA of ATTS with Previous Research......................... 240
Table 15: Summary of the Results from all Three Research Questions.............. 242
Table 16: Prediction of Acceptance Compared with Previous Research............. 245
Table 17: Prediction of Condemnation Compared with Previous Research......... 251
Table 18: Effects of Death Attitudes in the Prediction of other Attitudes.......... 261
Table 19: Mean Suicide Attitudes compared with Previous Research............... 266
Chapter 1: Introduction

In the general population of the United States, it was estimated that 2,513,171 people died in 2011, including 38,285 people who died by suicide, making suicide the tenth leading cause of death in the United States (Hoyert & Xu, 2012). By definition, suicide is any “...death caused by self-directed injurious behavior with any intent to die as a result of the behavior” (Crosby, Ortega, & Melanson, 2011, p.23). Suicidal behaviors are said to exist on a continuum of severity from less severe (e.g., allusions to suicide) to more severe (e.g., death by suicide), and it has been suggested that all individuals may exist on this continuum regardless of their potential for death by suicide (Cukrowicz, Wingate, Driscoll, & Joiner, 2004; Lowental, 1976; Van Orden, Merrill, & Joiner, 2005; Van Orden et al., 2010). Although each suicidal behavior is related, each may be a distinct phenomenon with different risk factors and warning signs (Van Orden, et al., 2005; Van Orden et al., 2010).

Given the prevalence of suicide, professional counselors are often exposed to various forms of suicidal behaviors but may not be adequately prepared to navigate the complex ethical dilemmas that could emerge during the counseling process (Cohen, 2001; Neimeyer, 2000; Rogers, Gueulette, Abbey-Hines, Carney, & Werth, Jr., 2001; Werth, 2002; Werth & Cobia, 1995). This may be especially true for professional counselors at the earliest stage of professional development, the counselor education program. As a result, the current study extended previous research by exploring the multidimensional suicide attitudes of counseling students that could influence the reconciliation of ethical dilemmas related to suicide.
Overview of the Current Body of Literature

Previous studies found that 71% of mental health counselors experienced a client’s suicide attempt (Rogers, Gueulette, Abbey-Hines, Carney, & Werth, 2001), and anywhere from 24% to 38% of professional counselors have reported the death of a client by suicide (Hunt & Rosenthal, 2000; McAdams & Foster, 2000; Rogers et al., 2001). Among professional counselors who have experienced the suicide of a client, approximately one-fourth experienced the suicide while a student (McAdams & Foster, 2000). McAdams and Foster (2000) found that professional counselors reported notable personal and professional consequences following a client’s suicide that included increased interpersonal discord, guilt, anger, inpatient referrals, and selectivity of potential clients following the death of a client by suicide, and these consequences were reported to be more severe if the client suicide occurred while the participant was a student (McAdams & Foster, 2000). In concert, responding to clients’ suicidal behaviors has also been cited as one of the most anxiety-producing and difficult scenarios for professional counselors and counseling students (Foster & McAdams, 1996; Kirchberg & Neimeyer, 1991; Kirchberg, Neimeyer, & James, 1998; McAdams & Foster, 2000; Terry, Bivens, & Neimeyer, 1995). In addition to the suicidal behaviors of clients, professional counselors may also experience their own suicidal behaviors.

Previous research found that mental health professionals were significantly more likely to report suicidal thoughts and attempts than the general population (Ramberg & Wasserman, 2000). In fact, anywhere from 20% to 37% of helping professionals have reported serious consideration of suicide (Bascue, Lawrence, & Sessions, 1978; Rogers et
Although interesting, the interpretation of these findings could be guided by individual attitudes towards suicide. For instance, if suicide is viewed as pathological, one might question the fitness of professional counselors who acknowledge a history of suicidal behaviors. In contrast, if suicide is viewed as a continuum of behavior on which everyone exists, then the acknowledgement of suicidal behaviors could actually enhance suicide intervention skills (Lowental, 1976). Regardless of the actual nature of suicide, it is important for counseling students and counselor educators to evaluate their attitudes towards suicide (Kiser, 1996; Neimeyer, 2000).

The Changing Conceptualization of Suicide

The exploration of counseling students’ attitudes towards suicide is timely given the recent socio-political changes in the conceptualization of suicide. While many have acknowledged a traditional view of suicide as a pathological problem akin to criminal behavior or sin (Adinkrah, 2013; Bähr, 2013; Butler, 2007; Lande, 1992; Mullock, 2012), recent conceptualizations of suicide have considered broader issues of social justice related to a client’s right to die. Specifically, previous research has found that anywhere from 70% to 81% of professional counselors have reported some belief in suicides that are deemed rational (Bascue et al., 1978; Rogers et al., 2001). Although most professional counselors endorsed some general belief in the acceptability of suicide, their belief decreased when considering the potential acceptance of a suicide by one of their clients (Lussier, 2004; Rogers et al., 2001; Werth & Liddle, 1994).

The conceptualization of a client’s suicidal behaviors as rational has created much debate regarding the role of professional counselors when counseling individuals with
end-of-life issues including suicide (Cohen, 2001; Neimeyer, 2000; Rogers et al., 2001; Werth, 2002; Werth & Cobia, 1995). For instance, the conditions that justify a rational suicide as well as the degree to which counselors should try to prevent a client’s suicide are often in disagreement (Cohen, 2001; Lussier, 2004; Rogers et al., 2001; Werth, 1999; Westefeld, Sikes, Ansley, & Yi, 2004). Some professional counselors cited moral and ethical obligations to prevent suicide, but others have noted that ethical principles such as autonomy and client welfare may actually direct professional counselors to permit and even facilitate a sound decision making process that result in client suicide (Cohen, 2001; Rogers et al., 2001). Although the most appropriate treatment outcome may be relative to each unique client circumstance, it is possible that personal attitudes towards suicide could guide the planning and evaluation of the counseling process.

Other personal beliefs and attitudes, including those related to more broad concepts of death, may also influence the clinical decision-making process of counselors. In fact, previous research has evaluated the role of personal and professional covariates, which included death attitudes, in the prediction of attitudes towards physician assisted suicide (Kopp, 2008-2009) and suicide intervention skills (Kirchberg et al., 1998; Neimeyer, Fortner, & Melby, 2001). Given the potential for personal attitudes related to death and suicide to influence the clinical behaviors of professional counselors and counseling students, many have suggested that the exploration of personal beliefs and attitudes related to suicide may be requisite to the training and delivery of ethical and effective suicide intervention skills (Cohen, 2001; Kiser, 1996; Lussier, 1976; Neimeyer, 2000; Rogers, 1996; Werth, 2002).
In light of changing conceptualizations of suicide and the potential impact of personal attitudes on the delivery of counseling services, some literature has described factors related to suicide attitudes. The body of literature related to the acceptability of suicide has described and informed the responsibilities of mental health professionals when counseling clients with end-of-life issues; however, this research has been primarily descriptive and conceptual (e.g., Cohen, 2001; Rogers, 1996; Rogers et al., 2001; Werth, 2002) with little focus on other possible dimensions of suicide attitudes. In contrast, international research has focused on broader conceptualizations of suicide attitudes as multidimensional but with only recent focus on mental health professionals (e.g., Kodaka, Inagaki, Poštuvan, & Yamada, 2012; Norheim, Grimholt, & Ekeberg, 2013; Renberg & Jacobsson, 2003). Furthermore, no previous research was found that predicted therapeutic outcomes from individual dimensions of suicide attitudes among professional counselors or counseling students. While descriptions of suicide attitudes among professional counselors are beneficial, these results are difficult to interpret without an empirical model that predicts therapeutic outcomes from suicide attitudes because it is not clear whether one dimension of suicide attitudes is preferable to another.

In summary, previous research identified the likelihood that professional counselors and counseling students will experience client scenarios related to death and suicide during their careers. The determination of whether a client’s suicidal behaviors are pathological or rational is complex, and training programs may leave professional counselors and counseling students ill-prepared to navigate the subsequent ethical dilemmas. While traditional suicide training programs have focused on the prevention of
suicide, recent trends suggest that modern suicide intervention may include the facilitation of a clients’ suicide in certain cases. Additionally, the actions that professional counselors take to prevent or permit a suicide may be a product of their morals and attitudes; however, no empirical model was found that evaluated the therapeutic outcomes related to individual dimensions of suicide attitudes among professional counselors. Finally, death attitudes have been found to predict attitudes toward suicide and suicide intervention skills, but little explicit focus has been given to the prediction of attitudes toward suicides among professional counselors or counseling students.

**Purpose of the Current Research**

Previous research and current trends related to suicide attitudes have warranted the development of a sound model of suicide attitudes that is multidimensional in nature and accounts for the effects of personal and professional covariates including death attitudes. Although the prediction of therapeutic outcomes by suicide attitudes is the eventual goal of this line of research, it was important to solidify an empirical model before moving forward. Given that death attitudes were previously shown to be statistically significant predictors of attitudes towards physician assisted suicide (Kopp, 2008-2009), it was important to consider the role of death attitudes in the manifestation of the multidimensional suicide attitudes of counseling. Therefore, the purpose of the current study was to evaluate the role of five death attitude variables (*fear of death, death avoidance, approach acceptance, neutral acceptance, and escape acceptance*) in the prediction of three suicide attitude variables (*acceptance of suicide, condemnation of suicide, and...*)
suicide, and preventability of suicide) among counseling students after controlling for the effects of six personal and six professional variables. The remainder of this chapter provides an introduction to the present study that includes a review of its justification, the selection of variables, a review of the gaps in the current body of literature, a review of the methodology, and a glossary of terms that were used in the current study.

An Ethical Obligation

The American Mental Health Counselors Association (AMHCA), the American Counseling Association (ACA), the American School Counselor Association (ASCA) and the Commission on Rehabilitation Counselor Certification (CRCC) are three professional organizations that publish ethical standards for the practice of professional counseling, which establish the legal standard of care afforded to all clients. The current revision of each organization’s Code of Ethics includes several ethical standards related to confidentiality, value conflicts, and clinical practice that can become difficult to interpret when counseling individuals who experience suicidal behavior.

Confidentiality. For example, client information obtained within a counseling relationship is considered privileged and confidential; however, counselors are instructed to breach this confidentiality when dangerous circumstances, including suicide, are foreseeable (ACA, 2005, B.2.a.; AMHCA, 2010, A.1.c.; ASCA, A.2.c., A.7.a.; CRCC, 2010, B.2.a.). Although ethical standards provide directions for practice, the interpretation of these standards may be relative to individual client scenarios. While ethical standards hold counselors accountable for disclosing client information regarding dangerous situations including suicide, contradictions are noted relative to clients who are

Depending upon professional counselors’ training, interpretation of legal precedent, previous clinical experiences, and personal attitudes, they are able to forgo the disclosure of client information regarding suicide when the suicide is determined to be rational (ACA, 2005, A.9.c.; AMHCA, 2010, B.8.c.; CRCC, 2010, A.9.c.).

The influence of personal attitudes on the interpretation of ethical standards was apparent in a recent study of school counselors’ ethical decision making. The authors of this study concluded that the responses of participants who disagreed with a survey item that stated a counselor “…must break confidentiality if a client is suicidal” were labeled as “inappropriate” (Boes, Chibbaro, & Bingeman, 2006, p. 65-67). Although the specific survey item was not referenced, this conclusion seemed to promote the belief that breaking confidentiality in the case of suicide was mandated in all cases rather than the result of a sound decision-making process. Additionally, it was unclear whether this study included any elements from the decision-making models regarding rational suicide (Cohen, 2001; Werth, 1999; Werth & Cobia, 1995) that exist.

**Value conflicts.** In addition to confidentiality and client welfare, ethical standards permit professional counselors to refuse services to persons wishing to explore end of life issues on the basis of personal and moral beliefs, as long as the appropriate referrals have been made (ACA, 2005, A.9.b.; AMHCA, 2010, B.8.b.; CRCC, 2010, A.9.b.). Different interpretations of these standards have led to recent debates in the counseling field regarding the degree to which students can refuse services to clients
based upon personal value conflicts with clients who are lesbian, gay, bisexual, transgender, or questioning (LGBTQ; Cox, 2013; Hutchens, Block, & Young, 2013). Although not related to suicide, these cases identify the potential for differing personal attitudes that could have serious ramifications for the client, student, counselor educator, program, university, or the entire profession. As a result, it is imperative that counselor educators, counseling students, and professional counselors are aware of personal values, attitudes, beliefs, and behaviors in order to reduce the potential for harm throughout the counseling process (ACA, 2005, A.4.b; AMHCA, 2010, A.4.d; ASCA, 2010, A.1.c; CRCC, 2010, D.5.e).

**Potential consequences.** Early theorists suggested that the underlying attitudes of mental health professionals can influence the delivery of therapeutic services (Yalom, 1980). The influence of personal attitudes related to suicide during the counseling relationship could have several consequences. For instance, counseling students who disagree strongly with the acceptance of suicide could initiate an inappropriate hospitalization of a client that could infringe upon the client’s freedom and autonomy while resulting in a lawsuit against the student and supervisor. Conversely, students who agree strongly with the acceptance of suicide could coerce a client into a premature suicide and similar lawsuits could ensue. Although these are just two examples, they identify the potential consequences of uninformed clinical decision making. Although the exploration of personal attitudes towards suicide was cited as a critical step for educators and practitioners in the development of suicide intervention skills (Kiser, 1996; Werth, 2002), the absence of an empirical model of multidimensional suicide attitudes...
that is connected to therapeutic outcomes makes the interpretation of research related to suicide intervention skills difficult to assess.

An empirical model of suicide attitudes among counseling students has the potential to guide the interpretation of Codes of Ethics and the evaluation of student learning outcomes. Given the potential for complex ethical dilemmas related to confidentiality, client welfare, and value conflicts, the identification of individual dimensions of suicide attitudes that are related to desirable therapeutic outcomes can provide a common language while exploring critical incidents in the student’s decision-making processes. Furthermore, the identification of personal and professional covariates related to each dimension of suicide attitudes can help to identify students who might need additional courses and/or supervision prior to counseling clients who experience suicidal behaviors.

Limitations of Previous Research

The annals of research that have focused on death attitudes and suicide attitudes are immense and have contributed to the development of the distinct fields of scientific study. While tremendous gains have been made in the conceptualization of death and suicide, there is still much to be known about the ways in which human beings respond to and make meaning of death and the consequences this has to their lives. As scientific inquiry regarding death attitudes and suicide attitudes progresses toward an understanding of the consequences of attitudes for the counseling profession, several considerations can be made in response to the limitations that were reviewed in the current body of literature. These limitations included the age of the previous research,
inconsistent conceptualizations of latent attitudinal variables, limited generalizability of
the findings, and relatively little evaluation of the consequences of attitudes.

The scientific inquiry regarding death attitudes began in the 1950s and has
continued to gain in popularity with the advent of validated measurements of death
attitudes, the formation of professional organizations, and the publication of journals
related to the study of death and dying (Neimeyer, Wittkowski, & Moser, 2004). With
increased methodological rigor, the measurement of death attitudes has improved
throughout the course of this line of research; however, this improvement has also led to
inconsistent conceptualizations of death attitudes that focused primarily on the aversive
dimensions related to fear, threat, and anxiety. Many of the studies used to justify the
development of the present study emerged in the late 1980s and continued until the late
1990s (Hays & Gelso, 1993; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998;
Neimeyer et al., 2001; Terry et al., 1995), but only Neimeyer et al. (2001) used a
multidimensional conceptualization of death attitudes that included non-aversive
dimensions. While these studies suggested a relationship between death attitudes and
discomfort when counseling in client scenarios related to death and suicide, no
consideration was found to replicate these findings using non-aversive conceptualizations
of death attitudes among counseling students or professional counselors. The fluctuating
conceptualizations of death attitudes and the limited use of non-aversive dimensions of
death attitudes limited the interpretation of findings across studies.

On the other hand, the current body of literature regarding suicide attitudes has
commonly employed multidimensional models; however, little evidence exists for a
stable model of suicide attitudes among the general population or helping professionals (e.g., Diekstra & Kerkhof, 1989; Domino et al., 1980; Domino et al., 1982; Norheim et al., 2013; Renberg & Jacobsson, 2003). In fact, factor analyses of one commonly used scale to measure suicide attitudes have resulted in anywhere from two to twelve factors (Norheim et al., 2013; Renberg & Jacobsson, 2003). This has limited the comparison of results that could have been made across studies and has halted the evaluation of the consequences of individual dimensions of suicide attitudes.

In addition to the limited focus on counseling professionals and students in the recent literature related to death attitudes and suicide attitudes, additional limits to the generalizability of the findings were noted. For instance, studies on death attitudes and suicide attitudes have focused on mental health professionals other than counselors (e.g., psychologists, psychiatrists, social workers, etc.; Brown, 1987; Kodaka et al., 2012; Kodaka, Inagaki, Yamada, 2013; Norheim et al., 2013; Werth & Cobia, 1995; Werth & Liddle, 1994) and professional counselors (e.g., Rogers et al., 2001; Terry et al., 1995), but only a few studies focused on counseling students (Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Maglio, 1990). Additionally, most studies on multiple dimensions of suicide attitudes were located outside of the United States (e.g., Jukkala & Mäkinen, 2011; Kodaka et al., 2012; Kodaka et al., 2013), and a large amount of death attitudes research recruited participants from the same state and, at times, the same counselor education program (Depaola, Neimeyer, Lupfer, & Fiedler, 1992; Depaola, Neimeyer, & Ross, 1994; Hayes & Gelso, 1993; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Kirchberg & Neimeyer, 1998; Neimeyer et al., 2001). Although mental health
professions share many of the same goals and techniques, the underlying philosophy often varies and limits the ability for attitudinal studies from one profession to be generalized to another.

Similarly, most studies that focused on suicide attitudes were primarily descriptive. Although the identification of common attitudes amongst the profession is an important first step, there was little to no evaluation of the outcomes of one dimension of suicide attitudes compared to another. A few studies evaluated the ability to predict suicide intervention skills and experiences from death attitudes (Kirchberg et al., 1998) and suicide attitudes (Neimeyer et al., 2001), but the inconsistency of attitudinal measures limits the comparisons that could have been made. Additionally, conflicting ethical standards and treatment recommendations (Boes et al., 2006; Cohen, 2001) when counseling individuals who experience suicidal behaviors limited the interpretability of studies regarding the prediction of suicide intervention skills from suicide attitudes. For instance, if one study labels the disclosure of confidentiality as unethical and another labels it as relative, then the potential for misinterpretations regarding the influence of suicide attitudes on clinical practice is limited.

The final limitation in the current body of literature is regarding the inconsistency in findings. With the exception of findings regarding religiosity and death attitudes, there is little consistency among findings regarding the influence of personal and professional covariates on the manifestation of death attitudes across populations. These inconsistencies could result from the difficulty related to the study of primarily unconscious attitudes towards death and suicide (Feifel & Nagy, 1980; Yalom, 1980).
Additionally, it is possible that those who have participated in previous research related to death and suicide have little aversion to these concepts, which created the potential for a homogeneous group in which subtle differences among attitudes would be harder to identify (Neimeyer & Dingemans, 1980).

**Current Knowledge Gap**

The limitations of prior research identified for this study created several gaps in the current knowledge base among the counseling profession in regards to suicide attitudes. First, no model was found that established an empirical model for the evaluation of suicide attitudes among professional counselors or counseling students, and there was no definitive research found that evaluated the consequences of individual dimensions of suicide attitudes in regards to therapeutic outcomes. Therefore, there was no evidence found that supported the presence of one dimension of suicide attitudes over another. As a result, the outcomes of suicide training were without a framework of interpretation. Second, it was unknown what the role of aversive and non-aversive dimensions of death attitudes were in the prediction of suicide attitudes among counseling students and other counseling professionals. Third, previous research left many questions regarding the influence of twelve personal and professional factors on the development of suicide attitudes.

**Statement of the Problem**

The gaps in the current body of literature created the potential for problems in the training of professional counselors and the delivery of counseling services. The absence of a sound empirical model for the multidimensional suicide attitudes of counseling
students created the potential for curricular activities that could inadvertently develop suicide attitudes that result in impaired personal and professional development. For instance, if the acceptability of suicide is assumed to be the preferred attitude of counseling students, then curricular activities may be developed to facilitate this attitude; however, it could be that the acceptance of suicide actually leads to less desirable therapeutic outcomes. Regardless of the true nature of the relationships between the acceptability of suicide and therapeutic outcomes, the potential for uninformed instructional decision and the evaluation of students’ clinical decision making existed throughout the literature.

The inconclusive findings regarding the role of death attitudes and other personal and professional covariates in the prediction of suicide attitudes increased the chances for similar beliefs about the value of clients and subsequent impairments to professional behaviors, which were observed among other helpful professionals, to develop. For instance, students with more fear of death could experience strong anxiety when discussing suicidal behaviors with a client and have difficulty developing therapeutic relationships. Similarly, students with a history of personal suicidal behaviors could have more escape acceptance of death and inadvertently permit a client’s suicide prematurely.

In sum, these examples are just a few potential problems that could emerge from decisions that are made based upon unexplored or biased explorations of suicide attitudes among counselor educators and counseling students. It is also acknowledged that the clinical judgment and experiences of counselor educators and counselor supervisors can reduce the chances of these problems from ever manifesting. Nonetheless, the potential
problems that could emerge created an ethical imperative to evaluate the role of death attitudes in the prediction of suicide attitudes after controlling for twelve personal and professional covariates.

The Selection of Variables

Early theoretical presumptions have suggested that the practice of psychotherapy is likely guided by underlying attitudes that remain dormant until activated by certain client scenarios (Yalom, 1980). In support, previous research consistently linked specific dimensions of death attitudes with attitudes of helping professionals towards other potential client populations including people who are elderly (DePaola et al., 1992; DePaola et al., 1994; Vickio & Cavanaugh, 1985), dying patients (Kvale, Berg, Groff, & Lange, 1999), and people with disabilities (Fish, 1986). Conceptual models related to a client’s right to suicide also considered the role of death attitudes and other personal and professional covariates in the development of these attitudes (Rogers, 1996).

Additionally, at least one study found several dimensions of death attitudes to be statistically significant predictors of attitudes towards physician-assisted suicide among the general population (Kopp, 2008-2009). Finally, another study found that individual dimensions of death attitudes among counseling students predicted their empathic responding to client scenarios, some of which included suicidal behaviors (Kirchberg et al., 1998). Despite one master’s thesis to the contrary (Maglio, 1990), no research was found that connected counseling students’ suicide attitudes to their death attitudes or counseling skills. Given the importance for counselor educators, counseling students, and professional counselors to explore their attitudes (ACA, 2005, A.4.b; AMHCA,
towards suicide in order to develop effective suicide intervention skills (Werth, 2002), it was decided to connect these lines of research with the present study by evaluating the role of death attitudes in the prediction of suicide attitudes among counseling students.

The identification of the variables of interest in this study began with a thorough analysis of the current body of literature related to death attitudes and suicide attitudes. Building upon previous research regarding the psychometric evaluation of latent death attitude variables, the present study defined death attitudes as a theoretical construct comprised of five variables: death avoidance, death fear, approach acceptance, neutral acceptance, and escape acceptance, that were measured by the Death Attitude Profile-Revised (DAP-R; Wong, Gesser, & Reker, 1994). Death avoidance was related to attitudes focused on the need to push away and deny death-related experiences and/or thoughts while fear of death was related to attitudes that death-related experiences create an aversive reaction (Wong et al., 1994). While fear of death and death avoidance were consistent with previous research that focused on aversive elements of death attitudes such as anxiety (Templer, 1970), fear (Collete & Lester, 1969; Neimeyer & Moore, 1994), and threat (Neimeyer, Moore, & Bagley, 1988), the inclusion of dimensions of death attitudes related to acceptance by the DAP-R improved upon previous research by capturing additional dimensions of death attitudes. Approach acceptance was related to the view of death as vehicle to a joyous afterlife, neutral acceptance was related to the view of death as a natural process that leads to an indifferent reaction, and escape acceptance was related to the view of death as a relief from the misery of life (Wong et
al., 1994). Using the five-factor model of death attitudes in this study provided the opportunity to identify unique relationships between variables that might not have been possible if only aversive measures were included.

The current body of literature also includes numerous studies regarding the personal and professional covariates that are related to death attitudes and suicide intervention skills (e.g., Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Neimeyer et al., 2001), but only recent research has focused overtly on the covariance between personal and professional covariates with multidimensional suicide attitudes among helping professionals (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013). No counseling students or professional counselors were included in these studies. Additionally, much of the literature regarding the influence of personal and professional covariates has been inconsistent. Given the focus of the present study it was important to control for the effects of other personal and professional covariates in order to identify the unique contribution of death attitudes in the prediction of suicide attitudes among counseling students. Consequently, six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, and six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training, were included as covariates in the present study.

The current body of literature related to suicide attitudes contains several descriptive unidimensional studies in the United States with a focus on mental health
professionals that have included professional counselors and counseling students (Lussier, 2004; Rogers et al., 2001; Werth, 1999; Werth & Cobia, 1995; Werth & Liddle, 1994). In contrast, the current body of literature internationally contains several multidimensional studies with a focus on the general population and only recent focus on mental health professionals (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013; Renberg & Jacobsson, 2008), but no study was found that focused on counseling students or professional counselors. Unfortunately, neither line of research was found to result in a stable model for suicide attitudes and some have criticized the stability of models for suicide attitudes (Kodaka, Poštuvan, Inagaki, & Yamada, 2010).

The majority of suicide attitude literature has focused on dimensions of suicide attitudes related to the acceptability and right of suicide; however, as many as 12 other dimensions of suicide attitudes have been found, which included attitudes regarding the suicidal process, the fear when communicating about suicide, the condemnation of suicide, and the preventability of suicide. Despite concerns regarding the stability of empirical models for suicide attitudes, one model emerged as relatively beneficial to the conceptualization of suicide attitudes used in this study. This model built upon the original findings of Renberg and Jacobsson (2003) in their creation of the Attitudes Towards Suicide Scale (ATTS) and used structural equation modeling to arrive at a three-factor model of suicide attitudes that included attitudes related to the acceptance, condemnation, and preventability of suicide. Therefore, suicide attitudes was considered to be a theoretical construct comprised of three variables defined as dimensions of attitudes towards suicide: acceptance of suicide, condemnation of suicide, and
preventability of suicide, that were measured by the ATTS (Renberg & Jacobsson, 2003). Previous research created an empirical base for the definition and selection of variables for this study that informed the construction of sound research questions for this study.

**Research Questions**

Given the gaps in the current body of literature and the potential problems that could emerge, previous research guided the selection of variables that informed the following research questions:

**Question 1:** How much variance in counseling students’ acceptance of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?

**Question 2:** How much variance in counseling students’ condemnation of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of the twelve personal and professional covariates?

**Question 3:** How much variance in counseling students’ attitudes towards the preventability of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?
Null Hypotheses

In order to answer the research questions of the present study, the following null hypotheses were tested:

**Null Hypothesis 1:** No statistically significant variance in counseling students’ acceptance of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates.

**Null Hypothesis 2:** No statistically significant variance in counseling students’ condemnation of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of the twelve personal and professional covariates.

**Null Hypothesis 3:** No statistically significant variance in counseling students’ attitudes towards the preventability of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates.

Significance of the Study

The significance of this study will be determined by its ability to inform the future research of counselor educators, counseling students, and counseling professionals. This study aimed to provide an exploratory and descriptive foundation for future research that aims to create a sound empirical model regarding the multiple dimensions of suicide attitudes among counseling students. This study combined previous lines of research regarding suicide attitudes and death attitudes in order to increase the understanding of
each. The inclusion of additional personal and professional covariates provided commentary to the current body of literature regarding the characteristics that have potential to influence the development of specific attitudes.

Despite the exploratory nature of this study, cautious interpretations of the findings can add to the current body of literature related to the use of the DAP-R and ATTS. Additionally, the findings of this study can provide a framework through which counseling students and counselor educators can have open conversations regarding their attitudes towards suicide and the way those attitudes influence their reactions and responses to clients who experience suicidal behaviors. Finally, it is possible that the continued exploration of suicide attitudes will inform the training and practice of professional counselors with hopes to increase their self-efficacy and effectiveness when exploring life and death topics with their clients.

**Delimitations of the Study**

The significance of this study is best evaluated in light of the delimitations in the research design. The decisions to delimit aspects of this study were based upon previous research related to death attitudes and suicide attitudes as well as timely issues related to the field of counselor education. The delimitations of this study were related to several presumptions that were made, the identification and definition of variables, the recruitment of participants, the administration of the survey, and the analyses of the data. These delimitations led to several potential limitations in the generalizability of the findings of this study.
This study was exploratory in nature and many presumptions were made during its development. These presumptions included that participants’ attitudes were theoretical constructs that could be measured despite their unconscious nature, that variables of attitudinal dimensions could be measured once activated by the intentional survey design, that participants’ clinical decision making would be influenced by these attitudes when counseling clients who experience suicidal behaviors, and that counseling students, in general, lack the requisite skills to navigate the complex ethical dilemmas that arise when encountering scenarios related to suicide. If these presumptions are inaccurate, then the relevance and application of these findings to the field of counselor education could be limited.

The purpose of this study was to predict suicide attitudes among counseling students given the theoretical assumption that psychopathology stems from death attitudes (Yalom, 1980), and previous research that suggested attitudes towards client populations were predicted by death attitudes (DePaola et al., 1992; DePaola et al., 1994; Eakes, 1985; Fish, 1986; Kopp, 2008-2009; Neimeyer et al., 2001; Vickio & Cavanaugh, 1985). Therefore, this study was delimited to the prediction of suicide attitudes from death attitudes, and no analyses regarding the prediction of death attitudes were conducted. This limited the potential for the findings of this study to address other gaps in the literature related to the prediction of death attitudes.

Given the inconsistencies in previous research regarding the conceptualization of death attitudes and suicide attitudes, it was decided to use pre-existing factor structures to operationally define and measure the outcome and predictor variables included in this
study. Death attitudes were delimited to the dimensions measured by the 32 items of the
DAP-R (Wong et al., 1994). Similarly, suicide attitudes were delimited to the
dimensions measured by the 13 items of the ATTS suggested by Renberg et al. (2008).

Several other items of the ATTS were excluded from the current study given the
adaptability of the ATTS to various research designs (Renberg & Jacobsson, 2003).
Although useful, this also increased the potential risks to construct validity due to the
exclusion of items that measured other potentially influential variables including race,
etnicity, household composition, life satisfaction, preferred manner of dying, reasons for
suicide, and passive thoughts of suicide. This delimitation reduced the potential for
analyses of attitudinal differences among subgroups of the sample of counseling students
in this study.

Although CORE and CACREP are the two largest accreditation bodies in the
counseling field and have recently announced plans for a partnership (CACREP, 2013b),
a number of counseling programs exist that are accredited by another organization or not
accredited at all. Additionally, CACREP currently accredits programs in a variety of
counseling specialties (e.g., school, mental health, etc.), but the decision was made to
delimit the inclusion criteria to include only counseling students who were enrolled in
mental health/clinical mental health and/or rehabilitation counseling programs. Even
though the implications of these findings are strengthened by the ability to evaluate
current student learning outcomes in light of these findings, the findings have limited
generalizability to students enrolled in other counseling programs and counseling
students who identify as men.
The stratified random cluster sampling methods of this study were designed to obtain a geographically representative sample of counseling students from across the regions of the Association of Counselor Education and Supervision (ACES), which increased the potential for an overrepresentation of students from one strata or cluster. Additionally, the online survey created for this study was anonymous, which limited the ability for a true response rate to be calculated nor adjustments to be made to the standard error in order to account for sampling error within clusters. The sampling method also relied upon program contacts to forward the recruitment materials to their students, which increased the chance that a number of counseling students would never receive the recruitment materials. Furthermore, there was no way to verify the identity of participants or the integrity of their data, but it was assumed that all participants’ responses were their own.

**Glossary of Terms**

The following section includes the definition of several key terms that will be used throughout this manuscript including those related to outcome, predictor, and covariates as well as common terminology used in the.

**Suicide attitudes:** Suicide attitudes refers to a theoretical and multidimensional framework that individuals use to make meaning of and respond to death related stimuli specific to suicide (Renberg & Jacobsson, 2003).

**Dimensions of suicide attitudes:** Dimensions of suicide attitudes refers to variables that represent related, but unique components of suicide attitudes. Previous literature has identified several dimensions of suicide attitudes, but this study focuses on
the following three dimensions of suicide attitudes that have been prevalent throughout the literature: acceptance of suicide, condemnation of suicide, and preventability of suicide (Renberg et al., 2008).

**Acceptance of suicide:** Acceptance of suicide refers to a distinct dimension of suicide attitudes that identifies the degree to which a person agrees that suicide is a right, reasonable, acceptable, and understandable response to various situations including terminal illnesses (Renberg & Jacobsson, 2003).

**Condemnation of suicide:** Condemnation of suicide refers to a distinct dimension of suicide attitudes that identifies the degree to which a person has difficulty understanding a suicidal behavior and views suicide as an unjustified behavior that is among the worst things that can be done to one’s relatives, especially in the case of children (Renberg & Jacobsson, 2003).

**Preventability of suicide:** Preventability of suicide refers to a distinct dimension of suicide attitudes that identifies the degree to which a person believes that suicide can be prevented (Renberg & Jacobsson, 2003).

**Death attitudes:** Death attitudes refers to the theoretical and multidimensional framework that individuals use to make meaning of and respond to death related stimuli. Although considered primarily unconscious, the ineffective development of adaptive death attitudes is considered to be associated with all forms of psychopathology, including suicide (Yalom, 1980).

**Dimensions of death attitudes:** Dimensions of death attitudes refers to variables that represent related, but unique dimensions of death attitudes. Previous literature has
identified several dimensions of death attitudes, but this study focused on the following five dimensions that are prevalent throughout the literature: fear of death, death avoidance, approach acceptance, neutral acceptance, and escape acceptance (Wong et al., 1994).

**Fear of death:** *Fear of death* is considered to be a distinct dimension of death attitudes that identifies the degree to which a person views death and life after death as a grim experience that arouses uncertainty, fear, anxiety, and worry that is troubling and disturbing to the individual (Wong et al., 1994).

**Death avoidance:** *Death avoidance* is considered to be a distinct dimension of death attitudes that identifies the degree to which a person attempts to avoid thinking about death (Wong et al., 1994).

**Neutral acceptance:** *Neutral acceptance of death* is considered to be a distinct dimension of death attitudes that identifies the degree to which a person views death as a natural, unavoidable, and undeniable process of life that one neither welcomes nor fears and is neither good nor bad (Wong et al., 1994).

**Approach acceptance:** *Approach acceptance of death* is considered to be a distinct dimension of death attitudes that identifies the degree to which a person views death as a release of the soul into union with God in an eternally blessed, comfortable, and satisfying place that is better than the individual’s current life and includes a reunion with loved ones who have died (Wong et al., 1994).

**Escape acceptance:** *Escape acceptance of death* is considered to be a distinct dimension of death attitudes that identifies the degree to which a person views death as
an escape, relief, and deliverance from the troubles, pain, suffering, and burden of a terrible life (Wong et al., 1994).

**Aversive dimensions of death attitudes:** Aversive dimensions of death attitudes refers to beliefs and reactions towards death that include, but are not limited to, death fear, death anxiety, death avoidance, and death threat.

**Non-aversive dimensions of death attitudes:** Non-aversive dimensions of death attitudes refers to beliefs and reactions towards death that include, but are not limited to the acceptance of death.

**Counseling students:** Counseling students refers to anyone currently enrolled in CACREP and/or CORE accredited counselor education programs including, but not limited to, mental health counseling, clinical mental health counseling, clinical rehabilitation counseling, and school counseling.

**Professional counselor:** Professional counselor refers to any graduate from a counselor education program that currently holds a license to practice counseling in their respective state.

**Suicidal behaviors:** Suicidal behaviors refers to a continuum of behaviors that includes suicidal thoughts, suicide attempts, and deaths by suicide (Crosby, Ortega, & Melanson, 2011, p.23).

**Rational suicide:** Rational suicide refers to any death caused by self-inflicted behavior or the assistance of another individual that follows a rational decision making process that is non-coerced, includes multiple objective parties, aligns with personal
values, and considers the impact of their death on others (Cohen, 2001; Rogers et al., 2001; Werth & Cobia, 1995).

**Permitted suicide:** Permitted suicide refers to a suicide of which another person was aware, but chose not to intervene following a sound decision making process that included consultation with other objective professionals (Cohen, 2001).

**Suicide exposure:** Suicide exposure refers to the participants’ exposure to the suicidal behaviors of others, clients before the counseling program, and clients while a student in their counseling program, as well as their personal history of suicidal behaviors.

**Summary**

This chapter reviewed the prevalence of suicidal exposure among professional counselors and counseling students. Additionally, this chapter established the justification for this study that was rooted in the ethical principles guiding the delivery of professional counseling services. Finally, the research questions of this study were established to direct the completion of this study in order to address several limitations and gaps in the current body of literature related to death attitudes and suicide attitudes. Although several limitations were acknowledged regarding the development of this study and its findings, very cautious interpretations can be made from the sum of this project. The following chapters critically review the current body of literature related to death attitudes, suicide attitudes, current training methods, and potential variables of influence; review the methodology that was used in this study; present the results of the data
analyses; and discuss the potential implications of these findings to counseling students, counseling educators, and the individuals whom they serve.
Chapter 2: Review of the Literature

Counseling students are expected to be aware of and explore their personal attitudes related to the goals of the counseling process, but no model was found to assist in the exploration of counseling students’ attitudes when working with clients who experience suicidal behaviors (ACA, 2005, A.4.b; AMHCA, 2010, A.4.d; ASCA, 2010, E.1.f.; CRCC, 2010, D.5.e). Given the potential for complex ethical dilemmas to arise when counseling clients who experience suicidal behaviors (Cohen, 2001; Neimeyer, 2000; Werth, 2002), the purpose of this study was to evaluate the role of five death attitude variables (fear of death, death avoidance, approach acceptance, neutral acceptance, and escape acceptance) in the prediction of three suicide attitude variables (acceptance of suicide, condemnation of suicide, and preventability of suicide) among counseling students after controlling for the effects of six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, and six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training.

This chapter presents a critical analysis of the current body of literature that informed the development of this study. Given the purpose of this study, it was necessary to review relevant research related to suicide attitudes and death attitudes, as well as personal and professional covariates related to each. The existing body of literature related to death attitudes and suicide attitudes is exhaustive; therefore, the
decision was made to limit the scope of this review to prior research related to the prevalence of death and suicide attitudes, the relationships with twelve personal and professional covariates, and the effects of attitudes on professional behaviors. Additionally, this chapter reviews the current state of death education and suicide intervention training. Each section begins with a brief introduction to attitudes within the general population followed by a critical review of attitudes within other helping professions (e.g., nurses, physicians, psychologists, etc.) and, whenever available, concludes with an in-depth critical analysis of literature regarding counseling students and professional counselors.

**Death Attitudes**

The causes of death and attitudes towards death have fluctuated over the course of human history. Leading causes of death a century ago are virtually non-existent today, but deaths by cancer have tripled and the prevalence of suicide continues to grow (Jones, Podolsky, & Greene, 2012). Advances in life-preserving medical practices, palliative care, and hospice services have led to complex end-of-life care decisions for the individual, family, and provider (Gruneir et al., 2007; Rosenberg, 2011), in which professional counselors can play an important role (Werth, 1999). Additionally, the preferences of dying at home versus medical care facilities have fluctuated, but recent research suggested that less people are dying in hospitals and more are dying in the home (Broad et al., 2012; Gruneir et al., 2012; Park, 2010; Rosenberg, 2007). The decision to die at home versus the hospital and the subsequent burial procedures has become a product of economics, health care policy, community characteristics, and individualism
(Basmajian & Coutts, 2010; Collier, 2013; Gruneir et al., 2007). Even the words that society constructs to describe death, such as passed away, gone to a better place, not with us anymore, in heaven, and waiting for us on the other side have exhibited potentially aversive socio-cultural attitudes towards death.

The discourse related to the meaning of death predates the scientific method; however, the psychological study of death attitudes emerged with the seminal work of Herman Feifel (Neimeyer, Wittkowski, & Moser, 2004) who aimed to classify the death attitudes of the general population as well as various subgroups including the elderly and people with mental illness. Despite the volumes of literature that have followed, the prevalence and classification of death attitudes are difficult to ascertain due to the diverse and inconsistent conceptualizations of death attitudes presented in the professional literature (e.g., death anxiety, death threat, death avoidance, death depression, multidimensional fear, etc.). Furthermore, assessing the prevalence of death attitudes becomes more difficult when considering the potential for human beings to repress attitudes related to death, especially those of an aversive nature (Feifel & Nagy, 1980; Yalom, 1980).

**Measuring death attitudes.** The current body of literature contains several psychometric instruments that have aided in the conceptualization and measurement of death attitudes (Neimeyer et al., 2004). Although Neimeyer et al. (2004) provide a comprehensive review of previous strategies for measuring death attitudes, a brief introduction to a few of these measures is included here to provide a context for the review of the current body of literature that is included in this chapter. This review
concludes with a thorough critique of the Death Attitude Profile-Revised (DAP-R; Wong, Reker, Gesser, 1994) that was used to define death attitudes in this study.

Several measures have been used to measure death attitudes in the previous research related to death attitudes that were both unidimensional and multidimensional with both aversive and non-aversive components. Unidimensional measures of aversive dimensions included the Death Anxiety Scale (DAS; Templer, 1970), Collett-Lester Fear of Death Scale (FDS; Collett & Lester, 1969), and Threat Index (TI; Krieger, Epting, & Leitner, 1974). The Multidimensional Fear of Death Scale (MFODS; Hoelter, 1979) was clearly multidimensional, but focused only on aversive dimensions, and the DAP-R (Wong et al., 1994) established a three-part model of death acceptance that expanded the multidimensional measurement of death attitudes to include both aversive and non-aversive dimensions.

The DAS (Templer, 1970) was influential to the psychometric evaluation of death attitudes and its use has spanned more than 40 years, yet this measure was built on the concept that the refusal to acknowledge death resulted in anxiety and simply summed scores to arrive at a final death anxiety score. The FDS (Collett & Lester, 1969) was designed to distinguish between the state of death and the process of dying but continued the traditional focus on aversive dimensions. The TI (Krieger et al., 1974) focused on the identification of personal threats from death comprised of interview questions that participants would respond to according to bipolar responses regarding the impact of the death on their current life. The MFODS (Hoelter, 1979) expanded the multidimensional understanding of fear with dimensions including fear of the dying process, fear of death,
fear of being destroyed, fear for significant others, fear of the unknown, fear of conscious
death, fear for the body after death, and fear of premature death. Finally, the DAP-R
(Wong et al., 1994) included a multidimensional framework of death attitudes that
included fear of death, death avoidance, neutral acceptance of death, approach acceptance
of death, and escape acceptance of death. The DAP-R has been regarded as a strong
candidate for studies interested in capturing multiple aversive and non-aversive
dimensions of death attitudes (Neimeyer et al., 2003; Neimeyer et al., 2004). Given the
fit of the DAP-R with the present study, it was considered a strong candidate to define
and measure death attitudes in this study. Therefore, the following section critically
evaluates previous research that used the DAP-R, which exceeds the scope of its
coverage in chapter three of this manuscript.

The Death Attitude Profile-Revised. The DAP-R (Wong et al., 1994) is a 32 -
item self-report questionnaire that measures multiple aversive and non-aversive
dimensions of death attitudes (see Appendix A). Although the previous
conceptualizations of death attitudes were predominantly focused on aversive attitudes
(e.g., anxiety, fear, etc.), the DAP-R and its predecessor, the Death Attitude Profile
(DAP; Gesser, Wong, & Reker, 1987), introduced a multidimensional framework
including both aversive and non-aversive dimensions for death attitudes across the
lifespan. The construction of the DAP-R was strongly influenced by existential
philosophy that theorized about the strong connection between death attitude, meaning,
and the subsequent organismic reactions (Wong et al., 1994).
Guided by its theoretical conceptualization of death attitudes, the DAP-R measures death attitudes across five variables defined as dimensions of death attitudes that include the fear of death, avoidance of death, neutral acceptance of death, approach acceptance of death, and escape acceptance of death (Wong et al., 1994, p.134). The fear of death dimension was conceptualized by several traits that identified a general apprehension and uncertainty towards thoughts of death. The avoidance of death dimension was conceptualized by several traits that described intentional efforts to avoid being exposed to death-related thoughts and experiences. The neutral acceptance of death dimension was conceptualized by several traits that described death as a natural process in which one responds with general indifference. Although originally viewed as one dimension, at least one previous study split neutral acceptance by the nature of death as natural and the reaction to death as indifferent (Clements & Rooda, 1999). The approach acceptance of death dimension was conceptualized by several traits that described the belief that death would bring about great joy and had strong religious connotations related to an eternal life and union with God. Finally, the escape acceptance of death dimension was conceptualized by several traits that described the view of death as an escape from the pain and misery of death in the individual’s life. The multidimensional conceptualization of death attitudes by the DAP-R that was grounded in theory likely added to the construct validity of results related to death attitudes.

In addition to its multidimensionality, the DAP-R has been used to measure death attitudes across the lifespan in a variety of settings including the general population in the United States (Gesser et al., 1987; Kopp, 2008-2009; Wong et al., 1994) and Belgium.
(Dezutter et al., 2009), hospital and hospice nurses (Clements & Rooda, 1999-2000), and undergraduate psychology students, suicide hotline volunteers, and graduate students in clinical and counseling psychology programs (Neimeyer et al., 2001). Additionally, the DAP-R has been used in previous studies related to attitudes towards physician-assisted suicide (Kopp, 2008-2009) and suicide intervention skills (Neimeyer et al., 2001). The multidimensionality, efficiency, and applicability with a wide range of populations, including helping professionals, established the DAP-R as a strong option for the measurement of death attitudes among counseling students in the present study. Given this support, the remainder of this section critically reviews the scale construction and validation, factor structure, reliability, and validity of the DAP-R.

*Scale construction and validation.* The validation for the initial DAP (Gesser et al, 1987) began with the pooling of 26 items from previous death attitudes literature that aligned with a multidimensional theory of death attitudes and included both fear and acceptance. A preliminary group of 36 participants split equally across three age groups (e.g., young, middle age, and elderly) ranging from 18 to 60+ were asked to read each item and place it into the appropriate category labeled by the DAP dimensions that were determined *a priori*. A total of 23 items met the criterion of 70% agreement across participants and were included in the first administration of the DAP. The 23-item DAP was administered to 144 participants split equally across the same three age domains using a five-point Likert-scale. Subsequent principal component analysis with varimax rotation identified four factors (Approach-Oriented Death Acceptance, Fear of Death/Dying, Escape-Oriented Death Acceptance, and Neutral Death acceptance) that
contained 21 items, which accounted for 51.6% of the variance in death attitudes. All factor loadings for the 21 items were at or above .43. Each factor was suggested to represent a unique dimension within death attitudes. Approach-Oriented Death Acceptance included items related to death being viewed as a “…passageway to a happy afterlife,” Fear of Death/Dying included items related to “…negative thoughts and feelings about the state of death,” Escape-Oriented Death Acceptance included items related to death being “…viewed as an escape from a painful experience,” and Neutral Death Acceptance contained items related to the belief that “…death is neither welcomed nor feared, but simply accepted as a reality” (Gesser et al., 1987, p.115).

The construction of the DAP-R (Wong et al., 1994) began with an initial pool of 36 items that removed items related to the process of dying and subsequently renamed the Fear of Death/Dying dimension to the Fear of Death dimension. Additional items were also added to all three death acceptance dimensions as well as the Death Avoidance dimension. Similar to Gesser et al. (1987), Wong et al. (1994) administered the 36-item DAP-R to 30 participants evenly distributed across three age groups (young, middle age, and elderly) ranging from 18 to 60+ in order to obtain face validity by placing items into the appropriate category labeled by the a priori DAP-R dimensions. All 36 items met the 70% agreement criterion and were retained in the first administration of the DAP-R. The 36-item DAP-R was then administered to a cross-section of 300 participants ranging in age from 18 to 90 that were recruited by various means (e.g., newspaper ads, word of mouth) from a city with a population of 65,000. Subsequent principal component analysis with varimax rotation resulted in a five-factor model including 32 items that
accounted for 61.3% of the variance in death attitudes. All factor loadings of the remaining 32 items were at or above .40, which were comparable to the factor loadings of Gesser et al. (1987). As mentioned and defined above, this five-factor model created the dimensions of the DAP-R (Fear of Death, Death Avoidance, Neutral Acceptance, Approach Acceptance, and Escape Acceptance) that represent its current subscales.

*Factor structure.* A strength of the DAP and DAP-R is the relative stability of its factor structure. As mentioned above, Gesser et al. (1987-1988) found four dimensions (Fear of Death/Dying, Approach-Oriented Death Acceptance, Escape-Oriented Death Acceptance, and Neutral Acceptance) that accounted for 51.6% of the variance with all items loading at .43 or greater. Wong et al. (1994) found five dimensions (Approach Acceptance, Fear of Death, Death Avoidance, Escape Acceptance, and Neutral Acceptance) that accounted for 61.3% of the variance with all items loading at .40 or greater.

Clements and Rooda (1999) replicated nearly all of the findings of Wong et al. (1994) among a sample of nursing professionals. The first difference was that the second (Fear of Death) and third factors (Death Avoidance) of Wong et al. (1994) were reversed in Clements and Rooda (1999). Also, item number one from the DAP-R (“Death is no doubt a grim experience) loaded on Fear of Death in Wong et al. (1994) but Death Avoidance in the Clements and Rooda (1999). The remainder of the items for factors one, two, three, and four were identical between the two studies. Finally, the major difference in the Clements and Rooda (1999) study was that the fifth factor (Neutral Acceptance) of Wong et al. (1994) was split into two factors in Clements and Rooda
(1999) with items 6, 14, and 24 loading on the fifth factor and 17 and 30 loading on the sixth factor. These loadings seemed logical as the fifth factor dealt with the natural inevitability of death while the sixth factor dealt with the indifferent reaction to death; it is likely that a person may be indifferent towards death for reasons other than its inevitability. Despite these differences, all intercorrelations between the original five-factor model (Wong et al., 1994) with the data from Clements and Rooda (1999) were statistically significant and in the hypothesized direction.

One additional study is worth noting in the discussion of the interpretable factors of the DAP-R. Neimeyer et al. (2001) focused on the ability of both death attitudes and suicide attitudes to predict suicide intervention skills. A principal component analysis of the DAP-R and the Suicide Behaviors Questionnaire (Cotton, Peters, & Range, 1995) resulted in the creation of the Death Acceptance and Death as a Means to an End factors. Death Acceptance accounted for 13% of the variation in SIRI scores while Death as a Means to an End accounted for 9% of the variation in SIRI scores. Although it is unclear how these findings relate to the stability of the DAP-R, they do justify the use of the DAP-R alongside of multidimensional measures of suicide attitudes.

Reliability. The internal consistency for the DAP ranged from .60 (neutral acceptance) to .89 (approach oriented acceptance) across dimensions using Armor’s theta coefficient (Gesser et al., 1987). Internal consistency for the DAP-R consistently ranged from .58 to .97 across dimensions (Clements & Rooda, 1999; Kopp, 2008-2009; Wong et al., 1994). Specifically, Neutral Acceptance consistently had the lowest reliability evidence with Cronbach’s α ranging from .58 to .65, while Approach Acceptance
consistently had the strongest reliability evidence with Cronbach’s α ranging from .91 to .95.

The DAP-R also displayed strong stability as determined by test-retest reliability. Wong et al. (1994) administered the DAP-R four weeks after the initial administration to a random sample of 30 participants and found Cronbach’s α ranging from .61 to .95 across dimensions, which was very similar to the initial administration of the DAP-R. Interestingly, Approach Acceptance was the most stable, but Death Avoidance was the least stable. Given the overall consistency of the DAP-R, these variations could reasonably be attributed to time-sampling error instead of an inherent flaw in the instrument.

Validity. Face validity was determined by both Gesser et al. (1987) and Wong et al. (1994) using pilot samples of participants who placed each item into the most appropriate a priori dimension of the DAP and DAP-R, respectively, based upon their theoretical definition of death attitudes. Participants’ responses were evaluated using a criterion of 70% agreement in order for the item to be retained. Gesser et al. (1987) retained 23/26 items and Wong et al. (1994) retained 36/36 items, which indicated very strong face validity of the instrument’s items that likely represented the construct being measured, thus increasing content validity.

Results from the original 21 item DAP (Gesser et al., 1987-1988) were compared with results from the University of Newfoundland Scale of Happiness (MUNSH; Kozma & Stones, 1980) and the Hopelessness Scale (HS; Beck, Weissman, Lester, & Trexler, 1974) in order to determine convergent validity. These results suggested that participants
with more fear of death/dying reported significantly more hopelessness and less happiness. Participants who viewed death as an escape from an undesirable life reported significantly more hopelessness. Additionally, participants who reported more stoic acceptance of death reported significantly more happiness. All statistically significant relationships were observed to be in the hypothesized directions of Gesser et al. (1987), which suggested strong concurrent validity of the DAP with measures of various psychological experiences including happiness and hopelessness (Gesser et al., 1987).

The convergent validity of the 32-item DAP-R (Clements & Rooda, 1999; Wong et al., 1994) was evaluated by comparing DAP-R results to results from the Death Anxiety Scale (DAS; Templer, 1970), 24 semantic differential items of life and death (SD), Death Perception Scale (DPS; Hooper & Spilka, 1970), Perceived Well-Being Scale (PWS; Reker & Wong, 1984), Zung Depression Scale (ZDS; Zung, 1965), and the Frommelt Attitude Towards Care of the Dying Scale (FATCDS; Frommelt, 1991). Significant relationships were found that suggested that those with more fear of death also experienced more death anxiety, less belief in the rewards of afterlife, and more negative attitudes toward both life and death. Participants who reported more avoidance of death also reported more negative attitudes toward death. Those with more stoic acceptance of death also reported more death anxiety, more indifference toward death, and had more positive views of life. Those who believed more in the joyful aspects of death also reported less death anxiety, more belief in the rewards of afterlife, and more positive attitudes toward life and death. Lastly, those with more belief that death offers an escape from the dissatisfaction of life also reported more death anxiety, more belief in
the rewards of afterlife, and had more positive attitudes toward death. The only finding that was contrary to the predictions of Wong et al. (1994) was a statistically non-significant relationship between escape acceptance and attitudes towards life. Despite unclear relationships with two variables (depression and well-being), the preponderance of findings suggested that the DAP-R showed strong concurrent validity that related significantly to various potential effects of death attitudes.

In Clements and Rooda’s (1999) replication study, DAP-R results were compared to the results of the FATCDS, a measure assessing the attitudes of nursing staff toward caring for the dying. Their findings suggested that participants who had more negative views of caring for the dying were more likely to fear and avoid death. Participants that accepted death with indifference or joy were more likely to have positive attitudes toward caring for the dying. All predictions by Clements and Rooda (1999) were supported by all data resulting in statistically significant relationships, which further supported the strong concurrent validity of the DAP-R. In sum, the DAP-R (Wong et al., 1994) showed strong potential for use in the measurement of death attitudes among counseling students. The DAP-R’s validated factor structure, validity and reliability evidence, application to helping professionals, and prediction of attitudes towards physician-assisted suicide strengthened its fit with the usefulness of the present study.

**Death attitudes among helping professionals.** Previous research has also focused on the death attitudes of several types of helping professionals, but has had little focus on professional counselors and even less focus on counseling students. First, it was important to consider the degree to which helping professionals acknowledged their own
mortality. Among rehabilitation counselors, only 26% reported little to no thoughts of their own mortality (Bascue et al., 1978); however, this was a relatively small sample of only 54 students. Additionally, previous research identified that anywhere from 20% to 43% of mental health professionals, some of which included professional counselors, have reported personal thoughts about suicide (Bascue et al., 1978; Ramberg & Wasserman, 2000; Rogers, Gueulette, Abbey-Hines, Carney, & Werth, 2001). Although somewhat dated, these findings identified that at least some mental health professionals and professional counselors think about death and/or suicide; however, their evaluation and reaction to these thoughts were not explored. Nonetheless, the presence of thoughts about death and suicide represents an indirect pathway that can activate death attitudes and could influence the professional behaviors of helping professionals.

In addition to thoughts about death and suicide, previous research has found that rehabilitation counselors experience some level of death anxiety as measured by the DAS (Hunt & Rosenthal, 2000). Specifically, the results showed the 31% of rehabilitation counselors reported low death anxiety, 66% reported moderate death anxiety, and only 3% reported high death anxiety. Interestingly, participants who reported they did not want to work with individuals diagnosed with terminal illnesses also reported higher death anxiety. Although limited to a sample of 153 rehabilitation counselors, these results identified the potential for apprehensive dimensions of death attitudes to influence professional behaviors. Therefore, the remainder of this section focuses on previous research related to several potential consequences of death attitudes among helping professionals including suicide intervention workers (Neimeyer & Dingemans, 1980;
Neimeyer & Neimeyer (1984), licensed counseling psychologists and doctoral clinical/counseling psychology students (Hayes & Gelso, 1993; Neimeyer, Fortner, & Melby, 2001), experienced grief counselors (Terry, Bivens, & Neimeyer, 1995), and finally counseling students enrolled in graduate counseling programs (Kirchberg & Neimeyer, 1991; Kirchberg, Neimeyer, & James, 1998).

Neimeyer and Dingemans (1980) compared the death attitudes of suicide intervention workers to undergraduate psychology students using four measures of death attitudes: Collett-Lester Fear of Death Scale (FDS; Collett & Lester, 1969), Threat Index (TI; Krieger, Eping, & Leitner, 1974), Multidimensional Fear of Death Scale (MFODS; Hoelster, 1979), Lester Fear of Death Scale (FDS; Lester, 1971), and the Death Anxiety Scale (DAS; Templer, 1970). Their results suggested statistically significant group differences among death attitude scores on the CL, TI, and FDS, but not the DAS; specifically, suicide intervention workers reported significantly more apprehensive death attitudes than the control group. Subscale scores of the CL showed that suicide intervention workers scored significantly higher than controls when answering questions about their own mortality but not questions related to the mortality of others. While these findings are notable, similar risks to the construct validity of the results noted by (Hunt & Rosenthal (2000) were present in this study. Specifically, it is likely that the sample of suicide intervention workers was more aware of and likely to report apprehensive death attitudes than undergraduate psychology students. Additionally, Neimeyer and Dingemans (1980) reported that the nature of suicide intervention workers’ job duties likely desensitized their reactions to others’ mortality while activating personal
apprehension related to personal mortality. Additional limitations of this study included the generalizability of this sample that included 54 suicide intervention workers from one crisis center in Gainesville, FL and 62 undergraduate psychology students. The use of multiple measures of death attitudes in their study strengthened the results and provided evidence that dimensions of death attitudes, while related, are likely distinct variables (Neimeyer & Dingemans, 1980).

Similar to Feifel and Nagy (1980), these findings provided cautious support for the notion that death-related job duties are one way to activate previously unconscious death attitudes and can lead to more reported fear of personal death and dying. Following these cautious interpretations, Neimeyer and Neimeyer (1984) improved upon the methods of Neimeyer and Dingemans (1980) by including 109 suicide intervention workers from three separate crisis centers in two different regions of the United States. When compared to 109 adult education students and high school teachers, suicide intervention workers reported significantly less apprehensive death attitudes as measured by the DAS. These findings are somewhat contradictory to Neimeyer and Dingeman’s (1980) results that suggested suicide intervention workers showed no statistically significant differences among apprehensive death attitudes measured by the DAS. These contradictions were likely the result of variability in measurement procedures and control groups as well as the inclusion of multiple crisis centers. Although suicide intervention workers fall under the umbrella of helping professionals, their training and experience with death-related content is much different than that of professional counselors, and these findings are limited in generalizability to the counseling profession.
Given the purpose of the present study, prior research that focused on the death attitudes of professional counselors and/or counseling students was crucial to the interpretation of the develop and interpretations of this study. Only two studies (Kirchberg & Neimeyer, 1991; Kirchberg, Neimeyer, & James, 1998) were found that evaluated the prevalence of death attitudes among counseling students enrolled in graduate counseling programs. Additionally, both studies evaluated the effect of death attitudes on the counseling skills of participants when responding to death and non-death-related client scenarios using the Counseling Situations Questionnaire (Kirchberg & Neimeyer, 1991), which is an instrument that assesses participants’ comfort level if they were the counselor in each scenario. This instrument included 15 scenarios, five of which were death-related (e.g., grief), and the remaining 10 items included other potentially difficult scenarios that were not death-related (e.g., rape).

In the first study, Kirchberg and Neimeyer (1991) found that 81 graduate students in a counseling program from the same university reported significantly more discomfort when responding to death-related scenarios than non-death-related scenarios. Although effect sizes were not provided by the authors, Cohen’s $d$ was calculated to be 1.6, which signified that death-related counseling scenarios had a very large effect on the participants’ discomfort. Specifically, the counseling scenario that was reported to produce the most discomfort for the counseling students was related to a client recently diagnosed with acquired immunodeficiency syndrome (AIDS), and the scenario related to suicide was ranked as the fifth most uncomfortable. Despite the reported discomfort, no statistically significant correlations were found between discomfort and apprehensive
death attitudes as measured by the TI. These findings suggested that counseling students might view death-related client situations as difficult and uncomfortable, but this might be unrelated to certain dimensions of apprehensive death attitudes. Interpretations of these findings should be made very cautiously because all counseling students in this study were from the same counseling program.

The second study (Kirchberg et al., 1998) improved upon previous methodologies by manipulating the order in which counseling students were presented the questionnaires using in this study, measuring additional dimensions of apprehensive death attitudes using the TI and MFODS (Hoelter, 1979) and including an empathy measure based on Carkhuff’s rating scale (1969) to evaluate the participants’ responses to client scenarios. Despite these improvements, this study focused only on aversive dimensions of death attitudes, included no control group, and included only 58 participants from the same university as Kirchberg and Neimeyer (1991). The counseling students in this study reported significantly more discomfort when responding to death-related scenarios than non-death-related scenarios, and the death-related scenarios ranked as the fourth most difficult. No effect sizes were reported by these authors, but Cohen’s $d$ was calculated as .561, which indicated that death-related scenarios had a moderate effect on participants’ discomfort. Additionally, counseling students reported the most discomfort when responding to client scenarios related to AIDS, which was consistent with the findings from a number of similar studies (Hayes & Gelso, 1993; Kirchberg & Neimeyer, 1991; Terry et al., 1995).
Another important aspect of the study conducted by Kirchberg et al. (1998) was its prediction of discomfort scores from the measures of death attitudes. Specifically, the MFODS accounted for 8% of the variance in discomfort scores \( (p < .05) \), and the MFODS subscale, Fear of the Dead, accounted for 14% of the variance in discomfort scores when responding to death-related scenarios \( (p < .01) \). This suggested that specific dimensions of apprehensive death attitudes may be more robust predictors of discomfort than global death attitude scores, which is in opposition to the findings of Kirchberg and Neimeyer (1991). Previous studies (Neimeyer & Dingemans, 1980; Neimeyer & Neimeyer, 1984) of suicide intervention workers generated contradictory results, but these relatively consistent results among two samples of counseling students indicated that counseling students were significantly more uncomfortable when faced with client scenarios related to death, and at least a portion of this discomfort was explained by individual dimensions of apprehensive death attitudes (Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998), which increased the justification for the use of death attitudes as a predictor variable in the present study.

At least one additional study evaluated counseling students’ discomfort when responding to client scenarios related to AIDS. Hayes and Gelso (1993) evaluated the interaction between apprehensive death attitudes and homophobia in the manifestation of apprehensive death attitudes among a sample of 30 doctoral students in clinical and counseling psychology doctoral programs and four licensed psychologists. Using a 2 (HIV/no-HIV) x 2 (Homosexual/Heterosexual) multiple analysis of variance (MANOVA), these authors found that participants reported significantly more discomfort
when responding to the HIV condition than the no-HIV condition \((p < .01)\) but only when measured affectively. Consequently, the behavioral and cognitive measures of discomfort were not significantly influenced by the death-related factor. Furthermore, no statistically significant relationship was found between apprehensive death attitudes as measured by the DAS and discomfort ratings, a finding similar to Kirchberg and Neimeyer (1991).

One noted limitation of this study is that the sample included only men, which limited the generalizability of these findings. Nonetheless, because no discomfort differences were observed when comparing sexuality of the video-taped client or between the interaction of HIV status and sexual orientation, it can be assumed that the variance in death attitudes measured via affective means was more likely the result of death-related counseling situations rather than other personal factors. In sum, these findings provided further evidence that various helping professionals, including counseling students, could be more uncomfortable when responding to death-related than non-death-related client scenarios, and this discomfort could be unrelated to some dimensions of apprehensive death attitudes but significantly related to others.

Continuing this line of research, Terry et al. (1995) used a similar methodology as previous research (Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998) to explore the relationship between death attitudes, discomfort, and empathy among a sample of 71 professional counselors recruited from the Association of Death Education and Counseling (ADEC). Similar to Neimeyer and Neimeyer (1984), these results showed that only 4% of experienced death counselors reported being strongly bothered when
thinking about their own death. In fact, these participants were significantly more comfortable and empathic responding to death-related \((p < .01)\) than non-death-related scenarios; however, it should be noted that responding to the scenarios including AIDS and suicidal ideations produced significantly more discomfort than the other death-related scenarios. Neither the scores from the TI or MFODS yielded statistically significant relationships to either comfort or empathy scores which is similar to Kirchberg and Neimeyer (1991), but in contrast to Kirchberg et al. (1998).

Despite their comfort responding to death-related client scenarios, the participants in Terry et al. (1995) reported significantly less empathy when responding to non-death-related scenarios (e.g., rape, incest). When interpreting these findings, it is important to consider the potential influence of professional experience with death-related scenarios on death attitudes, comfort, and empathy ratings. In fact, a relationship between death attitudes and comfort responding could still exist; however, the diminished discomfort rating that resulted from increased professional experience could have lowered the statistical impact of death attitudes on comfort. These findings highlighted the need to explore the effect of professional variables, such as work experience, on death attitudes and counseling skills in order to strengthen conclusions that can be made from the findings of this study.

In light of the results above, it was clear that the prevalence of death attitudes in helping professionals, professional counselors, and counseling students varied greatly. Although the discomfort of suicide interventionists was unclear (Neimeyer & Dingemans, 1980; Neimeyer & Neimeyer, 1984), consistent findings suggested that
clinical/counseling psychologists and counseling students had more discomfort when responding to death-related scenarios (Hayes & Gelso, 1993; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998); however, discomfort seemed unrelated to most aspects of apprehensive death attitudes (Hayes & Gelso, 1993; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Terry et al., 1995). Conversely, at least one dimension of death attitudes, Fear of the Dead, accounted for statistically significant variance in the discomfort ratings of counseling students and supported the hypothesis that death attitudes may be linked to discomfort responding to death-related client scenarios (Kirchberg et al., 1998). Also, the need to further explore the potential relationships between death attitudes and suicide-related scenarios was reinforced by the consistent ratings of suicide-related client scenarios as among the most difficult for counseling students (Kirchberg & Neimeyer, 1991; Hays & Gelso, 1993).

This line of research created the context for the development of this study. If counseling students really are more uncomfortable than others responding to death-related client scenarios including suicide, and this discomfort is related to dimensions of their death attitudes, then the need to evaluate the role of death attitudes in the prediction of counseling students’ interpretation and reaction to suicide-related client content is an important area of research. While these findings provided justification for the present study, they are still influenced by inconsistent measures of death attitudes that only focused on aversive dimensions and samples that lacked generalizability, thus leaving many questions regarding the relationships between death attitudes, discomfort, and professional counseling skills when responding to death-related client scenarios involving
suicide. Finally, the influence of professional factors on comfort and empathy noted by Terry et al. (1995) identified work experience as an important variable to consider during the development of this study.

**Personal variables related to death attitudes.** Counseling students enter counselor education programs with diverse personal experiences. These experiences potentially influence their creation of knowledge and demonstration of learning outcomes, as well as the development of their attitudes. Given the purpose of this study to evaluate the role of death attitudes in the prediction of suicide attitudes after controlling for the effects of twelve personal and professional covariates, it was necessary to identify personal variables that needed to be included in the prediction models of this study. Therefore, this section reviews findings from previous research that evaluated the relationships between various dimensions of death attitudes and personal variables (e.g., age, gender, ethnicity, religion, psychopathology, general anxiety, aging anxiety, and personal experience with death).

**Age.** As individuals age, they come closer to their eventual death. Although one might assume this process impacts death attitudes, the findings of previous research were quite mixed. Some studies found no statistically significant age differences in apprehensive death attitudes (Eakes, 1985; Maglio, 1990; Neimeyer et al., 2001; Schulz & Aderman, 1978-79; Terry et al., 1995), while others suggested that younger participants tended to have more apprehensive death attitudes (Carr, 2007; Depaola, Neimeyer, Lupfer, & Fiedler, 1992; Depaola, Neimeyer, & Ross, 1994; Eggerman & Dustin, 1985; Gesser, Wong, & Reker, 1987-1988; Kvale, Berg, Groff, & Lange, 1999;
Tang, Wu, & Yan, 2002), and others found older participants to have more discomfort related to death (Cochrane, Levy, Fryer, & Oglesby, 1990-1991). When measures of death attitudes that included both aversive and non-aversive dimensions were used, Gesser et al. (1987) found statistically significant age differences among each dimension of death attitudes measured by the Death Attitude Profile (DAP; Gesser et al., 1987). Specifically, age explained 16% of the variance in the approach acceptance of death, 7% of the variance in the fear of death/dying, 20% of the variance in the escape acceptance of death, and 8% of the variance in the neutral acceptance of death dimensions of the DAP. These findings suggested that middle-aged (35-40 years old) participants reported the most fear of death, followed by younger (18-25 years old) participants, and then elderly (over 60 years old) participants. Also, elderly participants reported significantly higher scores across all three dimensions of death acceptance. Similarly, Kopp (2008-2009) found that age had statistically significant correlations with three dimensions of the DAP-R including the fear of death \( r = -.160 \), death avoidance \( r = -.135 \), and neutral acceptance \( r = .193 \), which indicated that older participants were more likely to have less fear of death, less avoidance of death, and more neutral acceptance of death.

Previous research also suggested statistically significant differences in the death attitudes of physicians according to age. Specifically, younger physicians reported significantly more death threat, as measured by the TI (Eggerman & Dustin, 1995), and reported more stress and discomfort when caring for dying patients (Kvale et al., 1999). Despite these findings, no statistically significant relationships were found between attitudes towards caring for dying patients and apprehensive death attitudes. In contrast,
Cochrane et al. (1990-1991) found a statistically significant negative correlation between oncologists’ age and comfort caring for dying patients as measured by the DAS. This finding suggested that as oncologists grew older, their comfort while caring for the dying decreased. The increased discomfort of older oncologists identified the complex nature of the experiences of physicians with death attitudes and its impact across the lifespan.

Nursing home personnel are another group of professionals that have rich experiences with death-related client situations. Similar to the negative correlations between age and apprehensive death attitudes among physicians (Eggerman & Dustin, 1995; Kvale et al., 1999), a statistically significant negative correlation was found between age and apprehensive death attitudes, as measured by the MFODS, among nursing home personnel (DePaola et al., 1992; DePaola et al., 1994). More specifically, both studies found that younger nursing home personnel scored significantly higher on the MFODS and five of its subscales: Fear for Significant Others, Fear of the Unknown, Fear of Consciousness when Dead, Fear for Body after Death, and Fear of Premature Death. DePaola et al. (1992) also found that younger participants reported significantly more death threat, as measured by the TI, as well as the Fear of Dying and Fear of the Dead subscales of the MFODS, whereas DePaola et al. (1994) did not. While these findings seemed to be in agreement, it should be noted that the participants in both DePaolo et al. (1992) and DePaola et al. (1994) were from Memphis, TN (Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Kirchberg & Neimeyer, 1998; Neimeyer et al., 2001). The limited scope and questionable generalizability to counseling students were
cause for concern but did not negate the inclusion of age as a control variable in the current study.

Thankfully, at least two studies investigated age differences among death attitudes of various psychology students and practicing mental health professionals. Carr (2007) reported that older participants reported significantly less ($r = -.346$) professional apprehensive death attitudes than younger participants. In contrast, Neimeyer et al. (2001) found no statistically significant relationships between age and dimensions of death attitudes as measured by the DAP-R (Wong et al., 1994).

Despite one study to the contrary (Cochrane et al., 1990-1991), the preponderance of literature suggested that there is either no relationship between age and death attitudes or as professionals grow older, their apprehension and discomfort related to death significantly declines. More specifically, when measures including non-aversive dimensions of death attitudes were used, the relationship between age and death attitudes became clearer and supported the hypothesis that older participants could experience less apprehensive death attitudes and even show more acceptance of death than younger participants (Gesser et al., 1987; Kopp, 2007-2008). Furthermore, when considering professionals most directly related to professional counselors, the effects of age were inconsistent (Carr, 2007; Neimeyer et al., 2001). When interpreting these findings, it is important to note that the observed effects of aging on death attitudes could be the result of experiences through the lifespan that have shaped attitudes rather than the biological process of aging alone. Nonetheless, the potential for shared variance with death attitudes was important to control for in this study.
Sex/Gender. Sex and gender were used interchangeably throughout the literature despite the notable differences in these two constructs. Nonetheless, it is likely that the intention of the researchers were to measure similar concepts related to the participants’ sex and the socio-cultural definition of gender; however, for the purpose of this study, the term gender was used to measure the identified gender roles of the participants. Also, gender was more relevant to this study given the unlikelihood that death attitudes are genetically different among men and women and are more the product of socio-cultural experiences throughout the lifespan. Because the counseling field is comprised of mostly women (Bureau of Labor Statistics, 2012-2013), gender was an important variable to consider when interpreting the findings of this study.

A number of studies found no statistically significant relationship between gender and death attitudes among nursing home personnel (Eakes, 1985; Vickio & Cavanaugh, 1985), physicians and medical students (Eggerman & Dustin, 1985), suicide intervention workers (Neimeyer & Dingemans, 1980), clinical/counseling psychologists (Neimeyer et al., 2001), and death counselors (Terry et al., 1995), while others found that women reported significantly more apprehensive death attitudes than men among adolescents (D’Attilio & Campbell, 1990), Episcopalian church members (Harding, Flannelly, Weaver, & Costa, 2005), medical residents (Kvale, Berg, Groff, & Lange, 1999), and counseling students (Carr, 2007; Maglio, 1990). Of particular interest to the present study were the findings that suggested no relationship between gender and death attitudes of suicide intervention workers (Neimeyer & Dingemans, 1980) and death counselors (Terry et al., 1995), as well as findings that suggested that female psychology students,
counseling students, and mental health professionals (Carr, 2007; Maglio, 1990) reported significantly more apprehensive death attitudes than males.

It is important to note that the DAS was used to measure death attitudes in three of the four studies related to helping professionals, which increased the ability to compare findings across studies (Carr, 2007; Maglio, 1990; Neimeyer & Dingemans, 1980). Given this convergence when the same instrument was used with a sample closely related to counseling students, careful interpretations were made to suggest that female counseling students might report more apprehensive death attitudes than male counseling students. Of course, it is possible that at least a portion of these results can be attributed to social desirability bias, meaning that women may just be more willing to report apprehensive death attitudes than men. Nonetheless, the potential for shared variance between participants’ gender and death attitudes was important to control for in this study.

**Ethnicity.** Due to the diversity in cultural views and responses to death, it is possible that elements of culture, including ethnicity, could influence death attitudes (Roff, Simon, Klemmack, & Butkeviciene, 2006); however, no statistically significant differences were found in death attitudes among the general population (Kopp, 2008-2009), Spanish and Egyptian nursing students (Adbel-Khalik & Tomás-Sábado, 2005), or nursing home personnel in the United States (Eakes, 1985). These authors suggested that death attitudes may be a common trait that transcends ethnic differences. Only one study identified for this review found statistically significant variance in death attitudes across cultures. Roff et al. (2006) gave the MFODS to Lithuanian social workers, nurses,
medical professionals, and rehabilitation professionals as well as social work students in the United States. Significant differences were found among three subscales of the MFODS: Fear of the Dying Process, Fear of the Dead, and Fear of the Unknown. Participants from the United States were more likely to report fear of the dead while participants from Lithuania were more likely to report fear of the dying process and fear of the unknown. Although social workers share some similarities to counseling students, the limited scope and noted contradictions leave many questions about the relationship between ethnicity and death attitudes. Furthermore, the variability across dimensions of death attitudes supported the need for future studies to use multidimensional measures of attitudes that capture unique relationships among different dimensions. Although ethnicity is an important area of consideration in the development of counseling students, it is also a very broad concept that likely shares considerable variance with other personal variables. This, in addition to the limited support for a connection between ethnicity and death attitudes, resulted in the decision to leave it out of the current study.

**Religion.** Another important cultural aspect to consider is the influence of religious beliefs on death attitudes. In fact, many studies have investigated this relationship among samples of the general population (Dezutter et al., 2009; Feifel & Nagy, 1980; Kopp, 2008-2009), church members (Harding et al., 2005), physicians (Eggerman & Dustin, 1985), and nursing staff (Eakes, 1985). While at least one study found no statistically significant differences in the death attitudes of nursing home personnel with different religious beliefs (Eakes, 1985), additional studies have shown religious beliefs to be significantly related to death attitudes (Dezutter et al., 2009;
Eggerman & Dustin, 1985; Feifel & Nagy, 1980; Harding et al., 2005; Kopp, 2008-2009; Morris & McAdie, 2009; Terry et al., 1995). While the relationship between religion and death attitudes is notable, little focus was given to this relationship among helping professionals and even less to counseling students.

Among persons engaging in life-threatening behaviors, Feifel and Nagy (1980) found that those who believed more in the inevitability of death as a divine blueprint reported more comfort when thinking about death. A more recent investigation of this relationship among Episcopalian church members suggested that two subscales of Rohrbaugh and Jessor’s Religiosity Scale (1974), Belief in God’s Existence and Belief in Afterlife, were negatively correlated with apprehensive death attitudes \( (r = -.21, p < .01) \) and positively correlated with death acceptance \( (r = .22, p < .05; \text{Harding et al., 2005}) \). These convergent results remained statistically significant even after the effects of various personal and professional covariates (e.g. age, education, ethnicity, years as an Episcopalian, and involvement in church social activities) were controlled. These findings justified a belief that religiosity promotes death acceptance while limiting apprehensive death attitudes even when the effects of common personal factors are removed and supported the hypothesis that religious beliefs may be a more robust predictor of death attitudes than other personal variables. Of course, the homogeneity of this sample and the lack of a control group made these conclusions hard to generalize to the general population or counseling students.

Morris and McAdie (2009) compared the impact of religious preferences on apprehensive death attitudes among college students. This study found that Christians
reported significantly less apprehensive death attitudes (2.16) than the non-religious (2.94) and Muslim sub-groups. Interestingly, participants who were Muslim reported significantly more apprehensive death attitudes than the non-religious group. These results are somewhat limited given the convenience sampling method and the limited instrumentation used to measure death attitudes, which included one question that asked participants to rank their death anxiety on a scale from one to seven. Although straightforward with strong face validity, this simple question did not capture the multidimensional nature of death attitudes and continued the historical focus on aversive death attitudes. An interesting component of this study was its inclusion of data related to the strength of participants’ religious beliefs. Christians scored higher than other participants with a mean strength rating of 7.85, but no group comparisons or relationships with death anxiety were tested. Despite the absence of an analysis regarding the strength of religious beliefs and death attitudes, this study identified the need to consider religiosity on a continuum rather than a dichotomization of inclusion in specific religious groups.

Religious beliefs were also found to be related to death attitudes among physicians. Eggerman and Dustin (1985) found that physicians who identified themselves as Protestants were more likely to inform patients of a terminal prognosis than those with no reported religious affiliation; however, no control group was included. When considered in connection to previous findings (Dezutter et al., 2009; Eggerman & Dustin, 1985; Feifel & Nagy, 1980; Harding et al., 2005; Kopp, 2008-2009; Morris & McAdie, 2009; Terry et al., 1995) that suggested religiosity leads to less apprehensive
death attitudes, it is possible that physicians in Eggerman and Dustin (1985) were more likely to discuss terminal prognoses with their patients because of lessened apprehension.

Of particular interest to the present study were the results of Dezutter et al. (2009) and Kopp (2008-2009) who used the DAP-R (Wong et al., 1994) for the measurement of death attitudes among various religious groups and the general population. Dezutter et al. (2009) compared death attitudes with the Post-Critical Belief Scale (PCBS; Hutsebaut, 1996) to investigate the relationship between various religious attitudes and death attitudes among 471 Belgians. Although not generalizable to counseling students, the inclusion of the DAP-R increased the ability for these findings to be compared to those of the present study, which also used the DAP-R to measure death attitudes. These findings suggested strong relationships between multidimensional death attitudes and religious attitudes.

Religious attitudes also explained additional variance in the prediction of death attitudes (fear of death $\Delta R^2 = .12$, death avoidance $\Delta R^2 = .20$, neutral acceptance $\Delta R^2 = .15$, and approach acceptance $\Delta R^2 = .27$) above and beyond background variables (e.g., age $\beta = .29$ and subjective health $\beta = .05$). Specifically, participants who identified as religious, regardless of level of rigidity and open-mindedness, were more likely to see death as an entry point to a happy afterlife. Participants who adamantly rejected the potential for religiosity and were more literal and scientific in their arguments were more likely to disregard the notion that death opened the doorway to a blissful afterlife. Participants who stoically accepted death were more likely to be less rigid in their religious beliefs and accept the potential for religion without identifying themselves as
religious. Participants with very negative and fearful views toward all aspects of death were more likely to view religion in very rigid and close-minded ways, regardless of whether they identified themselves as religious. Finally, participants who avoided thinking about death were more likely to view themselves as non-religious, but were also more open to the idea that religion could be one way in which people make meaning of their lives. This study captured the full range of religious beliefs rather than simple categorization and clearly identified the need for a multidimensional measure of death attitudes, as the nature of relationships between variables changed when both fear and acceptance of death were considered.

Kopp (2008-2009) used the DAP-R to measure death attitudes among the general population and found very strong relationships between church attendance and death attitudes. Specifically, approach acceptance ($r = .459$), fear of death ($r = -.227$), death avoidance ($r = -.172$), and escape acceptance ($r = .271$) were significantly related to regular church attendance. These findings suggested very strong relationships that indicated persons with more church attendance were more likely to have approach and escape acceptance of death and less likely to be fearful or avoid death.

The majority of previous research suggested that religious beliefs might have some impact on death attitudes. Strong evidence was shown to suggest that identifying with some form of religion or spiritual doctrine promoted less apprehensive death attitudes and more acceptance of death. The findings of Duzutter et al. (2009), Kopp (2008-2009), and Harding et al. (2005) also highlighted the potential for religion to predict death attitudes above and beyond other personal variables. Additionally, the
impact of religious beliefs on death attitudes became clearer when differences within multiple dimensions of death attitudes were included. Despite this evidence, a thorough analysis of the strength of religious beliefs on death attitudes and how these beliefs might influence the death attitudes among counseling students was not identified by this review. In response to this evidence, religious affiliation and strength of religious beliefs were included as covariates in the present study.

_Psychopathology._ Psychopathology has been linked to maladaptive responses to the realization of one’s mortality (Yalom, 1980). The decision to focus this study on the prediction of suicide attitudes rather than death attitudes was based on this theoretical connection between death attitudes and subsequent psychopathology. Early literature suggested that adolescents with less fear of death experienced significantly more suicidal behaviors than those with more fear of death and viewed death as way to get something that they wanted (Lester, 1967). If valid, these results identified that the potential desire for something could outweigh the fear commonly associated with death and lead to suicidal behavior. Another factor associated with these participants’ fear of death was the perceived impact their death would have on those closest to them. Specifically, participants who believed their loved ones would be negatively impacted by their death reported more fear of death. These results supported the hypothesis that, at least in this case, the potential for suicide was influenced by the perceived consequences of death rather than the fear of death. This further supported the need to explore various dimensions of death and suicide attitudes in order to capture unique relationships that were missed in the previous literature that used only aversive dimensions.
Apprehensive death attitudes were also significantly correlated with suicide potential among a sample of 62 male and female students from a private high school and local community college (D’Attilio & Campbell, 1990). These results showed that those with more apprehensive death attitudes were significantly more likely to demonstrate suicidal behaviors, which seemed to be in opposition to the findings of Lester (1967); however, these authors suggested that apprehensive death attitudes may still be protective against death by suicide because all participants were still alive and had not yet died by suicide. These remarks were congruent with other theorists who argued that the fear of death renders some individuals incapable of death by suicide until they are habituated to the fear and negative consequences commonly associated with suicidal behaviors (Van Orden et al., 2010).

Contributing to the evidence for a link between psychopathology and death attitudes, Biereylerin, Berlirtileri, and Yordanmasi (2008) conducted a very informative study that investigated the correlation between scores on the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1994), a self-report measure of psychopathology across 10 domains, and apprehensive death attitudes among Muslim, Syrian, and Yazidi participants. Interestingly, the 10 SCL-90-R domains were responsible for statistically significant portions of the total variance in apprehensive death attitudes among all three groups of participants (Muslim = 41%, Syrian = 85%, & Yazidi = 83%). Finally, persons with a lower-rated health status have also been shown to report more fear of death (Kopp, 2008-2009).
In sum, these findings offered evidence to support the claim that at least some psychopathology could be related to death attitudes; however, there was no indication of how psychopathology in counseling students might influence their death attitudes, which created a gap in the literature. Additionally, these studies considered suicide a pathological behavior and didn’t take into account the potential for suicide to be a sound and rational response to certain life circumstances. Despite these gaps, psychopathology was not included as a variable in the present study given the theoretical belief that psychopathology stems from death attitudes and not vice versa (Yalom, 1980). It should also be noted that at least one control variable used in the present study, exposure to the suicidal behaviors of self, could have some shared variance with psychopathology and account for its effects in prediction models. Future studies can use the model for counseling students’ suicide attitudes created by this study to conduct future studies evaluating the influence of counseling students’ attitudes in the prediction of subsequent psychopathology.

**General anxiety.** It seemed logical that death attitudes, especially those of an aversive nature, would be related to other forms of anxiety; however, the results of studies that evaluated this relationship were mixed. For instance, Vickio and Cavanaugh (1985) found that nursing home personnel with greater personal anxiety had higher levels of apprehensive death attitudes, as measured by the DAS. Despite initial support for a link between general anxiety and apprehensive death attitudes, Abdel-Khalek and Tomás-Sábado (2005) found no correlation among a sample of female nursing students in Egypt and Spain. Despite the different geographical characteristics, both of these studies
focused on nursing staff and used the DAS to assess apprehensive death attitudes. With the consistency in profession and measures, but the difference among geographic locations and limited connection to counseling students, interpretations of these findings were hard to justify and resulted in the decision to leave general anxiety out of the analyses in the present study.

**Aging anxiety.** Aging anxiety is another type of anxiety that has received some attention in the literature related to death attitudes. Specifically, nursing home personnel who spent increased time with the elderly and who reported greater aging anxiety also reported more apprehensive death attitudes (Vickio & Cavanaugh, 1985). These participants also reported greater discomfort when exposed to death-related issues than nursing home personnel with less aging anxiety. Nursing home personnel with elevated aging anxiety also reported increased fear of death related to individual dimensions of death (e.g., process of dying, premature death, etc.), but no statistically significant differences were observed in the perceived threat from death (DePaola et al., 1994). Whereas DePaola et al. (1994) found no relationship between aging anxiety and death threat or the MFODS subscales dealing with fear of being destroyed, fear for significant others, or fear of the unknown, DePaola et al. (1992) found statistically significant relationships between aging anxiety and all measures of death attitudes.

Before conclusions can be made, it should be noted that death attitudes were measured using the DAS in Vickio and Cavanaugh (1985), while the TI and MFODS were used in both DePaola et al. (1994) and DePaola et al. (1992). Despite the differences in geographic locations and measurements in these studies, all three seemed
to converge at similar conclusions: nursing staff who reported more aging anxiety were also more likely to report apprehensive death attitudes. Although these results provide evidence for the nature of the relationship between death attitudes and aging anxiety, nursing staff are very different from the desired sample for the present study. Therefore, the present study did not consider aging anxiety in the analyses of suicide attitudes because the frequency of suicide across the lifespan may not be relevant to the influence of aging anxiety.

**Personal experience with death.** Potentially the most direct way to activate death attitudes is personal experience with death. As a result, the relationship between personal exposure to death and death attitudes has received some attention in the literature. Maglio and Robinson (1994) conducted a comprehensive meta-analysis of 88 studies related to death attitudes. Their analysis found 15 of those studies evaluated the influence of personal exposure to death on the manifestation of apprehensive death attitudes. Of those 15 studies, 13 suggested that participants with more exposure to death reported significantly less apprehensive death attitudes than those with less exposure to death; however, no effect sizes were able to be calculated (Maglio & Robinson, 1994).

According to these results, it appeared that exposure to death may desensitize the individual to apprehension. Although counselor educators are not able to manipulate counseling students’ actual exposure to death, exposure to death could be accomplished through experiential curricular activities that mimic real-world exposure, activate death attitudes, and allow for the processing of the subsequent affective content that emerges. In doing so, counseling students’ apprehension with death-related client scenarios could
be lessened. Given the strength of these findings, personal exposure to death was an important consideration in the development of the present study.

**Conclusion.** Although the information regarding personal variables related to death attitudes is informative, there is still much to be explored and even more to be understood. The noted inconsistencies further identified the complexities of death attitudes and the unique relationships between dimensions of death attitudes with outcome variables, including suicide attitudes. Additionally, the limited investigation of counseling students’ death attitudes made generalizing these findings to the sample of the current study difficult. Despite these inconsistencies and gaps, the literature reviewed identified variables to consider in the development of this study and the interpretation of its findings. Namely, it is possible that older counseling students could report less apprehensive death attitudes, female counseling students could report more apprehensive death attitudes, counseling students with some religious orientation could report less apprehensive death attitudes and more death acceptance, counseling students with more personal exposure to death could report less apprehensive death attitudes, and counseling students with more personal exposure to death could show less aversive dimensions of death attitudes. Therefore, these variables were considered in the creation of covariates for the present study.

**Professional variables related to death attitudes.** In addition to the relationship between personal variables and death attitudes, the investigation of the relationship between death attitudes and professional variables has received some focus in the literature. While personal factors may be more stable and have less potential for change,
professional variables may offer more opportunities for counselor educators and counseling students to influence the development of death attitudes during the counseling program. As a result, this section explores prior research regarding the relationship between death attitudes and years of experience, professional role, area of specialization, educational level, and professional experience with death and dying.

**Education level.** Although some might say that education level fits more appropriately in the discussion of personal factors, I have chosen to define educational level as a professional factor given that it is the gateway to the professional world. Suffice it to say that education is considered the first step in developing professional experiences, which is especially true in counselor education programs that require counseling students to engage in supervised practice. Additionally, the most pronounced increase in the development of counseling students has been observed during their practicum and internship experiences later in the program (Granello, 2002). This could suggest that academic standing within the counseling program could have an influence on the way in which counseling students make meaning of and respond to death and suicide-related client scenarios. Although counseling students are currently enrolled in graduate degree programs, it is common for counseling students to enter counselor education programs with a variety of previous educational experiences that could influence their development throughout the training program. Therefore, it was important to understand the relationship between education level and death attitudes found in the literature.

Among the general population, education was found to be unrelated with any dimension of death attitudes as measured by the DAP-R (Kopp, 2008-2009). Looking
specifically at counseling students, Maglio (1990) suggested that academic standing among counseling students had no influence on apprehensive death attitudes. In contrast, other studies found that experienced death counselors (Terry et al., 1995) and suicide interventionists (Neimeyer et al., 2001) with more education were more comfortable and accepting of death and death-related client content. Finally, Carr (2007) found that undergraduate students had significantly more professional death anxiety than graduate students and student professionals, as well as higher DAS scores than student professionals.

Despite two studies that suggested no relationship between education level and death attitudes, at least three additional studies provided preliminary support for the assumption that counseling students with more education could report less apprehensive death attitudes than those with less education. A particular strength of these findings was that each study included samples of mental health students and professionals, which was a welcomed deviation from previous studies that included samples with limited generalizability to that of the present study.

**Years of professional experience.** Traditionally, the counseling profession values supervised professional experience throughout the training programs of counseling students. After graduation, counseling students are required to complete thousands of hours of supervised practice before achieving the highest level of clinical counseling licensure. Similar requirements are found in many allied professions, and it is key to understand how years of professional experience might influence death attitudes.
Several studies found no correlation between years of experience and apprehensive death attitudes among oncologists (Cochrane et al., 1990-1991), nursing staff (Eakes, 1985), and counseling students (Kirchberg & Neimeyer, 1991). Despite the initial absence of support for a relationship between years of experience and death attitudes, additional studies suggested the opposite. For example, nursing home staff with more experience reported significantly less apprehensive death attitudes, as measured by the TI and MFODS (DePaola et al., 1994). More specifically, MFODS subscales of Personal Death Anxiety, Fear of Significant Others’ Death, Fear of the Unknown after Death, and Fear for the Body after Death were all significantly negatively correlated with years of experience. In other words, as nursing home staff worked longer, they experienced less apprehension related to various manifestations of death attitudes. It is important to note that both Cochrane et al. (1990-1991) and Eakes (1985) used the DAS, Kirchberg and Neimeyer (1991) used the TI, and DePaola et al. (1994) used the TI and MFODS to measure death attitudes. As noted throughout this review, the inconsistency of measurement procedures across studies made comparing results difficult.

Despite the findings of Kirchberg and Neimeyer (1991), which suggested no significant relationship between professional experience and apprehensive death attitudes among counseling students, other studies (Carr, 2007; Neimeyer & Dingemans, 1980; Neimeyer et al., 2001; Terry et al., 1995) suggested that professional helpers with more professional experience reported significantly less apprehensive death attitudes. For example, crisis workers with more experience showed significantly less fear towards
others’ deaths \((r = -.234, p < .05)\) but not their own death when compared to new volunteers (Neimeyer & Dingemans, 1980). Terry et al. (1995) found death counselors with more experience were more comfortable responding to various client scenarios, including those related to death. Neimeyer et al. (2001) found that those with more general psychotherapy experience were also more accepting of death. Finally, mental health student professionals and undergraduate psychology students with more experience reported significantly less professional death anxiety (Carr, 2007). When interpreting these findings, it remains important to note that each study used a different instrument to measure death attitudes. While it might seem difficult to make conclusions, the diverse measurements of these studies can also suggest that the findings are consistent across measures of death attitudes, thus enhancing their utility and justifying the use of multidimensional measures of death attitudes.

An additional strength of these findings was that their samples included mental health professionals, which can be cautiously generalized to counseling students. These findings appeared to converge at the conclusion that mental health professionals with more professional experience could report less apprehensive death attitudes than those with less professional experience. Since counseling students enter counselor preparation programs with varying levels of professional experience, it was important to explore the influence of this variable as a control in the present study.

**Professional role.** Counselors often fulfill a variety of roles throughout their professional development. Early in their career, counselors are stringently supervised, but as they gain more professional experience, their role changes, more autonomy is
given, and counselors may assume supervisory roles. Considering this change in position, it was important to appreciate how professional roles may interact with death attitudes. However, no statistically significant correlations were found between professional role and apprehensive death attitudes among physicians (Eggerman & Dustin, 1985; Schulz & Aderman, 1978-79), crisis intervention workers (volunteer/paid and care worker/phone call recipient; Neimeyer and Dingemans, 1980), or nursing staff (Eakes, 1985). Similarly, income may also be related to professional role; however, income was also suggested to be unrelated to comfort responding to death-related counseling scenarios (Terry et al., 1995) or any dimension of death attitudes measured by the DAP-R (Kopp, 2008-2009).

Although not directly related to counseling students, these findings provided information to aid in the interpretation of the impact of death attitudes across the professional lifespan of counseling students. Specifically, any potential for variance in death attitudes linked to professional role and/or income may be better accounted for by years of experience. Additionally, counseling students can be assumed to be in the same professional role during their training program. Therefore, professional role was excluded from the current study.

**Area of specialization.** Counseling students focus on the development of general counseling skills to treat a variety of client concerns. Yet, as they progress, specific areas of interest and potential specializations emerge. Therefore, it was important to explore the relationship between area of specialization and death attitudes found in the literature.
In a study of physicians with various specialty areas, Schulz and Aderman (1978-1979) found no statistically significant relationships between area of specialty and death attitudes. In contrast, at least one study found that experienced death counselors reported significantly more comfort and empathy when responding to client scenarios related to death (Terry et al., 1995). Interestingly, these same participants displayed considerably less empathy when responding to non-death related client situations.

Although limited, the findings of Terry et al. (1995) provided initial support for a connection between death attitudes and area of counseling specialty. However, due to the nature of counselor preparation programs that focus on building general skills, it seemed that area of specialization was less relevant to the development of death attitudes among counseling students. Additionally, area of specialization typically emerges from personal experiences throughout the life of counseling students and any variance related to areas of specialization may be better accounted for by other personal and/or professional variables. Additionally, area of specialization could also be accounted for by the counseling students’ program, which was included as a descriptive variable in the present study.

**Professional experience with death and dying.** In light of findings that suggested more personal experience with death led to less apprehensive death attitudes (Maglio & Robinson, 1994), it is possible that professional experience with death could have similar results. Therefore, the influence of professional experience with death and dying was an important variable to consider among counseling students; however, the impact of professional experience with death and dying on death attitudes was not as clear.
To begin, only two studies suggested that staff with more professional experience with death and dying reported more acceptance of death in a sample of mental health students and mental health workers (Neimeyer et al., 2001) and more comfort when thinking and talking about death in nursing home personnel (Vickio & Cavanaugh, 1985). In contrast, Cochrane et al. (1990-1991) found that increased professional experience with death in oncologists led to significantly more discomfort working with dying patients. Interestingly, Terry et al. (1995) noted that professional experience with death was unrelated to comfort and empathy responding to death-related client scenarios, but significantly related to less empathy and comfort responding to non-death-related client scenarios. According to these results, professional experience with death may benefit future work with death-related client scenarios but may actually hinder work with non-death-related client scenarios.

To complicate any conclusions that can be made regarding the relationship between professional experience with death and death attitudes, no relationship was found among a sample of nursing home staff (Eakes, 1985), suicide intervention workers (Neimeyer & Dingemans, 1980), or counseling students (Maglio, 1990). These findings suggested that the relationship between professional exposure to death and dying and death attitudes was inconclusive. Because all three potential results were observed in these studies and the results among counselors were mixed, there was a need to better understand this relationship among counseling students.

**Conclusion.** The literature that focused on the professional variables related to death attitudes has strengths including the studies that focused on helping professionals
and others that used the DAP-R (Wong et al., 1994) to measure death attitudes. This created grounds for later interpretations and comparisons with results from the present study. With that being said, the literature reviewed left much to be known about the relationship between specific professional variables and death attitudes, specifically as they relate to counseling students. Preliminary interpretations can be made that less apprehensive death attitudes could be reported by counseling students with more education and more professional experience prior to entering the counselor education program. Moreover, it is less likely that professional role or area of specialization would account for any unique variance among death attitudes in counseling students. Nonetheless, these variables were considered in the identification of covariates for the present study.

**Death Attitudes and Other Attitudes**

The purpose of the present study was to evaluate the role of five dimensions of death attitudes in the prediction of three dimensions of suicide attitudes among counseling students after controlling for the effects of several personal and professional covariates. The purpose of this study emerged from the previous research that suggested relationships between death attitudes and attitudes towards the elderly (DePaola et al., 1992; DePaola et al., 1994; Eakes, 1985; Vickio & Cavanaugh, 1985), caring for the elderly (Clements & Rooda, 1999), dying patients (Kvale et al., 1999), people with disabilities (Fish, 1986), physician-assisted suicide (Bassett & Dabbs; Kopp, 2008-2009), and suicide (Maglio, 1990; Neimeyer et al., 2001). Therefore, this section reviews the results from previous research related to the relationships and prediction of attitudes
towards various populations of clients that includes a few dimensions of suicide from death attitudes.

**Attitudes towards the elderly.** A large amount of previous research exists regarding the effect of death attitudes on the attitudes towards the elderly among various medical professionals. A number of studies found that increased apprehensive death attitudes were significantly related to more negative attitudes towards the elderly (Clements & Rooda, 1999; DePaloa et al., 1992; DePaola et al., 1994; Eakes, 1985; Vickio & Cavanaugh, 1985). Specifically, various dimensions of death attitudes explained statistically significant portions of the variance in attitudes towards the elderly with various effect sizes ranging from $R^2 = .04$ to .15 (DePaola et al., 1992; DePaola et al., 1994). While much of the literature regarding death attitudes contained inconsistencies, the impact of death attitudes on attitudes towards the elderly was much clearer.

Using the DAS to measure apprehensive death attitudes, Vickio and Cavanaugh (1985) found that nursing home personnel who reported more apprehensive death attitudes also reported significantly less value in the elderly. Staff who reported less value in the elderly also reported more discomfort thinking and talking about death. Also using the DAS, Eakes (1985) found that nursing home personnel who reported more apprehensive death attitudes also reported less value in the elderly ($r = -.21$, $p < .007$). Interestingly, this sample, which was predominantly white females, was skewed towards negative bias towards the elderly, regardless of apprehensive death attitudes. Given this skew, the authors grouped participants into more (DAS = 10-15) and less (DAS = 0-5)
apprehensive death attitudes, thus eliminating those participants scoring in the middle range (DAS = 6-9). The mean attitude scores of these two groups differed significantly, which provided additional support for the hypothesis that apprehensive death attitudes could lead to more negative views of the elderly.

To continue the discussion of death attitudes in nursing facilities, DePaola et al. (1992) improved upon previous methodology by using the TI and MFODS to measure death attitudes as well as adding a control group of people in non-death related occupations. Despite some differences across dimensions of death attitudes, nursing home personnel reported significantly more negative attitudes toward the elderly ($p < .002$) than control groups. Although total TI scores were not significantly related to attitudes towards the elderly, a number of individual dimensions were. Specifically, personal anxiety about aging, global MFODS scores, and the following MFODS subscales: Fear of the Unknown, Fear of Consciousness when Dead, and Fear for the Body after Death ($r = .17$, $p < .01$) were all significantly related to attitudes towards the elderly, meaning that nursing home personnel who reported more death fear also reported significantly less value in the elderly. Furthermore, the Fear of the Unknown subscale and working in a nursing home were the only two variables that contributed significantly to the prediction of negative values towards the elderly ($\beta = .23$). These findings suggested that working in a nursing home and fearing the unknown nature of death could lead to significantly more negative views of the elderly.

Similarly, a follow-up study conducted by DePaola et al. (1994) found similar results. Although negative views of the elderly were not significantly correlated with
global death fear or death threat, statistically significant relationships were noted among several MFODS subscales including Fear of Consciousness when Dead, Fear of Ambiguity, and Fear for the Body after Death. Similar to DePaola et al. (1992), only the Fear of the Unknown subscale significantly predicted negative attitudes towards the elderly ($\beta = .20; R^2 = .042$).

In light of these converging results, some of which resulted from the use of instruments only measuring aversive dimensions of death attitudes, moderate conclusions can be made that more apprehensive death attitudes could lead to more negative views of the elderly and caring for the elderly. Even more specifically, individual dimensions of death attitudes such as the Fear of the Unknown continued to emerge as a robust predictor of negative attitudes towards the elderly among nursing home personnel (DePaola et al., 1992; DePaola et al., 1994). Despite the strength of these findings, the samples were primarily drawn from one region of the United States and were not closely related to counseling students. Nonetheless, a connection between death attitudes and attitudes towards the elderly seemed possible among a sample of counseling students.

**Attitudes towards dying patients.** Similarly, previous research has explored the relationships between death attitudes and attitudes towards dying patients. At least one study evaluated this relationship among a sample of medical residents. Kvale et al. (1999) measured apprehensive death attitudes using the DAS and found that residents with more apprehensive death attitudes also displayed more negative attitudes towards dying patients. In fact, apprehensive death attitudes accounted for 9% of the total variance in attitudes toward dying patients. When combined with their age and reaction
style to uncertainty, death attitudes accounted for 26% of the total variance in attitudes toward dying patients. Additional support for the relationship between death attitudes and attitudes towards the dying was suggested by Clements and Rooda (1999) who administered the DAP-R and Frommelt Attitude Towards Care for the Dying Scale (FATCDS; Frommelt, 1991) to a sample of nurses. Their findings also suggested that participants who had more negative views of caring for the dying were more likely to fear and avoid death. Conversely, participants that accepted death with indifference or joy were more likely to have positive attitudes toward caring for the dying. Although not directly related to counseling students, these findings provided additional support that attitudes toward death could account for statistically significant variance in counseling students’ attitudes towards other potential client populations.

**Attitudes toward people with disabilities.** It has been theorized that the process of adjusting to an acquired disability is similar to that of grief and thus activates death attitudes (Fish, 1986). Rehabilitation counselors are more likely to counsel people with disabilities than other counselors; therefore, Fish (1986) explored the relationship between death attitudes and attitudes towards people with disabilities among 50 graduate students in a rehabilitation counseling program. Apprehensive death attitudes, as measured by the DAS, were significantly correlated with attitudes towards people who were disabled ($r = -0.24, p < .05$), meaning that as apprehensive death attitudes in rehabilitation counseling students increased, their attitudes towards people with disabilities became more negative.
These findings were very important for two reasons. First, the connection between death attitudes and attitudes towards another potential client population of counseling students was identified. Second, the sample in Fish (1986) was very similar to the desired sample of the present study. Consequently, the study conducted by Fish (1986) served as a foundation to extend the investigation of the relationship between death attitudes and attitudes towards other potential client populations among counseling students.

**Attitudes toward suicide.** Suicide, by definition, is a death (Crosby, Ortega, & Melanson, 2011). Therefore, people engaging in suicidal behaviors could also be seen as people who are dying. Given the purpose of the present study, it was important to review previous literature that discussed the potential relationship between death attitudes and suicide attitudes. Thankfully, previous literature has considered this relationship among mental health professionals.

The first study (Maglio, 1990) was a master’s thesis that focused on the relationship between apprehensive death attitudes, as measured by the DAS, and attitudes towards people who were suicidal, as measured by the scale developed by Minear and Brush (1981). The hypothesis of this study was that working with suicidal clients would activate death attitudes among counseling students. Although it was hypothesized that counseling students with more apprehensive death attitudes would experience more negative views of suicide, no analysis was found to answer this question (Maglio, 1990). Although this study provided information regarding the influence of gender and
experience with suicide on suicide attitudes, no evidence was found that supported any relationship between apprehensive death attitudes and suicide attitudes.

Neimeyer et al. (2001) investigated the interaction of personal and professional covariates with suicide intervention skills among helping professionals with varying degrees of training (e.g., none, paraprofessional, and professional). Participants completed the DAP-R to assess death attitudes, the Suicidal Behaviors Questionnaire (SBQ; Cotton, Peters, & Range, 1995), the Suicide Opinion Questionnaire (SOQ; Domino, Moore, Westlake, & Gibson, 1982), and the SIRI. However, because this study’s primary focus was on suicide intervention skills, the analysis of the relationship between death attitudes and suicide attitudes was minimal. Nonetheless, some information was gleaned that suggested two dimensions of death attitudes, death acceptance \((r = -.35)\) and death as a means to an end \((r = -.36)\) showed statistically significant correlations to total responses on the SBQ. Despite this relationship, the SBQ traditionally measures components of previous suicidal behaviors, and the items used in this study were not provided. Nonetheless, the connection between death attitudes and suicide behaviors could highlight a potential consequence of death attitudes among mental health professionals and students.

Although not related to counseling students, one additional study was found that evaluated the role of death attitudes, as measured by the DAP-R, in the prediction of attitudes towards physician-assisted suicide after controlling for demographic variables and participants’ knowledge of physician-assisted suicide options (Kopp, 2008-2009). With all dimensions of death attitudes entered into the third step of the hierarchical
multiple regression, death attitudes explained an additional 8.1% of the total variance in attitudes towards physician-assisted suicide. Specifically, approach acceptance was the only statistically significant dimension of death attitudes ($\beta = -0.332$), but neutral acceptance approached significance ($\beta = 0.118, p = 0.052$). This indicated that participants who had more approach acceptance believed less in the right to physician-assisted suicide, while participants with more neutral acceptance were more likely to accept the right of physician-assisted suicide. Additionally, at least one other study suggested that participants who reported less explicit death anxiety were more likely to show more favorable attitudes toward physician-assisted suicide.

Despite the shortcomings of Maglio (1990) and Neimeyer et al. (2001), their investigations identified at least some level of interest in the study of death attitudes and suicide attitudes among helping professionals including counseling students. Neimeyer et al. (2001) recommended the continued use of multidimensional measures of death attitudes that capture both aversive and non-aversive dimensions, like the DAP-R (Wong et al., 1994), in future studies focusing on its relationship to suicide attitudes. These findings, in addition to the conceptual model of clients’ right to die created by Rogers (1996) that included elements of death attitudes and other personal and professional covariates, supported the need for the present study to extend this line of research to counseling students and include multidimensional measures of death attitudes and suicide attitudes.

**Conclusion.** The purpose of this section was to justify the purpose of the present study by presenting previous research that has evaluated the role of death attitudes in the
prediction of attitudes toward other client populations and attitudes toward physician-assisted suicide. Death attitudes were shown to be connected to attitudes toward the elderly, people who are dying, and people with disabilities, but only a small connection was found between death attitudes and suicide attitudes, the primary focus of this present study. However, the nature of suicide attitudes is more complex than can be discerned by these few studies. Therefore, there was a need to further explore the relationship between death attitudes and suicide attitudes among a targeted sample of counseling students that captured multidimensional aspects of each in order to determine how much variance in counseling students’ suicide attitudes can be accounted for by their death attitudes. The literature related to death attitudes provided the context for this study, and the remainder of this chapter reviews previous literature related to the current conceptualizations of suicide attitudes, measurement of suicide attitudes, and personal and professional covariates related to suicide attitudes, which is followed by a discussion of the potential impact of both death attitudes and suicide attitudes on professional behaviors.

**Suicide Attitudes**

Attitudes towards suicide have fluctuated throughout the history of the United States and throughout the world. Previous research has identified that common attitudes towards suicide exist on a continuum with labels such as an altruistic gesture (Durkheim, 1997), a psychopathology (Bähr, 2013), a “bad death” (Mullock, 2013; Park, 2010, p. 23), a crime (Adinkrah, 2013; Butler, 2007; Lande, 1992; Mullock, 2012), a sin (Bähr, 2013; Kaplan & Schoeneberg, 1988), and even a rational response to unendurable suffering (Cohen, 2001; Werth, 1992, 1999; Werth & Liddle, 1994; Cohen, 2001). While
some view suicide as a moral sin that is against God’s will, other view life preserving efforts to prevent physician-assisted suicide as a greater breach of religious ethics (Westefeld, Sikes, Ansley, & Yi, 2004). Personal attitudes toward suicide have been suggested to be caused by the degree to which the suicide is viewed as an immoral decision or the result of pathological processes, such as mental illness (Butler, 2007; Hadfield et al., 2009; Suokas & Lönqvist, 1989b).

Early scientific research used qualitative methods to identify common themes about suicide attitudes among the general population (Ansel & McGee, 1971) while subsequent research (Diekstra & Kerkhof, 1989; Domino, Gibson, Poling, & Westlake, 1980; Domino, Moore, Westlake, & Gibson, 1982; Renberg & Jacobsson, 2003) aimed to validate these attitudes through psychometric evaluation. Early suicide attitudes were related to the formation of suicidal behavior (e.g., moral resistance to the right of suicide, something that happens to the person, etc.), evaluative components of suicide (e.g., shame, guilt, and disgrace to the family, employment barriers, etc.), and causes of suicide (e.g., societal, external, intrapersonal, etc.; Ansel & McGee, 1971). Later research used factor analytic approaches to amalgamate large lists of potential suicide attitudes into interpretable and manageable factors (Diekstra & Kerkhof, 1989; Domino et al., 1980; Domino et al., 1982; Renberg & Jacobsson, 2003). The factors of suicide attitudes that resulted were related to the participants’ beliefs about the acceptability of suicide, religious and moral influences, the motives and causes of suicide, common factors of people who die by suicide, the extent to which suicide should be prevented, the
commonality of suicide, the seriousness of suicidal threats, and the incomprehensibility of suicide.

Subsequent conceptualizations indicated that suicide attitudes varied across domains (e.g., affective, cognitive, and instrumental) and referent levels of exposure (Diekstra & Kerkhof, 1989). For instance, the suicide attitudes of a person whose mother died by suicide might be different than the suicide attitudes of a person who had no family history of suicide, and these attitudes might be expressed differently by each person and through cognitive, affective, and behavioral responses. Despite the benefits of early research into suicide attitudes, criticism emerged due to the length of the instruments and the variability between the factor structures that failed to reduce the number of variables for practical use (Kodaka, Poštuvan, Inagaki, & Yamada, 2010). Nonetheless, suicide attitudes continue to be explored and categorized.

Later measures of suicide attitudes incorporated other related variables such as personal suicidal behavior and life satisfaction in order to provide context for the categorization of suicide attitudes across populations (Paykel, Myers, Lindenthal, & Tanner, 1974; Renberg & Jacobsson, 2003). Despite these attempts, considerable variability exists with factor structures of suicide attitudes that have ranged anywhere from 2 to 10 identifiable factors (Norheim et al., 2013; Renberg & Jacobsson, 2003). These findings created doubt in the existence of a stable conceptualization of suicide attitudes; however, at least one dimension of suicide attitudes emerged as the most stable across studies.
Previous research has identified that suicide attitudes related to the acceptability of suicide were consistently retained and accounted for the most variance in suicide attitudes across studies (Arnautovska & Grad, 2010; Kodaka et al., 2012; Kodaka et al., 2013; Mofidi, Ghazinour, Salander-Renberg, & Richter, 2008; Norheim et al., 2013; Renberg, Hejelmeland, & Koposov, 2008; Renberg & Jacobsson, 2003). Although similar, some variation exists from study to study regarding the organization of manifest traits used to define these dimensions of suicide attitudes. For instance, Renberg et al. (2008) defined this dimension as the acceptability of suicide while Kodaka et al. (2012) defined this dimension as the right to suicide. Although the most stable, there is still some variability regarding the conditions under which suicide is acceptable or a person has the right to die by suicide. Given the stability of this factor and the associated legal consequences, a preponderance of literature exists that focuses on concepts related to a person’s right to die including euthanasia, physician-assisted suicide, permitted suicide, and rational suicide.

Shifting attitudes in the United States have led to legislation that allows physician-assisted suicide when certain criteria are met (e.g., terminal illness). Currently, it was found that four states (Oregon, Vermont, Washington, and Montana) have some form of legislation that allows patients with terminal diseases to request a physician-assisted suicide, while 46 states and the District of Columbia do not allow physician-assisted suicide (ProCon.org, 2013). In fact, states label physician-assisted suicide as a crime, which could result in up to 15 years in prison (ProCon.org, 2013). Although distinctions can be made between physician-assisted suicide and other types of suicide
(e.g., suicide by other), killing oneself continues to be prosecuted internationally (Adinkrah, 2013; Butler, 2007; Mullock, 2012) and, at least as recent as 1988, was prosecuted in the United States military. Similar to the general population, attitudes towards the acceptability of suicide among mental health professionals, including professional counselors, have been the source of some debate (Lussier, 2004; Rogers et al., 2001).

Previous research has reported that 12% of nurses had some belief in rational suicide (Botega et al., 2005) compared to 70% of rehabilitation counselors (Bascue et al., 1978); 57% of psychologists, nurses, and legislators; and 81% of mental health counselors (Rogers et al., 2001). In general, mental health professionals have been less judgmental toward suicide than other helping professionals. Following landmark rulings permitting physician-assisted suicide in some cases, considerable research evaluated the view of psychotherapists and mental health professionals regarding what has been termed rational suicide (Bascue, Lawrence, & Sessions, 1978; Lussier, 2004; Rogers et al., 2001; Werth, 1992, 1999; Werth & Cobia, 1995; Werth & Liddle, 1994; Westefeld et al., 2004). Werth & Cobia (1995) summarized their results from 400 psychotherapists to define rational suicide as any suicide that occurs when the following conditions are met: (1) the presence of an “…unremitting hopeless condition…” or unacceptable quality of life; (2) non-coerced decision-making process including consultation with mental health professionals; (3) consideration of alternatives; (4) alignment with personal values, (5) consideration for the impact on significant others; and (6) the receipt of objective feedback (p. 238). Similarly, Werth (1999) synthesized previous conceptualizations of
rational suicide to align with the Oregon Death with Dignity Act: (1) presence of a terminal illness with six months or less to live; (2) prognosis is verified by two physicians; (3) the decision is not the results of “…subtle or overt internal or external pressure or coercion”; (4) a sound decision-making process was completed that included competence to make the decision, nonimpulsivity, congruence with values, impact on significant others, and consultation with objective others (e.g., spiritual advisers, counselors, p.146). Rogers (1996) provided a comprehensive model for the continuum of client’s right to die constructs ranging from suicide to murder (p. 67) based upon the degree to which the person’s decision and the action to die is within their own control.

These conceptualizations help to guide professional counselors and counseling students in their evaluation of clients who might be experiencing suicidal behaviors or considering a rational suicide; however, there is disagreement regarding the conditions that would warrant suicide and the degree to which professional counselors should attempt to prevent suicide (Cohen, 2001; Lussier, 2004; Rogers et al., 2001).

Interestingly, the degree of acceptability of suicide among professional counselors has been shown to lessen when discussing personal clients as opposed to someone else’s (Lussier, 2004; Rogers et al., 2001). This disagreement could be related to the potential for conflicting views about what conditions justify a rational suicide. For instance, persons living with chronic mental illness could be viewed as having an “…unremitting hopeless condition…” or unacceptable quality of life (Werth & Cobia, 1995, p. 238), but could also be deemed as unable to complete sound decision-making processes due to various symptoms related to their mental illness. Therefore, the complexity of decisions
made by mental health professionals when assessing the rationality of suicide can become quite difficult to navigate (Cohen, 2001; Neimeyer, 2000; Werth, 2002).

Cohen (2001) described the concept of *permitted suicide*, which referred to a mental health counselor that does not intervene in the prevention of a client suicide but rather facilitates an exploration of all options available to the client in order to make a sound, rational, and autonomous choice regarding their desire to die by suicide. Cohen (2001) accentuated the point that it is unethical for professional counselors to coerce or assist in the act resulting in suicide (e.g., giving a client a gun), but appropriate interventions could include consultation with family members and other health professionals to explore all possible options which might include suicide. This described the complex ethical dilemma that exists between permitting and assisting with the suicide of a client and the importance of exploring personal attitudes in order to provide ethical services (Cohen, 2001; Kiser, 1996; Neimeyer, 2000; Werth, 2002). For instance, it is possible that a counseling student who strongly believes in the client’s right to suicide could inadvertently lead a client toward suicide prematurely, while a counseling student who believes very strongly against the client’s right to suicide could prematurely implement more restrictive means of intervention.

Cohen (2001) described the distinction between assisting and permitting a client’s suicide as a matter of commission versus omission. For instance, this article reviewed a number of precedent-setting court decisions regarding the distinction between removal of life sustaining interventions (e.g., removal of a breathing tube) and the addition of life ending inventions (e.g., poisoning), which created tremendous ethical dilemmas for
counselors trying to navigate personal values, client autonomy, beneficence, and legal duties. In the case of permitted suicide, the counselor would be viewed as a life sustaining intervention that could be removed. Regardless of beliefs about the acceptability of suicide, it is clear that mental health professionals can play an important role in providing services to persons considering suicide. Luckily, several authors have responded to the ambiguity of ethical standards and provided mental health professionals with ethical guidelines for the assessment of and permissiveness to suicide (Cohen, 2001; Werth, 1992; Werth, 1999; Werth, 2002).

The line of research focusing on the acceptability of suicide is robust and relatively generalizable to counseling students within the United States; however, this line of research shares similar limitations observed in the death attitudes literature regarding the unidimensional focus on only one dimension of suicide attitudes. Given recent debates among professional counselors and counselor educators regarding the degree to which personal values can influence the therapeutic process (Cox, 2013; Hutchens, Block, & Young, 2013), previous reports that client suicide are on the most anxiety producing and uncomfortable client scenarios (Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Foster & McAdams, 1999; McAdams & Foster, 2000; Neimeyer et al., 2001) and the variability in the desired treatment outcomes (Cohen, 2013; Lussier, 2004; Rogers et al., 2001; Werth, 1999; Westefeld et al., 2004), it seemed that single dimensions of suicide attitudes, like the acceptability of suicide, do not capture the complexities within a person’s attitudes towards suicide.
In contrast to the unidimensional suicide attitude research in the United States, international research has traditionally been focused on multiple dimensions, but with only recent focus on mental health professionals and little to no focus on professional counselors or counseling students (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013). Despite the general instability of some dimensions of suicide attitudes, considering the multiple dimensions of suicide attitudes can provide the counseling profession with a comprehensive model to facilitate the exploration of attitudes related to suicide that has been advocated for throughout the literature. Therefore, this study responded to the recommendations of previous literature by merging these two lines of research with multidimensional measures of suicide attitudes among a sample of counseling students. As a result, the following section provides an overview of the common methods used to measure multiple dimensions of suicide attitudes that have been used throughout the literature.

**Measuring suicide attitudes.** The current body of literature contains several psychometric instruments that have been used to measure the multiple dimensions of suicide attitudes. Although an exhaustive review of each instrument is beyond the scope of this manuscript, Kodaka et al. (2010) provided a comprehensive review of 18 previous used instruments in the measurement of suicide attitudes; however, a brief introduction is included here to provide a context for the review of the current body of literature in the remainder of this chapter. This review concludes with a thorough critique of the Attitudes Towards Suicide Scale (ATTS; Renberg & Jacobsson, 2003) that was used to define suicide attitudes in this study.
Yalom (1980) suggested the theoretical connection between organismic responses to death and subsequent psychopathology. Additionally, several authors have theorized about the perceived causes of suicide (e.g., Durkheim, 1997; Lester, 1994; Van Orden et al., 2010). These causes have included conceptualizations of suicide as an altruistic act, the result of disconnection with no hope of remittance, and even the result of underlying biological pathology. Given the perceived causes of suicide, several attitudes have become prevalent throughout the world and have been measured using factor analytic approaches. Kodaka et al. (2010) identified at least 18 uniquely operationalized scales, but only three of these were suggested as strong candidates for the multidimensional measure of suicide attitudes. These three instruments were the Suicide Opinion Questionnaire (SOQ; Domino et al., 1980, 1982), Suicide Attitudes Questionnaire (SUIATT; Diekstra & Kerkhof, 1989), and the ATTS (Renberg & Jacobsson, 2003).

Despite the support for these three measures, the individual dimensions across studies have varied significantly. For instance, previous research using the ATTS has found factor structures that included anywhere from two to twelve remaining factors (Norheim et al., 2013; Renberg et al., 2012). These three measures were also criticized for their length, but the ATTS was applauded for including several features of its predecessors while shortening the length of the instrument. Although each has their unique features, the ATTS was cited as being the “…most feasible and valid…” instrument to measures multidimensional suicide attitudes (Kodaka et al., 2010). Even though concerns exist regarding the stability of the various factor structures, the ATTS was considered a strong option for the measurement of suicide attitudes in this study.
Therefore, the following section critically evaluates previous research that used the ATTS.

**Attitudes Towards Suicide Scale.** The ATTS (Renberg & Jacobsson, 2003) is a 62-item self-report questionnaire that measures multiple dimensions of suicide attitudes as well as life satisfaction, personal suicidal behaviors, exposure to the suicidal behaviors of others, personal suicidal potential, life satisfaction, reasons for suicide, appropriate treatment interventions, and various demographic characteristics (see Appendix B). Grounded in previous research related to suicide attitudes (Cotton, Peters, & Range, 1995; Diekstra & Kerhof, 1989; Domino, Moore, Westlake, & Gibson, 1982; Paykel, Myers, Lindenthal, & Tanner, 1974), the ATTS improved upon previous measures by reducing the total number of items included while still incorporating elements from previous measures. Despite the inclusion of these additional elements, the 37 items from the Attitudes section of the ATTS are the most commonly used items in previous research (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013).

Although no subscales are provided for the Attitudes section of the ATTS, previously identified factors of suicide attitudes have included the acceptance and right of suicide, the condemnation of suicide, the process of suicide, fear when communicating about suicide, the normality of suicide, and the preventability of suicide (Renberg & Jacobsson, 2003). Although some criticism emerged regarding the factor structure of the ATTS (Kodaka et al., 2010), the relatively strong reliability evidence of the three-factor model reported by Renberg et al. (2008), which included only 13 items of the Attitudes
section of the ATTS, justified the use of the ATTS for the measurement of suicide attitudes in this study.

The three-factor model of the ATTS (Renberg et al., 2008) measures suicide attitudes across three variables defined as dimensions of suicide attitudes that include the acceptance of suicide, condemnation of suicide, and preventability of suicide. The acceptance of suicide dimension was conceptualized by several traits that identified a participant’s agreement that suicide is a reasonable response to certain scenarios for themselves and others as well as agreement that people should receive help to end their life if so desired. The condemnation of suicide dimension was conceptualized by several traits that identified a participant’s agreement that suicide is never justified and one of the worst things to do to relatives, especially when the suicide is by a young person. The preventability of suicide dimension was conceptualized by several traits that identified a participant’s agreement that suicide can always be prevented even when a person’s mind is already made up. Additional dimensions of suicide attitudes labeled by the ATTS have included unpredictability (e.g., happens without warning), noncommunciation (e.g., threats are not serious, happens without warning, aversion to talking about suicide), tabooing (e.g., rather not talk about, personal business, and talking will lead to increased risk), normal-common (e.g., some suicidal wishes aren’t meaningful, everyone has considered, and attempts are impulsive), relation-caused (e.g., attempts are due to revenge and punishment), suicidal process (e.g., suicidal thoughts will never disappear), and resignation (e.g., goal of relief, suicide is the only solution to some situations; Renberg & Jacobsson, 2003).
attitudes added potential opportunities for research to evaluate subgroup differences within and between participant characteristics.

Previous research has used the ATTS to measure multidimensional suicide attitudes across the lifespan of the general population in Sweden, Norway, Nicaragua, and Iran (Hjelmeland & Knizek, 2004; Mofidi et al., 2008; Renberg & Jacobsson, 2003; Rodriguez, Cadera, Kullgren, & Renberg, 2006), adolescents from Slovenia (Arnautovska & Grad, 2010), social workers and psychiatric pharmacist trainees in Japan (Kodaka et al., 2012; Kodaka et al., 2013), and outpatient mental health workers in Norway (Norheim et al., 2013). Although primarily descriptive, the ATTS has just recently been used to measure the suicide attitudes of mental health professionals, but no previous research was found that used the ATTS among a sample of professional counselors, counseling students, or persons in the United States. Given the endorsement of Kodaka et al. (2010) along with the ATTS’s use in a variety of settings with a variety of populations including helping professionals, the ATTS was a strong option for the measurement of suicide attitudes among counseling students in the present study. Despite the limitations created by using a pre-existing factor structure in this study, the three-factor model of Renberg et al. (2008) was decided upon given its relative psychometric soundness. Therefore, the remainder of this section critically reviews the scale construction and validation, factor structure, reliability, and validity reported in previous studies that used the ATTS.

*Scale construction and validation.* The ATTS was constructed over the course of 10 years with two waves of data collection among the general population in Sweden
Initial item construction began with a review of previous measures and the current body of literature that was reviewed by a group of laypersons and experts in the field. This resulted in an 80-item instrument that was piloted to a group of 50 college students in Sweden. After the pilot study, 18 questions were excluded based upon low discriminative power, which left 62 questions that focused on various domains of suicide attitudes. In addition to questions that focused on suicide, information regarding participants’ gender, age, education, cohabitation, region, and experiences with suicide among self and significant others was collected.

The initial administration of the ATTS took place in 1985 and 1987 but is commonly referred to as the 1986 version. This administration included the random mailing of 710 questionnaires to the general population aged 18-65 and yielded a response rate of 75%. Initial factor analysis yielded no interpretable factors, which led to the removal of an additional 40 items given poor reliability evidence and discriminative power. Subsequent factor analyses removed two additional items with factor loadings under .40, which resulted in eight interpretable factors that included permissiveness, unpredictability, incomprehensibility, noncommunication, right to prevent, preventability, relation-caused, and suicidal process. Only 20 items of the ATTS were retained in this analysis that accounted for 63% of the total variance in participants’ responses.

The administration of the ATTS in 1996 added items related to the participants’ level of exposure to suicidal behaviors (Renberg & Jacobsson, 2003), which was strongly encouraged by the work of Diekstra and Kerhof (1989) during the creation of the
SUIATT. The additional items increased the total number of ATTS items to 69, which included the 20 items retained in the 1986 study. After removing the statistically nonsignificant items found in Diekstra and Kerhof (1989), 40 items were included in the 1996 administration of the ATTS. Questionnaires were then randomly mailed to 1,000 persons in Sweden from the age of 18 to 65 and yielded a response rate of 64%. A subsequent factor analysis resulted in 10 identifiable factors that included suicide as a right, incomprehensibility, noncommunication, preventability, tabooing, normal-common, suicidal process, relation-caused, preparedness to prevent, and resignation. A total of 34 items were retained that accounted for 60% of the variance in the participants’ responses. Given the variability in factor structures, all questions were retained in the final version of the ATTS with the assumption that future exploratory and confirmatory analyses would add to the construct validity and interpretability of the ATTS (Renberg & Jacobsson, 2003).

**Factor structure.** One of the most criticized elements of the ATTS is the stability and reliability of its factor structure (Kodaka et al., 2010); however, evidence for a few factor structures of the ATTS have emerged (Kodaka et al., 2012; Kodaka et al., 2013; Renberg & Jacobsson, 2003; Renberg et al., 2008). Renberg and Jacobsson (2003) restricted the analysis of the 1996 data to the same 20 items and eight-factor structure that emerged from the 1986 data. This analysis retained the identical items in the same eight-factor model, which accounted for the same amount of variance (63%). Despite the convergent results, the evaluation of participants’ responses for all items in the 1996 version of the ATTS resulted in a ten-factor model (Renberg & Jacobsson, 2003).
General inconsistencies were noted throughout the remainder of the literature with factor structures of the ATTS that ranged in number from two (Norheim et al., 2013) to ten (Renberg & Jacobsson, 2003). Additionally, the number of items retained in each analysis ranged from 13 (Renberg et al., 2008) to 34 (Renberg & Jacobsson, 2003). Finally, the amount of variance accounted for by the various models ranged from 27.6% (Mofidi et al., 2012) to 63% (Renberg & Jacobsson, 2003).

Although the complete factor structure of the ATTS may have limited stability, the individual dimensions have shown more psychometric soundness. The most consistent factor of the ATTS was the dimension that evaluated participants’ degree of acceptance of suicide (Arnautovska & Grad, 2010; Kodaka et al., 2012; Kodaka et al., 2013; Mofidi et al., 2008; Norheim et al., 2013; Renberg & Jacobsson, 2003; Renberg et al., 2008). Each study using the ATTS found this dimension to be the most stable. Additionally, this dimension also accounted for the most variance in participants’ responses that ranged from 11.2% (Mofidi et al., 2008) to 16.3% (Renberg & Jacobsson, 2003) of the total variance.

Previous research conducted by Kodaka et al. (2012) and Kodaka et al. (2013) showed promise in increasing the stability of results from the ATTS among samples of mental health professionals. Initial confirmatory factor analysis using the 10-factor model of Renberg and Jacobsson’s (2003) 1996 version did not fit the data collected by Kodaka et al. (2012). Exploratory factor analysis using the principal factor method with promax rotation that excluded items with factor loadings of <.35 on one factor or >.35 over two or more factors converged at six identifiable factors. This six-factor model
retained 21 items that were labeled as the Right to Suicide, Common Occurrence, Suicidal Expression as Mere Threat, Unjustified Behavior, Preventability/Readiness to Help, and Impulsiveness. Right to Suicide included six items ranging from “Suicide is an acceptable way to end incurable disease” to “People have a right to commit suicide.” Common Occurrence included five items ranging from “Most people have thought about suicide” to “Could kill myself out of loneliness.” Suicidal Expression as Mere Threat included two items, “People who talk about suicide do not actually take their lives” and “People who make suicide threats rarely complete suicide.” Unjustified Behavior included two items “Suicide is the worst thing to do to relatives” and “Suicide is never justified.” Preventability/Readiness to Help included three items ranging from “Can always help those who are suicidal” to “I am ready to help suicidal people.” Finally, Impulsiveness contained three items ranging from “Suicide attempts are impulsive” to “Suicide is carried out after long-term consideration” (Kodaka et al., 2012, p. 4). Kodaka et al. (2013) conducted a confirmatory factor analysis and found their data to be a statistically significant fit with the six-factor model of Kodaka et al. (2012).

The method used by Kodaka et al. (2012, p. 3-4) to interpret dimensional scores on the ATTS was listed as follows: lower scores on Right to Suicide indicated a stronger agreement with right to suicide, lower scores on Common Occurrence indicated a stronger view of suicide as common and normal, lower scores on Suicide Expression as Mere Threat indicated a firmer belief that people who talk about suicide do not actually take their lives, lower scores on Unjustified Behavior indicated a stronger belief that suicide is a bad and unjustified behavior, lower scores on Preventability/Readiness to
Help indicated a more positive attitude towards suicide prevention and readiness to help individuals at risk of suicide, and lower scores on Impulsiveness indicated a stronger tendency to regard suicide as an impulsive act which raised additional concern regarding the ability of only two items to provide a valid measure of this dimension of suicide attitudes.

Renberg et al. (2008) conducted a study that explored the relationship between suicide attitudes and suicidal behaviors among the general population of Sweden, Norway, and Russia in order to build robust prediction models for suicide attitudes using structural equation modeling. The ATTS items used in Renberg and Jacobsson (2003) were evaluated by an expert panel to consider the theoretical alignment of previous factor structures. This process concluded with a six-factor model (Acceptance of Suicide, Condemnation, Preventability, Preparedness to Help, Unpredictability, and Relationship-Caused) that included 24 of the original 40 attitude items (Renberg et al., 2008). The population data from Sweden was subjected to a confirmatory factor analysis limited to these six factors and yielded a model that accounted for 61% of the total variance and included 20 of the 24 items; however, after evaluating the reliability evidence, these authors decided to retain only 13 items in the three most stable factors.

Although there are notable concerns regarding the stability of the ATTS, the confirmation of at least two factor structures (Kodaka et al., 2013; Renberg & Jacobsson, 2008) provided justification for the continued exploration of a consistent factor structure for suicide attitudes. Additionally, the endorsement of the ATTS by Kodaka et al. (2010) and the recent use of the ATTS to evaluate suicide attitudes among mental health
professionals (Kodaka et al., 2012; Norheim et al., 2013) made the ATTS a suitable instrument for the present study. Even though the decision to use the ATTS was strong, the definition of the dimensions of suicide attitudes for this study was unclear; however, the decision was made to select a pre-existing factor structure to define suicide attitudes in this study, which was based upon a complete analysis of the psychometric properties of each factor structure.

Reliability. Despite concern regarding the stability of the ATTS, at least three factor structures showed adequate reliability (Kodaka et al., 2012; Kodaka et al., 2013; Renberg & Jacobsson, 2003; Renberg et al., 2008). When comparing the 1986 and 1996 data from Renberg and Jacobsson (2003), Cronbach’s α for the 1986 data ranged from .34 (Right to Prevent) to .66 (Permissiveness) compared to the 1996 data that yielded a range from .38 (Preparedness to Prevent) to .86 (Suicide as a Right; Renberg & Jacobsson, 2003). Alpha scores for the entire instrument in the 1986 data was .51 compared to .60 for the 1996 data. Subsequent studies found overall internal consistency of the ATTS to range from .65 (Mofidi et al., 2008) to .66 (Arnautovska & Grad, 2010). Although the internal consistency for the entire ATTS has increased with its evolution, the internal consistency of individual factors has been questionable.

Previous research has identified the lowest ranked factors in regards to internal consistency across studies as follow: Impulsiveness (Kodaka et al., 2012; Kodaka et al., 2013), Suicidal Process in the 1986 data (Renberg & Jacobsson, 2003), Resignation in the 1996 data (Renberg & Jacobsson, 2003), Loneliness (Arnautovska & Grad, 2010), Suicide-Related Communication Problems (Mofidi et al., 2008), Suicide Should Not be
Talked About (Norheim et al., 2013), and Relation-Caused (Renberg et al., 2008). Despite some relatively small reliability evidence for some dimensions, the dimension in each study that was related to the acceptability of suicide was consistently the most stable factor of the ATTS with Cronbach’s alpha ranging from .66 to .86 (Arnautovska & Grad, 2010; Kodaka et al., 2012; Kodaka et al., 2013; Mofidi et al., 2008; Norheim et al., 2013; Renberg & Jacobsson, 2003; Renberg et al., 2008).

Validity. The ATTS was strongly influenced by previous research in the field of suicide attitudes (Diekstra & Kerhof, 1989; Domino et al., 1982; Paykel, Myers, Lindenthal, & Tanner, 1974) along with two previous instruments created to measure suicide attitudes: the SOQ (Domino et al., 1982) and SUIATT (Diekstra & Kerhof, 1989). This along with the initial pilot studies and subsequent item revision indicated strong face validity. When translations were used, additional reviews by professionals, laypersons, and more pilot studies were conducted with minor accommodations made to account for cultural and language differences (Kodaka et al., 2012; Kodaka et al., 2013; Mofidi et al., 2008; Renberg et al., 2008).

Consistently strong response rates in the administration of the ATTS enhanced its generalizability. Although Kodaka et al. (2012) only received a 28% response rate, the remainder of the samples included average response rates of 72% (Kodaka et al., 2013; Norheim et al., 2013; Renberg & Jacobsson, 2003; Renberg et al., 2008). Criterion-related validity was also suggested given the correlation found between suicide attitudes and suicidal behavior (D’Attilio & Campbell, 1990; Renberg & Jacobsson, 2003). Finally, strong construct validity was suggested given the factor structure fit between the
1986 and 1996 data, which both accounted for 63% of the total variance (Renberg & Jacobsson, 2003), and the six-factor models of Kodaka et al. (2012) and Kodaka et al. (2013).

In sum, the ATTS (Renberg & Jacobsson, 2003) showed strong potential for use in the measurement of suicide attitudes among counseling students. The recent support for the consistency of at least one factor structure, endorsement by Kodaka et al. (2010), and diversity use internationally with various populations including mental health professionals, strengthened the decision to use the ATTS in the present study. Although no existing factor structure was found using the ATTS among counseling professionals or counseling students, the three-factor model of Renberg et al. (2008) was selected to measure suicide attitudes in this study given its relatively increased reliability, use in structural equation modeling, and practicality.

**Personal variables related to suicide attitudes.** The advent of multidimensional instruments used to measure suicide attitudes provided researchers with the ability to explore variables related to the manifestation of specific dimensions of suicide attitudes. Similar to the literature related to death attitudes, numerous studies exist that explored the relationship between personal variables and suicide attitudes. As mentioned earlier in this chapter, it is generally less possible to provide interventions focused on changing personal variables, yet the identification of personal variables related to suicide attitudes in counseling students can help prevent future problems that could arise from the counseling students’ exposure to death-related client material including suicide.
Therefore, this section reviews literature regarding the relationship between suicide attitudes and age, gender, familial status, religion, and experience with suicide.

**Age.** Given cultural and developmental changes throughout the lifespan of counseling students, the exploration and influence of age on suicide attitudes was an important consideration during the development of this study. Previous research has found that older participants in the general population of Iran, Sweden, and Russia reported significantly more negative views towards suicide than younger participants, while younger participants tended to be more permissive of suicide (Jukkala & Mäkinen, 2011; Modifi, Ghazinour, Salander-Renberg, & Richter, 2009; Renberg & Jacobsson, 2003). Although interesting, these findings are from the general population and are not directly related to the purpose of the present study. Consequently, the remainder of this section extends the discussion of the effect of age on suicide attitudes among various helping professionals.

Hospital staff, specifically those working in emergency rooms, have rich experiences with people who are suicidal and have received much attention in the international body of literature. When considering general hospital staff in Finland, Suominen, Suokas, and Lönnqvist (2007) found no statistically significant age differences in regards to suicide attitudes as measured by the Understanding Suicidal Patients (USP) questionnaire (Samuelsson, Asberg, & Gustavsson, 1997). In contrast, this study also found that older staff of emergency rooms reported significantly more positive attitudes toward suicide. These contradictory findings introduced the idea that experiences within different work settings could play a larger role in suicide attitudes.
than personal variables. Additionally, it appeared that positive in this study was used to describe a favorable evaluation of people who experience suicidal behaviors, but there was no empirical evaluation of the true nature of these attitudes on therapeutic outcomes.

To continue the discussion of age differences among emergency room staff in Finland, Suokas et al. (2008) found a statistically non-significant trend moving in the direction of older participants having more negative views of patients who attempted suicide as measured by an amended version of the USP. Botega et al. (2005) found similar results that indicated emergency room staff in Brazil believed more strongly against an individual’s right to die by suicide as measured by the Suicide Behavior Attitude Questionnaire (SBAQ). While hospital staff is considered to be helping professionals, one might question whether these results generalize to counseling students. Although no studies were found investigating the relationship between age and suicide attitudes among counseling students, a few studies were found that investigated this relationship among psychologists, social workers, and professional counselors.

Previous qualitative research among psychologists in Ghana revealed that younger participants in this study tended to have more negative views of suicide than their older counterparts (Osafo, Knizek, Akotia, & Hjelmeland, 2012). Although these findings provided commentary regarding the views of some psychologists, the study’s exploratory nature and small sample size rendered any confirmation futile. To complicate matters, Gagnon and Hasking (2012) found age to be unrelated to attitudes toward suicide in their analysis of Australian psychologists; however, those younger with less experience were more confident in their ability to assess and refer persons with
suicidal behaviors. Similarly, age was found to be unrelated to psychotherapists’ views regarding rational suicide (Rogers et al., 2001; Werth & Liddle, 1994). Finally, Kodaka et al. (2012) and Kodaka et al. (2013) found no statistically significant age differences among Japanese social workers or Japanese psychiatric pharmacist trainees in regards to their suicide attitudes as measured by the ATTS (Renberg & Jacobsson, 2003). Similarly, no statistically significant age differences were found among the ATTS scores of various mental health professionals at eight outpatient clinics in Sweden (Norheim et al., 2013).

One final study, a dissertation conducted by Lussier (2004), investigated the relationships between age and suicide attitudes among professional counselors. Interviews with professional counselors from various fields (e.g., vocational, marriage and family) led to conclusions that the degree of responsibility that participants had for their clients’ outcomes and their condemnation of suicide decreased with age (Lussier, 2004). This author also noted that age was related to years of professional experience, and it was not clear which variable was more influential in the variance of suicide attitudes. It is possible that as professional counselors age, they also gain more professional experience; thus, the change in attitudes could be a result of the aging process or the result of professional experiences throughout their career.

Based upon these findings, it was clear that much still needs to be understood about the relationship between age and suicide attitudes. While older members of the general population tended to have more negative views of suicide, the results among hospital staff were mixed and the findings related to mental health professionals (e.g.,
psychologists, mental health counselors, and social workers) suggested little to no relationship between age and suicide attitudes. The two studies (Lussier, 2004; Rogers et al., 2001) that focused on professional counselors had contradictory results, but were closely aligned with the sample of the present study. In order to make some sense of these findings, more weight was given to Kodaka et al. (2012), Kodaka et al. (2013), and Norheim et al. (2013) because of their use of the ATTS to measure suicide attitudes. In sum, very cautious interpretations were made that supported the claim that older people in the general population might have more negative views of suicide than younger persons, but when considering mental health professionals who could have more contact with people who are suicidal, there may be no relationship between age and suicide attitudes. Given these conclusions, age was included as a control variable in the present study.

**Gender.** Gender is another personal variable that has received considerable attention in regards to its relationship to suicide attitudes. In the general population of Sweden, no statistically significant gender differences were found in regards to a belief in an individual’s right to die, but women were generally more accepting of suicide (Renberg & Jacobsson, 2003). This study also found that men reported believing more in various dimensions of suicide attitudes as measured by the ATTS that included noncommunication, tabooing, normal-common, and resignation (Renberg & Jacobsson, 2003). Similarly, Russian males reported more acceptance of suicide than females (Jukkala & Mäkinen, 2011). Furthermore, Modifi et al. (2009) investigated the
relationship between gender and suicide attitudes among the Kurdish general population and found men reported more belief in the preventability of suicide.

Unfortunately, only a few studies identified for this review investigated the relationship between gender and suicide attitudes among mental health students and/or professionals. Women enrolled in an undergraduate psychology course tended to report significantly less agreement and acceptance with suicide than men (Dahlen & Canetto, 2002). Similarly, women enrolled in a medical education program in South Korea also reported significantly less acceptance of suicide and less knowledge of the full range of suicidal behaviors than men (Yousuf, Beh, & Wong, 2013). When focused specifically on rational suicide, no gender differences were found among members of the American Mental Health Counselors Association (AMHCA; Rogers et al., 2001) or the American Psychological Association (APA; Werth & Liddle, 1994). In regards to Japanese social workers and psychiatric pharmacist trainees, no statistically significant gender differences were noted among suicide attitudes as measured by the ATTS (Kodaka et al., 2012; Kodaka et al., 2013). Additionally, no gender differences were found among the ATTS scores of various mental health professionals at eight outpatient clinics in Sweden (Norheim et al., 2013). Finally, no statistically significant relationship was found between suicide attitudes and gender among a sample of clinical/counseling psychologists (Neimeyer et al., 2001) or a sample of legislators, psychologists, and nurses (Westefeld et al., 2004).

The geographic diversity and inconsistent findings made the impact of gender on suicide attitudes unclear. One interesting note to take away from this section is that five
of these studies used the ATTS (Kodaka et al., 2012; Kodaka et al., 2013; Modifi et al., 2009; Norheim et al., 2013; Renberg & Jacobsson, 2003), making comparisons across studies and to the results of the present study more useful. Additionally, differences among participants’ scores on individual dimensions of suicide attitudes but not others highlighted the benefits of using multidimensional models in the conceptualization of suicide attitudes. Furthermore, it was possible that gender differences in attitudes towards suicide were less apparent among mental health professionals given their increased exposure to suicide when compared to the general population. For instance, the increased exposure to suicide among mental health professionals could have mitigated the differences in suicide attitudes that were observed in the general population. Nonetheless, gender is still an important consideration in the development of counselors given that counseling is traditionally a field with considerably more women than men (Bureau of Labor Statistics, 2012-2013). Given the potential for shared variance between gender and other variables included in this study, it was important to control for the effects of gender throughout while also using gender data to evaluate the representativeness of the sample of this study.

**Familial Status.** The value of social connection through family ties, including marriage, is often seen as a protective factor against suicide (Ayalong, Mackin, Arean, Chen, & McDonel Herr, 2007); therefore, it was important to investigate the relationship between family status and attitudes toward suicide in the literature. Participants in Iran who reported they were married also reported more belief in the preventability of suicide (Modifi et al., 2009). In Sweden, people living together reported more permissive
attitudes toward suicide (Renberg & Jacobsson, 2003). Furthermore, participants with children were suggested to be more accepting of suicide (Jukkala & Mäkinen, 2011). Additionally, Diekstra and Kerkhof (1989) found statistically significant differences in suicide attitudes depending upon the social distance between the participant and persons in their life experiencing suicidal behaviors.

These findings provided initial commentary on the potential for familial status to influence suicide attitudes. Because counseling students often enter counselor preparation programs at various stages of individual and familial developmental, it was important to understand how familial status might be related to their suicide attitudes. Although familial status was not directly measured by this study, the participants’ relationships to people experiencing suicidal behaviors in their life was included as a control variable of suicide attitudes in this study.

**Religion.** Much like death attitudes, religious beliefs and practices were important variables with potential effects on suicide attitudes. Although one study of psychologists in the United States and another study of medical education students in South Korea found no statistically significant differences in suicide attitudes across various religious groups, participants with no religious affiliation have consistently shown significantly more positive attitudes towards suicide than those with religious affiliations (Botega et al., 2005; Jukkala & Mäkinen, 2011; Kopp, 2008-2009; Norheim et al., 2013; Rogers et al., 2001; Sun et al., 2007; Westefeld et al., 2004; Yousuf et al., 2013). Additionally, moralistic views of suicide were found to be significantly related to nurses’ religious beliefs (Osafo et al., 2012).
When looking at outpatient mental health workers, participants who reported no religion had significantly more belief in the acceptability of suicide than participants who reported religious beliefs associated with Christianity (Norheim et al., 2013). Similarly, mental health counselors who reported no beliefs associated with Christianity also tended to report more acceptance of the rational suicide of themselves, friends, and clients (Rogers et al., 2001). Conversely, at least one study found the belief in God to be positively related to the acceptance of suicide, but only in the case of an incurable disease (Zhang & Cun-Xian, 2009-2010), and legislators, nurses, and psychologists in the United States with religious beliefs tended to report less acceptance of suicide, but some didn’t consider physician-assisted suicide to be suicide (Westefeld et al., 2004).

Regardless of the true nature of the relationship between religion and suicide attitudes, it remained an important variable to consider in the development of this study. The inconsistent relationships and the variance across dimensions of suicide attitudes provided justification for religious beliefs to be considered as a control variable in this study. Additionally, it is unclear whether religious practices or beliefs are more influential on suicide attitudes, but the consistent findings related to religious beliefs associated with Christianity as the least accepting of suicide indicated the potential for attitudinal differences among subgroups of religious beliefs in this study. Furthermore, the recent controversy in the field of counselor education regarding the ability for counseling students to refuse services to individuals based upon value conflicts based on religious beliefs (Cox, 2013; Hutchens, Block, & Young, 2013) increased the need to
consider the influence of religious beliefs on suicide attitudes in this study given the complex ethical dilemmas that can emerge for students and educators.

**Psychological distress.** The relief of psychological distress is often viewed by many psychologists as one of the underlying motivations for suicide (Gagnon & Hasking, 2012), making the impact of psychological distress on attitudes toward suicide an important consideration. Early research with the general population of the United States reported significantly more psychiatric symptoms among a subgroup of participants who reported some form of suicidal behaviors in their lives (Paykel et al., 1974). Additionally, family members who reported more depressive symptoms following a family members’ suicide also tended to report more permissive attitudes toward suicide, but only in the case of terminal illness (Zhang & Cun-Xian, 2009-2010). Exploratory investigation of emergency room doctors suggested that various forms of psychological distress were related to suicide attitudes (Sethi & Uppal, 2006). It has also been noted that treating patients who experience suicidal behavior can activate personal apprehension that was previously suppressed, which can lead to additional stress and impairments to the delivery of professional services (Hadfield, Brown, Pembroke, & Hayward, 2009).

In regards to counseling professionals, the death of a client was noted to be one of the most anxiety producing scenarios with many personal and professional consequences, especially if occurring while a student; however, it is unclear how this distress interacts with suicide attitudes (Foster & McAdams, 1999; McAdams & Foster, 2000). Additional studies have found that medical staff with more psychological distress were more likely
to view people with suicidal behaviors as exasperating (Sun et al., 2007) and more likely to let this view impact their interactions with people who were suicidal (Suokas & Lönnqvist, 1989b). Despite these initial findings, at least one study found no statistically significant correlation between psychological distress of helping professionals and their suicide attitudes (Suokas et al., 2008).

Although one contradiction was noted, the majority of results indicated some potential for psychological distress to produce more negative attitudes toward suicide, but the relationship between the cause of distress and suicide attitudes was not explored by the literature reviewed in this study. In addition to cautious interpretations, it is again important to note that most of these studies took place outside of the United States and focused on medical professionals working in the hospital setting. Although not directly related to counseling students, this information was useful to compare to results from this study and justified the need for additional inquiry into how psychological distress might impact suicide attitudes of counseling students. Given the theoretical assumption that death attitudes can cause various forms of psychopathology (Yalom, 1980) including suicide, psychopathology itself was not included in this study; however, exposure to suicidal behaviors of self was included as a control variable in the prediction of suicide attitudes among counseling students and could account for some of the variance potentially caused by psychopathology.

**Personal exposure to suicide.** Potentially the most important variable to consider in regards to suicide attitudes is personal experiences with suicidal behaviors. Early research suggested that approximately 11.5% of the United States population reported
some form of suicidal behaviors throughout their lifetime, and the prevalence of these suicidal behaviors decreased as the behaviors become more severe (Paykel et al., 1974). When compared to the general population of Sweden, mental health professionals have also reported significantly more suicidal thoughts and attempts than comparison groups among the general population of Sweden (Ramberg & Wasserman, 2000). This study included a robust sample of 1,010 mental health workers from Sweden and found that 43% of mental health care staff reported previous suicidal thoughts and 5% reported previous suicide attempts. Despite this finding, it is possible that mental health care workers were more aware and willing to report suicidal behaviors than the general population, which could have accounted for some of the group differences. Additionally, this sample didn’t include professional counselors, which limited the generalizability of findings. When compared to rehabilitation and mental health counselors, 20% to 37% reported previous considerations of suicide (Bascue et al., 1978; Rogers et al., 2001). Despite the prevalence of suicidal behaviors, at least two studies found that personal suicidal behaviors were unrelated to attitudes toward rational suicide (Rogers et al., 2001; Werth & Liddle, 1994). Additionally, no research was found for this study that addressed the relationship between personal suicidal behavior and suicide attitudes among counseling students.

Arnautovska and Grad (2010) used the ATTS to assess the relationships between suicidal behaviors of Slovenian adolescents and found that those reporting any experience with suicidal behaviors were significantly more likely to agree with the permissiveness of suicide. Also using the ATTS, women in Sweden with a history of
suicidal behaviors were significantly more likely to believe that suicide is a personal right, be understanding of persons experiencing suicidal behaviors, consider suicide as normal and common, and believe that suicide is the result of interpersonal conflicts and the desire for revenge or punishment (Renberg & Jacobsson, 2003). Additionally, Japanese psychiatric pharmacist trainees who reported more personal history of suicidal behaviors were also more likely to accept suicide and consider suicide a common and non-impulsive act, as measured by the ATTS (Kodaka et al., 2013). Conversely, a history of personal suicidal thoughts and attempts were found unrelated to suicide attitudes among a sample of medical education students in South Korea (Yousuf et al., 2013).

In addition to personal suicidal behaviors, the exposure to suicidal behaviors of friends and loved ones may also activate suicide attitudes, and the influence of this exposure may differ depending upon the social distance between the participants and the person experiencing suicidal behaviors (Diekstra & Kerhof, 1989). Similar to people with personal suicidal behaviors, persons with a significant other who had died by suicide were more likely to view suicide as normal and common, as well as believe that persons who talk about suicide are more likely to die by suicide (Kodaka et al., 2012). Those experiencing more suicide in others agreed significantly more in the belief that warning signs are present before someone dies by suicide (Hejelmand & Knizek, 2004). Those who had more experiences with suicidal behaviors in their family were more likely to disagree that suicide is a right (Botega et al., 2005; Hjelmeland & Knizek, 2004), identify that those who talk about suicide are at risk of dying, agree that asking a person about
suicide won’t elicit suicidal thoughts, and agree that there are ways to stop a person who has their mind made up about suicide (Hjelmeland & Knizek, 2004). Conversely, at least three studies found that the history of a family member’s suicidal behaviors were unrelated to suicide attitudes (Kodaka et al., 2012; Kodaka et al., 2013; Zhang & Cun-Xian, 2009-2010). The differing results among the findings related to suicide among significant others and suicide among family members provided additional support for the suggestions of Diekstra and Kerkhof (1989) that suicide attitudes change depending on the relationship between the participant and the person experiencing suicidal behaviors. If this is true, then it is possible that the closeness between counseling students and the persons experiencing suicidal behaviors in their life, including their clients, could have a significant impact on their suicide attitudes.

These findings illustrated that personal exposure to suicide significantly affected certain dimensions of suicide attitudes, while having no influence on others. Additionally, the relationship between the person and the person experiencing suicidal behaviors also seemed to have a statistically significant impact on suicide attitudes. While some discrepancies existed among the various dimensions of suicide attitudes, it seemed reasonable to conclude that personal experiences with suicide among friends, family members, and self could have some influence on the suicide attitudes of counseling students. Interestingly, results from the ATTS item that asks participants to assess their potential for suicide were not found in any research that used the ATTS. As a result, this study included personal exposure to suicidal behaviors of others, exposure to suicidal behaviors of self, and added suicide potential as covariates in this study.
Conclusion. The discussion of any conclusions to be gleaned from the review of personal variables related to suicide was limited due to the clear lack of investigation of suicide attitudes in the United States and among counseling students. More specifically, there was little research regarding suicide attitudes among mental health professionals besides that which focused on rational suicide (Norheim et al., 2013; Rogers et al., 2001; Werth, 1992; Werth and Liddle, 1994). Nonetheless, extremely cautious interpretations regarding the relationship between personal variables and suicide attitudes included that age may have no significant relationship to suicide attitudes, the role of gender in determining suicide attitudes was inconclusive, there was too little investigation into the relationship between familial status and suicide attitudes, more religious beliefs may be linked to more negative views of suicide, more psychological distress could be related to more harsh and negative views of suicide, and personal experience with suicide has some influence on suicide attitudes, but there was significant variance among individual dimensions of suicide attitudes. When evaluated alongside the influence of personal variables related to death attitudes, these findings solidified the use of the following personal variables as covariates in the present study: (1) age, (2) gender, (3) religious affiliation, (4) personal potential for suicide, (5) personal exposure to suicidal behaviors of others, and (6) exposure to suicidal behaviors of self.

Professional variables related to suicide attitudes. Similar to death attitudes, previous research has identified a number of professional variables related to suicide attitudes. Much like death attitudes, the exploration of professional factors related to suicide attitudes among counseling students can help identify students who might have
difficulty working with death-related client scenarios including suicide while enhancing the educational experiences of counseling students. Therefore, the following section reviews the literature that focused on the relationship between suicide attitudes and several professional variables including professional role and work setting, years of professional experience, professional experiences with suicide, and education.

**Professional role and work setting.** Exposure to suicide varies across professional roles and work settings. It is likely that some professions, roles, and work settings are more likely to encounter suicidal behaviors than others, and professional counselors may be considered a profession with regular exposure to suicide-related client scenarios, even during their training program (Foster & McAdams, 1996; McAdams & Foster, 2000). Therefore, there was a need to understand the relationship between these roles and work settings on suicide attitudes. While a few studies found no statistically significant differences among professional roles (Rogers et al., 2001; Suokas & Lönnqvist, 1989b; Suominen et al., 2007; Werth & Liddle, 1994), the preponderance of literature supported the assumption that suicide attitudes varied according to professional role and work setting (Botega et al., 2005; Gagnon & Hasking, 2012; Hadfield et al., 2009; Knizek, Akotia, & Hjelmeland, 2012; Osafo et al., 2012; Srivastava & Tiwari, 2012; Suokas & Lönnqvist, 1989a; Suokas & Lönnqvist, 1989b; Suokas et al., 2008; Suominen, & Lönnqvist, 2008).

Emergency room staff consistently reported significantly more harsh and negative attitudes towards persons who attempted suicide (Suokas & Lönnqvist, 1989a; Suokas & Lönnqvist, 1989b; Suokas et al., 2008). Interestingly, emergency room staff at
hospitals with psychiatric services reported significantly more negative views of suicide than emergency room staff at hospitals without psychiatric services (Suominen et al., 2007). Additionally, there were no statistically significant differences reported among professional roles in the emergency rooms sampled by Suominen et al. (2007). When comparing staff at a general hospital with staff at a psychiatric hospital, Suokas and Lönnqvist (1989a) suggested that staff from the general hospital had significantly more negative views toward suicide than those from the psychiatric hospital. These seemingly contradictory findings underscored the complexities of suicide attitudes across work settings. However, it is possible that additional variables related to the work environment could have potentially accounted for this variation. This is important considering the recent focus on issues such as burnout and compassion fatigue among professional counselors.

Another interesting finding regarding the impact of professional roles on suicide attitudes comes from an exploratory study of emergency room physicians conducted by Hadfield et al. (2009). These physicians reported giving little attention to patients’ emotional needs because of their belief that it was not their primary role. Similarly, Srivastava and Tiwari (2012) found that strict adherence to the medical model of treatment resulted in more negative attitudes toward suicide. This brought to light an important consideration in the training of counseling students. Although a medical model may be used in diagnostic procedures, counseling students could view the treatment of emotional needs as their primary role. Therefore, these factors may be helpful in determining the attitudes of counseling students toward people who are suicidal.
In a sample of nursing professionals, nursing assistants believed more strongly against the person’s right to die by suicide and more strongly in their ability to intervene during a suicidal crisis (Botega et al., 2005). These convergent findings suggested that because nursing assistants believed more strongly against the patient’s right to choose rational suicide, they were consequently more motivated to engage in life-preserving methods and believed in their ability to do so. This finding provided additional support for the variability in suicide attitudes among various professional roles. To further illustrate this point, nursing staff who spent more time with mental health professionals (e.g., psychologists and psychiatrists) reported significantly less moralistic views of suicide related to religious convictions than nursing staff that spent less time with mental health professionals (Osafo et al., 2012). These findings suggested that exposure to the treatment perspectives of mental health professionals could be related to more positive attitudes toward suicide.

Extending the conversation regarding professional role and suicide attitudes, specifically of mental health professionals, psychologists were suggested to be generally less judgmental toward people with suicidal behaviors than other medical professionals including nurses (Gagnon & Hasking, 2012; Osafo et al., 2012). Similarly, Srivastava and Tiwari (2012) compared the attitudes toward suicide between two groups of helping professionals: mental health workers (e.g., psychologists, psychiatrists, social workers, and psychiatric nurses) and non-mental health workers (e.g., general medicine, surgery, neurology, anesthesia, neurosurgery, and orthopedics). This study found that mental health workers reported significantly more positive views toward suicide than non-mental
health workers. Additionally, Norheim et al. (2013) found attitudes among employees
(e.g., psychologists, social workers, physicians, and nurses) at eight different outpatient
mental health clinics showed generally more positive attitudes toward suicide than
control group members. Specifically, psychologists and social workers viewed suicide as
significantly more acceptable than physicians. Finally, generalists had significantly more
accepting attitudes toward suicide than specialists. In contrast, work setting seemed to
have no influence on the views of rational suicide among members of AMHCA or APA
(Rogers et al., 2001; Werth & Liddle, 1994). Although this could be interpreted as
evidence against the impact of work setting, it is likely that because the majority of these
participants believed in rational suicide differences across work settings were less
apparent than in studies of other helping professionals with more condemnatory views of
suicide.

To summarize, there certainly appeared to be some interaction between
professional roles and work setting with suicide attitudes; however, it was unclear
whether these differences were unique to the culture of the work settings used in these
studies or generalizable to all hospitals, emergency rooms, and mental health facilities.
Although the majority of these findings originated outside of the United States, those
regarding mental health professionals’ suicide attitudes were very informative. The
suggestions that mental health professionals generally had more positive and accepting
views of suicide than other medical professionals and the positive influence this had on
suicide attitudes of nursing professionals seemed to justify the further exploration of this
relationship among counseling students in the United States; however, because of the
homogeneity in work settings and role among a sample of counseling students, it was unlikely that any significant differences would be observed and it was decided to omit this from the current study.

Years of professional experience. Although one might assume that years of professional experience would impact suicide attitudes, the literature suggested no statistically significant relationship between years of professional experience and suicide attitudes among various professions including hospital staff (Suokas et al., 2008; Suominen et al., 2007), psychiatrists and nurses (Crawford, Geraghty, Street, & Simonoff, 2003), psychiatric pharmacist trainees (Kodaka et al., 2013), social workers (Kodaka et al., 2012), and psychologists (Gagnon & Hasking, 2012). In contrast, Werth and Liddle (1994) found that psychologists with more than 30 years of experience reported significantly more acceptance of rational suicide than two other subgroups of psychologists with less professional experience. Similarly, Lussier (2004) concluded from a qualitative inquiry of professional counselors that those with more professional experience reported reduced belief in their responsibility for client outcomes and the condemnation of suicide. Further discrepancies were noted by Neimeyer et al. (2001) who suggested that clinical/counseling psychologists with more years of experience displayed less belief in suicide as a personal right. These findings were interesting given the suggestions that those with more professional experience reported less apprehensive death attitudes. Given these discrepancies, the lack of focus in the United States, and the absence of literature focusing on counseling students, there was a strong need to explore the relationship between years of professional experience prior to entering the counselor
preparation program and suicide attitudes for the present study; therefore, this was included as a control variable in the present study.

**Professional experience with suicide.** Professional experience in any profession or with any professional behavior can lead to a sense of confidence and effectiveness; however, when this professional experience includes client suicide, considerable consequences may follow, especially if the suicide takes place while still a student (McAdams & Foster, 2000). Ample literature has investigated the relationship between suicide attitudes and professional experience with suicide. Trends have been observed in medical settings that those with more experience with suicidal patients had more negative attitudes towards suicide (Sun et al., 2007; Suokas et al., 2008; Suokas & Lönnqvist, 1989b). More professional experience with suicide was also significantly related to more belief in the ability to successfully intervene (Botega et al., 2005; Gagnon & Hasking, 2002) as well as a general right to suicide (Botega et al., 2005). Finally, social workers in Japan who worked with persons experiencing suicidal behaviors were more likely to view suicide as common and justified (Kodaka et al., 2012). Conversely, professional experience with clients who were suicidal was unrelated to the suicide attitudes of clinical/counseling psychologists (Neimeyer et al., 2001), hospital staff (Suominen et al., 2007), and psychiatric pharmacist trainees (Kodaka et al., 2013).

Despite some evidence to the contrary, previous literature supported the notion that professional experience with suicide has an effect on various dimensions of suicide attitudes ranging from its acceptability to the ability to successfully intervene. These findings are important given that anywhere from 24% to 38% of professional counselors
reported experience with a client suicide and 72% reported a suicide attempt by a client while under their care (Hunt & Rosenthal, 2000; McAdams & Foster, 2000; Rogers et al., 2001). Although consequences of these suicides have been explored, no analyses regarding their cause or the relationship between these suicides and subsequent attitudes among professional counselors or counseling students were identified by this review. Yet, because of the potential that counseling students will be exposed to death and suicide and previous suggestions that this exposure can activate underlying attitudes that guide treatment decisions (Yalom, 1980), it seemed imperative to include professional exposure to suicidal behaviors and exposure to suicidal behaviors as a student as covariates in the present study.

**Education.** Similar to years of professional experience, additional education could also impact suicide attitudes. In fact, both the general population in Moscow (Jukkala & Mäkinen, 2011) and nurses in Taiwan (Sun et al., 2007) with more education reported significantly more acceptance of suicide and had generally more positive attitudes towards suicide. Similarly, those with more education in the general population of Sweden were found to report less condemning attitudes towards suicide (Renberg et al., 2008). One additional study reported that the general population in Sweden with more education was significantly more likely to talk about suicide (Renberg & Jacobsson, 2003). In contrast, a sample of Kurdish people with less education reported significantly more acceptance of suicide and significantly more difficulty when talking about suicide (Mofidi et al., 2009). On the contrary, a sample of 300 adults in the United States resulted in no statistically significant relationships between education and suicide
attitudes. Finally, among psychologists, neither degree nor training program was related to psychologists’ belief in rational suicide (Werth & Liddle, 1994).

These findings promoted a cautious interpretation that people with more education could report more positive and accepting attitudes toward suicide. Consequently, it could be assumed that as counseling students move throughout the program, their attitudes toward suicide could change. This is consistent with previous research that suggested the sharpest gains in counselor development take place later in the counseling program during practicum and internship coursework (Fong & Borders, 1997; Granello, 2002). This increased cognitive complexity could prepare counseling students to navigate the complex ethical dilemmas presented when counseling people with suicidal behaviors. Given these considerations, educational standing was included as a control variable in this study. Because of the developmental changes that have been shown to begin during practicum, educational standing was assessed in relation to participants’ enrollment in practicum.

**Conclusion.** Similar to the review of personal factors, there is much to be gained and much still to be understood about the relationship between professional factors and suicide attitudes. It is clear that suicide attitudes are very complex, and the exploration of specific dimensions of suicide attitudes can provide more depth in the understanding of the relationship between suicide attitudes and professional variables than unidimensional approaches. As mentioned throughout, these findings are riddled with issues that call their generalizability to counseling students in the United States into question but provide an opportunity to establish a unique body of knowledge for the counseling profession.
Nonetheless, a few cautious interpretations were made that suggest mental health workers might have more positive and accepting attitudes towards suicide. There is also limited support for the relationship between suicide attitudes and years of professional experience. Additionally, the influence of professional experience with suicide varied across dimensions of suicide attitudes. Finally, more education may be related to more acceptance, positive attitudes, and comfort talking about suicide. When evaluated alongside the influence of professional variables related to death attitudes, these findings solidified the use of the following variables in the present study: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training.

The Impact of Attitudes on Professional Behavior

Early theoretical assumptions posited that the exposure to death could activate underlying attitudes that guide the treatment decisions of psychotherapists (Yalom, 1980). Additionally, the current Codes of Ethics published by the American Mental Health Counselors Association (AMHCA), the American Counseling Association (ACA), and the Commission on Rehabilitation Counselor Certification (CRCC) identify the potential for personal values, attitudes, beliefs and behaviors to alter the course of counseling and potentially cause harm to clients and students (ACA, 2005, A.4.b; AMHCA, 2010, A.4.d; CRCC, 2010, D.5.e). For example, if a counseling student believes strongly in the acceptability of suicide, then treatment could be guided towards rational or permitted suicide despite the beliefs of the client. In contrast, counseling
students may hold very rigid beliefs against suicide, which could affect the way in which the student interacts with a client experiencing suicidal behaviors including inappropriate hospitalization and the breach of confidentiality; in fact, supervisors and faculty may even operate under the misperception that an automatic breach of confidentiality is an ethical must (Boss, Chibbaro, & Bingeman, 2006).

While theoretically and logically connected, it was important to understand the relationship between death attitudes and suicide attitudes with the delivery of professional behaviors in order to justify the need for a model that identifies and predicts common suicide attitudes among counseling students. Therefore, the following sections review previous findings that suggested statistically significant relationships between death attitudes and suicide attitudes on the professional behaviors of oncologists (Cochrane et al., 1990-1991), physicians (Schulz & Aderman, 1978-1979), medical school residents (Kvale et al., 1999), undergraduate students (Brown & Range, 2005; Neimeyer et al., 2001), suicide intervention workers (Neimeyer & Neimeyer, 1984), clinical/counseling psychologists (Neimeyer et al., 2001), experienced death counselors (Terry et al., 1995), and counseling students (Boes et al., 2006; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998).

**Death attitudes.** To begin, death attitudes have commonly been associated with the professional behaviors of helping professionals in medical settings. Cochrane et al. (1990-1991) investigated the relationship between apprehensive death attitudes, as measured by the DAS, and professional behaviors among oncologists. These authors suggested statistically significant differences between oncologists depending upon their
reported apprehensive death attitudes. First, oncologists with less apprehensive death attitudes reported to be able to relate significantly better to patients who were dying. Conversely, oncologists who reported more apprehensive death attitudes noted increased difficulty when disclosing a terminal diagnosis to a patient, interacting with a terminal patient’s family, and even choosing appropriate treatment methods (Cochrane et al., 1990-1991). In a related study, Schulz and Aderman (1978-1979) identified that patients of doctors with more apprehensive death attitudes had significantly longer lengths of stay. Although interesting, it was unclear as to whether a longer length of stay was the appropriate clinical decision. Nonetheless, this suggested that those with more apprehensive death attitudes tended to engage in more life-preserving treatments than those with less apprehensive death attitudes. Another study of 135 health care professionals (e.g., nurses, physicians, and social workers) identified that those with more fear of death, avoidance of death, and approach acceptance of death as measured by the DAP-R were significantly less likely to collaborate in the communication of advanced directives, but those with more approach acceptance of death were more likely to initiate the communication of advanced directives (Black, 2007). Finally, medical school residents reported more stress and were less likely to disclose personal uncertainty about death if they reported apprehensive attitudes about death (Kvale et al., 1999).

Although not directly related to counseling students, these findings offered cautious interpretations that guided the development of this study. Specifically, it is possible that more apprehensive death attitudes could be linked to difficulty relating to those who are dying, difficulty telling a person that they will die, difficulty interacting
with families of people who are dying, difficulty determining appropriate treatment
strategies, difficulty determine level of care determinations, and increased reluctance to
discuss potential personal limitations. Given the potential for counseling students to
interact with clients who are dying, these findings were somewhat concerning. If these
results are generalizable to counseling students, then the impact of death attitudes on
counseling practice is a very important area of research. Specifically, professional
counseling Codes of Ethics establish the importance for counseling students to develop
self-awareness that promotes student welfare (ACA, 2005, F.7.a.4; AMHCA, 2010,
I.F.1.a.; ASCA, E.1.f; CRCC, 2010, H.7.b) and prevents potential harm to clients caused
by the imposition of values (ACA, 2005, A.4.b; AMHCA, 2010, I.A.4.d; ASCA, 2010,
E.2.a; CRCC, 2010, D.5.e). Therefore, the findings related to physicians’ unwillingness
to disclose personal uncertainties with death when working with patients who are dying
was of particular concern.

Another professional behavior, empathy, is commonly considered the hallmark of
effective counseling relationships (Carkuff, 1969). Unfortunately, when death counselors
(Terry et al., 1995) and counseling students (Kirchberg et al., 1998) were asked to
respond to various counseling scenarios, some of which included suicide, their empathy
was found to be quite low regardless of the client’s presenting problem. Kirchberg et al.
(1998) suggested that counseling students created significantly more empathic responses
to videotaped client scenarios related to death regardless of death attitudes. However,
after controlling for the effects of the order of scenarios presented, the Fatalism scale of
the TI emerged as a statistically significant predictor of the variance in empathy scores
These findings suggested that as counseling students viewed death in a more fatalistic manner, their ability to create empathic responses decreased significantly. Additionally, this identified the potential for the order of presentation of scenarios to effect the manifestation of death attitudes and professional behaviors.

In addition to counseling students, the empathic responses of experienced death counselors have also been explored. Terry et al. (1995) found experienced death counselors created significantly more empathic responses to death-related client scenarios but significantly less empathic responses to non-death related client scenarios; however, empathy scores were found to be unrelated to participants’ self-reported comfort level creating responses. The interpretation of this result suggested that as counselors gain more experience with a specific client population, their ability to respond more empathically with that population could increase while empathic responses to other client populations could decrease. More empathic responses were also significantly correlated with more education (all scenarios) and “liberal” religious beliefs (death-related scenarios). This was interesting given findings that liberal religious beliefs were associated with more accepting views of suicide (Botega et al., 2005; Jukkala & Mäkinen, 2011; Norheim et al., 2013; Rogers et al., 2001; Sun et al., 2007). If connected, it could be assumed that counseling students with more liberal religious beliefs could report more accepting views of suicide and create more empathic responses; however, no previous research was found that evaluated the therapeutic outcomes of such a relationship. Furthermore, no statistically significant predictors of empathy were found when using age, gender, marital status, and income as predictor variables.
In sum, findings related to counseling students and death counselors are more generalizable to the desired sample for this present study; however, the variability in the measurement of death attitudes was still an area of concern. Furthermore, initial interpretations seemed to support the claim that empathy could be unrelated to client scenarios and discomfort; however, at least one factor related to death attitudes, fatalism, was significantly related to empathy scores. This connection between a specific dimension of death attitudes and empathy scores provided additional justification for the continued investigation of the relationship between multiple dimensions of death attitudes and professional behaviors among counseling students.

Suicide intervention skills are increasingly important to the development of effective counselors. The SIRI (Neimeyer & Diamond, 1983) and Suicide Intervention Response Inventory-Revised (SIRI-2; Neimeyer & Bonnelle, 1997) are two instruments that are commonly used in the assessment of helping professionals’ ability to effectively respond to client comments related to suicide. In a study conducted by Neimeyer and Neimeyer (1984), 109 suicide intervention workers and 109 adult education students completed the DAS and SIRI to test the hypothesis that those with more apprehensive death attitudes would demonstrate less effective counseling skills when responding to death-related content; however, the examination of the entire sample, as well as groups divided by DAS scores, showed no statistically significant relationships between apprehensive death attitudes and suicide intervention skills.

Additional studies have evaluated the relationship of personal and professional factors with suicide intervention skills. If personal and professional factors that are
significantly related to death attitudes are also found to be related to suicide intervention skills, then it is possible that the variation in suicide intervention skills could be better accounted for by personal and professional covariates as opposed to death attitudes. Neimeyer et al. (2001) conducted a study of 131 undergraduate psychology students, suicide hotline volunteers, and graduate students in clinical and counseling psychology programs. Participants completed the DAP-R (Wong, Reker, & Gesser, 1994), Suicide Behaviors Questionnaire (Cotton, Peters, & Range, 1995), Suicide Opinion Questionnaire (SOQ; Domino et al., 1982), and the SIRI. Age and gender were found to be unrelated to professional counseling skills, but training history, experience counseling suicidal clients, and death acceptance were positively correlated with professional counseling skills. However, after step-wise regression, only experience counseling suicidal clients was significantly related to more effective counseling skills. Because death acceptance was not retained, it is possible that there was a large amount of shared variance between death acceptance and experience counseling suicidal clients. Because counseling students could have less experience counseling suicidal clients, it is possible that a larger percentage of the variance in counseling skills could be related to death attitudes.

Although the impact of attitudes on professional behaviors was not the focus of this study, these findings suggested that a number of professional behaviors important to the counseling profession (e.g., relating and communicating with dying clients and families, determining appropriate treatment interventions, showing empathy, and developing suicide intervention skills) could be influenced by death attitudes. This
created the need to establish a model for suicide attitudes among counseling students that included an evaluation of the effects of death attitudes and exposure to suicide.

**Suicide attitudes.** Suicide attitudes were the primary focus of the present study and thus the relationship between suicide attitudes and professional behaviors was important to the implications of this study. Therefore, the following section reviews the literature that focused on the relationship between suicide attitudes and professional behavior.

Staff attitudes in hospital settings were suggested to be a statistically significant predictor of treatment follow-up and the prevention of future suicide attempts (Suominen, Isometsä, Henriksson, Ostamo, & Lönnqvist, 2006). A study of nursing students in Brazil found that only 36% of nurses believed they could identify suicide risk in a patient, and only 17% believed they were competent to deal with suicide risk (Botega et al., 2005). Those who believed in their effectiveness when working with people who were suicidal tended to have more positive attitudes towards people who are suicidal (Crawford et al., 2003). Psychiatric hospital staff that held more positive views towards suicide were significantly more likely to view their own attitudes as having an influence on the success of treatment of persons experiencing suicidal behaviors (Suokas & Lönnqvist, 1989a). Conversely, those with negative attitudes did not report any connection between their attitudes and patients’ prognoses. This is extremely concerning regarding the ethical imperative of counseling professionals to be aware of their personal values and their effect on professional behaviors.
Suokas and Lönnqvist (1989a) also found a statistically significant correlation between suicide attitudes and the professional behaviors of nursing staff. Their findings suggested that nursing staff with more negative attitudes towards suicide tended to be more unsympathetic and less likely to care for or engage with patients who were suicidal. These findings suggested that self-efficacy in treating suicidal behaviors could be related to positive attitudes towards suicide. In sum, more positive attitudes towards suicide was linked with increased likelihood to see staff attitudes as important to treatment outcomes, more sympathy, and more engagement with a person experiencing suicidal behaviors.

There are several potential motives for suicide including emotional relief, self-punishment, and to benefit others (Brown, Comtois, & Linehan, 2002). People may view suicidal behavior quite differently depending upon the perceived reason behind the behavior. In fact, research has shown that medical professionals showed a clear dichotomization of the motives of suicidal behavior: the uncontrollable result of mental illness or manipulation (Hadfield et al., 2009; Sethi & Uppal, 2006; Suokas & Lönnqvist, 1989a; Suokas & Lönnqvist, 1989b). If suicidal behaviors were viewed as the uncontrollable manifestation of mental illness, participants reported more likelihood and willingness to provide appropriate medical care (Hadfield et al., 2009). In contrast, if suicidal behaviors were viewed as manipulative, medical professionals identified that treatment of the suicidal patient was not their responsibility (Hadfield et al., 2009), a “burden” to the medical profession and even a waste of time (Suokas & Lönnqvist, 1989b). Decreased willingness and responsiveness to persons with suicidal behaviors (Hadfield et al., 2009), as well as increased chances of transferring the person to another
facility/provider (Suokas & Lönnqvist, 1989a), have also been cited as potential consequences of negative suicide attitudes.

It was clear that suicide attitudes could have some impact on the provision of medical services in a medical setting. Yet, the focus of this present study was on counseling students and these findings may not be totally generalizable. A few studies identified in this review focused on the impact of suicide attitudes on suicide-related professional behaviors. Neimeyer et al. (2001) found that participants who believed more in a person’s right to suicide displayed less effective responses to client scenarios dealing with suicide. Boes et al. (2006) found that 35 of 39 counseling students enrolled in practicum and internship agreed or strongly agreed that “…a counselor must break confidentiality if a client is suicidal” (p. 64-65), but even more interesting were the authors of this study’s interpretation of the other four responses as “inappropriate” (p. 67). The results of these studies were difficult to interpret given the variability in how effective suicide intervention skills were defined. With growing acceptance in treatment interventions (e.g., exploring methods of suicide) that might have been seen as negligent in the past, there is potential for bias in the interpretation of these findings. Nevertheless, these studies provided great information about the connection between suicide attitudes and specific counselor responses, but no research was found for this study that evaluated the therapeutic outcomes of counselors with certain dimensions of suicide attitudes.

Although the present study didn’t focus explicitly on professional behaviors, the significance of this study for counselor educators could inform future research to evaluate
the effectiveness of specific dimensions of suicide attitudes in the development of therapeutic skills and clinical decision making.

**Current Training Experiences**

The educational standards of accreditation bodies for counselor education programs often guide the development of curricular experiences provided to counseling students. These experiences are designed to promote the personal and professional development of counseling students that include the demonstration of various student learning outcomes that are necessary for the ethical and effective delivery of professional counseling services. Interestingly, the word *death* is absent from the educational standards and student learning outcomes of the Council for the Accreditation of Counseling and Related Programs (CACREP, 2009) and the Council for Rehabilitation Education (CORE, 2013), which are the two major accreditation bodies for mental health and rehabilitation counselor education programs. Although this could anecdotally support a case for institutional suppression of the existence of death similar to that of individuals (Feifel & Nagy, 1980; Yalom, 1980), it is likely that issues related to death are covered by more general educational standards related to the needs of individuals across the lifespan (CACREP, 2009, C.3.a; CORE, 2013, C.3.1).

Despite the absence of *death* in the educational standards, *suicide* is addressed by the educational standards and student learning outcomes of mental health (CACREP, 2009, G.5.; D.6) and rehabilitation counseling programs (CORE, 2013, C.5.6.a.). Regardless of student learning outcomes related to death and suicide, many have criticized the prevalence and efficacy of death education and suicide prevention in
counselor education programs (Cochrane, Levy, Fryer, & Ogelsbry, 1990-1991; Harrowood, Doughty, & Wilde, 2011; Maglio & Robinson, 1994; Neimeyer, 2000; Rosenthal, 1991; Waas, 2004; Werth, 1999; Werth, 2002). It is acknowledged that including every potential client scenario into the educational standards would be too much; however, if theories suggesting that issues related to death will inevitably emerge throughout the counseling process despite the presenting problem (Doughty-Horn, Crews, & Harrowood; Yalom, 1980), then the exploration of educational standards specifically related to death could warrant discussion.

Regardless of whether or not educational standards exist, the effectiveness of curricular activities tied to these standards is more important. Many have questioned the presence and effectiveness of training experiences within counselor preparation programs aimed at preparing counseling students to counsel clients with death-related concerns (Cochrane, Levy, Fryer, & Ogelsbry, 1990-1991; Harrowood, Doughty, & Wilde, 2011; Maglio & Robinson, 1994; Neimeyer, 2004; Rosenthal, 1991; Waas, 2004; Werth, 1999; Werth, 2002). In fact, some counselor educators have identified breach in confidentiality when a client is “suicidal” as an ethical practice that “must” occur, which clearly disregards a client’s potential cultural beliefs and right to autonomy (Boes et al., 2006, p. 66-67). Therefore, the following sections review previous literature related to death education and suicide training programs that can inform the discussion of the implications of the results of this study to the field of counselor education.

**Death education.** Various forms of death education were suggested throughout the literature ranging from the screening of students (Fish, 1986) to targeted educational
programs (Eakes, 1985; Fish, 1986; Kvale et al., 1999; Maglio & Robinson, 1994). Although no empirical information was found regarding the screening of employees or students, a considerable amount of information was found related to the outcomes of death education in general.

Gamino and Ritter (2012) defined death competence as a “…specialized skill in tolerating and managing client’s problems related to dying, death, and bereavement” (p. 23). They argued that counselors must obtain this competence in order to provide ethical services to individuals facing death-related problems. Their model focused on both cognitive and emotional components of death competence along with four impediments to death competencies: strive towards personalized healing from unfinished business related to the death of a loved one, maladaptive presence of death anxiety that prevents adequate acknowledgment of client’s needs, gross generalization of personal experiences to the experiences of their client to compensate for a lack of true empirical competence, and/or a relatively limited history of personal losses (Gamino & Ritter, 2012, p.31). This model provided a conceptual framework to identify personal factors that could influence death attitudes as well as the training of counseling students. Additionally, Neimeyer (2000) provided comprehensive recommendations for infusing death education into psychology programs and Doughty-Horn et al. (2013) discussed a similar process for counselor education programs.

Despite the need for counselors to develop death competence, the receipt of formal death education throughout the counselor education curriculum is sparse at best (Cochrane et al., 1990-1991; Rosenthal, 1991; Waas, 2004), and when death education
has taken place in other settings, the outcomes have been questionable. In their study of
nursing home staff, Eakes (1985) suggested that neither participation in a course on the
elderly or death and dying impacted apprehensive death attitude scores. Oncologists who
had undergraduate death education showed significantly more depression after the death
of a client, and those with continuing education related to death were less likely to
disclose a terminal prognosis to patients’ families (Cochrane et al., 1990-1991).

Maglio and Robinson (1994) conducted a thorough meta-analysis of 62 outcome
studies focusing on the impact of death education. Their analysis suggested that death
education had a mean effect size of .287, meaning that in general participants in death
education showed more apprehensive death attitudes 61% of the time. A variety of
factors including occupation category, level of education, number of participants, age,
and gender had no influence on the effect size calculated in this study. Didactic
interventions led to significantly ($p \leq .001$) more apprehensive death attitudes ($r = .463$)
than experiential interventions ($r = .026$). These authors noted that didactic interventions
could increase participants’ death-related knowledge, activate death attitudes, and
increase anxiety. In response, these authors suggested using experiential methods that
allow participants to emotionally process material, rather than simply attempting to
impart information related to death. This is interesting given the findings of Hayes and
Gelso (1993) that found statistically significant differences in discomfort responding to
death-related scenarios only when measured affectively. Additionally, Maglio and
Robinson (1994) found no statistically significant differences in the effect sizes of death
education when considering the influence of treatment length, which led the authors to
conclude that the benefits of death education may plateau. Interventions ranging from one time to three weeks showed the most promising outcomes.

When looking at the field of counseling, Rosenthal (1981) conducted an interesting study of 556 school counselors and 236 counselor education department chairpersons. Although somewhat dated, this study overwhelmingly supported the need for curricular activities to help students deal with and assess their personal attitudes towards death-related material. Given the albeit dated expressed need and recommendations for experientially based death education, Harrowood et al. (2011) conducted an exploratory study of a two-credit hour course on death education within a counselor education program. Their results suggested that participants were more open to examine death and related constructs, had more understanding of beliefs regarding death and their own death, and had less negative affective reactions to death. These results seemed to support claims by Maglio and Robinson (1994) regarding the need to emotionally process death education rather than simply provide information. Harrowood et al. (2011) also petitioned CACREP to consider more death-specific standards related to the training of counseling students.

**Suicide training.** Given the prevalence of suicide, many professions require regular suicide intervention training, and most mental health workers have attended courses on suicide prevention (Norheim et al., 2013). Despite these requirements, many believed that more suicide prevention training is needed (Crawford et al., 2003; Liebling-Boccio & Jennings, 2013; Sun et al., 2007). Although the need was documented and
several practical models for suicide prevention skills exist, the outcomes of suicide training programs in the promotion of specific suicide attitudes were less studied.

A few studies have focused on the impact of suicide training across disciplines. Studies of medical professionals and students have shown suicide training to be linked with more positive attitudes towards suicide (Suokas & Lönnqvist, 1989a). Additionally, those who completed suicide training were also more confident and accepting, had less judgment, and were more aware of the diverse characteristics related to suicide. Finally, physicians that reflected upon their past experiences when treating suicidal behaviors labeled as non-manipulative viewed these experiences as increasing the care and attention given to individuals who experienced suicidal behaviors (Suokas & Lönnqvist, 1989b).

In regards to mental health professionals, Norheim et al. (2013) found mental health professionals at outpatient clinics in Sweden with suicide prevention courses and ample supervision related to suicidal behaviors had significantly more positive attitudes toward suicide, but were also less likely to accept suicide. Japanese social workers with more training in suicide prevention were significantly more likely to believe that suicide is common, acceptable, and a personal right (Kodaka et al., 2012). Similarly, psychiatric pharmacist trainees in Japan with more suicide prevention training were more likely to regard suicide as common, more likely to oppose the belief that suicide threats are empty, more likely to believe that suicide can be prevented, and more likely to help people with suicidal behaviors (Kodaka et al., 2013).

Thankfully, considerable conceptual and empirical literature exists regarding practical skills and strategies for counselors in the prevention, assessment, intervention,
and postvention of suicide (Granello, 2010; Juhnke, 1996; McGlothlin, 2008; Miller, McGlothlin, & West, 2013). McGlothlin, Rainey, and Kindsvetter (2005) added to this body of knowledge with their creation of a model to guide the supervision of counselors when working with suicidal clients. Despite their technical superiority and practical significance, these methods had little explicit focus on the potential influence of a counselor’s attitudes on their experiences, interactions, assessment, and interventions with clients who experience suicidal behaviors. Nevertheless, it is acknowledged that many methods used to teach suicide intervention skills in counseling programs (e.g., role playing, video analysis, etc.) are very effective at teaching technical skill and provide the opportunity for emotional arousal; however, if the underlying attitudes that can guide the counseling students’ interpretation of these scenarios and skills are ignored, then the outcomes of these programs may become limited.

It is important to note that at least one study reviewed the implementation of a novel curricular activity aimed at developing both personal and professional attributes. Cook et al. (2006) asked doctoral students to “author” their own suicide using an assignment with three parts: (1) plan every detail of their suicide from the reasons behind it to the clothes they would wear, along with a rationale for each decision; (2) display how a counselor could successfully prevent their suicide; and (3) journal regarding the cognitive and emotional experience that resulted from their fictional suicidal behaviors. Students reported several benefits from this activity including less judgment, more understanding of how difficult suicide is, more empathy, more risk assessment skills, and more understanding on the nondiscriminatory nature of suicide. Although attitudinal
outcome measures were not defined, the cognitive and affective processing during this exercise created an appealing option for the development of interventions aimed at specific suicide attitudes among counseling students.

The suicide training literature in counselor education demonstrated ways in which student learning outcomes can be produced according to the CACREP and CORE educational standards (CACREP, 2009, G.5.; D.6; CORE, 2013, C.5.6.a.); however, these standards only contain student learning outcomes related to knowledge and skills related to the assessment, prevention, and postvention of suicide. Additionally, the focus of these programs is heavily on the prevention of suicide and with less consideration on counseling interventions with clients who are considering suicide that might be considered rational, which makes the evaluation of outcome studies difficult to interpret. Thankfully, Cohen (2001), Werth (1999), and Werth (2002) offer very useful ethical decision making skills and suggestions for the infusion of these issues throughout the curriculum of mental health professionals.

For a profession that values personal growth and social justice, it seemed incongruent for standards related to student attitudinal development and concepts such as rational suicide to be left out. The absence of guidance regarding effective educational interventions related to death and suicide attitudes for counselor education programs was identified as a potential problem for the training of counseling students and justified the need to create empirical models of suicide attitudes among counseling students. Although assessing the efficacy of suicide intervention training was not the purpose of the present study, death education and suicide training experience were both included as
covariates in this study. Additionally, accreditation of counseling programs was included as a descriptive variable. The inclusion of these variables assisted in the interpretation and implications of the results of this study. Finally, the development of a model for suicide attitudes among counseling students that includes variables that explain statistically significant variance in these attitudes can be a vehicle for future studies to explore what educational experiences are the most successful at altering attitudes, as well as what attitudes are the most effective in promoting clients’ therapeutic outcomes.

**Summary**

This chapter reviewed the current body of literature that identified what is known and what is not known about death attitudes, suicide attitudes, and their related variables, which guided the selection of measurement strategies for the control, predictor, and outcome variables that were included in the present study. Gaps in the literature created several problems facing the counseling profession, which led to the creation of the research questions posed by this study. The following chapter reviews the methodology used in this study to evaluate the role of death attitudes in the prediction of the suicide attitudes of counseling students. Chapter four reviews the results of the analyses outlined in chapter three and chapter five will compare these results to those of previous studies reviewed in this chapter while discussing the implications and recommendations for future studies related to suicide attitudes among counseling students.
Chapter 3: Methodology

The first two chapters of this manuscript identified several key findings that were important to the development of the present study. First, professional counselors and counseling students are exposed to suicidal behaviors in the course of their work, and this exposure has been shown to lead to deleterious effects on the personal and professional lives of the counselor (Foster & McAdams, 1999; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; McAdams & Foster, 2000; Neimeyer, Fortner, & Melby, 2001). Second, dimensions of death attitudes and suicide attitudes are linked to discomfort with suicide, empathic responding, and suicide intervention skills (Kirchberg et al., 1998; Neimeyer et al., 2001). Third, dimensions of death attitudes are linked to the attitudes of helping professionals toward client scenarios including value of the elderly, physician assisted suicide, and clients’ right to die (Clements & Rooda, 1999; DePaola et al., 1992; DePaola et al., 1994; Fish, 1986; Kopp, 2008-2009; Kvale et al., 1999; Neimeyer et al., 2001; Rogers, 1996; Vickio & Cavanaugh, 1985). Fourth, many criticize the current educational standards and training methods designed to prepare counseling students to navigate the complex ethical dilemmas they encounter when counseling clients with suicidal behaviors (Cochrane, Levy, Fryer, & Ogelsbry, 1990-1991; Harrowood, Doughty, & Wilde, 2011; Maglio & Robinson, 1994; Neimeyer, 2000; Rosenthal, 1991; Waas, 2004; Werth, 2001). Fifth, the suicide attitudes of counseling students and counselor educators may affect their determination of ethical behavior (Boes, Chibbaro, & Bingeman, 2006). Finally, there is an ethical obligation for professional counselors to explore their personal values and attitudes in order to reduce the chance of impairments...
during the counseling process (ACA, 2005, A.4.b; AMHCA, 2010, A.4.d; ASCA, 2010; E.1.f.; CRCC, 2010, D.5.e). Despite the importance of the key findings reported above, limitations and gaps in the literature related to counselor preparation in the area of client suicide were identified.

Much of the research related to death attitudes among counseling students and counseling professionals is outdated and has minimal generalizability (DePaola et al., 1992; DePaola et al., 1994; Hayes & Gelso, 1993; Kirchberg & Neimeyer, 1991; Kirchberg et al., 1998; Kirchberg & Neimeyer, 1998; Neimeyer et al., 2001). With the exception of literature related to client rights to suicide (Bascue et al., 1978; Brown, 1987; Cohen, 2001; Lussier, 2001; Rogers, 1996; Rogers et al., 2001; Werth, 1992, 1995, 1999; Werth & Liddle, 1994; Werth & Cobia, 1995), most of the literature regarding multidimensional suicide attitudes has developed outside of the United States, and has resulted in unstable factor structures that limited the interpretation and implementation of their findings (Arnautovska & Grad, 2008; Kodaka et al., 2012; Kodaka et al., 2013; Renberg & Jacobsson, 2003; Renberg et al., 2008; Norheim et al., 2013). Further, previous research related to multidimensional suicide attitudes has only recently begun to focus on helping professionals (Jukkala & Mäkinen, 2011; Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al. 2013), and no literature was found that evaluated the multidimensional suicide attitudes of counseling professionals.

In light of limitations found in the existing body of research on suicide and death attitudes in counseling students, the current study was developed. The purpose the current study was to evaluate the role of five death attitude variables (fear of death, death
avoidance, approach acceptance, neutral acceptance, and escape acceptance) in the prediction of three suicide attitude variables (acceptance of suicide, condemnation of suicide, and preventability of suicide) among counseling students after controlling for the effects of six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, as well as six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training.

The remainder of this chapter details the methodology of the present study, including the research design, research questions, identification of variables, instrumentation, sampling plan and procedure, description of the participants, data coding, and procedures for data analyses that were used in the null hypothesis testing.

**Research Design**

In order to evaluate the role of death attitudes in the prediction of suicide attitudes among counseling students, an exploratory non-experimental research design was created to answer the following research questions:

**Question 1: How much variance in counseling students’ acceptance of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?**

**Question 2: How much variance in counseling students’ condemnation of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?**
suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?

Question 3: How much variance in counseling students’ attitudes toward the preventability of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?

Outcome Variables

For the purpose of this study, suicide attitudes was considered to be a theoretical construct comprised of three variables defined as dimensions of attitudes towards suicide: (1) acceptance of suicide, (2) condemnation of suicide, and (3) preventability of suicide. The three dimensions of attitudes toward suicide were measured by the Attitudes Towards Suicide Scale (ATTS; Renberg & Jacobsson, 2003) using the three-factor model proposed by Renberg, Hjelmeland, and Koposov (2008).

Predictor Variables

For the purpose of this study, death attitudes was used as the predictor variable in each regression model built for the prediction of suicide attitudes among counseling students. Death attitudes was considered to be a theoretical construct comprised of five variables defined as dimensions of attitudes towards death: (1) death avoidance, (2) death fear, (3) approach acceptance, (4) neutral acceptance, and (5) escape acceptance. Death attitudes were measured by the Death Attitude Profile-Revised (DAP-R; Wong, Gesser, & Reker, 1994).
Covariates

Several personal and professional covariates were identified throughout the literature as having some relationship to suicide attitudes; however, the direction of these relationships was inconsistent and warranted further investigation. Therefore, the effects of personal and professional covariates were controlled for in the first step of each hierarchical multiple regression used in this study to reduce the risk of Type I and Type II errors during null hypothesis testing. The personal variables included in each full regression model were (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors. The professional variables included in each full regression model were (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training.

Sampling Plan and Procedures

The target population for the present study was counseling students currently enrolled in mental health, clinical mental health, and/or rehabilitation counseling graduate programs accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and/or the Council on Rehabilitation Education (CORE). A necessary sample size of \( N = 134 \) was calculated using the method proposed by Brooks and Barcikowski (2012) was used, which resulted in the target sample size of 134 participants. The anticipated effect size was determined given previous findings that reported dimensions of death attitudes explained anywhere from
\( \Delta R^2 = .04 \) to \( .08 \) of the variance in attitudes towards the elderly, people with disabilities, and physician assisted suicide (DePaola et al., 1992; DePaola et al., 1994; Fish, 1986, Kopp, 2008-2009). Although the anticipated effect size (\( \Delta R^2 = .25 \)) was higher than previous findings, it was hypothesized that the improved methodology and the logical alignment between death attitudes and suicide attitudes would result in a larger effect size.

According to the 2012 CACREP Annual Report (2013), there were 54 mental health counseling programs (6,742 students) and 34 clinical mental health counseling programs (5,003 students), making the approximate number of students enrolled in CACREP accredited mental health/clinical mental health counseling programs 11,745. According to the CACREP online directory (2013b) at the time of this study, there were a total of 120 accredited mental health/clinical mental health counseling programs. There were 94 CORE accredited programs with approximately 5,102 students enrolled in accredited rehabilitation counseling programs at the time of the present study (CORE, 2012). In sum, the estimated total population of mental health, clinical mental health, and rehabilitation counseling students was 16,847.

In order to recruit participants for the current study, all mental health, clinical mental health, and rehabilitation counseling programs accredited by CACREP and/or CORE at the time of this study were entered into a Microsoft Excel spreadsheet organized by stratum that were defined by the regions of the Association of Counselor Education and Supervision (ACES): North Atlantic, North Central, Southern, Rocky Mountain, and Western, and assigned random numbers. It was decided to sample half of
the programs from the list of CACREP (60) and CORE (47) accredited programs that was representative of the number of programs in each ACES region. The number of programs to select from each stratum was determined by the distribution of programs across ACES regions at the time of this study, which was as follows: North Atlantic (20%), North Central (23%), Southern (37%), Rocky Mountain (9%), and Western (8%), and the percentage of CORE accredited programs that were contacted included North Atlantic (15%), North Central (25%), Southern (41%), Rocky Mountain (5%), and Western (11%). Although 3% of CACREP and CORE accredited programs were located outside of the United States, their percentage of the total distribution was too small to be included. Clusters of programs from each stratum were randomly selected by sorting the Microsoft Excel spreadsheet from lowest to highest and selecting the representative number of programs from each ACES region.

After the stratified random cluster sample of program to be contacted was created, the contact information for the program coordinators, administrative assistants, general faculty, and department chairs of each program was collected from program websites and added to the Microsoft Excel spreadsheet. This information was then exported into a distribution list using Qualtrics, Version 1.202.s (Qualtrics Research Suite, 2013), which was the online survey platform used to create and distribute the survey for this study. After the survey was created for the current study and the study was approved, recruitment emails (see Appendix C) were sent to the program contacts within each cluster. Each recruitment email asked program contacts to forward the email to students
who were enrolled in CACREP and/or CORE accredited mental health, clinical mental
health, and/or rehabilitation counseling programs.

Instrumentation

The data for the present study were collected using Qualtrics, Version 1.202.s
(Qualtrics, Research Suite, 2013). Participants responded to a 97 item survey organized
in six blocks: (1) informed consent, (2) personal exposure to suicidal behaviors of others,
(3) exposure to suicidal behaviors of self, (4) death attitudes, measured by the DAP-R
(Wong et al., 1994), (5) suicide attitudes, measured by the ATTS (Renberg & Jacobsson,
2003), and (6) the remaining personal and professional covariates. Embedded in survey
Block 4 and Block 5 were two previously used instruments to measure death attitudes
(DAP-R; Wong et al., 1994) and suicide attitudes (ATTS; Renberg & Jacobsson, 2003).
The instruments used in Block 4 and Block 5 were selected based upon a critical analysis
of each scale’s psychometric properties, which are summarized below.

Death Attitude Profile-Revised (DAP-R; Wong, Reker, & Gesser, 1994). The
DAP-R is a 32-item self-report questionnaire that measures multiple dimensions of death
attitudes (see Appendix A). Although previous conceptualizations of death attitudes were
predominantly focused on aversive attitudes (e.g., anxiety, fear, etc.), the DAP-R and its
predecessor, the Death Attitude Profile (DAP; Gesser, Wong, & Reker, 1987), introduced
a multidimensional framework that included both aversive and non-aversive dimensions
of death attitudes that was grounded in existential theory. Each item of the DAP-R
includes a statement about death and asks participants to rank their level of agreement
using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The
direction of response options is counterbalanced equally among the 32 items with half in the direction of strongly disagree to strongly agree and half in the direction of strongly agree to strongly disagree. Regardless of ordering, all items are scored in the same direction.

The multidimensional approach used by the DAP-R is supported by prior research and comprehensive reviews of other instruments designed to measure death attitudes (Neimeyer, Wittkowski, & Moser, 2003). Single dimensions of death attitudes have been suggested to be better predictors of various outcome variables than global measures of death attitudes (Kirchberg et al., 1998; Neimeyer, Fortner, & Melby, 2001). Therefore, it was important to include a measure of death attitudes in this study that captured multiple dimensions of death attitudes that were aversive and non-aversive. The DAP-R (Wong et al., 1994, p.134) meets this criterion by measuring death attitudes across five dimensions: Fear of Death (7 items), Death Avoidance (5 items), Neutral Acceptance (5 items), Approach Acceptance (10 items), and Escape Acceptance (5 items). Each dimension is considered to be a unique variable that is comprised of manifest traits measured by the items in the questionnaire.

The Fear of Death dimension includes items that focus on the general apprehension and uncertainty related to the thought of death (e.g., I have an intense fear of death; Wong et al., 1994, p.134). The Death Avoidance dimension includes items that focus on intentional efforts to avoid being exposed to death-related thoughts and experiences (e.g., I avoid thinking about death altogether; Wong et al., 1994, p.134). The Neutral Acceptance dimension includes items that focus on the natural process of death
and stoic acceptance of death (e.g., Death is neither good nor bad; Wong et al., 1994, p.134). The Approach Acceptance dimension includes items that focus on the joy and satisfaction following death (e.g., Death brings a promise of a new and glorious life; Wong et al., 1994, p.134). Finally, the Escape Acceptance dimension includes items that describe ways in which death brings about relief from pain and suffering in life (e.g., I see death as a relief to the burden of my life; Wong et al., 1994, p.134). The multidimensional approach of the DAP-R strengthens the construct validity of its results and presents the opportunity for complex analyses between dimensions of death attitudes. In addition to construct validity, the factor structure and prior results of the DAP-R provide strong reliability and validity evidence for its use in the measurement of death attitudes.

During the construction of the DAP-R, the five-factor structure accounted for 61.3% of the variance in death attitudes among a sample of 300 participants ranging in age from 18 to 90 and had factor loadings at or above .40 (Wong et al., 1994). With the exception of Neutral Acceptance, the remaining four dimensions of the DAP-R were replicated by a subsequent factor analysis of death attitude scores among nursing professionals (Clements & Rooda, 1999). Even though the Neutral Acceptance dimension was not confirmed, the items from the original Neutral Acceptance dimension (Wong et al., 1994) were logically split. The first factor included items measuring the natural process of death, and the second factor included items measuring indifferent reactions to death. In sum, these findings suggested that common dimensions of death attitudes as measured by the DAP-R are relatively stable.
The DAP-R has adequate internal consistency with correlation coefficients ranging from .58 to .97 across dimensions (Clements & Rooda, 1999; Gesser et al., 1987; Kopp, 2008-2009; Wong et al., 1994) and test-retest reliability ranging from .61 to .95 (Wong et al., 1994). The Neutral Acceptance dimension consistently had the least internal consistency according to Cronbach’s α, while Approach Acceptance consistently had the most internal consistency. In regards to validity, strong evidence was observed by the correlation between previous DAP-R results and results from measures of happiness, hopelessness, death anxiety, semantic differential items of life and death, death perception, well-being, depression, attitudes towards caring for the dying, and attitudes towards physician-assisted suicide (Clements & Rooda, 1999; Gesser et al., 1987-1988; Kopp, 2008-2009; Wong et al., 1994).

In addition to its multidimensionality and psychometric properties, the DAP-R also shows potential for its use in various settings. The DAP-R has been used to measure death attitudes of the general population in the United States (Gesser et al., 1987; Kopp, 2008-2009; Wong et al., 1994) and Belgium (Dezutter et al., 2009); hospital and hospice nurses (Clements & Rooda, 1999-2000); and undergraduate psychology students, suicide hotline volunteers, and graduate students in clinical and counseling psychology programs (Neimeyer et al., 2001). The DAP-R was also endorsed by Neimeyer et al. (2004) after their review of nine measures commonly used in the psychometric evaluation of death attitudes.

In summary, the DAP-R is a multidimensional assessment of death attitudes with sound psychometric properties that has been used in a variety of settings with diverse
populations including helping professionals and for diverse purposes including the assessment of suicide intervention skills (Neimeyer et al., 2001) and attitudes towards physician-assisted suicide (Kopp, 2008-2009). Strengths of the DAP-R include its use in previous research of a similar focus to the current study, ease of administration, sound psychometric properties, multidimensionality, relationship to suicide attitudes among helping professionals (Neimeyer et al., 2001), association with attitudes toward potential client populations (Clements & Rooda, 1999), and attitudes toward assisted suicide (Kopp, 2008-2009). Given these factors, the DAP-R was chosen to measure the death attitudes of counseling students in the present study. Thus, the five DAP-R dimensions were used to operationally define death attitudes in this study as the multidimensional framework for making meaning of and responding to death that includes the fear of death, death avoidance, neutral acceptance, approach acceptance, and escape acceptance. After permission was granted (see Appendix D) to use and convert the DAP-R for an online delivery system, all 32 items were included in Block 4 of the final online survey created for this study using Qualtrics, Version 1.202.s (Qualtrics Research Suite, 2013).

**Attitudes Towards Suicide Scale (ATTS; Renberg & Jacobsson, 2003).** The ATTS is a 62-item self-report questionnaire measuring multidimensional suicide attitudes (see Appendix B) that is divided into three sections: Contact with the Suicide Problem (items 1-3), Attitudes (items 4-40), and Finally Some Questions about Yourself (items 44-61). In addition to these sections, the ATTS includes additional questions that focus on the probability that the participant will die by suicide (item 41), the preferred manner of
death (item 42), and the efforts desired to prevent suicide (item 43). Because of the multidimensionality of the ATTS, researchers are encouraged to use the entire instrument, individual subsections, or even specific items depending upon the aim of the study (Renberg & Jacobsson, 2003).

The first section of the ATTS, Contact with the Suicide Problem, builds upon previous research conducted by Diekstra and Kerhof (1989) and asks participants to identify how often (currently, never, sometime, often, or not applicable) persons close to them (e.g., friends, family, partners, etc.) have thought about suicide, made suicide attempts, and died by suicide; however, no scoring procedures are given for this section in the ATTS. The second section of the ATTS, Attitudes, focuses on the participants’ attitudes towards suicide across multiple dimensions. Using a 5-point Likert scale ranging from strongly agree to strongly disagree, participants are asked to select their level of agreement with statements related to suicide (e.g., Suicide can never be justified). Participants’ responses are scored 1 (strongly agree) through 5 (strongly disagree) with reversed scoring on items seven and nine. The optional items in this section (items 41-43) focus on the participants’ likelihood of dying by suicide, preferred method of death, and the extent to which they believe suicide should be prevented. The ATTS prescribes no subscales for the Attitudes section, but rather relies upon factor analyses to determine interpretable factors that align with the specific aim and sample of the particular study.

The third section of the ATTS, Finally Some Questions about Yourself, covers basic demographic information (e.g., gender, age, residence, household, and education) as well as items related to life satisfaction and personal suicidal behaviors that mirrored
previous research conducted by Cotton, Peters, and Range (1995) and Paykel, Myers, Lindenthal, and Tanner (1974). Participants are instructed to answer these questions with forced-choice options including *often, sometimes, hardly ever, or never* relative to the previous year and earlier in life. The ATTS provides no scoring structure for the personal suicidal behaviors section, but Cotton et al. (1995) suggested that participants’ responses could be summed with a range from 0 (no suicidal behaviors) to 16 (most suicidal behaviors). This section also includes two open-ended questions that focus on perceived reasons behind suicide and what actions participants believe should be taken to prevent suicide. Finally, one last open-ended question provides participants with the opportunity to provide feedback about their experiences completing the questionnaire.

The lack of scoring procedures for some sections of the ATTS is cause for concern and could be related to its consistently unreliable factor structure. The most stable factor structure for the ATTS was the three-factor model identified by Renberg et al. (2008), which included 13 items from the *Attitudes* section that were labeled accordingly: *acceptance of suicide* (6 items), *condemnation of suicide* (4 items), and *preventability of suicide* (3 items). Reliability of the factor scores obtained by Renberg et al. (2008) ranged from .64 to .84, which improved upon previous reliability evidence that ranged from .34 to .86 (Renberg & Jacobsson, 2003). Additional reliability evidence for the use of the ATTS included internal consistency scores that ranged from .65 to .66 (Arnautovska & Grad, 2010; Kodaka et al., 2013; Mofidi et al., 2008). When completed by mental health professionals in Norway, the ATTS results yielded Cronbach’s $\alpha$ of .84 with factor loadings from .53 to .77 (Norheim et al., 2013). Finally, the validity of results
from the ATTS was enhanced because of its close connection to pre-existing questionnaires used to measure suicide attitudes including the Suicide Opinion Questionnaire (SOQ; Domino, Moore, Westlake, & Gibson, 1982) and the Suicide Attitude Questionnaire (SUIATT; Diekstra & Kerhof, 1989), SBQ (Linehan, 1981; Cotton et al., 1995).

In addition to its multidimensionality and psychometric properties, the ATTS has been used in the study of general suicide attitudes in Sweden, Norway, and Iran (Hjelmeland & Knizek, 2004; Mofidi et al., 2008; Renberg & Jacobsson, 2003); general suicide attitudes of adolescents from Slovenia (Arnautovska & Grad, 2010); types of suicidal expression and related variables in Nicaragua (Rodriguez, Cadera, Kullgren, & Renberg, 2006); the relationship between suicide attitudes and suicidal behavior in Sweden, Norway, and Russia (Renberg et al., 2008); general attitudes of social workers in Japan (Kodaka et al., 2012); general attitudes of psychiatric pharmacy trainees in Japan (Kodaka, Inagaki, & Yamada, 2013); and the attitudes of mental health workers in Norway (Norheim et al., 2013).

Even though questions remain regarding the reliability and stability of its factor structure, the ATTS provides researchers with the flexibility to explore factor structures most relevant to the desired sample and purpose of the study. Although the flexibility is useful, it also creates difficulties in validating factor structures and comparing results across studies. Furthermore, no research was found during the development of the current study that used the ATTS in the United States. Despite these limitations, the ATTS was endorsed as “…the most feasible and valid…” measure of suicide attitudes
when compared to a pool of 18 other suicide attitude instruments (Kodaka, Inagaki, Poštuvan, & Yamada, 2010, p. 358). Additional strengths of the ATTS include its diverse applications, multidimensionality, and recent focus on the personal and professional factors related to suicide attitudes among helping professionals. Finally, although some concern might exist regarding the administration of an online survey related to suicide, participants’ feedback when taking the ATTS suggested no adverse effects resulting from their participation and indicated a strong desire to participate in future research related to suicide (Renberg & Jacobsson, 2003).

These strengths justified the use of the ATTS to measure the suicide attitudes of counseling students in the current study. Because of concerns regarding the validation of the ATTS factor structure, it was decided to use the three-factor model identified by Renberg et al. (2008) to because of its improved psychometric properties when compared to other models (e.g., Renberg & Jacobsson, 2003; Kodaka et al., 2012). No items were included in the publication of this three-factor model, but E.S. Renberg (personal communication, August 7, 2013) identified the 13 retained items as follows: Acceptance of Suicide (items 8, 19, 23, 32, 35, and 39), Condemnation of Suicide (items 5, 6, 22, and 30), and Preventability of Suicide (items 4, 9, and 40). The Acceptance of Suicide dimension included items such as “Suicide is an acceptable means to terminate an incurable disease” and “There may be situations where the only reasonable resolution is suicide” (Renberg & Jacobsson, 2003). The Condemnation of Suicide dimension included items such as “Suicide can never be justified” and “Committing suicide is among the worst thing to do to one’s relatives” (Renberg & Jacobsson, 2003). Finally,
the Preventability of Suicide dimension included items such as “It is always possible to help a person with suicidal thoughts” and “Once a person has made up his/her mind about committing suicide no one can stop him/her” (Renberg & Jacobsson, 2003). Therefore, the three ATTS dimensions were used to operationally define suicide attitudes in this study as the multidimensional framework for making meaning of and responding to suicide that includes the acceptance of suicide, condemnation of suicide, and preventability of suicide.

After permission was granted to use, edit, and convert the ATTS (see Appendix E) for use with an online delivery system, most of the items included in the ATTS were added to the fifth block of the Qualtrics survey developed for the current study. ATTS items 42 through 56 and item 61 were omitted because they did not align with the purpose of the present study. Given the flexibility of the ATTS and permission from its creators (see Appendix E), textual changes were made to the ATTS in order to replace language that included committed suicide with died by suicide in all sections of the final survey, except for the Attitudes section. These changes were consistent with recent efforts to de-criminalize and reduce stigma related to suicide (Caruso, n.d.; Harrington, 2013). It was decided to leave the committed suicide language in the fifth block of items measuring suicide attitudes because removing the word committed could have threatened construct validity by changing the meaning of the item.

Final Qualtrics survey. After permission was granted by the authors of the DAP-R (Wong et al., 19994; see Appendix D) and the ATTS (Renberg et al., 2003; see Appendix E) to use and edit their questionnaires for use in the present study, these
instruments were included in the final survey that was created for the current study using the online delivery system entitled Qualtrics, Version 1.202.s (Qualtrics Research Suite, 2013). The final survey included 97 items that were organized in six blocks (see Appendix F): (1) informed consent, (2) personal exposure to suicidal behaviors of others, (3) exposure to suicidal behaviors of self, (4) death attitudes, (5) suicide attitudes, (6) additional personal and professional covariates, and (7) exposure to suicidal behaviors as a professional and/or student. The first block included the informed consent document that provided participants with a description of the study; an acknowledgement of the potential risks, discomforts, and benefits of participating in the study; the confidentiality of participants’ responses; the researcher’s contact information; a list of suicide prevention resources; and two buttons (Yes and No) that participants used to make an informed decision regarding their participation in this study. If participants clicked No, they were redirected to the final screen of the survey, but if they clicked Yes they were taken to the second block of the survey that included three items measuring the frequency of the participants’ exposure to suicidal thoughts, threats, plans, attempts, deaths, and current suicidal behaviors of others (ATTS items 1-3). Before advancing to the third block of the survey, participants were directed to a screen that reminded participants of the potential risks of this study and encouraged their use of suicide prevention resources that were provided.

The Qualtrics survey was intentionally designed to activate the participants’ attitudes with survey blocks two and three before measuring death attitudes and suicide attitudes with survey blocks four and five. After completing the second block,
participants were directed to the third block which included three items measuring the
frequency of the participants’ personal suicidal potential, thoughts, considerations, and
attempts (ATTS items 41 and 57 through 59). If participants selected any previous
history of suicidal behaviors, they were directed to an additional screen that reminded
them of the potential risks and benefits listed in the informed consent document and
encouraged the use of the suicide prevention resources that were provided. The
administration of the fourth and fifth blocks was randomized to control for administration
effects and included the 32 items from the DAP-R (Wong et al., 1994) as well as the 37
items from the Attitudes section of the ATTS (Renberg & Jacobsson, 2003). Specifically,
half of the sample completed the ATTS before the DAP-R while the other half of the
sample completed the DAP-R before the ATTS. The ATTS block collected data
regarding participants’ suicide attitudes using a 5-point Likert scale that asked
participants to select their level of agreement from strongly agree to strongly disagree.
The DAP-R collected data related to participants’ death attitudes using a 7-point Likert
scale that asked participants to select their level of agreement ranging from strongly
disagree to strongly agree with item responses that were counterbalanced. A brief pilot
study of the Qualtrics survey indicated that the alternating order of the DAP-R and ATTS
response options was confusing to participants and threatened validity of the results;
therefore, the order of all DAP-R and ATTS response choices were revised to strongly
disagree to strongly agree.

The sixth block of the Qualtrics survey included items to collect data regarding
the remaining personal and professional covariates of interest in this study (age, gender,
religious affiliation, strength of religious beliefs, academic standing, prior professional experience, death education, suicide prevention, and exposure to the suicidal behaviors as a student and/or a professional). If participants selected prior work experience, advanced logic options embedded in the Qualtrics survey was used to direct participants to a free response item that asked participants to report their estimated years of professional experience prior to enrollment in the counseling program. Additional items related to descriptive variables were included in this block to identify participants’ current program, location of current program, and accreditation of current program. Forced choice items were used to collect data regarding gender, accreditation, religious affiliation, professional experience, educational standing, and previous training. Age and location of the counseling program were obtained via free response items. The strength of religious beliefs was collected using a sliding scale from 0 (weakest) to 10 (strongest).

Exposure to the suicidal behaviors of clients as a student and/or a professional was collected with forced choice items that asked participants to select their level of exposure to various suicidal behaviors (e.g., suicidal thoughts, attempts, and deaths) as a professional prior to the counseling program and as a student while enrolled in the counseling program. If participants selected any previous exposure to suicidal behavior of this nature, advanced logic was used to direct participants to a free response item that asked participants to estimate the total number of clients with suicidal behaviors with whom they had previous contact.

All survey items included adequate descriptions and example responses to reduce the chance of administration errors. Additionally, all items except those that focused on
participants’ exposure to suicidal behaviors of self and others forced completion in order to limit incomplete responses. It was decided to remove forced responses in the suicidal behavior of self and others blocks in order to limit the potential for harm to participants completing this survey. Although not a part of the survey, a list of national suicide prevention resources was included for participants to use if they were to experience any discomfort during the completion of the survey.

Data Collection Procedures

After this study was approved by the Institutional Review Boards (IRB) at Ohio University and Emporia State University (see Appendix G), a distribution panel was created by importing the Microsoft Excel spreadsheets containing the randomly selected counseling programs into a survey panel created by Qualtrics, Version 1.202.s (Qualtrics Research Suite, 2013). Recruitment emails (see Appendix C) were sent to a total of 60 CACREP accredited mental health and clinical mental health and 47 CORE accredited rehabilitation counseling programs for a total of 107 programs. Emails were sent to a variety of contacts (e.g., administrative assistants, program director, etc.) depending upon the information available on each program’s website. The recruitment email explained the purpose of the study, IRB approval number, and the anonymous link to the online survey. In order to obtain the intended population of this study, each program contact was asked to forward this email to students enrolled in mental health, clinical mental health, and/or rehabilitation counseling graduate programs.

The data collection process included three waves that lasted one week each. Recruitment emails were sent to the same program contacts during each wave unless they
selected the option in the recruitment email to withdraw from further recruitment attempts. During the first wave of data collection, 132 individuals accessed the survey compared to the 35 individuals who accessed the survey during the second wave of data collection. During the third wave of data collection, an additional recruitment email was sent using the listserv for ACES, which resulted in another 73 individuals who accessed the Qualtrics survey. This resulted in a total of 240 individuals who accessed the survey during the three-weeks of data collection. All data were collected anonymously via online administration of the Qualtrics survey in order to protect the anonymity of the participants. Participants gave informed consent to participate in this study via button click and were able to withdraw from the study at any point by closing the web browser. After survey administration was closed, participants’ responses were exported to the Statistical Package for the Social Sciences (SPSS) program, which was used to conduct all data analyses in the current study.

Participants

A total of 240 counseling students accessed the Qualtrics survey and 239 consented to participate. Of the 239 who began the survey, only 187 completed it, which resulted in a 77% completion rate. The reported counseling programs of the individuals who completed the survey were distributed as follows: mental health/clinical mental health (64%); rehabilitation counseling (14%); rehabilitation and mental health/clinical mental health counseling (3%); and Other (20%). Free-responses to the Other category included mental health and school counseling; school counseling; counselor education, marriage, couple, and family counseling; college counseling; student affairs; doctoral
programs in counselor education and supervision; and one non-degree seeking student.

It is common for counselor education departments to offer a general degree in Counseling that includes areas of specialization, such as clinical mental health counseling, school counseling, and rehabilitation counseling. As a result, students often take courses in various specialty areas, and the program distinctions are less pronounced; however, students enrolled in doctoral programs have completed more coursework and are potentially more experienced than students enrolled in master’s degree programs. Therefore, the target population of this study was amended to include all participants regardless of program enrollment, with the exception of respondents who reported enrollment in doctoral programs (n = 4). Additionally, participants who reported enrollment in multiple counseling programs (e.g., rehabilitation and mental health counseling, school counseling and mental health counseling, etc.) were included in the former Both category, which was recoded as Multiple Programs. Consequently, the final sample size (N = 183) for this study included the following distribution of participants across counseling programs: mental health/clinical mental health (64%); rehabilitation (14%); school (9%); multiple programs (8%); marriage and family (2%); and Other (3%).

Participants were from 26 states in the United States with the most participants residing in and Virginia (14%), Massachusetts (12%), and Texas (11%). Although a true response rate could not be obtained due to the need to protect the anonymity of participants, the responses from 26 states indicated that at least 26 programs responded. If only one program in each state responded, then the worst possible response represented by this sample would be 24%, which was obtained by dividing the number of
states that responded (26) by the total number of programs sampled (107). Ninety percent of participants were enrolled in CACREP accredited programs alone, 7.7% were enrolled in CORE accredited programs alone, 6.6% were enrolled in programs accredited by both CACREP and CORE, 3.8% selected I don’t know, and 1.1% reported forms of accreditation that were unable to be interpreted. Because only CACREP and CORE accredited programs were contacted, it was decided to retain the responses of all 183 participants for the data analyses of this study.

The final sample included 85.2% women (n = 156) and 14.8% men (n = 27) that ranged in age from 20 to 63 (X̄ = 32.4, SD = 9.74). In regards to academic standing, 50.3% of the participants had not yet been enrolled in practicum coursework, 18% were currently enrolled in practicum coursework, and 32.7% had already completed practicum coursework at the time of the survey. In regards to training experience, 58.5% of all participants reported previous suicide training and 49.2% reported previous death education. Ninety-seven participants selected Christian (51.4%), 33 selected Agnostic (18%), 28 selected Other (15.3%), 16 selected No religious beliefs (8.7%), and 12 selected Atheist (6.6%). Free text responses for Other religious groups included Spiritual, but not religious, Buddhist, and Jewish, as well as many that identified prior Christian beliefs but were without any current ties to organized religion. On a scale from 1 (weakest) to 10 (strongest), the average strength of religious beliefs was 5.88 (SD = 3.32).

The majority of participants had some exposure to the suicidal behaviors of others (87.4%). Seventy-six percent of participants reported previous exposure to suicidal
thoughts, 60% to suicidal attempts, 51.4% to deaths by suicide, and 24% to current suicidal behaviors of others. A complete list of the frequency of participants’ exposure to others’ suicidal behaviors by person and type can be viewed in Appendix H. Similarly, 90.7% of participants reported previous suicidal behaviors with 70.5% reporting suicidal thoughts, 88% reporting serious considerations of suicide, and 13.1% reporting previous suicide attempts. The mean number of previous suicide attempts was 1.67 ($SD = .195$) with a range from 1 to 10. Of the 22 participants who reported previous suicide attempts, 15 reported only 1 previous attempt, while 7 reported more than one suicide attempt. A complete list of the frequency of participants’ personal suicidal behaviors by type and suicide potential can be viewed in Appendix I.

Fifty-seven percent of the participants reported previous work experience before entering the counseling program, with a mean years of experience of 5.97 ($SD = 6.05$) and a range from 1 to 30 years. Of those with previous professional experience, 67.2% reported no previous professional exposure to suicidal clients. Additionally, 13 (7%) of the participants reported a previous client suicide either during or after the professional relationship. Seventy percent of participants reported no previous exposure to suicidal clients as a student, while only two (1.1%) of the participants reported a previous client suicide either during or after the professional relationship. A complete list of the frequency of participants’ exposure to the suicidal behaviors of clients before and during the counseling program can be viewed in Appendix J.
Data Analysis Procedures

A total of 240 counseling students accessed the Qualtrics survey and 239 consented to participate. Of the 239 who began the survey, only 187 completed it, which resulted in a 77% completion rate and a mean completion time of 27 minutes. Of the 52 individuals who did not complete the survey, only three completed the survey blocks that measured death attitudes and suicide attitudes. The largest drop in participation was observed when participants began survey blocks three and four, which contained the DAP-R and ATTS and were the longest sections of the survey. When comparing the scores from the first two blocks of items in the Qualtrics survey of those who completed the survey and those who did not, there were no significant differences on any single item; however, those who completed the survey tended to have a higher frequency of suicide potential, personal suicidal behaviors, and exposure to others’ suicidal behaviors. Because the items that measured the outcome and predictor variables were predominately incomplete, all incomplete survey attempts were removed from the analyses of this study.

The responses from all 183 completed surveys collected by Qualtrics, Version 1.202.s (Qualtrics Research Suite, 2013) were exported into the SPSS software for data analyses. The following sections describe the data analysis procedures used in this study including initial data coding, preliminary analyses of the integrity of the data set, principal component analyses (PCA) to evaluate the fit of the data from this study with the previous factor structures of death and suicide attitudes that were used to define the
variables in the current study, primary analyses to test the null hypotheses of this study, and supplemental analyses to build and interpret the most effective prediction models.

**Data coding.** After the responses were uploaded into SPSS, the final Qualtrics survey items were coded and transformed according to the variables of interest in this study. All data coding was guided by previous research that used the DAP-R and/or the ATTS (Kodaka et al., 2012; Kodaka et al., 2013; Kopp, 2008-2009; Neimeyer et al., 2001; Norheim et al., 2013).

**Outcome variables.** Although all 37 items of the Attitudes section of the ATTS were included in the final Qualtrics survey of this study, only the 13 items that were included in the three-factor model identified by Renberg et al. (2008) were used to measure the three dimensions of suicide attitudes defined as outcome variables in this study. Mean scores for each dimension of suicide attitudes were calculated by summing the responses to items for each dimension and dividing by the total number of items in each dimension. The *acceptance of suicide* variable was created using the mean of Qualtrics survey items 5.1.5, 5.1.16, 5.1.20, 5.1.29, 5.1.32, and 5.1.36 (6 items). Lower scores indicated more acceptance of suicide, and higher scores indicated less acceptance of suicide. The *condemnation of suicide* variable was created using the mean of Qualtrics survey items 5.1.2, 5.1.3, 5.1.19, and 5.1.27 (4 items). Lower scores indicated more condemnation of suicide, and higher scores indicated less condemnation of suicide. The *preventability of suicide* variable was created using the mean of Qualtrics survey items 5.1.1, 5.1.6, 5.1.37 (3 items). Lower scores indicated more belief in the ability to prevent suicide, and higher scores indicated less belief in the ability to prevent suicide.
**Predictor variables.** All predictor variables were calculated using the mean score of each dimension of death attitudes as measured by the five-factor model of the DAP-R (Wong et al., 1994). Mean scores were calculated by summing the responses of items for each dimension of the DAP-R and dividing it by the total number of items in each dimension. The *death avoidance* variable was created using the mean of Qualtrics survey items 4.4, 4.11, 4.13, 4.20, and 4.27 (5 items). The *fear of death* variable was created using the mean of Qualtrics survey items 4.2, 4.3, 4.8, 4.19, 4.21, 4.22, and 4.33 (7 items). The *neutral acceptance of death* variable was created using the mean of Qualtrics survey items 4.7, 4.15, 4.18, 4.25, and 4.31 (5 items). The *approach acceptance of death* variable was created using the mean of Qualtrics survey items 4.5, 4.9, 4.14, 4.16, 4.23, 4.26, 4.28, 4.29, and 4.32 (10 items). The *escape acceptance of death* variable was created using the mean of Qualtrics survey items 4.6, 4.10, 4.12, 4.24, 4.30 (5 items). Higher scores in each dimension indicated more agreement with the attitude measured by the dimension, and lower scores indicated less agreement with the attitude measured by the dimension. For instance, higher death avoidance scores indicated more agreement with items that measured an aversion to death-related content, and lower death avoidance scores indicated less agreement with items that measured an aversion to death-related content.

**Personal variables.** There were a total of six personal variables included in the data analyses of this study that were coded in the following ways.

*Age.* Qualtrics item 6.2 was coded as a continuous variable measuring each participant’s reported age.
Gender. Qualtrics item 6.3 was coded as a dichotomous variable including Male (0) and Female (1).

Religious beliefs. Qualtrics item 6.8 was recoded as a dichotomous variable including no past or present religious beliefs associated with Christianity (0) and some past/or present religious beliefs associated with Christianity (1). The decision to recode religious beliefs as a dichotomous variable was consistent with the methods of previous research including the ATTS (Norheim et al., 2013).

Exposure to the suicidal behaviors of others. Qualtrics items 2.2 through 2.5 were recoded as one dichotomous variable representing no exposure to the suicidal thoughts, plans, threats, attempts, or deaths of others (0) and some exposure to the suicidal thoughts, plans, threats, attempts, or deaths of others (1). Others were defined as parents, siblings, children, intimate partners, other relatives, friends, and school/work-mates. The decision to include a single dichotomous variable to measure participants’ exposure to the suicidal behaviors of others was consistent with previous research using the ATTS (Kodaka et al., 2012; Kodaka et al., 2013).

Suicide potential. Qualtrics item 3.2 was coded as an ordinal variable that measured the degree of personal potential for suicide endorsed by the participants. Codes were created for each of the following statements: “I am sure I will never die by suicide” (0); “I hope I will never die by suicide, but I am not absolutely sure” (1); “Under certain circumstances I consider suicide as a possibility” (2); and “I consider suicide as a possibility for the future” (3). Higher scores indicated more potential for suicide in the future, and lower scores indicated less potential for suicide in the future.
**Personal suicidal behaviors.** Qualtrics items 3.3 through 3.5 were recoded as one dichotomous variable that identified participants who *had a history of personal suicidal thoughts, considerations, and/or attempts* (1) and those who *had no history of personal suicidal thoughts, considerations, and/or attempts* (0). The decision to use a single dichotomous variable was consistent with recent research using the ATTS (Kodaka et al., 2012; Kodaka et al., 2013).

**Professional variables.** There were a total of six professional variables included in the data analyses of this study that were coded in the following ways.

**Previous work experience.** Qualtrics item 6.10 was coded as a dichotomous variable that identified participants who reported *some professional helping experience prior to their enrollment in the counseling program* (1) and participants who reported *no prior helping experience before the counseling program* (0). The decision to include a single dichotomous variable to measure participants’ previous work experience was consistent with previous research using the ATTS and the DAP-R (Kodaka et al., 2012, Kodaka et al., 2013; Neimeyer et al., 2001).

**Professional exposure to suicidal behaviors.** Qualtrics item 6.12 was recoded as one dichotomous variable that identified participants who reported *some exposure to the suicidal thoughts, attempts, and/or deaths of a client during the professional relationship before the counseling program* (1) and participants who reported *no exposure to the suicidal thoughts, attempts, and/or deaths of a client during the professional relationship before the counseling program* (0). The decision to include a single dichotomous variable to measure participants’ professional exposure to the suicidal clients was
consistent with previous research using the ATTS (Kodaka et al., 2012; Kodaka et al., 2013; Neimeyer et al., 2001).

**Academic standing.** Qualtrics item 6.6 was recoded as an ordinal variable that measured the length of time the student was enrolled in the counseling program. Students enrolled in the program longer were also assumed to have completed more coursework and supervised counseling practice. Higher scores indicated more coursework completed and more supervised counseling experience, and lower scores indicated less coursework complete and less supervised counseling experience.

**Exposure to suicidal behaviors as a student.** Qualtrics item 6.18 was recoded into one dichotomous variable that identified participants with *some exposure to the suicidal thoughts, attempts, and/or deaths of a client while a student* (1) and participants who reported *no exposure to suicidal thoughts, attempts, and/or deaths of a client as a student* (0).

**Death education.** Qualtrics item 6.14 was coded as a dichotomous variable that identified participants who reported *some history of death education in the counselor education program and/or another setting* (1) and *no history of death education* (0).

**Suicide training.** Qualtrics item 6.16 was coded as a dichotomous variable that identified participants who reported *some history of suicide intervention training in the counselor education program and/or another setting* (1) and *no history of suicide prevention training* (0).

**Preliminary analyses.** The preliminary analyses of this study included an initial review of the integrity and completeness of the data set. Additionally, the EXPLORE
function in SPSS was used to generate univariate statistics. Relationships between all control, predictor, and outcome variables were evaluated using scatterplot matrices and correlation coefficients. Descriptive statistics were generated to provide a context for the interpretation of inferential statistics and evidence for the generalizability of the data from this study. One-way ANOVA tests were conducted to evaluate the mean differences for suicide attitudes across sub-groups of participants by covariates. Lastly, the final sample size was evaluated to determine the appropriateness of the data sample for use in the hierarchical multiple regression models of this study.

**Principal component analyses.** Principal component analyses (PCA) were conducted on participants’ scores from the 32 DAP-R items, 37 ATTS items, and 13 ATTS items of the survey created for this study in order to determine how well the data of the current study matched the factor structures that were chosen to define the dimensions of death and suicide attitudes. All PCA were conducted using varimax rotation with a minimum selection eigenvalue of 1 and factor loadings set at +/- .40. Items with higher factor loadings were given more weight in the determination of the appropriate factor structure.

**Primary analyses.** After all preliminary analyses were completed, each null hypothesis was tested using hierarchical multiple regression analyses. Each hierarchical multiple regression analysis included one dimension of suicide attitudes (acceptance, condemnation, or preventability) as an outcome variable to evaluate how much variance in counseling students’ reported suicide attitudes was accounted for by their reported
death attitudes after controlling for the effects of the six personal and six professional variables included in this study.

**Full regression model.** For the purpose of the current study, *full regression model* was used to refer to the analyses that included all five dimensions of death attitudes and all 12 covariates in the prediction of each individual dimension of suicide attitude. Testing each null hypothesis began with a full hierarchical multiple regression analysis that entered all six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, and six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training in Step 1 of the regression model simultaneously. All five death attitude variables: (1) fear of death, (2) death avoidance, (3) approach acceptance, (4) neutral acceptance, and (5) escape acceptance, were entered in Step 2 of the regression model simultaneously. The significance level for all analyses was set at $p < .05$. When entering the variables in the SPSS dialogue box, several additional options within SPSS were selected including Model fit, $\Delta R^2$, part and partial correlations, estimates of the regression coefficients, collinearity diagnostics, and Casewise diagnostics. Casewise diagnostic limits were set at $SD = 3$ in order to identify potential outliers in each analysis.

Plots of the standardized predicted values by the standardized residuals, normal probability plot of the standardized residuals, and all partial plots were generated by SPSS. These plots and a histogram of the standardized residual plots were reviewed to
identify potential threats to the assumptions of hierarchical multiple regression analyses. Finally, standardized DFBetas, studentized residuals, covariance ratios, Cook’s distance, and leverage values were saved as new variables in the data set. Assumptions for the full hierarchical multiple regression analyses were tested throughout, and risks for Type I and Type II error were evaluated.

*Trimmed regression model.* For the purpose of the current study, *trimmed regression model* was used to distinguish the multiple regression analyses that included only the statistically significant individual predictor variables and covariates in the prediction of each individual dimension of suicide attitude. After the assumptions for hierarchical multiple regression analysis were evaluated, the full hierarchical multiple regression models were trimmed by removing all statistically non-significant individual covariates and predictor variables, and the analysis was repeated. The statistically significant individual personal and professional covariates were entered in Step 1 simultaneously, followed by the statistically significant individual dimensions of death attitudes variables entered in Step 2 simultaneously. The same assumptions of hierarchical multiple regression were compared to the results from the full models. Finally, the model summary of each trimmed regression model was used to interpret the prediction equation.

*Supplemental analyses.* Even though this study focused on the evaluation of the role of death attitudes in the prediction of suicide attitudes among counseling students after controlling for personal and professional covariates, supplemental analyses were
conducted to evaluate the effects of the individual control and predictor variables and determine the preferred prediction models.

**Summary**

This chapter provided a description of procedures, operational definitions of the variables, sampling plan, and instrumentation used in this research study. The psychometric properties of the two instruments developed by previous researches (DAP-R, Wong et al., 1994; ATTS, Renberg & Jacobsson, 2003) and utilized in this study were discussed. The method of data collection and the proposed data analyses to test the null hypotheses of this study were described. The results of the current study are reported in chapter four.
Chapter 4: Results

The purpose of the current study was to evaluate the role of five death attitude variables (fear of death, death avoidance, approach acceptance, neutral acceptance, and escape acceptance) in the prediction of three suicide attitude variables (acceptance of suicide, condemnation of suicide, and preventability of suicide) among counseling students’ after controlling for the effects of six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, and six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training. This chapter presents the results of the data analysis procedures described in chapter three that were conducted to test the fit of the data with previous research, the null hypotheses posited by the current study, and the predictive power of the individual predictor variables and covariates. The three null hypotheses are listed below.

**Null Hypothesis 1:** No statistically significant variance in counseling students’ reported acceptance of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates.

**Null Hypothesis 2:** No statistically significant variance in counseling students’ reported condemnation of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of the twelve personal and professional covariates.
Null Hypothesis 3: No statistically significant variance in counseling students’ reported attitudes towards the preventability of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates.

Preliminary Analyses

The preliminary analyses of the current study included an initial review of the integrity and completeness of the data set. The EXPLORE function in SPSS was used to generate univariate statistics, which were evaluated for skewness, kurtosis, and potential outliers. Relationships between all control, predictor, and outcome variables were evaluated using scatterplot matrices and correlation coefficients. Descriptive statistics provided a context for the interpretation of the results from the primary, supplemental, and principal component analyses (PCA) as well as the generalizability of the data from this study. One-way ANOVA tests were conducted to evaluate the mean differences for suicide attitudes across sub-groups of participants by covariates. Lastly, the final sample size was evaluated to determine the appropriateness of the data sample for use in the hierarchical multiple regression models of this study.

Data screening. After the data collected with the Qualtrics survey were exported to SPSS, the EXPLORE feature of SPSS was used to evaluate the completeness of the data set and univariate skewness, kurtosis, and extreme scores. Large amounts of missing data were found among the 52 individuals who accessed the Qualtrics survey but did not complete it, and these responses were removed from all analyses in the current study. With the exception of items that were not shown to all participants because of the
advanced survey logic options embedded in the Qualtrics, all items for the 183 participants in the current study were completed with no missing responses. Advanced logic items were recoded as 0 because these participants did not endorse the requisite criteria, which indicated the absence of the respective variable.

All univariate Shapiro-Wilk’s and Komogorov-Smirnov tests were statistically significant, which indicated potential problems related to skew and kurtosis for all variables. Slight negative skew was observed in the frequency distribution of gender, exposure to the suicidal behaviors of others, and personal suicidal behaviors, while positive skew was observed in the frequency distribution of age. Platokurtic distributions were observed for gender and exposure to the suicidal behaviors of others, while leptokurtic distributions were observed for death education.

Statistically significant skew was also observed for the distributions of all predictor and outcome variables. Specifically, positive skew was observed for acceptance of suicide, preventability of suicide, fear of death, death avoidance, and escape acceptance of death, while negative skew was observed for condemnation of suicide, approach acceptance of death, and neutral acceptance of death. Statistically significant leptokurtic distributions were observed on most predictor and outcome variables including condemnation of suicide, preventability of suicide, death avoidance, approach acceptance of death, neutral acceptance of death, and escape acceptance of death. The boxplot for condemnation scores revealed one potential extreme score, but no other boxplots for the remaining predictor or outcome variables showed extreme scores. Bivariate relationships were evaluated using scatterplot matrices for all control, predictor,
and outcome variables and revealed no relative concerns for the subsequent analyses. Although, the results of the data screening identified limitations in this study, no apparent patterns were observed when reviewing individual cases. Additionally, all participants’ responses were important to the exploratory nature of this study; therefore, no adjustments were made and all responses were included in the data analyses of this study. All frequency histograms, normal Q-Q plots, detrended normal Q-Q plots, and boxplots for the outcome, predictor, and non-dichotomous covariates can be viewed in Appendix K.

**Descriptive statistics.** The participants included in the data analyses of this study were 85.2% women \((n = 156)\) and 14.8% men \((n = 27)\) and ranged in age from 20 to 63 \((\bar{X} = 32.4, \ SD = 9.74)\). As can be seen in Table 1, the data from this study indicated an overrepresentation of participants from the Rocky Mountain regions of ACES and an underrepresentation of participants from the North Central region of ACES. The distribution of participants among all other ACES regions were similar to what was expected.
### Table 1

**Frequency of Participants by State and ACES Region**

<table>
<thead>
<tr>
<th>ACES Region</th>
<th>Observed n (%)</th>
<th>Expected n (%)</th>
<th>State</th>
<th>Observed n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocky Mountain*</td>
<td>20 (10.9%)</td>
<td>11.1 (6%)</td>
<td>WY</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UT</td>
<td>8 (4.4%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NM</td>
<td>5 (2.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ID</td>
<td>5 (2.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CO</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>North Atlantic</td>
<td>37 (20.2%)</td>
<td>33.3 (18%)</td>
<td>PA</td>
<td>6 (3.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NH</td>
<td>5 (2.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ME</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MA</td>
<td>22 (12%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CT</td>
<td>3 (1.6%)</td>
</tr>
<tr>
<td>Southern</td>
<td>82 (44.8%)</td>
<td>73.9 (40%)</td>
<td>VA</td>
<td>25 (13.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TX</td>
<td>10 (10.9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TN</td>
<td>11 (6%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SC</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LA</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>KY</td>
<td>5 (2.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FL</td>
<td>7 (3.8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AR</td>
<td>12 (6.6%)</td>
</tr>
<tr>
<td>North Central*</td>
<td>28 (15.3%)</td>
<td>48.1 (26%)</td>
<td>OH</td>
<td>4 (2.2%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MO</td>
<td>5 (2.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MN</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IN</td>
<td>10 (5.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IL</td>
<td>8 (4.4%)</td>
</tr>
<tr>
<td>Western</td>
<td>14 (7.7%)</td>
<td>16.6 (9%)</td>
<td>WA</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OR</td>
<td>7 (3.8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AZ</td>
<td>6 (3.3%)</td>
</tr>
<tr>
<td>None reported</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2 (1.1%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>183</td>
</tr>
</tbody>
</table>

*Chi-square goodness-of-fit test significant at p < .001.*

Note. All data was obtained from CACREP (2013a, 2013b).
**Suicide attitudes.** Suicide attitudes were measured using a 5-point Likert scale ranging from 1 (*strongly agree*) to 7 (*strongly disagree*). Lower scores indicate more agreement with the dimension of suicide attitudes being measured. For example, lower scores on the acceptance of suicide items indicate more agreement with the acceptance of suicide. Counseling students in the current study had an average acceptance of suicide score of 2.93 (SD = .85), with lower scores indicating more acceptance of suicide.

Counseling students in the current study had an average condemnation of suicide score of 3.30 (SD = .72), with lower scores indicating more condemnation of suicide. Counseling students in the current study had an average preventability score of 2.11 (SD = .63), with lower scores indicating more belief in the preventability of suicide. A complete review of the descriptive statistics for each dimension of suicide attitude by group of covariates can be found in Appendix L.

**Death attitudes.** Death attitudes were measured using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Lower scores indicate more disagreement with the dimension of death attitude being measured. For example, lower fear of death scores indicate more disagreement with the belief that death is something to be feared. Counseling students in the current study had an average fear of death score of 3.76 (SD = 1.39), with higher scores indicating more fear of death. Counseling students in the current study had an average avoidance of death score of 3.27 (SD = 1.40), with higher scores indicating more avoidance of death-related thoughts and situations.

Counseling students in the current study had an average neutral acceptance of death score of 5.57 (SD = .78), with higher scores indicating indifferent reactions to death and the
belief that death is a natural process. Counseling students in the current study had an average approach acceptance of death score of 4.36 ($SD = 1.63$), with higher scores indicating more acceptance of death as something that will bring about great satisfaction. Counseling students in the current study had an average escape acceptance of death score of 3.69 ($SD = 1.47$), with higher scores indicating more acceptance of death as something that will bring about an escape from an undesirable life.

**Correlation coefficients.** Because of the ordinal nature of all data and the dichotomous nature of most covariates, the interpretation of correlation coefficients becomes difficult. An increase in each variable represents movement from one level of the variable to another. Table 2 shows the pair-wise correlation coefficients for death attitudes and suicide attitudes. It should be noted that lower suicide attitude scores equal more agreement with items measuring each dimension of suicide attitudes and lower death attitude scores equal more disagreement with items measuring each dimension of death attitude. Statistically significant positive correlations were observed between (a) death avoidance and fear of death, (b) acceptance of suicide and approach acceptance of death, and (c) preventability of suicide and condemnation of suicide. Statistically significant negative correlations were observed between (a) condemnation of suicide and acceptance of suicide, (b) condemnation of suicide and death avoidance, (c) neutral acceptance of death and death avoidance, (d) neutral acceptance of death and fear of death, (e) condemnation of suicide and approach acceptance of death, (f) approach acceptance of death and fear of death, (g) condemnation of suicide and fear of death, (h)
acceptance of suicide and neutral acceptance of death, and (i) acceptance of suicide and belief in the preventability of suicide.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Acceptance</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Condemnation</td>
<td>-.466**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Preventability</td>
<td>-.157*</td>
<td>.178*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Fear of Death</td>
<td>-.076</td>
<td>-.176*</td>
<td>-.121</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Death Avoidance</td>
<td>.132</td>
<td>-.383**</td>
<td>-.133</td>
<td>.618**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Neutral Acc.</td>
<td>-.159*</td>
<td>.115</td>
<td>.018</td>
<td>-.353**</td>
<td>-.318**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7 Approach Acc.</td>
<td>.402**</td>
<td>-.331**</td>
<td>-.009</td>
<td>-.184*</td>
<td>.013</td>
<td>.051</td>
<td>1</td>
</tr>
<tr>
<td>8 Escape Acc.</td>
<td>-.064</td>
<td>.000</td>
<td>.055</td>
<td>-.108</td>
<td>-.122</td>
<td>.114</td>
<td>.409**</td>
</tr>
</tbody>
</table>

*Note.* Pearson correlation coefficients *p < .05 level (2-tailed); **p < 0.01 level (2-tailed).

Table 3 shows the pair-wise correlation coefficients between counseling students’ suicide attitude scores and the personal and professional covariates. When interpreting these scores, it should be noted that lower suicide attitude scores equal more agreement with items measuring each dimension of suicide attitudes and lower death attitude scores equal more disagreement with items measuring each dimension of death attitude. The statistically significant correlation coefficients indicate the following relationships
between the dimensions of suicide attitudes and the covariates: (a) participants who reported more agreement with the acceptance of suicide tended to have less religious beliefs associated with Christianity, less personal suicidal behaviors, and more suicide potential; (b) participants who reported more agreement with the condemnation of suicide tended to have more religious beliefs associated with Christianity, more exposure to the suicidal behaviors of others, less personal suicidal behaviors, more suicide potential, and more suicide training; and (c) participants who reported more agreement with the preventability of suicide also tended to report more personal suicidal behaviors, less professional experience, and less exposure to the suicidal behaviors of clients before the counseling program.
Table 3

**Correlation Coefficients for Suicide Attitudes and Covariates**

<table>
<thead>
<tr>
<th>Control Variable</th>
<th>Acceptance</th>
<th>Condemnation</th>
<th>Preventability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.076</td>
<td>.093</td>
<td>.131</td>
</tr>
<tr>
<td>Gender</td>
<td>.066</td>
<td>-.061</td>
<td>.041</td>
</tr>
<tr>
<td>Religion</td>
<td>.447**</td>
<td>-.313**</td>
<td>.021</td>
</tr>
<tr>
<td>Others’ Behavior</td>
<td>-.051</td>
<td>.247**</td>
<td>.046</td>
</tr>
<tr>
<td>Personal Behavior</td>
<td>.265**</td>
<td>-.157*</td>
<td>-.161*</td>
</tr>
<tr>
<td>Suicide Potential</td>
<td>-.477**</td>
<td>.395**</td>
<td>.070</td>
</tr>
<tr>
<td>Previous Experience</td>
<td>-.094</td>
<td>.125</td>
<td>.168*</td>
</tr>
<tr>
<td>Student Experience</td>
<td>.058</td>
<td>-.013</td>
<td>-.006</td>
</tr>
<tr>
<td>Professional Exposure to Suicide</td>
<td>-.007</td>
<td>.108</td>
<td>.154*</td>
</tr>
<tr>
<td>Suicide Training</td>
<td>-.048</td>
<td>.203**</td>
<td>.029</td>
</tr>
<tr>
<td>Death Education</td>
<td>.006</td>
<td>.128</td>
<td>.134</td>
</tr>
<tr>
<td>Academic Standing</td>
<td>.013</td>
<td>-.014</td>
<td>-.004</td>
</tr>
</tbody>
</table>

*Note.* Spearman’s rho **p < .005; *p < .05

Table 4 shows the intercorrelations among all six personal covariates and the pairwise correlations with all six professional covariates. The correlation coefficients indicate the following relationships between the covariates: (a) participants who reported less suicide potential also tended to report more religious beliefs associated with
Christianity and more personal suicidal behaviors and (b) participants who reported more professional exposure to suicide were more likely to be older.

Table 4

*Intercorrelations between Personal Variables and all Covariates*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Age</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Gender</td>
<td>-.114</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Christianity</td>
<td>.095</td>
<td>-.039</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others’ Suicidal Behaviors</td>
<td>.019</td>
<td>.121</td>
<td>-.014</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 Professional Suicidal Behaviors</td>
<td>-.167*</td>
<td>-.027</td>
<td>.087</td>
<td>-.065</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 Suicide Potential</td>
<td>.148*</td>
<td>-.091</td>
<td>-.224**</td>
<td>.176*</td>
<td>-.367**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Previous Work Experience</td>
<td>.176*</td>
<td>-.020</td>
<td>-.018</td>
<td>.069</td>
<td>-.127</td>
</tr>
<tr>
<td></td>
<td>Student Exposure</td>
<td>.006</td>
<td>-.102</td>
<td>.084</td>
<td>-.044</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Professional Exposure</td>
<td>.243**</td>
<td>-.005</td>
<td>.005</td>
<td>.089</td>
<td>-.097</td>
</tr>
<tr>
<td></td>
<td>Suicide Training</td>
<td>-.021</td>
<td>.087</td>
<td>.056</td>
<td>.082</td>
<td>.074</td>
</tr>
<tr>
<td></td>
<td>Death Education</td>
<td>.012</td>
<td>-.084</td>
<td>.040</td>
<td>.010</td>
<td>.089</td>
</tr>
<tr>
<td></td>
<td>Academic Standing</td>
<td>.067</td>
<td>-.081</td>
<td>.119</td>
<td>-.124</td>
<td>.084</td>
</tr>
</tbody>
</table>

*Note.* Spearman’s Rho *p < .05; **p < .005
Table 5 shows the intercorrelations among all six professional covariates and the pair-wise correlations with all six personal covariates. The correlation coefficients indicate the following relationships between the covariates: (a) participants who reported higher academic standing also tended to report student exposure to the suicidal behaviors of clients, more suicide training, and more death education; (b) participants who reported more suicide training also tended to report more professional exposure to the suicidal behaviors of clients and more death education; (c) participants who reported death education also tended to report more suicide training, (d) participants who reported both more student and professional exposure to the suicidal behaviors of clients also tended to report more suicide training; and (e) participants who reported more previous work experience also tended to report more professional exposure to the suicidal behaviors of clients.
Table 5

*Intercorrelations between Professional Variables and all Covariates*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Exposure</td>
<td>.128</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide Training</td>
<td>.139</td>
<td></td>
<td>.229**</td>
<td>.211**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death Education</td>
<td>.173*</td>
<td>.130</td>
<td>.174*</td>
<td>.252**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>.159*</td>
<td></td>
<td>.503**</td>
<td>.072</td>
<td>.275**</td>
<td>.200**</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.176*</td>
<td>.006</td>
<td>.243**</td>
<td>-.021</td>
<td>.012</td>
<td>.067</td>
</tr>
<tr>
<td>Gender</td>
<td>-.020</td>
<td>-.102</td>
<td>-.005</td>
<td>.087</td>
<td>-.084</td>
<td>-.081</td>
</tr>
<tr>
<td>Christianity</td>
<td>-.018</td>
<td>.084</td>
<td>.005</td>
<td>.056</td>
<td>.040</td>
<td>.119</td>
</tr>
<tr>
<td>Others’ Suicidal Behaviors</td>
<td>.069</td>
<td>-.044</td>
<td>.089</td>
<td>.082</td>
<td>.010</td>
<td>-.124</td>
</tr>
<tr>
<td>Personal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicidal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behaviors</td>
<td>-.127</td>
<td>.001</td>
<td>-.097</td>
<td>.074</td>
<td>.089</td>
<td>.084</td>
</tr>
<tr>
<td>Suicide Potential</td>
<td>.099</td>
<td>-.018</td>
<td>.053</td>
<td>-.054</td>
<td>-.040</td>
<td>-.087</td>
</tr>
</tbody>
</table>

*Note.* Spearman’s Rho *p < .05; **p < .005

One-way analysis of variance (ANOVA) tests were conducted to evaluate the mean differences of suicide attitudes by each control variable. All one-way ANOVA results were consistent with the results of the correlation analyses in the current study.
Statistically significant mean suicide attitudes score differences were observed among participants by religious groups. Specifically, Tukey’s post-hoc analyses identified the only statistically significant differences were among participants who reported past or present religious beliefs that were associated with Christianity (Acceptance, $F(1,181) = 40.28, p < .001$; Condemnation, $F(1,181) = 19.08, p < .001$). Additional findings indicated that participants who reported current enrollment in practicum at the time of this study reported lower scores on each of the suicide attitude dimensions than did participants who had not taken practicum and students who had already completed practicum; however, this trend was not statistically significant. A complete list of the mean suicide attitudes scores by control variable can be found in Appendix L.

Before conducting the primary analyses of this study, it was necessary to evaluate the appropriateness of the sample size obtained during the data collection of this study. Given the large number of variables included in the analyses of this study, it was essential to have enough cases to limit the risks of Type II error. The final sample size ($N = 183$) obtained during the data collection of the current study exceeded the minimum sample size that determined to be needed during the development of this study. Additionally, the reduced number of variables included in each trimmed hierarchical multiple regression model increased the precision efficacy value to .80 according to the method proposed by Brooks and Barcikowski (2012).
Principal Component Analyses of the DAP-R Results

Principal component analyses (PCA) were conducted to determine how well the participants’ scores on the DAP-R in this study fit with the pre-existing factor structure that was used to define the death attitude variables (Wong et al., 1994) The PCA of the DAP-R item scores was performed with varimax rotation and factor loadings set +/- .40, according to the methods proposed by Wong et al. (1994). As can be seen in Table 6, the PCA extracted a 6-factor model containing all 32 items of the DAP-R that accounted for 72.59% of the total variance in responses with a total Cronbach’s α of .85. Factor loadings for each item of the DAP-R found in the current study can be viewed in Appendix M.

These results are relatively similar to those produced by Wong et al. (1994) with two exceptions. First, the PCA in this study split the original neutral acceptance factor in two. Additionally, this factor split appeared logical because Factor 5 included items that measured the natural process of dying, and Factor 6 included items that measured the indifferent reaction to dying. Secondly, the DAP-R item 1 loaded on the fear of death factor in the original Wong et al. (1994) study, but loaded on the death avoidance factor in the present study. A comparison of the current factor structure with all previous DAP-R factor structures identified during the creation of this study can be reviewed in Table 15 that is located in discussion of the results from the current study in chapter five.
Table 6

*PCA of the DAP-R Results*

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Num. of items</th>
<th>Eigenvalue</th>
<th>% variance</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach Acceptance</td>
<td>10</td>
<td>7.865</td>
<td>24.578</td>
<td>.966</td>
<td>.737 -.918</td>
</tr>
<tr>
<td>Fear of Death</td>
<td>6</td>
<td>4.183</td>
<td>13.072</td>
<td>.912</td>
<td>.691 -.815</td>
</tr>
<tr>
<td>Death Avoidance</td>
<td>6</td>
<td>4.171</td>
<td>13.034</td>
<td>.883</td>
<td>.534 -.869</td>
</tr>
<tr>
<td>Escape Acceptance</td>
<td>5</td>
<td>3.488</td>
<td>10.899</td>
<td>.871</td>
<td>.724 -.840</td>
</tr>
<tr>
<td>Neutral Acceptance 1</td>
<td>3</td>
<td>2.225</td>
<td>6.953</td>
<td>.763</td>
<td>.769 -.861</td>
</tr>
<tr>
<td>Neutral Acceptance 2</td>
<td>2</td>
<td>1.298</td>
<td>4.057</td>
<td>.581</td>
<td>.691 -.79-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>-</strong></td>
<td><strong>72.592</strong></td>
<td><strong>.851</strong></td>
<td><strong>-</strong></td>
</tr>
</tbody>
</table>

*Note.* Varimax rotation with Kaiser normalization, converged at 7 iterations. Barlett’s test of sphericity $p < .001$.

Neutral Acceptance 1 included items related to the natural process of death and Neutral Acceptance 2 included items related to the indifference response to death.

**Principal Component Analyses of the ATTS Results**

Principal component analyses (PCA) were conducted to determine how well the participants’ scores on the ATTS this study fit with the pre-existing factor structure that was used to define the suicide attitude variables (Renberg et al., 2008). The PCA of the ATTS item scores was performed with varimax rotation and factor loadings set $+/- .40$, according to the methods proposed by Renberg et al. (2008). Similar to previous research (e.g., Renberg et al., 2003; Kodaka et al., 2012; Kodaka et al., 2013), the results of the 37
Attitude item from the ATTS failed to converge at rotated factor structure in 25 iterations. Nonetheless, the PCA extracted an unrotated 12-factor model containing all 37 items of the ATTS that accounted for 63.36% of the total variance in responses with a Cronbach’s α of .55 (see Appendix N).

A second PCA was conducted on the 13 items from the ATTS used to define the three dimensions of suicide attitudes for the current study (Renberg et al., 2008). Table 7 shows the results of the PCA that converged with a rotated three-factor model that included all 13 items and accounted for 57.33% of the total variance in responses with a Cronbach’s α of .58. The PCA of the 13-item ATTS in the current study were similar to results reported by Renberg et al. (2008) with only one exception. ATTS item 2 was found to load on the condemnation factor in the Renberg et al. (2008) study but loaded on the acceptance factor extracted by the PCA of the current study. Interestingly, this item was also cross-loaded on the condemnation of suicide factor of the current study, which suggested that this item might measure similar concepts. It is also important to note that the total reliability of the three-factor model in this study was smaller than the three-factor model proposed by Renberg et al. (2008). A comparison of the current factor structure with all previous ATTS factor structures identified during the creation of this study can be reviewed in Table 16 that is located in the discussion of the findings of the current study in chapter five. Factor loadings for each item of the ATTS found in the current study can be viewed in Appendix O.
Table 7

*PCA of the ATTS Results*

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Num. of items</th>
<th>Eigenvalue</th>
<th>% variance</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance</td>
<td>7</td>
<td>3.990</td>
<td>30.696</td>
<td>.694</td>
<td>-.592 -.854</td>
</tr>
<tr>
<td>Condemnation</td>
<td>3</td>
<td>1.902</td>
<td>14.631</td>
<td>.597</td>
<td>.623 -.764</td>
</tr>
<tr>
<td>Preventability</td>
<td>3</td>
<td>1.561</td>
<td>12.006</td>
<td>.449</td>
<td>.623 -.724</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>-</td>
<td>57.33</td>
<td>.58</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note.* Varimax rotation with Kaiser normalization, failed to converge in 25 iterations. Barlett’s test of sphericity $p < .001$.

**Primary and Supplemental Analyses**

After the completion of all preliminary analyses, each null hypothesis was tested according to the data analysis procedures that were outlined in chapter three. The null hypothesis of each research question was tested using results from the hierarchical multiple regression analyses conducted for each of the three outcome variables: *acceptance, condemnation, and preventability of suicide.* Each section that follows presents the research question, the results from the full regression model, the results from the trimmed regression model, the results from the testing of assumptions for hierarchical multiple regression, results of supplemental regression models, the evaluation of the individual predictor variables, and concludes with an interpretation of the most robust prediction model.
For the purpose of the current study, full regression model was used to refer to the analyses that included all five dimensions of death attitudes and all 12 covariates in the prediction of each individual dimension of suicide attitude. This was done in order to distinguish between the trimmed regression models that included only the statistically significant individual predictor variables and covariates in the prediction of each individual dimension of suicide attitude. When interpreting these findings, it is worth noting that lower suicide attitude scores indicate more agreement with the individual dimension of suicide attitude being measured while lower scores death attitude scores indicate more disagreement with the individual dimension of death attitude being measured.

**RQ 1: How much variance in counseling students’ reported acceptance of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?**

**Full regression model.** Hierarchical multiple regression analyses were conducted to determine how much unique variance in counseling students’ mean scores on the acceptance of suicide factor of the ATTS was accounted for by their mean scores on each of the subscales of the DAP-R, after controlling for the effects of twelve personal and professional covariates. Model 1 included six personal (age, gender, religious beliefs, others’ suicidal behaviors, personal suicidal behaviors, and suicide potential) and six professional variables (academic standing, previous work experience, suicidal clients before counseling program, suicidal clients during the counseling program, history of
death education, and history of suicide training) that were entered simultaneously in Step 1, and Model 2 added the five death attitude variables (fear of death, death avoidance, neutral acceptance, approach acceptance, and escape acceptance) simultaneously in Step 2.

As can be seen in Table 8, Model 1 accounted for 35% of the variance in counseling students’ acceptance of suicide scores ($F(12,170) = 7.71, p < .001$), and Model 2 accounted for 41% of the variance in counseling students’ acceptance of suicide scores ($F(17,165) = 6.83, p < .001$). The entry of death attitudes in the model increased the explained variance in counseling students’ acceptance of suicide scores by 6.1% ($\Delta F(5,165) = 3.42, p = .006$). Therefore, the null hypothesis that death attitudes would account for no statistically significant variance in counseling students’ acceptance of suicide after controlling for the effects of personal and professional covariates was rejected.
Table 8

Hierarchical Multiple Regression Model Comparisons for Predicting Acceptance of Suicide from Death Attitudes

<table>
<thead>
<tr>
<th>Model</th>
<th>Full with Outlier</th>
<th>Trimmed with Outlier</th>
<th>Trimmed without Outlier</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
</tr>
<tr>
<td>$R$</td>
<td>.594</td>
<td>.643</td>
<td>.574</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.352</td>
<td>0.413</td>
<td>0.33</td>
</tr>
<tr>
<td>$AdjR^2$</td>
<td>0.307</td>
<td>0.353</td>
<td>0.318</td>
</tr>
<tr>
<td>$SE$</td>
<td>0.71</td>
<td>0.69</td>
<td>0.71</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>-</td>
<td>0.061</td>
<td>-</td>
</tr>
<tr>
<td>$\Delta F$</td>
<td>7.705*</td>
<td>3.415*</td>
<td>29.323*</td>
</tr>
</tbody>
</table>

Note. $\Delta F$ and ANOVA tests significant at $p < .01$.

Assumption testing. The assumptions for hierarchical multiple regression were tested to determine the appropriateness of the model. All Variance Inflation Factor (VIF) scores were less than 2.76, which suggested little concern for multicollinearity among the predictor variables (Ho, 2006); however, religious beliefs and approach acceptance had the highest VIF scores (2.11 and 2.76). Casewise diagnostics in the SPSS program were used during the regression analyses in order to test for the presence of outliers in the data set.

Casewise diagnostics identified one potential outlier (Case 148) with a studentized residual of 3.05 that threatened the accuracy of the prediction model; however, the Cook’s distance (.11) and the leverage value (.15) indicated less risk for the
influence of this case. For the entire sample, Cook’s statistics ranged from .00 to .11, and leverage values ranged from to .04 to .18. A frequency histogram of the regression standardized residuals showed no relative concerns regarding the normality of the error distribution, and a normal P-P plot of the regression standardized residuals suggested the approximation of a normal distribution (see Appendix P). Scatterplots of mean acceptance scores and regression studentized residuals identified a positive linear relationship between predictor and outcome variables. Partial regression plots identified the potential for heteroscedasitictiy with suicide potential and escape acceptance, but no obvious concerns were noted. Finally, no standardized DFBetas exceeded +/- 1, and the covariance ratio mean was 1.12 with a SD of .15. Given these findings, the assumptions of hierarchical multiple regression were adequately met, and no transformations were calculated.

*Trimmed regression model.* After the assumptions were adequately satisfied, the hierarchical multiple regression models were trimmed by removing all statistically non-significant control and predictor variables that were identified in the full regression Model 1 and Model 2. Thus, in Model 3 religious beliefs, suicide potential, and suicide training were entered in Step 1, and Model 4 added fear of death and neutral acceptance of death in Step 2. Model 3 accounted for 33% of the variance in counseling students’ acceptance of suicide scores \( F(3, 179) = 29.32, p < .001 \), and Model 4 accounted for 37% of the variance in counseling students’ acceptance of suicide scores \( F(5,177) = 21.34, p < .001 \). The entry of death attitudes into the model increased the explained variance by 4.7% \( \Delta F(2,177) = 6.61, p = .002 \). As can be seen in Table 8, the effect size
of Model 4 was smaller than the effect size of Model 2; however, Model 4 had more explanatory power than Model 2. Regardless of the effect sizes of these models, the addition of fear of death and neutral acceptance of death explained statistically significant variance in counseling students’ acceptance of suicide after controlling for the effects of religious beliefs, suicide potential, and suicide training.

When testing the assumptions of the trimmed regression model, the VIF scores decreased, which indicated that a portion of the common variation among the predictor variables was removed. A scatterplot of the regression standardized predicted values by standardized residuals continued to show the potential for heteroscedasiticity, but the histogram continued to approximate a normal distribution. Interestingly, the studentized residual of Case No. 148 increased to 3.78 and raised concerns regarding its potential influence on the accuracy of the prediction model. In response, another trimmed hierarchical multiple regression was conducted in the same manner, with Case No. 148 removed.

In the trimmed regression analyses that removed the outlier, Model 5 accounted for 37.5% of the variance in counseling students’ acceptance of suicide scores \( (F(3, 178) = 35.58, p < .001) \), and Model 6 accounted for 41% of the variance in counseling students’ acceptance of suicide scores \( (F(5,176) = 24.48, p < .001) \). The entry of death attitudes in Model 6 increased the explained variance by 3.5% \( (\Delta F(2,177) = 5.26, p = .006) \). Model 6 showed increases to \( R^2 (.410) \) and \( AdjR^2 (.393) \), but a reduction in \( \Delta R^2 (.035) \) when compared to the previous analyses with the outlier in the model. Thus, the removal of the outlier from this analysis increased the effect size of the overall prediction
model and the explanatory power of the model; however, the unique contribution of death attitudes was also reduced. When evaluating the assumptions of hierarchical multiple regression for this model, the removal of Case No. 148 reduced the maximum studentized residual from 3.78 to 2.24 and increased the relative normality of the error distribution.

The relative reliability of results across models supported the decision to reject the null hypothesis and conclude that death attitudes did explain statistically significant variance in counseling students’ reported acceptance of suicide after controlling for the effects of personal and professional covariates. Additionally, fear of death and neutral acceptance of death alone were statistically significant predictors of counseling students’ acceptance of suicide after controlling for the effects of religious beliefs, suicide potential, and suicide training. Table 8 shows the comparison between regression models created for the prediction of counseling students’ acceptance of suicide. As a result of this comparison, Model 5 and Model 6 were selected for the interpretation of individual control and predictor variables as well as the application of the prediction equation to the data.

Supplemental analyses. Model 5 and Model 6 were evaluated given their relative strength and reduced error in the prediction of counseling students reported acceptance of suicide in the current study. As can be seen in Table 9, the standardized regression coefficients in Model 6 identified religious beliefs ($\beta = .332$, $t = 5.518$, $p < .001$) and suicide potential ($\beta = -.44$, $t = -7.255$, $p < .001$) as statistically significant covariates that predicted acceptance of suicide scores after controlling for the effects of other variables included in the model. Although the effect of suicide training was statistically significant
in Model 2 ($\beta = -.15, t = -2.23, p = .03$) and Model 4 ($\beta = -.131, t = -2.19, p = .03$), the effect of suicide training was no longer statistically significant after the outlier was removed in Model 5 ($\beta = -.10, t = -1.72, p < .09$) and only approached significance ($\beta = -.114, t = -1.95, p < .052$) when fear of death and neutral acceptance of death were added in Model 6. Fear of death ($\beta = -.16, t = -2.49, p = .01$) and neutral acceptance of death ($\beta = -.18, t = -2.84, p < .01$) were the only death attitude variables found to significantly predict participants’ acceptance of suicide scores after controlling for the effects of all other variables in the model.

Adding death attitudes to the models already including personal and professional factors reduced the effect of religious beliefs, but increased the effect of suicide potential and suicide training in both trimmed hierarchical regression models. An examination of the part and partial correlations indicated that the effect of fear of death and neutral acceptance of death individually were also increased after the effects of all other variables in the model were controlled. Thus, fear of death and neutral acceptance of death appeared to be potential suppressor variables for suicide training and suicide potential. Table 9 also shows that suicide potential ($\beta = -.44, t = -7.255, p < .001$) was the control variable with the largest effect on acceptance of suicide scores, and the predictor variable with the largest effect on acceptance of suicide score was neutral acceptance of death ($\beta = -.18, t = -2.84, p < .01$).

**Application of the prediction model.** Model 6 was determined to produce the best prediction equation for counseling students’ acceptance of suicide and is summarized in Table 9. Based upon this prediction equation, it can be predicted that
participants’ scores on the acceptance of suicide factor of the ATTS in the current study would be 4.44 if participants reported no past or present religious beliefs associated with Christianity, they believed there was no potential for their eventual death by suicide, they had no history of suicide training, they strongly disagreed with the concept of fear of death, and they strongly disagreed with the concept of neutral acceptance of death.

Specifically, participants who reported less acceptance of suicide tended to report more religious beliefs associated with Christianity ($\beta = .33$, $t = -5.52$, $p < .001$), less suicide potential ($\beta = -.437$, $t = -6.52$, $p < .001$), less suicide training ($\beta = -.11$, $t = -1.95$, $p = .052$), less fear of death ($\beta = -.16$, $t = -2.49$, $p = .014$), and less neutral acceptance of death ($\beta = -1.77$, $t = -2.84$, $p = .005$).
Table 9

*Final Prediction Model for Counseling Students’ Acceptance of Suicide from Death Attitudes*

<table>
<thead>
<tr>
<th>Model</th>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>Zero-order</th>
<th>Partial</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>5a</td>
<td>(Constant)</td>
<td>2.979</td>
<td>0.111</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Christianity</td>
<td>0.596</td>
<td>0.103</td>
<td>0.353**</td>
<td>0.450</td>
<td>0.397</td>
<td>0.342</td>
</tr>
<tr>
<td></td>
<td>Suicide Potential</td>
<td>-0.493</td>
<td>0.072</td>
<td>-0.422**</td>
<td>-0.499</td>
<td>-0.459</td>
<td>-0.408</td>
</tr>
<tr>
<td></td>
<td>Suicide Training</td>
<td>-0.174</td>
<td>0.102</td>
<td>-0.102**</td>
<td>-0.053</td>
<td>-0.128</td>
<td>-0.102</td>
</tr>
<tr>
<td>6b</td>
<td>(Constant)</td>
<td>4.437</td>
<td>0.470</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Christianity</td>
<td>0.561</td>
<td>0.102</td>
<td>0.332**</td>
<td>0.450</td>
<td>0.384</td>
<td>0.319</td>
</tr>
<tr>
<td></td>
<td>Suicide Potential</td>
<td>-0.511</td>
<td>0.070</td>
<td>-0.437**</td>
<td>-0.499</td>
<td>-0.480</td>
<td>-0.420</td>
</tr>
<tr>
<td></td>
<td>Suicide Training</td>
<td>-0.194</td>
<td>0.099</td>
<td>-0.114*</td>
<td>-0.053</td>
<td>-0.146</td>
<td>-0.113</td>
</tr>
<tr>
<td></td>
<td>Fear of Death</td>
<td>-0.093</td>
<td>0.038</td>
<td>-0.156*</td>
<td>-0.077</td>
<td>-0.184</td>
<td>-0.144</td>
</tr>
<tr>
<td></td>
<td>Neutral Acceptance</td>
<td>-0.191</td>
<td>0.067</td>
<td>-0.177**</td>
<td>-0.140</td>
<td>-0.209</td>
<td>-0.164</td>
</tr>
</tbody>
</table>

*Note.* Christianity and Suicide training coded 0 = None and 1 = Some. Suicide potential was coded from 0 to 3, and each unit increase represented more potential for suicide.

* p < .05; ** p < .001.

\(^a R^2 = .330; ^b R^2 = .376.\)

**RQ 2:** How much variance in counseling students’ reported condemnation, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of the twelve personal and professional covariates?
**Full regression model.** Hierarchical multiple regression analyses were conducted to determine how much unique variance in counseling students’ mean scores on the *condemnation* factor of the ATTS was accounted for by their mean scores on each of the five subscales of the DAP-R, after controlling for the effects of twelve personal and professional covariates. Model 1 included six personal (age, gender, religious beliefs, others’ suicidal behaviors, personal suicidal behaviors, and suicide potential) and six professional variables (academic standing, previous work experience, suicidal clients before counseling program, suicidal clients during the counseling program, history of death education, and history of suicide training) that were entered in Step 1 simultaneously, and Step 2 added the five death attitude variables (fear of death, death avoidance, neutral acceptance, approach acceptance, and escape acceptance) simultaneously to the model that already included the personal and professional covariates to create Model 2.

As can be seen in Table 10, Model 1 accounted for 31.2% of the variance in counseling students’ condemnation of suicide scores ($F(12,170) = 6.41, p < .001$), and Model 2 accounted for 37.7% of the variance in counseling students’ condemnation of suicide scores ($F(17,165) = 5.87, p < .001$). The entry of death attitudes in Step 2 increased the explained variance in counseling students’ condemnation of suicide scores by 6.5% ($\Delta F(5,165) = 3.46, p = .01$). Therefore, the null hypothesis that death attitudes would account for no statistically significant variance in counseling students’ condemnation of suicide scores after controlling for the effects of personal and professional covariates was rejected.
Table 10

Comparisons of Hierarchical Multiple Regression Models and Standardized Coefficients for Predicting Condemnation of Suicide

<table>
<thead>
<tr>
<th>Model</th>
<th>Full</th>
<th>Trimmed</th>
<th>Supplement al&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Supplement al&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.312</td>
<td>.377</td>
<td>.223</td>
<td>.294</td>
</tr>
<tr>
<td>$AdjR^2$</td>
<td>.263</td>
<td>.313</td>
<td>.215</td>
<td>.282</td>
</tr>
<tr>
<td>$SE$</td>
<td>.62</td>
<td>.60</td>
<td>.64</td>
<td>.61</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.312</td>
<td>.065</td>
<td>.223</td>
<td>.070</td>
</tr>
<tr>
<td>$\Delta F$</td>
<td>6.41</td>
<td>3.46</td>
<td>25.8</td>
<td>17.8</td>
</tr>
</tbody>
</table>

| Christianity                 | -.244 | -.104  |                      |                      | -.231| -.107|
| Others’ Behavior             | .135  | .114    |                      |                      | .126 | .104|
| Suicide Potential            | .321  | .239    | .433                | .360                | .433 | .276| .352| .261|
| Suicide Training             | .223  | .190    | .231                | .205                | .231 | .208| .227| .202|
| Death Avoidance              | -.240 | -.276   | -.294               | -.280               |      |     |     |     |
| Approach Acceptance          | -.201 | -.249   | -.166               |                      |      |     |     |     |

Note. All $\Delta F$ and ANOVA tests significant at $p < .01$. All $\beta$ were significant at $p \leq .05$ level unless bolded, which indicates a reduction in effect leading to statistical non-significance.

<sup>a</sup> Model included Suicide Training and Suicide Potential in Step 1 and Death Avoidance and Approach Acceptance in Step 2.

<sup>b</sup> Model included Suicide Training, Christianity, Exposure to Others’ Suicidal Behaviors, and Suicide Potential in Step 1 and Death Avoidance and Approach Acceptance in Step 2.
**Assumption testing.** The assumptions for hierarchical multiple regression were tested to determine the appropriateness of the model. All VIF scores were less than 2.76 which suggested little concern for multicollinearity among the predictor variables; however, religious beliefs and approach acceptance had the highest VIF scores (2.107 and 2.760). Casewise diagnostics identified no potential outliers in the data set. All studentized residuals were under +/-3, and Cook’s distances were between .00 and .059. Additionally, leverage values ranged from .038 to .180. In sum, there was relatively little potential for outliers to reduce the accuracy of the prediction equation.

A frequency histogram of the regression standardized residuals showed no relative concerns regarding the normality of the error distribution, and a normal P-P plot of regression standardized residuals approximated normality (see Appendix Q). Scatterplots of participants’ condemnation mean score and regression studentized residuals identified a positive linear relationship. Partial regression plots identified the potential for heteroscedasiticity with suicide potential, prior work experience, and escape acceptance, but no obvious concerns were noted. Finally, no standardized DFBetas exceeded +/- 1, and the covariance ratio mean was 1.12 with a SD of .15. Given these findings, the regression analyses were conducted with no transformations.

**Trimmed regression model.** After the assumptions were adequately satisfied, the full hierarchical multiple regression Model 1 and Model 2 were trimmed by removing all non-statistically significant control and predictor variables, and hierarchical multiple regression analyses were conducted again. Model 3 included suicide training and suicide potential entered in Step 1 simultaneously, and Model 4 added death avoidance in Step 2.
Model 3 accounted 22.3% of the variance in counseling students’ condemnation of suicide scores \( F(2,180) = 25.89, p < .001 \), and Model 4 accounted for 29.4% of the variance in counseling students’ condemnation of suicide score \( F(3,179) = 24.83, p < .001 \). The entry of death avoidance into the model increased the explained variance in counseling students’ condemnation of suicide scores by 7% \( \Delta F(1,179) = 17.863, p < .001 \). Even though the overall variance in counseling students’ condemnation of suicide that was accounted for in Models 3 and 4 was reduced, the effect of death attitudes, specifically death avoidance, was increased. As a result, death avoidance explained statistically significant variance in counseling students’ condemnation of suicide after controlling for the effects of suicide training and suicide potential.

When testing the assumptions of the trimmed regression model, the VIF scores decreased, which indicated some common variance in the individual predictor variables was removed. The scatterplots of the regression standardized predicted values by standardized residuals showed some risk for heteroscedasticity, but the histogram continued to approximate a normal distribution. Despite the potential limitations identified with the assumption testing, all regression models showed a statistically significant linear relationship with the data, and death avoidance made unique contributions to the prediction of participants’ condemnation of suicide after the effects of suicide training and suicide potential were controlled.

The convergence of results regarding the effects of death attitudes in the full and trimmed hierarchical multiple regression analyses supported the decision to reject the null hypothesis and conclude that death attitudes did explain statistically significant variance
in counseling students’ reported condemnation of suicide after controlling for the effects of personal and professional covariates. In addition to this convergence, changes were observed in the overall effect size of death attitudes, individual predictor variables, and individual covariates. Table 10 reviews these changes and justified the need for supplemental analyses to determine the source of these changes, select the most robust prediction model, and interpret the final prediction equation for counseling students’ condemnation of suicide.

**Supplemental analyses.** As can be seen in Appendix R, the effects of many individual predictor variables and covariates in Model 1 were reduced when death attitudes were entered into Model 2, and Table 10 reviews the statistically significant changes in these effects. Specifically, past/present religious beliefs associated with Christianity, exposure to the suicidal behaviors of others, suicide potential, and suicide training were all statistically significant predictors of counseling students’ condemnation of suicide in Model 1, but when death attitudes were added, only suicide potential and suicide training remained statistically significant individual covariates in the prediction of condemnation of suicide after controlling for all other variables in the model. In regards to death attitudes, only death avoidance (β = -0.24, t = -2.81, p < .006) was a statistically significant predictor of counseling students’ condemnation of suicide; however, approach acceptance was approaching significance (β = -0.20, t = -1.96, p = .051).

Given the fluctuation in the overall effect size of the models built to predict counseling students’ condemnation of suicide and the changes in the effects of individual predictor variables and covariates, two supplemental trimmed hierarchal multiple
regression analyses were conducted. Model 5 included the two statistically significant individual covariates from Model 2 and Model 4 (suicide training and suicide potential) entered in Step 1, and Model 6 added the two statistically significant predictor variables from Model 1 (death avoidance and approach acceptance), in Step 2. Model 7 included all statistically significant individual covariates from Model 1 (suicide training, religious beliefs, exposure to others’ suicidal behaviors, and suicide potential) entered in Step 1, and Model 8 added the two statistically significant predictor variables from Model 2 (death avoidance and approach acceptance) in Step 2.

Table 10 shows a comparison of model summaries for the prediction of counseling students’ condemnation of suicide scores. Model 6 was determined to be the most robust prediction model and accounted for 34.9% of the variance in counseling students' condemnation of suicide scores ($F(4,178) = 23.87, p < .001$). Interestingly, death avoidance and approach acceptance explained an additional 12.6% of the variance in counseling students’ condemnation of suicide after controlling for suicide training and suicide potential. Although Model 8 was also a strong prediction model that accounted for 36% of the variance in counseling students’ condemnation of suicide, the additional variance accounted for was not large enough to justify the addition of two more variables to the model. When looking at the comparison between Model 2 and Model 6 in Table 10, it can be seen that Model 6 had a smaller effect size ($R^2 = .349$) than Model 2 ($R^2 = .377$); however, Model 6 had a larger $AdjR^2 = .35$ and fewer variables, which supported the choice to interpret the prediction equation of counseling students’ reported condemnation of suicide using Model 6. It should also be noted that even though
individual exposure to others’ suicidal behaviors was no longer statistically significant after death attitudes were included in the model, the unstandardized coefficient was .25 in Model 2 and .23 in Model 6, which could indicate the possibility of Type II error, meaning that exposure to others’ suicidal behavior could actually be a significant individual covariate but was not found to be so in the evaluation of Model 6.

As can be seen in Table 11, suicide potential was the covariate with the largest effect on condemnation of suicide scores ($\beta = .276, t = 4.157, p = .00$), and death avoidance was the strongest individual predictor variable ($\beta = -.294, t = -4.662, p = .00$). Additionally, adding approach acceptance in Model 6 increased the overall effect size of the model and the unique variance accounted for by death attitudes by 5.6% ($\Delta R^2 = .07$ to .126), but this was likely due to the shared variance of approach acceptance of death and religious beliefs in the prediction of counseling students’ reported condemnation of suicide.
Table 11

*Final Prediction Model for Predicting Counseling Students’ Condemnation of Suicide from Death Attitudes*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>Zero-order</th>
<th>Partial</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>5&lt;sup&gt;a&lt;/sup&gt; (Constant)</td>
<td>2.845</td>
<td>.086</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suicide Potential</td>
<td>.431</td>
<td>.066</td>
<td>.433*</td>
<td>.413</td>
<td>.440</td>
<td>.431</td>
</tr>
<tr>
<td>Suicide Training</td>
<td>.339</td>
<td>.097</td>
<td>.231*</td>
<td>.193</td>
<td>.253</td>
<td>.231</td>
</tr>
<tr>
<td>6&lt;sup&gt;b&lt;/sup&gt; (Constant)</td>
<td>3.938</td>
<td>.204</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suicide Potential</td>
<td>.275</td>
<td>.066</td>
<td>.276*</td>
<td>.413</td>
<td>.297</td>
<td>.251</td>
</tr>
<tr>
<td>Suicide Training</td>
<td>.305</td>
<td>.089</td>
<td>.208*</td>
<td>.193</td>
<td>.248</td>
<td>.207</td>
</tr>
<tr>
<td>Death Avoidance</td>
<td>-.152</td>
<td>.033</td>
<td>-.294*</td>
<td>-.383</td>
<td>-.330</td>
<td>-.282</td>
</tr>
<tr>
<td>Approach Acceptance</td>
<td>-.110</td>
<td>.028</td>
<td>-.249*</td>
<td>-.331</td>
<td>-.280</td>
<td>-.235</td>
</tr>
</tbody>
</table>

Note. *p < .05; **p < .001; <sup>a</sup>R² = .223; <sup>b</sup>R² = .349.
Suicide training was coded 0 = No and 1 = Yes; Suicide potential was coded from 0 to 3, and each unit increase represented more potential for suicide.

*Application of the prediction model.* Based upon the prediction equation of Model 6, it can be predicted that participants’ scores on the condemnation of suicide factor of the ATTS would be was 3.94 if participants reported no potential for their eventual suicide, they had no suicide training, they strongly disagreed with the concept of death avoidance, and they strongly disagreed with the concept of approach acceptance of death. Specifically, participants who reported less condemnation of suicide were predicted to report more suicide potential (β = .278, t = 4.157, p = .00), more suicide
training ($\beta = .208$, $t = 3.418$, $p = .001$), less death avoidance ($\beta = -.294$, $t = -4.662$, $p = .00$), and less approach acceptance ($\beta = -.249$, $t = -3.888$, $p = .00$).

**RQ 3:** How much variance in counseling students’ reported attitudes towards the preventability of suicide, as measured by the ATTS subscale, is explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates?

**Full regression model.** Hierarchical multiple regression analyses were conducted to determine how much unique variance in counseling students’ mean scores on the preventability of suicide factor of the ATTS was accounted for by their mean score on each of the five subscales of the DAP-R, after controlling for the effects of twelve personal and professional covariates. Model 1 included all six personal (age, gender, religious beliefs, others’ suicidal behaviors, personal suicidal behaviors, and suicide potential) and six professional variables (academic standing, previous work experience, suicidal clients before counseling program, suicidal clients during the counseling program, history of death education, and history of suicide training) that were entered simultaneously in Step 1, and Model 2 added all five death attitude variables (fear of death, death avoidance, neutral acceptance, approach acceptance, and escape acceptance) simultaneously in Step 2. Neither Model 1 ($F(12,170) = 1.38$, $p = .18$) nor Model 2 ($F(17,165) = 1.05$, $p < .41$) was found to display a statistically significant linear relationship with counseling students’ belief in the preventability of suicide scores. Therefore, the null hypothesis that death attitudes would account for no statistically significant variance in counseling students’ belief in the preventability of suicide was not
rejected. All histograms, normal P-P plots of the regression standardized residuals, and partial regression plots can be viewed in Appendix S.

**Supplemental analyses.** Even though no statistically significant prediction equation was discovered through the evaluation of full regression Model 1 or Model 2, supplemental analyses were conducted to inform future research. An evaluation of the individual control and predictor variables in the full regression model also revealed no statistically significant individual predictors of counseling students’ attitudes towards the preventability of suicide scores after controlling for the effects of all other variables in the model. Given the lack of statistically significant findings, an exploratory stepwise regression analysis was conducted with all personal, professional, and death attitude variables entered simultaneously to create Model 3.

As can be seen in Table 12, Model 3 accounted for 5.5% of the variance in counseling students’ attitudes towards the preventability of suicide ($F(2,180) = 5.27, p = .01$). Additionally, the application of the exploratory stepwise multiple regression model indicated that when participants reported no history of personal suicidal behaviors and reported no history of professional experience with suicidal clients prior to the counseling program, their belief in the preventability of suicide factor score of the ATTS was predicted to be 2.37, which indicated general undecidedness. Specifically, participants predicted to have the most belief in the need and ability to prevent suicide were those with a history of personal suicidal behaviors ($\beta = -.165, t = 2.273, p < .024$) who had no previous experience with suicidal clients prior to the counseling program ($\beta = .152, t = 2.086, p < .038$).
Table 12

*Exploratory Step Wise Regression to Predict Counseling Students’ Attitudes Towards the Preventability of Suicide from Death Attitudes*

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj$R^2$</th>
<th>SE</th>
<th>$F$</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>.235$^b$</td>
<td>.055</td>
<td>.045</td>
<td>.62</td>
<td>5.27</td>
<td>2</td>
<td>180</td>
<td>.006</td>
</tr>
</tbody>
</table>

Note. Model included history of personal suicidal behaviors and professional exposure to suicidal behaviors of clients as predictor variables of counseling students’ attitudes towards the preventability of suicide.

**Summary**

This chapter reviewed the results of a cross-sectional study of 183 counseling students from across the United States that aimed to evaluate the role of death attitudes in the prediction of suicide attitudes after controlling for the effects of twelve personal and professional covariates. The results of various hierarchical multiple regression models indicated that two of the three null hypotheses posited by this study were rejected. When considered together, death attitudes accounted for statistically significant variance in the prediction of counseling students’ reported acceptance of suicide and condemnation of suicide after controlling for the effects of twelve personal and professional covariates; however, no dimensions of death attitudes were found to significantly predict counseling students’ belief in the preventability of suicide.

Individual dimensions of death attitudes and individual covariates were also found to have statistically significant effects in the prediction of counseling students’ attitudes towards suicide. The data for this study and the pre-existing factors structures of the
DAP-R and ATTS were a relatively good fit, but some concerns were noted regarding the variability in the items that constituted each factor. Despite the statistically significant findings, the effect sizes found in this study were significantly lower than the hypothesized effect size used to design the current study. Therefore, the practical significance of these findings was reduced, and the potential for prediction errors were increased. The chapter that follows provides a thorough discussion of these findings within the context of previous research regarding death attitudes and suicide attitudes, acknowledges several limitations, discusses cautious implications, and concludes with recommendations for the future direction of research focusing on the suicide attitudes of counseling students and professional counselors.
Chapter 5: Discussion and Conclusion

Previous research has evaluated the role of death attitudes in the prediction of attitudes toward various client populations, but little conclusive evidence was found regarding the role of death attitudes in the prediction of suicide attitudes. Results regarding the influence of personal and professional covariates in the prediction of suicide attitudes were also mixed. Additionally, much research related to suicide attitudes has focused on unidimensional concepts such as rational suicide and has seldom included counseling students. Given recent advances in the international body of literature regarding multidimensional suicide attitudes related to other helping professionals (e.g., social workers, psychiatrists, etc.; Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013), the present study evaluated the role of multidimensional death attitudes in the prediction of multiple dimensions of suicide attitudes among a cross-section of counseling students after controlling for the effects of twelve personal and professional covariates. This chapter discusses the findings of the current study relative to the previous body of literature, the implications of the findings, the limitations of the study, and recommendations for future research regarding the death and suicide attitudes of counseling students.

Overview of the Study

The aim of this cross-sectional study was to evaluate the role of five death attitude variables (fear of death, death avoidance, approach acceptance, neutral acceptance, and escape acceptance) in the prediction of three suicide attitude variables (acceptance of suicide, condemnation of suicide, and preventability of suicide) among counseling
students after controlling for the effects of six personal variables: (1) age, (2) gender, (3) religious beliefs, (4) suicide potential, (5) exposure to others’ suicidal behaviors, and (6) personal suicidal behaviors, and six professional variables: (1) professional exposure to suicidal behaviors, (2) exposure to suicidal behaviors as a student, (3) academic standing, (4) prior professional experience, (5) death education, and (6) suicide training.

Data for this study were collected using a 97-item survey that was created for the purpose of the current study using Qualtrics, Version 1.202.s (Qualtrics, Research Suite, 2013). Surveys were distributed to clusters of 107 counseling programs in the United States stratified by Association of Counselor Education and Supervision (ACES) to recruit counseling students who were enrolled in CACREP and CORE accredited counseling programs. A final sample size of $N = 183$ represented a 77% completion rate and included counseling students from 26 states and all regions of the ACES.

Principal component analyses (PCA) were conducted to evaluate the fit between the participants’ scores on the DAP-R and ATTS items of the current study, the five-factor model of death attitudes (Wong et al., 1994), and the three-factor model of the suicide attitudes (Renberg et al., 2008) that defined the outcome and predictor variables in the current study. Descriptive statistics provided context for the findings and evaluated the generalizability of the findings from the current study. Hierarchical multiple regression analyses were conducted to test each null hypothesis and answer the research questions of the current study. Additionally, supplemental analyses were conducted to evaluate the most robust prediction models and the influence of the individual dimensions of death attitudes and covariates.
Discussion of the Findings of the Primary and Supplemental Analyses

The current study extended the previous body of literature related to death and suicide attitudes to a geographically representative cross-section of counseling students from 26 states in the United States. No previous studies were found that included multidimensional measures of both death attitudes and suicide attitudes among counseling students or professional counselors. The current study used two instruments to measure death attitudes (DAP-R, Wong et al., 1994) and suicide attitudes (ATTS, Renberg & Jacobsson, 2003) that were endorsed throughout the literature (Kodaka et al., 2010; Neimeyer et al., 2004) as having strong psychometric properties. Previous research using the DAP-R and ATTS produced a body of literature with which to compare the findings of the current study. Although useful, these comparisons should be considered with caution because of the variability within the factor structures used to define death and suicide attitudes. The sections that follow discuss the findings of the current study relative to previous research related to counseling students, the prediction of suicide attitudes, the predictive power of death attitudes, the factor structure of death attitudes as measured by the DAP-R (Wong et al., 1994), and the factor structure of suicide attitudes as measured by the ATTS (Renberg & Jacobsson, 2003). When interpreting the findings of the current study, please note that lower suicide attitude scores equal more agreement with items measuring each dimension of suicide attitudes, and lower death attitude scores equal more disagreement with items measuring each dimension of death attitude. Additionally, changes in the ordinal and dichotomous
variables should be interpreted as a change in group membership and not a true measure of magnitude of change.

**Principal component analyses.** Before discussing the findings from the primary analyses of the current study, it is important to consider the fit between the pre-existing factor structures, the five-factor model of the DAP-R (Wong et al., 1994) and three-factor model of the ATTS (Renberg et al., 2008), that were used to define the outcome and predictor variables with the factors extracted by the PCA of the current study.

**DAP-R results.** Table 13 compares the PCA results of the DAP-R in the current study with the results of two previous studies evaluated the factor structures of the DAP-R (Clements & Rooda, 1999; Wong et al., 1994). The results of the current study supported the findings of Clements and Rooda (1999) who observed a split on the neutral acceptance factor similar to that observed during the current study. This convergence could suggest that the neutral acceptance dimension of the DAP-R may actually measure two distinct dimensions: (1) the natural process of death and (2) the indifferent reaction to death. This could explain for the seemingly contradictory results of the current study that suggested more fear of death and more neutral acceptance of death were predictive of more acceptance of suicide. If the neutral acceptance of death factor from the original DAP-R (Wong et al., 1994) actually measures two distinct dimensions, then it is possible that a person could accept death as a natural process, but still be fearful when presented with stimuli that threaten the fallacy of immortality. This could also explain previous research that found neutral acceptance of death to be the most unreliable factor of the DAP-R (Clements & Rooda, 1999; Wong et al., 1994).
The results of the DAP-R in the current study diverged from previous literature in a few ways. First, DAP-R item No. 1 loaded on the fear of death dimension in the original Wong et al. (1994) study, but loaded on the death avoidance dimension in the present study. Additionally, the total variance accounted for in the current study was nearly 10% higher than previous studies (Clements & Rooda, 1999; Wong et al., 1994). Additional differences in the variance accounted for by each dimension can be viewed in Table 13. Despite the concerns regarding the factor structure of the neutral acceptance of death dimension and the divergence of the factor loading of item No. 1, the overall stability and increased total variance accounted for in the current study seem to support the continued use of the DAP-R to measure multidimensional death attitudes in future research with some need to test the potential benefits of a revised neutral acceptance dimension.
Table 13

Variance, Reliability, and Number of Items for the Factors of the DAP-R among Counseling Students compared to Previous Research

<table>
<thead>
<tr>
<th></th>
<th>Study 1</th>
<th>Study 2</th>
<th>Current Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>% variance</td>
<td>63.1</td>
<td>60.3</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>.84</td>
<td>.76</td>
</tr>
<tr>
<td>Approach Acceptance</td>
<td>% variance</td>
<td>33.3</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>.97</td>
<td>.91</td>
</tr>
<tr>
<td></td>
<td>Num. Items</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Fear of Death</td>
<td>% variance</td>
<td>13.4</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>.86</td>
<td>.82</td>
</tr>
<tr>
<td></td>
<td>Num. Items</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Death Avoidance</td>
<td>% variance</td>
<td>7.7</td>
<td>14.9</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>.88</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>Num. Items</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Escape Acceptance</td>
<td>% variance</td>
<td>6</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>.84</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>Num. Items</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Neutral Acceptance</td>
<td>% variance</td>
<td>4.8*</td>
<td>6.9*</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>.69</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>Num. Items</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 13: continued.

*Note.* Original Neutral Acceptance items loaded on two separate factors, with the first measuring the natural process of death and the second measuring the indifferent reaction to death. Reliability measured using Cronbach’s $\alpha$.

Study 1 (Wong et al., 1994).
Study 2 (Clements & Rooda, 1999).
Study 3 (Present Study).

**ATTS results.** Table 14 compares the results from the PCA of counseling students’ responses to the ATTS items in the current study with previous research using the ATTS (Arnautovska & Grad, 2008; Kodaka et al., 2012; Kodaka et al., 2013; Mofidi et al., 2008; Norheim et al., 2013; Renberg et al., 2008). Although useful, these comparisons are limited given that the items included in each factor were not entirely consistent across studies. Nonetheless, several comparisons are important to note.

The findings of the current study were consistent with previous research that failed to converge at a stable factor structure for the full 32-item ATTS (Kodaka et al., 2012; Mofidi et al., 2008; Renberg & Jacobsson, 2003). When the PCA was conducted on the 13-item ATTS proposed by Renberg et al. (2008), the results of the current study were similar with only one exception. ATTS item 2 loaded on the condemnation factor identified by Renberg et al. (2008), but on the acceptance factor extracted in the current study with a cross-loading on the condemnation factor. This suggests that ATTS item 2 might measure similar concepts related to condemnation and acceptance of suicide.

Although the full ATTS failed to converge at a stable factor structure, the findings of this study showed potential for the continued use of multidimensional models for the
measurement of suicide attitudes. If interested in measuring the dimensions of suicide attitudes related to acceptance, condemnation, and preventability, then the 13-item ATTS may be a useful instrument, but if future research hopes to create a more comprehensive model, then the creation of a new instrument should be considered.
Table 14

*Variance, Reliability, and Number of Items for the Factors of the ATTS among Counseling Students compared to Previous Research*

<table>
<thead>
<tr>
<th>Study</th>
<th>1a</th>
<th>1b</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>4b</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>% variance</td>
<td>*63.3</td>
<td>57.3</td>
<td>62</td>
<td>27.6</td>
<td>42.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.55</td>
<td>.59</td>
<td>.64-.84</td>
<td>.34-.75</td>
<td>.30-.74</td>
<td>.65</td>
<td>.66</td>
<td></td>
</tr>
<tr>
<td>Num. Items</td>
<td>37</td>
<td>13</td>
<td>13</td>
<td>21</td>
<td>21</td>
<td>31</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Num. Factors</td>
<td>12</td>
<td>3</td>
<td>3</td>
<td>12a</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Acceptance</td>
<td>% variance</td>
<td>16.3</td>
<td>30.7</td>
<td>15</td>
<td>11.2</td>
<td>12.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.58</td>
<td>.69</td>
<td>.84</td>
<td>.84</td>
<td>.75</td>
<td>.74</td>
<td>.76</td>
<td>.77</td>
</tr>
<tr>
<td>Num. Items</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Condemnation</td>
<td>% variance</td>
<td>8.5</td>
<td>14.6</td>
<td></td>
<td>7.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.47</td>
<td>.60</td>
<td>.71</td>
<td>.61</td>
<td>.66</td>
<td>.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Num. Items</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preventability</td>
<td>% variance</td>
<td>5.47</td>
<td>12</td>
<td>10</td>
<td>9.3</td>
<td>8.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.35</td>
<td>.44</td>
<td>.64</td>
<td>.66</td>
<td>.44</td>
<td>.60</td>
<td>.60</td>
<td>.64</td>
</tr>
<tr>
<td>Num. Items</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>11</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* 1a (Current study with 37 items); 1b (Current study with 13 items); 2 (Renberg et al., 2008); 3 (Norheim et al., 2013); 4 (Kodaka et al., 2012); 4b (Kodaka et al., 20013); 5 (Mofidi et al., 2008); 6 (Arnautovska & Grad, 2008)
Primary and supplemental analyses. The primary analyses of the current study evaluated the role of death attitudes in the prediction of suicide attitudes among a cross-section of counseling students after controlling for the effects of twelve personal and professional covariates. The following sections discuss the findings from these analyses in relation to the research questions of the current study. Given that little conclusive evidence was found in the previous literature regarding the outcomes of individual dimensions of suicide attitudes, these findings are considered exploratory and descriptive, meaning that no level of agreement on any dimension of death or suicide attitudes can be considered more effective or desirable than another. Table 15 provides a summary of the findings for all three research questions that includes the effect sizes of the pooled covariates, pooled death attitude dimensions, and influential individual predictor variables and covariates. It should be noted that lower suicide attitude scores equal more agreement with items measuring each dimension of suicide attitudes and lower death attitude scores equal more disagreement with items measuring each dimension of death attitude.
Table 15

Comparison of Hierarchical Multiple Regression Analyses in the Prediction of Acceptance, Condemnation, and Preventability of Suicide by Dimensions of Death Attitudes

<table>
<thead>
<tr>
<th></th>
<th>Acceptance</th>
<th>Condemnation</th>
<th>Preventability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates $R^2$</td>
<td>35%</td>
<td>31%</td>
<td>9%</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>41%</td>
<td>38%</td>
<td>10%</td>
</tr>
<tr>
<td>Death Attitudes $\Delta R^2$</td>
<td>6%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Sig. F Change</td>
<td>$p &lt; .01$</td>
<td>$p &lt; .01$</td>
<td>$p = .41$</td>
</tr>
<tr>
<td>Null Decision</td>
<td>Reject</td>
<td>Reject</td>
<td>Fail to Reject</td>
</tr>
<tr>
<td>Influential Predictors</td>
<td>Neutral Acceptance</td>
<td>Death Avoidance</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Fear of Death</td>
<td>Approach Acceptance$^a$</td>
<td></td>
</tr>
<tr>
<td>Influential Covariates</td>
<td>Suicide Potential</td>
<td>Suicide Potential</td>
<td>Personal Behavior</td>
</tr>
<tr>
<td></td>
<td>Christianity</td>
<td>Christianity$^a$</td>
<td>Professional Exposure</td>
</tr>
<tr>
<td></td>
<td>Suicide Training</td>
<td>Suicide Training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Full Model w/Outlier</td>
<td>*Full Model</td>
<td>*Full Model</td>
</tr>
</tbody>
</table>

*Note.* $^a$ = Statistically significant in the Full Model, but were no longer significant when death attitudes were added to the model.
As can be seen in Table 15, death attitudes accounted for statistically significant portions of counseling students’ acceptance of suicide and condemnation of suicide scores, but not their preventability of suicide scores. All dimensions of death attitudes, except escape acceptance of death, showed statistically significant predictive power of counseling students’ acceptance and condemnation of suicide scores. Although the effect sizes of death attitudes appear small, the identification of these variables as statistically significant may have practical significance to the educational standards and curricular activities of counselor education programs that don’t require precise predictive power.

Additionally, suicide potential, religious beliefs associate with Christianity, and suicide training had statistically significant predictive power in the prediction of counseling students’ acceptance and condemnation of suicide scores, while personal suicidal behavior and exposure to the suicidal behaviors of clients before the counseling program had statistically significant predictive power of counseling students’ attitudes towards the preventability of suicide scores. The large overall effect sizes in the full hierarchical multiple regression models used to predict counseling students’ acceptance and condemnation of suicide, and the statistically significant effects of death attitudes alone, identified the importance of considering death attitudes and personal and professional variables in the development of educational standards and students in counselor education programs. The following sections compare the results of the primary and supplemental analyses of the current study with previous research.
**Research Question 1:** The first research question posited by the current study evaluated how much variance in counseling students’ reported acceptance of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates. The findings of the current study supported the claim that statistically significant portions of counseling students’ acceptance of suicide can be predicted by their death attitudes after controlling for the effects of personal and professional covariates. Although statistically significant, the effect size of death attitudes in the prediction of counseling students' acceptance of suicide was small ($AR^2 = .035$ to .06).

No previous studies were found that evaluated the role of death attitudes in the prediction of the acceptability of suicide as measured by the ATTS; however, one study included attitudes towards physician assisted suicide (Kopp, 2008-2009) as an outcome variable, while another study included suicide as a personal right (Neimeyer et al., 2001). Table 16 compares the effects of death attitudes in the prediction of counseling students’ acceptance of suicide in the current study with the effect of death attitudes in the prediction of similar attitudes towards suicide. Although logically connected, these dimensions of suicide attitudes cannot be considered totally analogous to the acceptance of suicide dimension used in the current study, and conclusions should be made with caution.
Table 16

Comparison of Death Attitudes in the Prediction of Acceptance of Suicide and Related Variables

<table>
<thead>
<tr>
<th>Counseling students’ acceptance of suicide in the present study</th>
<th>Physician Assisted Suicide(^A)</th>
<th>Suicide as a Personal Right(^B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 2 β</td>
<td>Model 4 β</td>
<td>Model 6 β</td>
</tr>
<tr>
<td>Fear of Death</td>
<td>-.173**</td>
<td>-.166**</td>
</tr>
<tr>
<td>Death Avoidance</td>
<td>.021</td>
<td></td>
</tr>
<tr>
<td>Neutral Acceptance</td>
<td>-.198**</td>
<td>-.211***</td>
</tr>
<tr>
<td>Approach Acceptance</td>
<td>.152</td>
<td></td>
</tr>
<tr>
<td>Escape Acceptance</td>
<td>-.111</td>
<td></td>
</tr>
<tr>
<td>ΔR(^2)</td>
<td>.061</td>
<td>.047</td>
</tr>
</tbody>
</table>

Note. *p < .10; **p < .05; ***p < .001.
\(^A\)Rotated Component Matrix.
\(^B\)Kopp (2008-2009) used the same DAP-R structure to measure death attitudes, but higher scores referred to less acceptance of physician assisted suicide and included different covariates.
\(^B\)Neimeyer et al. (2001) used an amended DAP-R factor structure.

Individual predictors. Table 17 shows the effect sizes of the individual dimensions of death attitudes in the prediction of counseling students acceptance of suicide in the current study compared with the effect sizes found in previous research that used the same death attitude dimensions as measured by the DAP-R (Wong et al., 1994) to predict attitudes towards physician assisted suicide (Kopp, 2008-2009) and suicide as a
personal right (Neimeyer et al., 2001). Specifically, participants’ reported fear of death and neutral acceptance of death accounted for statistically significant portions of the participants’ reported acceptance of suicide and acceptance of physician assisted suicide (Kopp, 2008-2009). As can be seen in Table 17, the findings of the current study found that approach acceptance did not account for any statistically significant portions of variance in counseling students’ acceptance of suicide scores, but Kopp (2008-2009) found that approach acceptance scores accounted for the most variance in participants’ attitudes towards physician assisted suicide scores ($\beta = -.332$). Specifically, those with more approach acceptance were suggested to have less agreement with physician assisted suicide. In sum, these findings identify the potential for counseling students who have more fear death, more neutral acceptance of death, and/or less approach acceptance of death to display less acceptance of suicide, in general, and physician assisted suicide, specifically.

**Individual covariates.** The findings of the current study also supported the body of literature that suggested rigid religious beliefs and practices associated with Christianity were predictive of less acceptance of suicide (Botega et al., 2005; Jukkala & Mäkinen, 2011; Kopp, 2008-2009; Norheim et al., 2013; Rogers et al., 2001; Sun et al., 2007; Westefeld et al., 2004; Yousuf et al., 2013). Additionally, the findings of the current study were similar to previous research that showed statistically significant shared variation among approach acceptance of death, as measured by the DAP-R, and reported acceptance of physician assisted suicide (Kopp, 2008-2009). In fact, Kopp (2008-2009) concluded that the approach acceptance of death dimension was potentially “…the most
religious…” dimension measured by the DAP-R (p. 309). These findings support previous research that also found approach acceptance of death was significantly predicted by dimensions of religiosity with a relatively large effect size of \( \Delta R^2 = .27 \) (Duzutter et al., 2009). The shared variation among approach acceptance of death and religious beliefs could explain the inconsistencies of the current study with Kopp (2008-2009), as well as provide commentary on why approach acceptance of death was not a statistically significant predictor of counseling students’ acceptance of suicide in the current study.

Additional results related to the effects of covariates in the prediction of counseling students’ acceptance of suicide were consistent with previous research. Specifically, the current study showed no statistically significant effects of counseling students’ age, gender, exposure to others’ suicidal behaviors, occupational exposure to suicide, and length of education in the prediction of the acceptance of suicide, which was consistent with previous literature (Gagnon & Hasking, 2012; Kodaka et al., 2012; Kopp, 2008-2009, Neimeyer et al., 2001; Norheim et al., 2013, Rogers et al., 2001; Werth & Liddle, 1994; Westefeld et al., 2004). The hierarchical multiple regression Model 6 of the current study found that suicide potential was the largest individual predictor of counseling students acceptance of suicide (\( \beta = -.44 \)) after controlling for the effects of all other statistically significant individual dimensions of death attitudes and covariates in Model 6. It should be noted that suicide potential in the current study was not a measure of suicide risk, but rather a measure of the counseling students’ acknowledgement of the potential for their eventual suicide.
Previous literature has discussed the importance of balancing the continuum of personal potential for suicide in order to provide effective suicide intervention services (Lowental, 1976); however, no research was found that evaluated the role of suicide potential in the development of multidimensional suicide attitudes among professional counselors or counseling students. Nonetheless, the findings from the current study indicated that counseling students’ acknowledgement of personal suicide potential could be an important factor in the development and expression of their acceptance of suicide. Specifically, it could be that counseling students who acknowledge that they aren’t immune to suicide could also show more acceptance of suicide, while counseling students who believe they are immune to suicide could display less acceptance of suicide. Despite the statistical significance of these findings, the practical significance is somewhat limited without an understanding of the therapeutic outcomes and counseling skills related to more and less acceptance of suicide.

The effects of additional covariates in the current study were also inconsistent with previous research. Specifically, the findings from the present study were inconsistent with previous research that found more accepting attitudes towards suicide among younger participants (Jukkala & Mäkinen, 2011; Modifi, Ghazinour, Salander-Renberg, & Richter, 2009; Renberg & Jacobsson, 2003), men (Dahlen & Canetto, 2002; Yousuf, Beh, & Wong, 2013), persons with no previous exposure to others’ suicidal behaviors (Botega et al., 2005; Hjelmeland & Knizek, 2004), and participants with more education (Jukkala & Mäkinen, 2011; Sun et al., 2007). The findings of previous research were mixed regarding the effect of suicide training on the manifestation of
suicide attitudes among various helping professionals (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013; Suokas & Lönnqvist, 1989a); however, the findings of the current study suggested that counseling students who reported more suicide training were predicted to report more acceptance of suicide. Interpretations of the effect of suicide training are very difficult to interpret given the type, location, and quality of the suicide intervention training that was provided, as well as the potential for suicide prevention to not be the most appropriate treatment goal when criteria related to rational suicide are met. Additionally, discrepancies could be the result of the heterogeneity between the samples and fluctuating measures of suicide attitudes.

Summary. The results of the current study indicated that counseling students’ who report more suicide potential, less past/present religious beliefs related to Christianity, more neutral acceptance of death, more fear of death, and more suicide training could exhibit more acceptance of suicide than counseling students who report less suicide potential, more past/present religious beliefs associated with Christianity, less neutral acceptance of death, less fear of death, and less suicide training. Specifically, suicide potential was the strongest individual predictor of participants’ reported acceptance of suicide ($\beta = -.44$) followed by religious beliefs ($\beta = .33$), neutral acceptance of death ($\beta = -.18$), fear of death ($\beta = -.16$), and suicide training ($\beta = -.11$). The participants’ reported fear of death and neutral acceptance of death reduced the influence of religious beliefs on participants’ reported acceptance of suicide, while increasing the influence of suicide training and suicide potential; however, these changes were relatively small. It could be that the effects of suicide training programs are somewhat influenced
by participants’ death attitudes when completing the training program. Changes in counseling students’ acceptance of suicide could be practically significant in reducing rigid beliefs that could be harmful to the counseling process (Lowental, 1976), informing educational standards, and identifying targets for curricular activities.

**Research Question 2:** The second research question posited by the current study evaluated how much variance in counseling students’ reported condemnation of suicide, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales. The findings of this study supported the claim that statistically significant portions of counseling students’ condemnation of suicide can be predicted by their death attitudes after controlling for the effects of personal and professional covariates. Although statistically significant, the effect sizes of death attitudes in the prediction of counseling students’ condemnation of suicide was small ($\Delta R^2 = .065$ to .13) but larger than the effect sizes observed in the prediction of counseling students’ acceptance of suicide.

No previous studies were found that evaluated the role of death attitudes in the prediction of the condemnation of suicide as measured by the ATTS; however, one study included *suicide as pathology* (Neimeyer et al., 2001) as an outcome variable that measured similar components to the condemnation of suicide dimension used in the current study. As can be seen in Table 17, the results of the current study have some similarities to previous research. Despite these similarities, the conceptualization of the condemnation of suicide dimension in the current study and the suicide as pathology
dimension in Neimeyer et al. (2001) cannot be considered totally analogous, and only
descriptive comparisons can be made.

Table 17

Comparison of the Effects of Death Attitudes in the Prediction of
Condemnation of Suicide and Suicide as Pathology

<table>
<thead>
<tr>
<th></th>
<th>Model 2</th>
<th>Model 4</th>
<th>Model 6</th>
<th>Suicide as Pathology(^{A})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\beta)</td>
<td>(\beta)</td>
<td>(\beta)</td>
<td>(r_\alpha)</td>
</tr>
<tr>
<td>Fear of Death</td>
<td>-.011</td>
<td></td>
<td></td>
<td>-.121</td>
</tr>
<tr>
<td>Death Avoidance</td>
<td>-.240**</td>
<td>-.284***</td>
<td>-.294***</td>
<td>-.016</td>
</tr>
<tr>
<td>Neutral Acceptance</td>
<td>.036</td>
<td></td>
<td></td>
<td>.036</td>
</tr>
<tr>
<td>Approach Acceptance</td>
<td>-.201*</td>
<td>-.186**</td>
<td>-.249***</td>
<td>-.163</td>
</tr>
<tr>
<td>Escape Acceptance</td>
<td>.046</td>
<td></td>
<td></td>
<td>-.163</td>
</tr>
</tbody>
</table>

*Note. *\(p < .10; ** p < .05; *** p < .001.*

\(^{A}\)Neimeyer et al. (2001) used amended DAP-R factor structure.
\(^{B}\)Rotated Component Matrix.

Individual predictors. Table 17 shows the effects of the individual dimensions of
death attitudes in the prediction of counseling students condemnation of suicide in the
current study compared with the effects found in previous research that used the same
death attitude dimensions as measured by the DAP-R (Wong et al., 1994) to predict
attitudes related to suicide as pathology (Neimeyer et al., 2001). Specifically,
participants’ reported fear of death, death avoidance, and approach acceptance had the same directional relationship with the condemnation of suicide in the current study and the suicide as pathology dimension in Neimeyer et al. (2001); however, only death avoidance and approach acceptance were statistically significant in the prediction of counseling students’ condemnation of suicide in the current study.

Differences were noted in the magnitude of the effects of each dimension of death attitudes between studies. For instance, the results of current study found that death avoidance had the largest effect size among death attitudes in the prediction of counseling students’ condemnation of suicide ($\beta = -.24$ to -.29) followed by approach acceptance of death ($\beta = -.19$ to -.25). In contrast, the results of Neimeyer et al. (2001) found that approach acceptance ($r = -.16$) and escape acceptance ($r = -.16$) of death accounted for the largest portions of participants’ views of suicide as a pathology followed by fear of death (.12). These inconsistencies could be the result of heterogeneity in the samples and conceptualization of the dimensions of suicide attitudes used in each study. Nonetheless, these findings support the assumption that various dimensions of death attitudes have the potential to predict counseling students’ attitudes towards the condemnation of suicide and the view of suicide as pathology.

*Individual covariates.* Similar to the interaction observed in the prediction of counseling students’ acceptance of suicide in the current study, approach acceptance of death and religious beliefs had the largest shared contribution in the prediction of participants’ condemnation of suicide; however, religious beliefs remained statistically significant in the prediction of participants’ acceptance of suicide, while approach
acceptance remained statistically significant in the prediction of participants’ condemnation of suicide. The findings of the current study provided evidence for the connection between dimensions of death attitudes, suicide attitudes, and religious beliefs that was observed in the previous body of literature (Dezutter et al., 2009; Kopp, 2008-2009). Because counseling students’ acceptance of suicide was more sensitive to religious beliefs and counseling students’ condemnation of suicide was more sensitive to approach acceptance of death, it could be that individual dimensions of suicide attitudes are more susceptible to individual dimensions of death attitudes and covariates. These findings support the continued use of multidimensional measures of both death attitudes and suicide attitudes that can capture unique differences between dimensions that might not be possible with unidimensional measures.

Additional results related to the effects of covariates in the prediction of counseling students’ condemnation of suicide were consistent with previous research. Specifically, the current study showed no statistically significant effects of counseling students’ age, gender, personal suicidal behaviors, and previous work experience in the prediction of the condemnation of suicide, which was consistent with previous literature (Kodaka et al., 2012; Kodaka et al., 2013; Neimeyer et al., 2001). The hierarchical multiple regression Model 1 of the current study found that participants’ previous exposure to others’ suicidal behaviors was predictive counseling students’ condemnation of suicide, which was similar to the results of Kodaka et al. (2012) that suggested exposure to others’ suicidal behaviors was significantly related to attitudes that suicide is an unjustified behavior, but were inconsistent with the findings of Kodaka et al. (2013)
that found no such relationship. Similarly, the current study supported previous findings that suggested participants’ exposure to the suicidal behaviors of clients had no statistically significant effect on counseling students’ reported condemnation of suicide (Kodaka et al., 2013), but were inconsistent with the findings of Kodaka et al. (2012) that found such a relationship.

Further inconsistencies with previous research were noted when comparing the results of the current study related to the effects of suicide training and suicide potential in the prediction of counseling students’ condemnation of suicide. The results of the current study showed that more suicide training and more suicide potential were predictive of reduced condemnation of suicide among counseling students. Despite the consistency of these findings with the prediction of counseling students’ acceptance of suicide in the current study, no previous research suggested statistically significant relationships between suicide training and suicide potential in the prediction of condemnatory suicide attitudes (Kodaka et al., 2012; Kodaka et al., 2013; Neimeyer et al., 2001).

In addition to the relationship between approach acceptance of death and religious beliefs observed in the current study, additional interactions between death attitudes and individual covariates are worth noting. Once death attitudes were added to the hierarchical multiple regression analyses already including the individual covariates, the effects of counseling students’ previous exposure to the suicidal behaviors of others was no longer statistically significant, while the effect of suicide potential was reduced but continued to account for statistically significant portions of participants’ reported
condemnation of suicide. Although the effect of participants’ previous exposure to the suicidal behaviors of others was no longer statistically significant, it still had a comparable effect size to suicide training.

Summary. The results of the current study indicated that counseling students who report more death avoidance, less suicide potential, more approach acceptance of death, and less suicide training could report more condemnation of suicide than counseling students who report less death avoidance, more suicide potential, less approach acceptance of death, and more suicide training. Specifically, death avoidance was the strongest individual predictor of participants’ condemnation of suicide scores ($\beta = -.29$) followed by suicide potential ($\beta = .28$), approach acceptance of death ($\beta = -.25$), and suicide training ($\beta = .21$). Even though participants’ religious beliefs and exposure to the suicidal behaviors of others were no longer statistically significant when death attitudes were added to the hierarchical multiple regression analyses, they may still have practical significance.

For instance, before controlling for the effects of death attitudes, the effect sizes of religious beliefs ($\beta = -.24$) and exposure to others’ suicidal behaviors ($\beta = .14$) could indicate that counseling students with more religious beliefs associated with Christianity might have more condemnation of suicide, while counseling students with more exposure to the suicidal behaviors of others could have less condemnation of suicide. The consistent effects of suicide potential and suicide training, as well as approach acceptance of death and religious beliefs, in the prediction of counseling students’ acceptance of suicide and condemnation of suicide identify their potential practical significance in the
prediction and evaluation of counseling students’ acceptance and condemnation of suicide; however, the true practical significance of these findings are still limited by the absence of research that evaluates the effects of individual dimensions of suicide attitudes on counseling skill and therapeutic outcomes.

**Research Question 3:** The third research question posited by the current study evaluated how much variance in counseling students attitudes towards the preventability of suicide scores, as measured by the ATTS subscale, was explained by their death attitudes, as measured by the DAP-R subscales, after controlling for the effects of twelve personal and professional covariates. The findings of the current study indicated that no dimensions of death attitudes accounted for statistically significant portions of the variance in counseling students’ attitudes towards the preventability of suicide after controlling for the effects of personal and professional covariates. Potential explanations for these finding could be related to the diversity in beliefs related to the preventability of suicide and the interrelationships among outcome variables.

For instance, it could be that counseling students’ belief in the preventability of suicide is too diverse to be predicted by a sample as small as the one included in the current study. Additionally, the manifestation of participants’ reported belief in the preventability of suicide in the current study could be attributed to interrelationships between outcome variables. Specifically, participants who reported more belief in the preventability of suicide tended to report more condemnation of suicide and less acceptance of suicide. It could be that counseling students’ belief in the preventability of suicide could be a result of their condemnation and acceptance of suicide rather than an
indication of a unique variable. No previous literature was found that evaluated the role of death attitudes in the prediction of attitudes toward the preventability of suicide as measured by the ATTS; therefore, the interpretations of the findings of the current study were without comparison.

*Individual covariates.* Results from an exploratory stepwise regression analysis with all individual dimensions of death attitudes and covariates entered simultaneously into the model indicated that counseling students’ history of personal suicidal behaviors ($\beta = -.17$) and previous experience with the suicidal behaviors of clients prior to the counseling program ($\beta = .15$) had statistically significant effects on the reported belief in the preventability of suicide among counseling students in the current study. These findings indicate that counseling students who report more personal suicidal behaviors could have more belief in the preventability of suicide, while counseling students who report more exposure to the suicidal behaviors of clients before the counseling program could report less belief in the preventability of suicide.

Additional results related to the effects of covariates in the prediction of counseling students’ belief in the preventability of suicide were consistent with previous research. Specifically, the current study showed no statistically significant effects of counseling students’ age, gender, professional discipline, work experience, or occupational exposure in the prediction of attitudes towards the preventability of suicide, which was consistent with previous literature (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013; Rogers et al., 2001). The effects of additional covariates in the current study were also inconsistent with previous research. Specifically, findings of the
current study did not support previous literature that suggested personal suicidal behaviors, the exposure to the suicidal behaviors of clients, suicide training, and religious beliefs were unrelated to participants’ belief in the preventability of suicide (Kodaka et al., 2012; Kodaka et al., 2013; Rogers et al., ). Similarly, the current study found that suicide training and religious beliefs had no statistically significant predictive power on the belief in the preventability of suicide, which was inconsistent with previous research (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013).

Additionally interrelationships were observed between individual covariates and counseling students’ belief in the preventability of suicide. For instance, counseling students who reported more avoidance of death were less likely to report suicide potential ($r = -.23$), and counseling students who reported less suicide potential were more likely to report personal suicidal behaviors ($r = -.38$) and less exposure to the suicidal behaviors of clients ($r = .18$). Because more personal suicidal behaviors and less exposure to the suicidal behaviors of clients prior to the counseling program were suggested to predict more belief in the preventability of suicide in the current study, it could be that suicide potential and death avoidance could vicariously influence the manifestation of counseling students reported belief in the preventability of suicide.

**Summary.** The results of the current study indicated that no dimensions of death attitudes were useful in the prediction of counseling students’ belief in the preventability of suicide. Exploratory analyses indicated that counseling students with more personal suicidal behaviors and less exposure to the suicidal behaviors of clients before the counseling program could have more belief in the preventability of suicide than
counseling students with less personal suicidal behaviors and more exposure to the suicidal behaviors of clients before the counseling program. Specifically, counseling students’ history of personal suicidal behaviors was the strongest individual predictor of counseling students’ belief in the preventability of suicide ($\beta = -.17$) followed by previous experience with the suicidal behaviors of clients prior to the counseling program ($\beta = .15$). These results could indicate that counseling students with personal suicidal behaviors that do not die could develop a sense of resiliency that increases their perception of suicide as preventable. Conversely, counseling students with professional exposure to clients’ with chronic suicidal behaviors could reduce self-efficacy and the belief that suicide can prevented. Despite this speculation, it is also possible that the effect of professional exposure to suicidal behaviors could be better accounted for by confounding variables that were not included in the current study such as compassion fatigue and burn-out. It is also reiterated that there was no previous literature found to suggest whether or not the belief in the preventability of suicide had any relation to counseling skills and/or therapeutic outcomes. When considering that counseling students who reported more belief in the preventability of suicide also tended to report more condemnation of suicide ($r = .18$) and less acceptance of suicide ($r = -.16$), the practical implications of attitudes on the practice of professional counseling becomes more important to discern.
The Effect Size of Death Attitudes across Studies

The current study focused on the power of death attitudes to predict suicide attitudes among counseling students. As can be seen in Table 18, the effect size of the death attitudes collectively and the individual dimensions of death attitudes in the current study were consistent with previous research that evaluated the role of death attitudes in the prediction of attitudes towards other client scenarios including attitudes towards the elderly, caring for the dying, physician-assisted suicide, and people with disabilities (Clements & Rooda, 1999; DePaola et al., 1992; DePaola et al., 1994; Fish, 1986; Kopp, 2008-2009; Neimeyer et al., 2001). These converging results added to the potential usefulness of death attitudes in the prediction of attitudes towards potential client scenarios that counseling students might encounter during the coursework.
Table 18

The Effects of Death Attitudes in the Prediction of Suicide Attitudes Compared to the Prediction of Other Attitudes

<table>
<thead>
<tr>
<th></th>
<th>Acceptance</th>
<th>Condemnation</th>
<th>PAS&lt;sub&gt;a&lt;/sub&gt;</th>
<th>Value of the Elderly&lt;sub&gt;b&lt;/sub&gt;</th>
<th>Personal Right&lt;sub&gt;c&lt;/sub&gt;</th>
<th>Pathology&lt;sub&gt;d&lt;/sub&gt;</th>
<th>Disabilities&lt;sub&gt;e&lt;/sub&gt;</th>
<th>Caring for the Elderly&lt;sup&gt;f&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>r</td>
<td>r</td>
<td>r</td>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>Pooled Death Attitudes</td>
<td>3.5-6.1%</td>
<td>6.5-12.6%</td>
<td>8.1%</td>
<td>4.2-5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of Death</td>
<td>-.173</td>
<td>-.011</td>
<td>.127</td>
<td>-.168</td>
<td>-.121</td>
<td>-.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of the Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.21</td>
<td>-.24</td>
</tr>
<tr>
<td>Death Avoidance</td>
<td>.021</td>
<td>-.240</td>
<td>-.065</td>
<td>.064</td>
<td>.036</td>
<td>-.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach Acceptance</td>
<td>.152</td>
<td>-.201</td>
<td>-.332</td>
<td>-.050</td>
<td>-.163</td>
<td>.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escape Acceptance</td>
<td>-.111</td>
<td>.046</td>
<td>-.018</td>
<td>.074</td>
<td>-.163</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral Acceptance</td>
<td>-.198</td>
<td>.036</td>
<td>.118</td>
<td>-.054</td>
<td>-.016</td>
<td>.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pooled Covariates</td>
<td>35%</td>
<td>31%</td>
<td>10.1%</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Significant effect sizes are represented in bold type face. Number of covariates and dimensions of death attitudes included in each analysis varied. Comparison studies were: aKopp (2008-2009); bDePaola et al. (1992; 1994); cNeimeyer et al. (2001); dKodaka et al. (2012; 2013); eFish (1986); fClements & Rooda (1999)
As expected, the inclusion of aversive and non-aversive dimensions of death attitudes captured unique predictive variables that might not have been possible if only aversive dimensions were included in the current study. Interestingly, individual dimensions of death attitudes were found to have predictive power for only one suicide dimension a piece. Only escape acceptance showed no statistically significant power in the prediction of suicide attitudes among counseling students in the current study. Although statistically significant, the effect size of death attitudes collectively were relatively small when compared to the effects of the collective personal and professional covariates; however, the individual dimensions of death attitudes appeared to have equitable predictive power when compared to the effect sizes of the individual covariates. Additionally, if more rigid attitudes related to suicide regardless of direction are predictive of less desirable therapeutic outcomes or counseling skill, then a change in attitudes by one Likert scale rating could be practically significant.

When considered together with previous research, the findings of the current study promote cautious conclusions regarding the role of death attitudes in the prediction of attitudes towards suicide and other client populations. Specifically, more fear of death could be predictive of more acceptance of suicide and physician assisted suicide, as well as less value of caring for the elderly. More death avoidance could predict more condemnation of suicide and less value of caring for the elderly. More approach acceptance of death could be predictive of more condemnation of suicide and less agreement with the concept of physician assisted suicide, but more value when caring for the elderly. More neutral acceptance could predict the development of more acceptance
of suicide, more acceptance of physician assisted suicide, and more value of caring for the elderly. Although exploratory, these findings can inform future research that evaluates the role of death attitudes in the prediction of attitudes towards other potential client populations.

**Discussion of the Descriptive Characteristics of the Current Study**

The results of the current study indicated that the proportion of counseling students’ by gender and ACES region were significantly different than expected. Upon further evaluation, the hypothesized gender distribution used for the current study was taken from licensed mental health counselors and might not have been representative of the population of counseling students. Additionally, the gender distribution of 85/15% (women/men) in the current study was similar to previous research (82/18%; Granello, 2002) that included a sample of counseling students enrolled in CACREP accredited programs, but no previous research was found with which to compare the proportion of participants by ACES region in the current study. Also, the distribution of participants by age in the current study was similar to the research conducted by Granello (2002).

The increased suicide potential that was reported by older participants in the current study seemed to support previous research that suggested suicide rates increase with age (Hoyert & Xu, 2012). Older participants in the current study also tended to report less personal suicidal behaviors than younger participants, which seemed in opposition to previous research that suggested past suicidal behaviors were very strong predictors of future suicidal behaviors (Van Orden et al., 2005; Van Orden et al., 2010).
Of course, there was no indication found that reported suicide potential would cause or prevent future suicidal behaviors.

Previous research has suggested that counseling students tend to report less confidence and self-efficacy during their enrollment in practicum (Fong & Borders, 1997). Additionally, the largest gain in counseling students’ confidence and cognitive complexity has been observed to take place after the completion of practicum (Fong & Borders, 1997; Granello, 2002). Participants who were enrolled in practicum at the time of the current study reported lower, but statistically non-significant, scores on each suicide attitude dimension when compared to participants enrolled before and after practicum. Interestingly, the scores on all dimensions of suicide attitudes were very similar among students enrolled before and after practicum. Given the similar scores before and after practicum, it could be that the reduction in scores during practicum was related to reduced confidence and self-efficacy rather than enrollment in practicum.

The findings from the current study also supported previous research that suggested the most common time for suicide intervention training within the counselor education program was during practicum and internship coursework (Liebling-Boccia & Jennings, 2013). The frequency of participants who reported previous suicide training and death education were similar to previous research (Rosenthal, 1988). Additionally, participants were more likely to have suicide training ($r = .28$), death education ($r = .20$), and exposure to suicidal behaviors of clients ($r = .50$) as they progressed in the counseling program. As a result, it is possible that additional confounding variables
related to the counseling students’ experiences during practicum could be related to changes in suicide attitudes rather than their enrollment in practicum alone.

The mean suicide attitude scores reported by counseling students in the current study were difficult to compare to previous research given the inconsistent factor structures observed in the previous body of literature. Nonetheless, the mean suicide attitude scores of participants in the current study were similar to the suicide attitude scores of previous research that included social workers, psychologists, and other mental health professionals, but not professional counselors (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013). Table 19 compares the mean suicide attitude scores across the three dimensions of the ATTS. Differences in these scores could be the result of heterogeneous samples and inconsistent factor structures. When comparing mean scores from individual items of the ATTS, the results of the current study were more similar to previous research (Norheim et al., 2013). This convergence suggests that helping professionals might be in agreement with the belief that suicide is preventable; however, without a comparison group, it is difficult to make conclusions regarding helping professionals’ belief in the preventability of suicide relative to other populations.
Table 19

*Counseling Students’ Mean Suicide Attitude Scores Compared to Previous Research*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance</td>
<td>2.93</td>
<td>2.5</td>
<td>3.48</td>
<td>3.35</td>
</tr>
<tr>
<td>Condemnation</td>
<td>3.30</td>
<td></td>
<td>2.45</td>
<td></td>
</tr>
<tr>
<td>Preventability</td>
<td>2.12</td>
<td>2.3</td>
<td>2.59</td>
<td>2.67</td>
</tr>
<tr>
<td>ATTS1</td>
<td>2.60</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTS37</td>
<td>1.80</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* All mean scores were obtained using the ATTS, but each had slight differences in the items that were included in each factor. Lower scores indicated more belief in the acceptance, condemnation, and preventability of suicide. ATTS was measured using a 5-point Likert scale ranging from 1 (*strongly agree*) to 7 (*strongly disagree*) with lower scores indicating more agreement with the dimension of suicide attitudes being measured. DAP-R was measured using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with lower scores indicating more disagreement with the dimension of death attitude being measured.

Previous research suggested that previous suicidal behaviors were strong predictors of future suicidal behaviors (Van Orden et al., 2005; Van Orden et al., 2010); however, the results of this study indicated that participants with previous suicidal behaviors tended to report less suicide potential in the future. Although seemingly contradictory, it is possible that the suicide potential item actually measures the participants’ willingness to acknowledge suicide potential rather than actual risk of a future suicide attempt. Additionally, if less reported suicide potential is predictive of previous suicidal behavior, and previous suicidal behavior is predictive of future suicidal behavior, then it could be that people who deny personal potential for suicide could
actually be at higher risk for future suicidal behaviors than those who acknowledge more potential.

The biggest divergence of the findings of the current study compared to the previous body of literature is related to counseling students’ exposure to suicidal behaviors. Counseling students’ in this study reported significantly more personal suicidal behaviors than was identified by previous research (Bascue, Lawrence, & Sessions, 1978; Rogers et al., 2001). If participants in previous research viewed suicide as undesirable, then the actual frequency of previous suicidal behaviors could have been suppressed. Similarly, if participants in the current study had special interest in the topic of this study, previous suicidal behaviors could have been over-reported in order to meet the perceived needs of the researcher.

No previous research was found that evaluated the frequency of counseling students’ exposure to the suicidal behaviors of clients, but a few studies suggested that anywhere from 24% to 38% of practicing mental health and rehabilitation counselors have experienced the death of a client by suicide (Hunt & Rosenthal, 2000; McAdams & Foster, 2000; Rogers et al., 2001), six percent of which experienced the death of a client during training. Although students reported less exposure to the suicidal behaviors of clients during the counseling program, this discrepancy could be the result of the heterogeneity of the samples being compared. Additionally, as counseling students in the current study reported more time in the counseling program, more exposure to the suicidal behaviors of clients was also reported. This could suggest that the chance of
counseling students being exposed to the suicidal behaviors of clients increases with time during the counseling program.

**Contributions of the Findings to the Current Body of Literature**

The findings of the current study extended the line of research related to multidimensional death and suicide attitudes in several ways. First, the current findings addressed gaps in the previous body of literature by including a sample of counseling students from the United States and implementing multidimensional measures of both death attitudes and suicide attitudes. Additionally, the findings of the current study supported the usefulness of multidimensional models of death attitudes in the prediction of attitudes towards several scenarios that counseling students could encounter during the counseling program. The current study also addressed unanswered questions regarding the usefulness of death attitudes in the prediction of suicide attitudes. The findings of the current study also created the need for discussion regarding the amendment of the DAP-R (Wong et al., 1994) and the need for further validity of the ATTS (Renberg & Jacobsson, 2003) or the creation of a new instrument to measure suicide attitudes of particular interest to the counseling profession. Finally, statistically significant individual predictor variables and interactions among variables identified additional questions to be explored with future research.

**Implications of Findings**

Previous research regarding the role of death attitudes in the prediction of suicide attitudes has been limited (Kopp, 2008-2009; Maglio, 1990; Neimeyer et al., 2001). Suicide attitude research in the counseling field has primarily focused on the concept of
rational suicide (e.g., Rogers et al., 2001; Werth & Liddle, 1994) with little consideration to broader conceptualizations of suicide attitudes that include multiple dimensions. Previous theory building efforts through qualitative inquiry have recommended that quantitative research aim to validate a sound model of suicide attitudes (Lussier, 2004); however, quantitative research that includes multidimensional conceptualizations was only found outside of the United States where the counseling field has a smaller presence (e.g., Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013). The contributions of the findings of the current study to the previous body of literature have potential implications for the theory, research, and practice of the counseling profession.

**Theoretical implications.** The findings of the current study should not be considered a validated model of suicide attitudes, but rather an exploratory description of potential dimensions and components of suicide attitudes among counseling students that can provide a foundation for the theoretical understanding of how counseling students make meaning of and respond to suicide-related content. Support was found to consider acceptance of suicide, condemnation of suicide, and preventability of suicide, previously identified by Renberg et al. (2008), as potential components of suicide attitudes among counseling students; however, some questions remain regarding the existence of preventability of suicide as a unique dimension of suicide attitudes or the product of other dimensions. The findings of the current study supported the consideration of fear of death, avoidance of death, approach acceptance of death, neutral acceptance of death, and natural process of death, previously identified by Wong et al. (1994) and Clements and Rooda (1999), as potential components of death attitudes among counseling students.
Finally, the findings of the current study supported the consideration of religious beliefs associated with Christianity, suicide training, exposure to others’ suicidal behaviors, personal suicidal behaviors, professional exposure to suicidal behaviors, and suicide potential as possible components of suicide attitudes among counseling students.

The strength of suicide potential in the prediction of counseling students’ acceptance and condemnation of suicide in the current study has implications for the conceptualization of broader suicide theory. For instance, the endorsement of suicide potential and the relationship between suicide potential and personal suicidal behaviors in the current study has potential to extend models that conceptualize suicide as a continuum and process (Lowental, 1976; Van Orden, Merrill, & Joiner, 2005; Van Orden et al., 2010) rather than a one-time behavior that can and must be prevented. Given previous prediction models of suicidal behavior that included previous suicidal behaviors (Van Orden, Merrill, & Joiner, 2005; Van Orden et al., 2010) and the correlation coefficients the current study that suggested counseling students’ with less suicide potential reported more previous suicidal behaviors ($r = -.38$), it is possible that an acknowledgement of personal suicide potential is more useful than actual suicide risk, meaning that individual who don’t acknowledge personal potential for suicide could actually be at more risk of suicide than individuals who report more suicide potential.

**Research implications.** The findings of the present study identify potential implications for the future research of death and suicide attitudes among counseling students. It is recommended that future research continue the use of multidimensional measurement strategies given results from the current study that suggested individual
dimensions of suicide attitudes may be more susceptible to individual death attitude dimensions and covariates than others. The intentional survey design that presented participants with questions about their exposure to the suicidal behaviors of others and self, appeared to result in a robust data set with no clear patterns of response bias. Future studies can consider the usefulness of the six-factor or amended five-factor model of death attitudes using the DAP-R (Clements & Rooda, 1999; Wong et al., 1994) in future studies related to multiple dimensions of death attitudes. Additionally, future research can explore the revision of DAP-R items that are heavily influenced by themes related to Christianity in order to reduce the amount of shared variance between approach acceptance and religious beliefs that was observed in the previous literature (Kopp, 2008-2009) and the results of the current study. Although support was given for the three-factor model of suicide attitudes using the ATTS (Renberg et al., 2008), it is recommended that future research consider strategies to enhance the stability of its factor structure and reliability of its subscales, which could include the revision of items or creation of a new instrument.

Given the amendment of the inclusion criteria in the current study, it is recommended that future research remove delimitations associated with counseling programs and accreditation organizations unless the purpose of the research creates logical reasons to retain them. Future research can also consider longitudinal designs in order to evaluate the changes in suicide attitudes that occur during the counselor education program, which can be paired with measures of cognitive complexity and ethical decision making. The number of participants could be increased in future
research by eliminating the two-tiered recruitment model used in the current study and replacing it with student membership lists that can be purchased from professional counseling organizations. Finally, future research can use structural equation modeling and other causal analyses to evaluate the existence of the hypothetical pathways identified in this discussion and move towards a practically significant model of suicide attitudes among counseling students.

**Practical significance.** Given the exploratory and descriptive purposes of the current study, practical application of findings is limited. Additionally, without a sound model of multidimensional suicide attitudes among counseling students that is connected to therapeutic outcomes and counseling skills, descriptive interpretations become difficult because little evidence was found that validated specific dimensions of suicide attitudes over others. Cautious hypotheses regarding the potential practical significance of the current findings to counselor educators, counseling students, and the clients whom they serve are offered.

The current findings extended previous research that suggested counseling students experience statistically significant changes over time in the counseling program (Granello, 2002; Fong & Borders, 1997), specifically during practicum coursework. Additional findings of the current study suggested that counseling students were more likely to encounter the suicidal behaviors of clients as they progress through their coursework. Given that counseling students in this study were significantly more likely to experience clients’ suicidal behaviors as they progressed throughout the program, it is concerning that suicide intervention training is more likely to take place later in the
training program. This is exacerbated by the findings of this study that identified the statistically significant effect of suicide training on the acceptance and condemnation of suicide among counseling students. In light of previous literature that has criticized the presence and effectiveness of suicide intervention programs during counselor training programs (Cohen, 2001; Doughty-Horn et al., 2013; Harrowood et al., 2011; Hunt & Rosenthal, 2000; McAdams & Foster, 2000; Wadsworth et al., 2008; Werth, 2002), the findings of the current study can prompt the infusion of ethical decision making models, suicide intervention skills, and emotional processing of students’ experiences with death, suicide, and other end-of-life issues in the accreditation standards, student learning outcomes, and classroom experiences of counselor education programs. If future research identifies that changes in suicide attitudes could be related to cognitive complexity and/or moral development, then the practical implications related to the effect of suicide attitudes on counselor student development could be more useful.

The need for increased training and skill related to end-of-life issues in counseling is related to the potential for complex ethical dilemmas related to the influence of personal values and attitudes on the provision of counseling services (Cohen, 2001; Werth, 1999; Werth, 2001). This is timely given the ongoing debate within the counseling profession regarding the degree to which counseling students and professionals are able to refer clients to another provider based upon personal value conflicts (Cox, 2013; Hutchens, Block, & Young, 2013). Debates emerged when a few counseling students were dismissed from counseling programs following their refusal to complete remediation plans following their decision to refer clients of sexual orientations
other than their own, which was based upon religious value conflicts. The subsequent legal proceedings have had mixed results related to the intersection of competing ethical codes, personal attitudes, legal precedent, and constitutional rights that have identified the complex ethical dilemmas that counseling students, and potentially counselor educators, may be ill-equipped to navigate.

The debates regarding the influence of religious belief in the provision of counseling services mentioned above is interesting considering the statistically significant influence of counseling students’ religious beliefs associated with Christianity on the development of suicide attitudes found in the current study. The differing opinions of counselor educators and students when interpreting ethical codes highlighted by the situations above are similar to the variability in the counseling profession regarding the acceptability of suicide and appropriate standards of care (Cohen, 2001; Lussier, 2004; Rogers et al., 2001). For instance, the facilitation of a rational decision making process that result in the death of a client by suicide may be viewed as an appropriate therapeutic outcome of the counseling relationship (Cohen, 2001) by some but not others. While not advocating for one or the other, these findings have potential implications for the evaluation and remediation of student learning outcomes, which currently only consider suicide prevention.

The findings of the present study regarding key predictive variables could have implications to the training of counseling students. Cautious hypotheses regarding the effects of personal and professional covariates including death attitudes in the prediction of suicide attitudes and eventual counseling skills can be considered. For instance, rigid
beliefs against the acceptability of suicide could result in referrals due to value conflicts or premature inpatient hospitalization if a client were to mention the consideration of rational suicide. Conversely, very permissive beliefs towards suicide could result in the failure to comply with state legislation and ethical standards regarding the duty to protect clients when the potential for suicide is imminent and foreseeable.

Counseling students’ with condemnatory attitudes towards suicide could reduce empathy and cause a rupture to the therapeutic relationship with a client, while less condemnatory views of suicide could result in a premature rational suicide. Similarly, a strong belief in the preventability of suicide could lead to a disregard for a client’s cultural belief and practice in ritualistic suicide, while strong beliefs against the preventability of suicide could result in reduced self-efficacy that could lead to impairments in the delivery of counseling services such as empathy. Personal and professional covariates that could have implications on the development of counseling students’ suicide attitudes include: fear of death, death avoidance, neutral acceptance, approach acceptance, religious beliefs associated with Christianity, previous suicide training, previous personal suicidal behaviors, previous exposure to others’ suicidal behaviors, and suicide potential. Although exploratory, the identification of statistically significant personal and professional covariates could provide counseling students and counselor educators with evidence to inform decisions regarding the fit between counseling students and potential clients.
Limitations

The implications of the current study are best considered within the context of the design of the study and the limitation that existed. The following sections review the limitations of the current study related to the internal and external validity, the statistical analyses and predictive power, and the measurement strategies.

**Design and internal validity.** The design of the current study identified potential threats to the internal validity of the findings. Based upon the current body of literature, several presumptions guided the development of this study. First, this study was based upon the presumption that death attitudes and suicide attitudes are theoretical constructs that can be measured with instruments designed to capture latent dimensions of these attitudes. Second, it was presumed that these attitudes are primarily unconscious but, when activated by client scenarios related to death and suicide, have the potential to influence treatment decisions. Third, this study presumed that counseling students would encounter the suicidal behaviors of clients during the counseling program. Finally, it was presumed that counseling students might not have the requisite skills to navigate the complex ethical dilemmas created by client scenarios related to death and suicide.

Although presumptions were made, several strategies were taken to support their role in the development of the current study. The intentional design of the survey could have activated participants’ attitudes prior to their measurement and reduced threats related to the unconscious nature of attitudes. Of course, it is possible that the measures of death and suicide attitudes used in the current study could have measured participants’ willingness to disclose attitudes rather than their actual presence. Furthermore, the large
The counseling students in the current study had previous exposure to clients’ suicidal behaviors during the counseling program and the probability of this occurring increased as they progressed in the program. These findings supported some of the presumptions made during the development of this study, but don’t remove the potential for prediction errors that could have been made. Additionally, there was no exploration of the clinical decision making skill or other clinical outcomes in this study. Therefore, the existence of attitudes measured in this study can only be cautiously interpreted as exploratory and descriptive, and the benefits of certain dimensions of attitudes over others cannot be determined. Nonetheless, these findings can be interpreted within the context of previous literature that has connected suicide attitudes to professional behaviors. Future studies can eliminate these presumptions by including measures of clinical decision making and clinical counseling skill performance in order to increase the clinical significance of findings related to suicide attitudes and their allied variables.

Although this study improved upon previous methodology by including a large list of personal and professional covariates, it was possible that other important variables were not included. For instance, no data regarding participants’ race or ethnicity was collected due to the mixed results of previous studies and the omission of this variable in other studies similar to the current research (Kodaka et al., 2012; Kodaka et al., 2013; Norheim et al., 2013). This is potentially due to the thought that variance in the
manifestation of attitudes are less likely the result of biological factors such as race and are potentially more representative of elements within the broader sociological construct of culture are more representative of the potential for differences among subgroups. Although culture was not included as an explicit variable in this study, religious beliefs were one aspect of participants’ culture that was included. Additional personal and professional covariates such as family status, life satisfaction, income, and health status could also have been important predictors of suicide attitudes but were not included in the current study. Although it is not possible to include every potential variable in the prediction of suicide attitudes, the omission of variables increases the chance that the effects observed could be related to variables other than those measured by the current study.

Furthermore, the purpose of the current study was to predict suicide attitudes, and no analyses were conducted to explore the prediction of death attitudes. Even though it was hypothesized that suicide attitudes stem from death attitudes, it could be that suicide attitudes are more predictive of death attitudes. Additionally, the suppression and moderating effects of death attitudes in the prediction of counseling students’ acceptance of suicide and condemnation of suicide raised the chances of Type II errors when evaluating the significance of individual predictor variables.

**External validity and generalizability.** Results of the chi-square-goodness-of-fit tests suggested the final sample of this study was significantly different than expected according to gender and ACES region; however, the gender distribution by ACES region suggested adequate representation of gender among the subgroups. Additionally, the
The hypothesized proportion used was created from a pool of licensed mental health counselors, not counseling students. Furthermore, the observed gender distribution of the current study was similar to previous research of counseling students in CACREP accredited programs (Granello, 2002). The distribution of participants in the current study by age and counseling program was also similar to that identified by Granello (2002).

Although the frequency distribution of participants by ACES regions was statistically different than expected, participants were enrolled in counseling programs from 26 states and all ACES regions, which provided evidence for the geographic representativeness of the participants in the current study. Unfortunately, there was no way to determine a true response rate because of the anonymity of survey responses; however, the weakest possible response rate was estimated to be 24%, which is similar to the response rate of 24% that was obtained in a previous study of mental health counselors (Rogers et al., 2001). When paired with the 77% survey completion rate, these findings suggested that the final sample of this study was adequate for exploratory implications to be considered.

The initial inclusion criteria of this study limited the generalizability of these results to counseling students who were enrolled in programs not accredited by CACREP or CORE, and not enrolled in mental health, clinical mental health, and/or rehabilitation counseling programs. Additionally, these results are also not generalizable to students enrolled in doctoral programs in counselor education. Even though the amended inclusion criteria created a distribution of participants across programs that was similar to
previous studies of counseling students (Granello, 2002), the representativeness of this sample was still limited by these methodological decisions. Future research can consider removing the delimitations to the inclusion criteria in order to recruit students from all counseling programs regardless of accreditation body.

The stratified random cluster sampling methods used in the current study increased the geographic representation of participants but also increased the potential for clusters of participants from the same counseling program. The analyses in the current study assumed simple random sampling and no adjustments to the standard error were able to be made given the need to protect the anonymity of the participants in the current study. In addition to this concern, the lack of a true response rate also limited the ability to evaluate the representativeness of the participants. This increased the potential for the survey to measure the attitudes of counseling students in specific programs rather than a truly representative sample of counseling students. Although this study obtained an adequate response rate, future research can improve upon these methods by recruiting participants from the student registries of professional counseling organizations.

Additional concerns regarding the generalizability of the findings from the current study included the overrepresentation of participants who were women and enrolled in mental health or clinical mental health counseling programs accredited by CACREP. This increased the chances of the results not being generalizable to counseling students who report as men, students enrolled in programs not accredited by CACREP, or students enrolled in programs other than mental health/clinical mental health programs. The distribution of participants across ACES regions also increased the potential for
clustering within regions. The omission of professional counselors and counseling programs outside of the United States also reduced the generalizability of the current findings.

While the concerns regarding the composition of the sample are notable, several strengths should also be considered. For instance, the gender and age distribution, and the decision to sample only accredited programs, was consistent with previous literature (Granello, 2002). Additionally, one-way ANOVA results increased the interpretability of these findings given that no statistically significant mean differences on any outcome variable were found for program enrollment or gender. Only marginally statistically significant mean differences for condemnation and acceptance scores were observed among ACES regions.

Additionally, responses from 26 states across every ACES region with a worst possible response rate of 24% was consistent with previous studies of mental health counselors across the United States (Rogers et al., 2001). Finally, it is possible that the participants in the current study were motivated to participate by an interest in the topic and counseling students that did not participant could have had more aversive reactions to death and/or suicide. Therefore, it is possible that this sample missed participants rich in key variables of measured by the current study or that did not share in the interest of the topic for this study. Future studies could delimit inclusion criteria to recruit students who identify with variables that have shown statistically significant relationships with more fear of death and/or death avoidance, while limiting disclosure of the full purpose of the study in recruitment materials.
Analyses and statistical power. In regards to the data analyses of this study, there were a few potential threats to the assumptions of hierarchical multiple regressions. First, statistically significant skew and kurtosis was identified during the univariate screening of the data. Second, a statistically non-significant trend was observed in the responses of participants enrolled in practicum at the time of this study. Specifically, these participants’ scores were lower on each outcome variables when compared to participants earlier and later in the counseling program. Although non-significant, this limited the validation of the assumption of linearity between academic standing and each outcome variable.

Additionally, concerns emerged when the anticipated effect size was not met; although the minimum sample size predicted in the development of this study was met, the effect size did not reach the hypothesized limit and increased the chance of making predictive errors. Nonetheless, the observed effect sizes of death attitudes in prediction of counseling students’ suicide attitudes in the current study were consistent with previous research. Also, the removal of the statistically non-significant predictor variables in each trimmed regression model increased the strength of the precision efficacy as a result of fewer variables. Finally, the removal of the nonsignificant variables also increased the explanatory power in the prediction models for counseling students’ acceptance of suicide and condemnation of suicide as evaluated by $AdjR^2$.

There was also potential risk for heteroscedasticity in the prediction of suicide attitudes, which increased the risk of error in the prediction models that were built. Nonetheless, the visual examination of the data set revealed no obvious errors in the data
entry or patterned responses that could have identified unanticipated subgroups within the sample. Future studies can use more robust data analyses procedures including data transformation and structural equation modeling to increase the predictive power of the results.

**Measurement.** The survey constructed for the current study was relatively long and administered online. The length of the survey is one explanation for the reduced completion rate observed and the elimination of 52 incomplete responses, which could have missed important information regarding underlying attitudes that might have influenced participation in this study. Even though online and mail surveys are common practice in the social sciences, the use of an online survey in the current study increased the potential for threats to the integrity of participants’ responses. Additionally, the potential for social-desirability and other forms of response bias are possible in self-report data of this kind. Despite these concerns, the large number of participants who reported previous personal suicidal behaviors could provide evidence that participants’ responses might have been relatively accurate representations of their experiences. Nonetheless, including additional validity checks, such as attention filters, in future research can add to the validity of these findings.

The use of primarily dichotomous and ordinal variables in the current study makes interpretation difficult given the lack of true equal distances between variables. The decision to recode participants’ responses into dichotomous variables could have masked important differences within subgroups according to the frequency and type of suicidal behaviors of which participants were exposed. Additionally, participants’
responses included various religious beliefs; however, the only statistically significant mean differences of the outcomes variables were among participants who reported some past or present religious beliefs that were somewhat associated with Christianity. Recoding these responses into a dichotomous variable measuring the degree of beliefs related to Christianity limited the potential for direct comparisons to other studies that included subgroups of religious beliefs but increased the comparisons that could be made to previous studies that defined religious variables in more general terms such as liberal beliefs, church attendance, and degree of Christianity (Kopp, 2008-2009; Norheim, 2013; Terry et al., 1995). Future studies can improve upon these methods by evaluating differences in subgroups defined by type and frequency of suicidal behaviors. Additional studies can also evaluate the shared characteristics of approach acceptance, religious beliefs, and religious practices in order to identify the latent traits that these variables could represent.

The predictor and outcome variables of this study were defined according to psychometrically defined dimensions built on theoretical assumption rather than defining these variables by theoretical conceptualizations alone. Evidence for the fit between the dimensions of death attitudes and suicide attitudes that were measured compared to previous research was adequate but not perfectly aligned. This increased the risk for the construct validity of these findings given that counseling student’ responses could represent other factors than those chosen to define death attitudes and suicide attitudes in this study.
Future Directions

The findings of the present study addressed some gaps in the current body of literature but raised a number of additional questions to be explored with future research. While the exploration of the role that personal and professional covariates including death attitudes have in the prediction of suicide attitudes among counseling students is an important area of research, it may be important to establish a sound empirical model for suicide attitudes before evaluating the prediction of these attitudes. In doing so, future research can employ cross-sectional designs of counseling students and counseling professionals that use membership registries from professional counseling organizations rather than blanket email requests for participation or tiered recruitment methods that were used in the current study.

The exploratory models identified by the current findings can be used as a foundation for the creation of future models of death and suicide attitudes, but it is recommended that future research evaluate the usefulness for an amended factor structure of the (DAP-R) that is consistent with current results and previous research (Clements & Rooda, 1999). Additionally, it is recommended that future research consider a comprehensive evaluation of the ATTS that could result in the creation of a new instrument that can provide a reliable measure of suicide attitudes that is more applicable to the counseling profession.

Once a sound factor structure for suicide attitude among counseling students is validated, structural equation modeling can assist in the development of sound prediction models that include key personal and professional covariates and death attitudes for the
prediction of suicide attitudes that can have more practical significance. Next, future research can evaluate the role of suicide attitudes in the prediction of educational and therapeutic outcomes. Once the outcomes of suicide attitudes can be evaluated, research can guide the creation and evaluation of evidence-based training programs that aim to promote the most effective suicide attitudes and suicide intervention skills.

In regards to key predictive variables, future research can evaluate the effect size of death attitudes in comparison with other personal and professional covariates in order to that are the most responsive to intervention and have the most practical significance. The current results identified statistically significant individual dimensions of death attitudes that included death avoidance, fear of death, approach acceptance of death, and neutral acceptance of death, and future research can replicate these findings to identify the most influential aspects of death attitudes that can be used in the formation of students learning outcomes. Similarly, future studies can also evaluate the role of personal and professional covariates including religious beliefs and practices, experiences with suicide training, previous experiences with the suicidal behaviors of clients, personal suicidal behaviors, and suicide potential in the prediction of suicide attitudes and development of student learning outcomes. Also, it is recommended that future research evaluate the importance of suicide potential and the willingness to acknowledge suicide potential in the development of suicide attitudes, suicidal behaviors, and students learning outcomes.

Once individual predictor variables are evaluated, future research can inform the development and evaluation of curricular experiences related to the formation of the most
effective suicide attitudes relative to therapeutic outcomes and counseling skills. Quasi-experimental designs can evaluate the outcomes of traditional skill-based suicide training programs compared to affectively based programs that focus on attitude development within the framework of sound models of suicide attitudes. Longitudinal studies can evaluate the attitudinal development of counseling students throughout the counseling program in order to identify critical incidents to their attitude formation regarding suicide. These studies could also include measures of cognitive complexity and moral development in the manifestation of suicide attitudes and clinical decision making skills.

**Conclusion**

The purpose of this cross-sectional study of counseling students from across the United States was to evaluate the role of death attitudes in the prediction of suicide attitudes after controlling for the effects of personal and professional covariates. The results provided some support for the conceptual model of death attitudes that included the dimensions of fear of death, death avoidance, approach acceptance, and escape acceptance but suggested a new conceptualization of neutral acceptance that focuses on the natural aspects of death, rather than the reaction to death. The three factor model of suicide attitudes that included acceptance, condemnation, and preventability was marginally supported, but the overall reliability of the dimensions uncovered by the ATTS remain in question and could support the creation of a new measure.

More reported acceptance of suicide was predicted by more fear of death, more neutral acceptance of death, more previous suicide training, and more suicide potential, but less past/present religious beliefs associated with Christianity. More reported
condemnation of suicide was predicted by less exposure to others’ suicidal behaviors, less previous suicide training, and less suicide potential, but more past/present religious beliefs associated with Christianity, more death avoidance, and more approach acceptance of suicide. More reported belief in the preventability of suicide was predicted by more personal suicidal behaviors but less exposure to the suicidal behaviors of clients before the counseling program, and no dimensions of death attitudes displayed predictive power. Although interpreted with caution, these findings can have several implications to the theory, research, and practice of the counseling profession.

While death attitudes accounted for statistically significant variance in counseling students’ acceptance and condemnation of suicide after controlling for the effects of personal and professional covariates, no evidence was found that supported the usefulness of death attitudes in the prediction of counseling students’ belief in the preventability of suicide. Although the current results were statistically significant, the effect sizes were marginal at best. Nonetheless, these exploratory findings add to the current body of literature regarding the predictive power of death attitudes in the prediction of attitudes towards other client populations that counseling students could encounter. Furthermore, the current results provide the foundation for a multidimensional approach to the study of suicide attitudes among counseling students in the United States. Future research can replicate these findings while building sound empirical models for the multidimensional suicide attitudes among counseling students and counseling professionals in order to enhance student learning outcomes, clinical decision making, and therapeutic outcomes.
References


of rehabilitation counselors. *Suicide and Life-Threatening Behavior, 8*(1), 14-17.


knowledge for school counselor candidates, school counseling supervisors, practicing school counselors and training programs. *Georgia School Counselors Association Journal, 13,* 60-70.


Uniform Definitions and Recommended Data Elements, Version 1.0. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.


Council on Rehabilitation Education. (2012). *Accreditation manual for masters level...*
rehabilitation counselor education programs. Schaumburg, IL: Author.


doi:10.1080/1281110490476725


Reports, 61(6), Hyattsville, MD: National Center for Health Statistics. 2012.

Retrieved Dec. 29, 2012, from
http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf


concerns and empathic responses to client situations involving death and grief.

*Death Studies, 22,* 99-120.


*Counseling and Values, 40*(2), 127-131.


doi:10.1007/s00127-007-0296-7


doi:10.1080/13674670802351856


relationship between attitudes toward suicide and suicidal behavior: Based on data from general populations in Sweden, Norway, and Russia. *Suicide and Life-Threatening Behavior, 38*(6), 661-675.

Renberg, E.S., & Jacobsson, L. (2003). Development of a questionnaire on attitudes towards suicide (ATTS) and its application in a Swedish population. *Suicide and Life-Threatening Behavior, 33*(1), 52-64.


Suokas, J., & Lönnqvist, J. (1989b). Work stress has negative effects on the attitudes of


Appendix A: Death Attitude Profile (DAP-R; Wong, Reker, & Gesser, 1994)

Death Attitude Profile-Revised (DAP-R)

Wong, P.T.P., Reker, G.T., & Gesser, G.

This questionnaire contains a number of statements related to different attitudes toward death. Read each statement carefully, and then decide the extent to which you agree or disagree. For example, an item might read: “Death is a friend.” Indicate how well you agree or disagree by circling one of the following: SA = strongly agree; A = agree; MA = moderately agree; U = undecided; MD = moderately disagree; D = disagree; SD = strongly disagree. Note that the scales run both from strongly agree to strongly disagree and from strongly disagree to strongly agree.

If you strongly agreed with the statement, you would circle SA. If you strongly disagreed you would circle SD. If you are undecided, circle U. However, try to use the undecided category sparingly.

It is important that you work through the statements and answer each one. Many of the statements will seem alike, but all are necessary to show slight differences in attitudes.

1. Death is no doubt a grim experience.  
   SD  D  MD  U  MA  A  SA

2. The prospects of my own death arouses anxiety in me.  
   SA  A  MA  U  MD  D  SD

3. I avoid death thoughts at all costs.  
   SA  A  MA  U  MD  D  SD

4. I believe that I will be in heaven after I die.  
   SD  D  MD  U  MA  A  SA

5. Death will bring an end to all my troubles.  
   SD  D  MD  U  MA  A  SA

6. Death should be viewed as a natural, undeniable, and unavoidable event.  
   SA  A  MA  U  MD  D  SD

7. I am disturbed by the finality of death.  
   SA  A  MA  U  MD  D  SD
8. Death is an entrance to a place of ultimate satisfaction.

9. Death provides an escape from this terrible world.

10. Whenever the thought of death enters my mind, I try to push it away.

11. Death is deliverance from pain and suffering.

12. I always try not to think about death.

13. I believe that heaven will be a much better place than this world.

14. Death is a natural aspect of life.

15. Death is a union with God and eternal bliss.

16. Death brings a promise of a new and glorious life.

17. I would neither fear death nor welcome it.

18. I have an intense fear of death.

19. I avoid thinking about death altogether.

20. The subject of life after death troubles me greatly.
21. The fact that death will mean the end of everything as I know it frightens me.

22. I look forward to a reunion with my loved ones after I die.

23. I view death as a relief from earthly suffering.

24. Death is simply a part of the process of life.

25. I see death as a passage to an eternal and blessed place.

26. I try to have nothing to do with the subject of death.

27. Death offers a wonderful release of the soul.

28. One thing that gives me comfort in facing death is my belief in the afterlife.

29. I see death as a relief from the burden of this life.

30. Death is neither good nor bad.

31. I look forward to life after death.

32. The uncertainty of not knowing what happens after death worries me.
Scoring Key for the Death Attitude Profile-Revised

Dimension  Items
Fear of Death (7 items)  1,2,7,18,20,21,32
Death Avoidance (5 items)  3,10,12,19,26
Neutral Acceptance (5 items)  6,14,17,24,30
Approach Acceptance (10 items)  4,8,13,15,16,22,25,27,28,31
Escape Acceptance (5 items)  5,9,11,23,29

Scores for all items are from 1 to 7 in the direction of strongly disagree (1) to strongly agree (7). For each dimension, a mean scale score can be computed by dividing the total scale score by the number of items forming each scale.

For further information on the theoretical rationale and the psychometric properties of the scale consult the following source:


For information on the original DAP, consult the following source:

Appendix B: Attitudes Towards Suicide Scale (Renberg & Jacobsson, 2003)

Instructions ATTS

The ATTS questionnaire can either be used as it is, or special sections might be chosen, depending on aims within the study.

The first section, Contact with the suicide problem, is of interest because it makes it possible to connect "problem load" in the surroundings, with attitudes. However, specific items might be dropped (or even the whole section), depending on specific aims.

In the second section, Attitudes, items 4 to 40, should remain as they are. Items 41 and 42 might in some settings be somewhat difficult to ask, and if so, they can be dropped. Item 43 should remain as it is. The items are simply scored 1-5 (14 on item 43), with reversed scoring on item 7 and 9.

In the last section, Finally some questions about yourself, items 46 to 48, can be dropped, especially if there are questions on anonymity. Item 49, 51 and 52 (from SOC, Antonovsky) and items 50 and 55 (from EVS - European Values Survey), are interesting because they do not only focus on suicidality, but life satisfaction in general. However, these items may be dropped, if necessary. The "Paykel questions", items 54 and 56 to 59, should, if the aim of the study is to investigate own suicidality as well, be kept as they are. Items 60 and 61 are important to keep, as they give an opportunity to reflect freely on the problem. Finally, comments on the questionnaire should be recorded.

Salander Renberg E, Jacobsson L. Development of a Questionnaire on Attitudes Towards Suicide (ATTS) and its Application in a Swedish Population. Suicide and Life-Threatening Behavior. 33, 52-64, 2003.


Renberg ES, Hjelmeland H, Kogosov E. Building models for the relationship between attitudes toward suicide and suicidal behavior: based on data from general population surveys in Sweden, Norway, and Russia. Suicide and Life-Threatening Behavior 2008; 38: 661-75.
ATTS

Attitudes towards suicide

Department of Psychiatry
Umeå university

March 1996
## Contact with the suicide problem

Initially there are some questions about your experiences of suicide problems in your surroundings. Please mark with a cross the appropriate alternative (NA = not applicable).

### 1. Has any of the following persons ... made a suicide attempt

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Some time</th>
<th>Other</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your family;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father/mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (companion,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spouse, boyfriend)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workmates/schoolmates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Some time</th>
<th>Other</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>expressed suicidal thoughts, plans or threats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In your family;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father/mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (companion,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spouse, boyfriend)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workmates/schoolmates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2. Is there at this very moment any person in your closest surroundings that you know has suicidal thoughts?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your family;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father/mother</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (companion,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spouse, boyfriend)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workmates/schoolmates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3. Have any of the following persons committed suicide?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your family;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father/mother</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (companion,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spouse, boyfriend)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workmates/schoolmates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Attitudes

The following questions concern your opinion about suicide. Please mark with a cross the alternative that you find is in best accordance with your opinion. There are no ‘right’ or ‘wrong’ answers!

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>It is always possible to help a person with suicidal thoughts.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>5.</td>
<td>Suicide can never be justified.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>6.</td>
<td>Committing suicide is among the worst thing to do to one’s relatives.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>7.</td>
<td>Most suicide attempts are impulsive actions.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>8.</td>
<td>Suicide is an acceptable means to terminate an incurable disease.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>9.</td>
<td>Once a person has made up his/her mind about committing suicide no one can stop him/her</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>10.</td>
<td>Many suicide attempts are made because of revenge or to punish someone else.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>11.</td>
<td>People who commit suicide are usually mentally ill.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>12.</td>
<td>It is a human duty to try to stop someone from committing suicide.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>13.</td>
<td>When a person commits suicide it is something that he/she has considered for a long time.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>----------------</td>
<td>-------</td>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td>14. There is a risk of evoking suicidal thoughts in a person's mind if you ask about it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. People who make suicidal threats seldom complete suicide.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Suicide is a subject that one should rather not talk about.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Loneliness could for me be a reason to take my life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Almost everyone has at one time or another thought about suicide.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. There may be situations where the only reasonable resolution is suicide.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I could say that I would take my life without actually meaning it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Suicide can sometimes be a relief for those involved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Suicides among young people are particularly puzzling since they have everything to live for.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I would consider the possibility of taking my life if I were to suffer from a severe, incurable, disease.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. A person once they have suicidal thoughts will never let them go.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-------</td>
<td>-----------</td>
<td>----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>25. <strong>Suicide happens without warning.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>26. <strong>Most people avoid talking about suicide.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>27. <strong>If someone wants to commit suicide it is their business and we should not interfere.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>28. <strong>It is mainly loneliness that drives people to suicide.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>29. <strong>A suicide attempt is essentially a cry for help.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>30. <strong>On the whole, I do not understand how people can take their lives.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>31. <strong>Usually relatives have no idea about what is going on when a person is thinking of suicide.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>32. <strong>A person suffering from a severe, incurable, disease expressing wishes to die should get help to do so.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>33. <strong>I am prepared to help a person in a suicidal crisis by making contact.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>34. <strong>Anybody can commit suicide.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>35. <strong>I can understand that people suffering from a severe, incurable, disease commit suicide.</strong></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
36. People who talk about suicide do not commit suicide.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. People do have the right to take their own lives.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Most suicide attempts are caused by conflicts with a close person.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

39. I would like to get help to commit suicide if I were to suffer from a severe, incurable, disease.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

40. Suicide can be prevented.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41. Even though you would prefer another way to die, painful circumstances in life might lead to suicidal ideation. How do you estimate the probability that you sooner or later will commit suicide?

- I am sure I never will commit suicide.
- I hope I will never commit suicide, but I am not absolutely sure.
- Under certain circumstances I consider suicide as a possibility.
- I consider suicide as a possibility in the future.

42. Every person will sooner or later die. Please indicate which manner of death you would prefer by ranking the alternatives from 1 to 5.

1= prefer most, ........, 5=prefer least of all.

- Illness
- Accident
- Suicide
- Old age
- Homicide

43. To what extent do you think suicide should be prevented?

- In all cases
- In all cases, but with a few exceptions
- In some cases yes, in some cases no
- Not in any case; if a person wants to commit suicide no one, including medical services, has the right to stop him or her
Finally some questions about yourself

44. Gender
   □ Male        □ Female

45. Age
   ————————

46. Residence
   ————————

47. Household composition
   □ Living alone
   □ Living with partner
   □ Living with partner and children
   □ Living alone with children
   □ Other ———————————

48. Education
   □ 9 years    □ 10-13 years    □ 14 years or longer

49. Do you usually feel that your daily life is a source of personal satisfaction?
   □ Yes, most of the time
   □ Yes, sometimes
   □ No

50. Would you, generally speaking, describe yourself as ...
   □ very happy
   □ quite happy
   □ not particularly happy
   □ not at all happy
   □ Do not know

51. Do you usually feel that the things that happen to you in your daily life are hard to understand?
   □ Yes, most of the time
   □ Yes, sometimes
   □ No

52. Do you usually see solutions to problems and difficulties that other people find hopeless?
   □ Yes, most of the time
   □ Yes, sometimes
   □ No
NB. Please answer both sub questions:

53. How often have you thought of the meaning of your life?

<table>
<thead>
<tr>
<th>Last year</th>
<th>Earlier in your life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>Often</td>
</tr>
<tr>
<td>Sometimes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>Hardly ever</td>
</tr>
<tr>
<td>Never</td>
<td>Never</td>
</tr>
</tbody>
</table>

54. Have you ever felt that life was not worth living?

<table>
<thead>
<tr>
<th>Last year</th>
<th>Earlier in your life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>Often</td>
</tr>
<tr>
<td>Sometimes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>Hardly ever</td>
</tr>
<tr>
<td>Never</td>
<td>Never</td>
</tr>
</tbody>
</table>

55. Have you ever thought of your own death?

<table>
<thead>
<tr>
<th>Last year</th>
<th>Earlier in your life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>Often</td>
</tr>
<tr>
<td>Sometimes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>Hardly ever</td>
</tr>
<tr>
<td>Never</td>
<td>Never</td>
</tr>
</tbody>
</table>

56. Have you ever wished you were dead, for instance that you could go to sleep and not wake up?

<table>
<thead>
<tr>
<th>Last year</th>
<th>Earlier in your life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>Often</td>
</tr>
<tr>
<td>Sometimes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>Hardly ever</td>
</tr>
<tr>
<td>Never</td>
<td>Never</td>
</tr>
</tbody>
</table>

57. Have you ever thought of taking your own life, even if you would not really do it?

<table>
<thead>
<tr>
<th>Last year</th>
<th>Earlier in your life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>Often</td>
</tr>
<tr>
<td>Sometimes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>Hardly ever</td>
</tr>
<tr>
<td>Never</td>
<td>Never</td>
</tr>
</tbody>
</table>
58. Have you ever reached the point where you seriously considered taking your life, or perhaps made plans how you would go about doing it?

   Last year                      Earlier in your life
   ■ Often                       ■ Often
   ■ Sometimes                   ■ Sometimes
   ■ Hardly ever                 ■ Hardly ever
   ■ Never                       ■ Never

59. Have you ever made an attempt to take your own life?
   Last year                      Earlier in your life
   ■ No                           ■ No
   ■ Yes.                        ■ Yes.
   How many?  …….               How many?  …….

   If yes: Did you receive any treatment on that specific occasion?
   ■ Yes  What type?__________________________
   ■ No   Why not?___________________________

60. What do you think is the main reason why people commit suicide?

   ________________________________________
   ________________________________________
   ________________________________________

61. What do you think should be done to prevent suicide?

   ________________________________________
   ________________________________________
   ________________________________________

   Comments to the questionnaire:

   ________________________________________
   ________________________________________
   ________________________________________

Thank you for your contribution!
Appendix C: Copy of Recruitment Emails

Greetings,

I am sure that you receive many requests to participate in research studies and I thank you for considering this request.

I would be most grateful if you would forward this recruitment email below to students currently enrolled in your mental health, clinical mental health, and/or rehabilitation counseling programs

Currently I am a doctoral candidate in Counselor Education and Supervision from Ohio University. This research is for my dissertation entitled, Death and Suicide: An Exploration of Attitudes among Counseling Students. Your students’ participation would help add to the body of research on this important topic.

Additional information regarding the study and contact information for myself and my faculty adviser can also be found below.

If you would like to be removed from future recruitment emails, then please follow the link below to opt out of future emails:

[Click here to unsubscribe]

Thank you again for your time and have a wonderful day!

Humbly,

Eric T. Beeson, LCPC, CRC

Please forward this recruitment email below to your students currently enrolled in your mental health, clinical mental health, and/or rehabilitation counseling programs.

Greetings fellow counseling students,

Who am I?
My name is Eric Beeson and I am a doctoral candidate from Ohio University who would like to invite you to participate in a survey for my dissertation.

Topic: Death and Suicide: An Exploration of Attitudes among Counseling Students

Why did I choose this topic?
Did you know that the suicide of client is one of the most anxiety producing scenarios for counselors? At least that’s the way it was for me. I can remember the tightness in my
chest during my first live role-play when my partner mentioned suicide and I totally changed the topic. Of course, my supervisor helped me explore the error of my ways, but I was left wondering where this anxiety came from? What made my reactions to suicide different than other client scenarios? Unfortunately, these questions have seldom been explored in the counseling literature and I hope that you will help me fill in this gap in the literature by clicking the link below and completing the survey.

**Click here to take the survey (about 15-45 minutes of your time) if you are currently enrolled in a mental health, clinical mental health, and/or rehabilitation counseling program:**

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

(Insert Survey Link)

Follow the link to opt out of future emails:

[Click here to unsubscribe](#)

**More information about the study:**
This study is approved by the IRB of Ohio University (enter IRB #) and your participation is completely voluntary. Given the topic of this study, it is possible that you might experience some discomfort while answering questions related to death and suicide. If discomfort arises, the survey contains a variety of self-help and suicide prevention resources for your use.

Despite these potential risks, the study can benefit the counseling profession by identifying the attitudes towards suicide held by counseling students.

There is no compensation for participating and you have the right to withdraw from the study at any time without consequence. All data will be collected anonymously through an online survey-collection program called Qualtrics, Version 1.202.s. Only the researchers of the present study will have access to your data and no identifying information will be attached to it. To protect your privacy, all participants’ IP addresses will be removed and will be unavailable to, and unidentifiable by, the researcher or others.

If you are willing to participate in my dissertation, please click on the following link to complete the survey. You may also forward this request to other students enrolled in mental health, clinical mental health, and/or rehabilitation counseling programs that are currently accredited by either CORE and/or CACREP.

**Follow this link to the Survey:**
[Take the Survey](#)
I know that time is limited, but I thank you for considering this request; it is greatly appreciated! If you have questions or would like additional information, please contact Eric Beeson at ebeeson@emporia.edu or 304-580-1189. My faculty advisor is Dr. Christine Suniti Bhat at Ohio University and can be contacted at bhatc@ohio.edu.

Humbly,
Eric T. Beeson, LCPC, CRC
Appendix D: Permission to Use and Adapt DAP-R

From: Paul TP Wong [dr.paul.wong@gmail.com]
Sent: Thursday, March 21, 2013 6:02 PM
To: Eric Beeson
Subject: Re: DrPaulWong.com: Use of DAP-R

Hi Eric,

Yes, go ahead. That would just involve slightly changing the format & instructions to match, not the content of the items. Just make sure to credit it properly.

Kind regards,

Paul Wong

www.drpaulwong.com

On Wed, Mar 20, 2013 at 2:29 PM, Eric Beeson <ebeeson@emporia.edu wrote:

Dr. Wong,

Thank you so much for your reply and yes, I would love to share my results with you! Also, there is a chance that my surveys will go out electronically, what are your thoughts on adapting the scale for online delivery?

Respectfully,

Eric T. Beeson, MS, LPC, CRC
Instructor of Counselor Education
Emporia State University
#208 The Earl Center
(Office) 620-341-5797
(Fax) 620-341-6200

From: Paul TP Wong [dr.paul.wong@gmail.com]
Sent: Wednesday, March 20, 2013 1:24 PM
To: Eric Beeson
Subject: Re: DrPaulWong.com: Use of DAP-R

Hi Eric,

You have my permission to use the Death Attitudes Profile-Revised for your research. I have attached a copy to this e-mail. I would be interested in receiving a copy of your results once your study is complete.
Kind regards,

Paul Wong
www.drpaulwong.com
Appendix E: Permission to Use and Adapt ATTS

From: Ellinor Salander [ellinor.salander.renberg@psychiat.umu.se]  
Sent: Tuesday, July 09, 2013 8:25 AM  
To: Eric Beeson  
Subject: Re: ATTS Edit

Dear Eric,

Thank you for request. Unfortunately I am on vacation and do not have access to the information you require. Not before the 8th of August I will be able to give you an answer. Hope it is not too late. Regarding your other question, whether to use "committed suicide" or "died by suicide", I recognize the topic and we actually changed some formulations when adapting the questions to different countries in Europe. For me it is no problem making the change you propose.

Best regards,  
Elinor

From: Ellinor Salander [ellinor.salander.renberg@psychiat.umu.se]  
Sent: Friday, March 22, 2013 11:25 AM  
To: Eric Beeson  
Subject: SV: ATTS

Dear Eric,

Thank you for request and your interest in the ATTS instrument. Please find attached a copy of the instrument free to use, also for online delivery.

Best regards,  
Ellinor

Ellinor Salander Renberg  
Professor  
Division of Psychiatry  
Department of Clinical Science  
Umeå university  
SE-901 85 Umeå  
Sweden  
Tel: + 46 90 785 63 23  
Mobile: + 46 70 570 23 20
Elinor,

I hope you are enjoying vacation and I certainly thank you for taking the time to respond. Thank you for approving my edits. August 8th will be good enough to receive the information regarding the ATTS items retained in the 2008 study. I look forward to hearing back from you and will send a reminder email if I don't hear from you by then. Be well and enjoy the remainder of your vacation.

Respectfully,

Eric T. Beeson, MS, LCPC, CRC
Instructor of Counselor Education
Emporia State University
#208 The Earl Center
(Office) 620-341-5797
(Fax) 620-341-6200

---

From: Ellinor Salander [ellinor.salander.renberg@psychiat.umu.se]
Sent: Tuesday, July 09, 2013 8:25 AM
To: Eric Beeson
Subject: Re: ATTS Edit

Dear Eric,

Thank you for request. Unfortunately I am on vacation and do not have access to the information you require. Not before the 8th of August I will be able to give you an answer. Hope it is not too late. Regarding your other question, whether to use "committed suicide" or "died by suicide", I recognize the topic and we actually changed some formulations when adapting the questions to different countries in Europe. For me it is no problem making the change you propose.

Best regards,
Elinor

---

From: Den 2013-07-08 22.10 skrev Eric Beeson <ebeeson@emporia.edu>:

Dr. Salander,
I hope you are enjoying your time out of the office. I spoke with my dissertation chair today and I am trying to evaluate the factor structures of the ATTS to use in the interpretation of my findings. Upon review of the Renberg, Hejelmeland, & Koposov (2008) study entitled "Building models for the relationship between attitudes towards suicide and suicidal behavior: Based on Data from General Population Surveys in Sweden, Norway, and Russia," I didn't see which 13 of the initial 24 attitude items were retained following the factor analysis. Do you have that information available or are you able to point me in the direction of another publication that has this information? Thank you once again for your time and I look forward to hearing back from you. Have a wonderful day!

Respectfully,

Eric T. Beeson, MS, LCPC, CRC
Instructor of Counselor Education
Emporia State University
#208 The Earl Center
(Office) 620-341-5797
(Fax) 620-341-6200

Dr. Salander,

Thanks again for allowing me to use the ATTS. I had a quick question about a section from the Instructions (see below):

Am I correct in assuming that the 1-5 score is only for items 4-40? Also, could you explain the "14 on item 43" portion?

Sorry to be bothersome with my emails, but I want to ensure that I am interpreting the instructions correctly. Thank you for your time and I look forward to hearing back from you. Have a great day!

Respectfully,

Eric T. Beeson, MS, LCPC, CRC
Instructor of Counselor Education
Emporia State University
#208 The Earl Center
(Office) 620-341-5797
(Fax) 620-341-6200
From: Eric Beeson  
Sent: Friday, March 22, 2013 11:33 AM  
To: Ellinor Salander  
Subject: RE: ATTS  

Great! Thank you so much. Would you like to receive a copy of my dissertation when complete?

Respectfully,

Eric T. Beeson, MS, LPC, CRC  
Instructor of Counselor Education  
Emporia State University  
#208 The Earl Center  
(Office) 620-341-5797  
(Fax) 620-341-6200

From: Ellinor Salander [ellinor.salander.renberg@psychiat.umu.se]  
Sent: Friday, March 22, 2013 11:25 AM  
To: Eric Beeson  
Subject: SV: ATTS  

Dear Eric,

Thank you for request and your interest in the ATTS instrument. Please find attached a copy of the instrument free to use, also for online delivery.

Best regards,  
Ellinor

Ellinor Salander Renberg  
Professor  
Division of Psychiatry  
Department of Clinical Science  
Umeå university  
SE-901 85 Umeå  
Sweden  
Tel: + 46 90 785 63 23  
Mobile: + 46 70 570 23 20

Från: Eric Beeson [mailto:ebeeson@emporia.edu]  
Skickat: den 20 mars 2013 15:31
Greetings,

My name is Eric Beeson and I am a doctoral candidate at Ohio University. I am writing this email because I am interested in using the ATTS scale for my dissertation which focuses on death anxiety in counselor education students and their attitudes towards people who are suicidal. Therefore, I would like to ask for your permission to use and potentially convert the ATTS to an online delivery format for the purposes of my dissertation. I look forward to hearing back from you and hope you have a wonderful week!

Respectfully,

Eric T. Beeson, MS, LPC, CRC  
Instructor of Counselor Education  
Emporia State University  
#208 The Earl Center  
(Office) 620-341-5797  
(Fax) 620-341-6200
Appendix F: Final Qualtrics Survey including Informed Consent

Informed Consent Form

Title of Research: Death and Suicide: An Exploration of Attitudes among Counseling Students

Researchers: Eric T. Beeson, MS, LCPC, CRC

Thank you for taking the time to consider participating in this research project. For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. This process is known as informed consent. This form describes the purpose, procedures, possible benefits, and risks. It also explains how your personal information will be used and protected. Once you have read this form, you will be asked to click the icon indicating your consent to participate in the present research. Please print a copy of this form for your records using the print button located at the bottom of this page.

Explanation of Study

If you agree to participate, we will ask you questions about family members/friends who may have died by suicide. We will also ask questions about your own thoughts of suicide. The survey should last between 15-45 minutes and no follow-up contact will be requested. If translations are needed, you can use the translator built into your internet browser throughout.

You should only participate in this research if you are currently enrolled in a mental health, clinical mental health, and/or rehabilitation counseling program that is accredited by CACREP and/or CORE. If you do not know your program's accreditation, please continue and select "I don't know" when provided the option in the survey.

Risks and Discomforts

Risks or discomforts that you might experience could be related to the exploration of your attitudes towards death and suicide. Risks/discomforts may also come from reflecting on personal thoughts of suicide and from reliving/rethinking the stories of close personal others who have died by suicide. If at any point you wish to stop, feel free to close your browser in order to stop the administration of this survey.

Benefits

This study is important to science/society because it will inform the training of counseling students that will be better equipped to provide ethical and effective services to the clients whom they serve.
Individually, you may benefit by gaining self-awareness of your own attitudes.

**Confidentiality and Records**
No identifying information will be collected and your IP address will be removed from the results. All information will be kept in a secure location that only the researchers involved in the present study will have access to. The results of this study will be disseminated through appropriate professional means (e.g., academic journals, etc.) with no identifying information attached.

Additionally, while every effort will be made to keep your study-related information confidential, there may be circumstances where this information must be shared with:

* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;
* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU

**Compensation**
No compensation will be offered for your participation in this study.

**Contact Information**
If you have any questions regarding this study, please contact Eric T. Beeson by email at ebeeson@emporia.edu or phone 620.341.5797 or my dissertation adviser, Dr. Christine Bhat, by email at bhatc@ohio.edu or phone at 740-593-4425.

If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740)593-0664.

By clicking the “yes” button below, you are agreeing to the following:
You have read this consent form (or it has been read to you). You have been informed of potential risks and they have been explained to your satisfaction. You understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study. You are 18 years of age or older Your participation in this research is completely voluntary and you may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled. If at any point during this questionnaire you experience any form of suicidal thoughts, you will immediately contact the appropriate resources below and/or present at the nearest emergency room.

**List of Suicide Prevention Resources**
1. Have you read the above written consent and agree to participate in this research?
☐ Yes (1)
☐ No (2)

If No Is Selected, Then Skip To End of Survey

2. Thank you for agreeing to participate in this research. This survey starts with some questions about your personal experiences of suicidal problems in your surroundings.

2.1 Have any of the following persons ever expressed suicidal thoughts, plans, and/or threats (in your entire life)? Please click on the appropriate box or boxes that match your experiences. You can select more than one or none of the boxes depending upon your experiences. For example, if your mother often expresses suicidal thoughts, then you would click the "Often" box that aligns with "Father/mother" on the left.

<table>
<thead>
<tr>
<th></th>
<th>Sometimes (1)</th>
<th>Often (2)</th>
<th>Never/Not applicable (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father/mother (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (e.g., companion, spouse, boy/girl-friend, etc.) (4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives (5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends (6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work/school-mates (7)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.3 Have any of the following persons ever attempted suicide (in your entire life)? Please click on the appropriate box or boxes that match your experiences. You can select more than one or none of the boxes depending upon your experiences. For example, if your mother often attempts suicide, then you would click the "Often" box that aligns with "Father/mother" on the left.

<table>
<thead>
<tr>
<th></th>
<th>Sometimes (1)</th>
<th>Often (2)</th>
<th>Never/Not Applicable (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father/mother (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (e.g., companion, spouse, boy/girl-friend, etc.) (4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives (5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends (6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work/school-mates (7)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.4 Have any of the following persons ever died by suicide (in your entire life)? Please click on the appropriate box or boxes that match your experiences. You can select more than one or none of the boxes depending upon your experiences. For example, if your mother died by suicide, then you would click the "Yes" box that aligns with "Father/mother" on the left.

<table>
<thead>
<tr>
<th></th>
<th>Yes (1)</th>
<th>No (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father/mother (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (e.g., companion, spouse, boy/girl-friend, etc.) (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work/school-mates (7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.5 Is there at this very moment any person in your closest surrounding that you know has suicidal thoughts? Please click on the appropriate box or boxes that match your experiences. You can select more than one or none of the boxes depending upon your experiences. For example, if your mother is currently experiencing suicidal thoughts,
then you would click the "Yes" box that aligns with "Father/mother" on the left.

<table>
<thead>
<tr>
<th>Family Relationship</th>
<th>Yes (1)</th>
<th>Never/Not applicable (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father/mother (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner (e.g., companion, spouse, boy/girl-friend, etc.) (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other relatives (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work/school-mates (7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.6 Thank you for taking the time to answer these questions. Your participation is appreciated greatly. If answering "Yes" to any of these items, then it is recommended that you consider using the resources provided at the end of this survey.

3.1 The following section asks you some more questions about your personal experiences with suicide.

3.2 Even though you would prefer another way to die, painful circumstances in life might lead to suicidal ideation. How do you estimate the probability that you sooner or later will die by suicide?

- I am sure I never will die by suicide. (0)
- I hope I will never die by suicide, but I am not absolutely sure. (1)
- Under certain circumstances I consider suicide as a possibility. (2)
- I consider suicide as a possibility for the future. (3)

3.3 Have you ever thought of taking your own life, even if you would not really do it? Please select an answer in each row.

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Often (3)</th>
<th>Sometimes (2)</th>
<th>Hardly Ever (1)</th>
<th>Never (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earlier in my life (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the last year (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.4 Have you ever reached the point where you seriously considered taking your own life, or perhaps made plans on how you would go about doing it? Please select an answer in each row.

<table>
<thead>
<tr>
<th></th>
<th>Often (3)</th>
<th>Sometimes (2)</th>
<th>Hardly Ever (1)</th>
<th>Never (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earlier in my life (1)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>In the last year (2)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

3.5 Have you ever made an attempt to take your own life? Please select the appropriate answer from the drop down box below.
- No (0)
- Yes, earlier in my life (1)
- Yes, within the past year (2)

3.6 Approximately how many times have you attempted suicide?

3.7 As mentioned during the informed consent process, there is the potential for risks and discomforts while completing this survey. If you experience any current thoughts of suicide or if the questions on this survey lead to negative thoughts and emotions related to death and suicide, please seek help immediately by contacting your campus counseling center, local emergency room, physician, and/or the National Suicide Prevention Hotline at http://www.suicidepreventionlifeline.org/ or 1-800-273-8255.

4.1 Please read the instructions carefully: This section of the survey contains a number of statements related to different attitudes toward death. Read each statement carefully, and then decide the extent to which you agree or disagree. For example, an item might read: “Death is a friend.” Indicate how well you agree or disagree by selecting one of the following: strongly agree, agree, moderately agree, undecided, moderately disagree, disagree, or strongly disagree. If you strongly agreed with the statement, you would mark "strongly agree." If you strongly disagreed, you would mark "strongly disagree." If you are undecided, mark "undecided." However, try to use the undecided category sparingly. It is important that you work through the statements and answer each one. Many of the statements will seem alike, but all are necessary to show slight differences in attitudes.
4.2 Death is no doubt a grim experience.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.3 The prospects of my own death arouse anxiety in me.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.4 I avoid death thoughts at all costs.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.5 I believe that I will be in heaven after I die.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.6 Death will bring an end to all my troubles.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.7 Death should be viewed as a natural, undeniable, and unavoidable event.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.8 I am disturbed by the finality of my death.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.9 Death is an entrance to a place of ultimate satisfaction.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.10 Death provides an escape from this terrible world.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.11 Whenever the thought of death enters my mind, I try to push it away.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.12 Death is deliverance from pain and suffering.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.13 I always try not to think about death.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.14 I believe that heaven will be a much better place than this world.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.15 Death is a natural aspect of life.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.16 Death is a union with God and eternal bliss.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.17 Death brings a promise of a new and glorious life.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.18 I would neither fear death nor welcome it.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.19 I have an intense fear of death.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.20 I avoid thinking about death altogether.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.21 The subject of life after death troubles me greatly.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.22 The fact that death will mean the end of everything as I know it frightens me.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.23 I look forward to a reunion with my loved ones after I die.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.24 I view death as a relief from earthly suffering.
- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.25 Death is simply a part of the process of life.
☐ Strongly Disagree (1)
☐ Disagree (2)
☐ Moderately Disagree (3)
☐ Undecided (4)
☐ Moderately Agree (5)
☐ Agree (6)
☐ Strongly Agree (7)

4.26 I see death as a passage to an eternal and blessed place.
☐ Strongly Disagree (1)
☐ Disagree (2)
☐ Moderately Disagree (3)
☐ Undecided (4)
☐ Moderately Agree (5)
☐ Agree (6)
☐ Strongly Agree (7)

4.27 I try to have nothing to do with the subject of death.
☐ Strongly Disagree (1)
☐ Disagree (2)
☐ Moderately Disagree (3)
☐ Undecided (4)
☐ Moderately Agree (5)
☐ Agree (6)
☐ Strongly Agree (7)

4.28 Death offers a wonderful release of the soul.
☐ Strongly Disagree (1)
☐ Disagree (2)
☐ Moderately Disagree (3)
☐ Undecided (4)
☐ Moderately Agree (5)
☐ Agree (6)
☐ Strongly Agree (7)
4.29 One thing that gives me comfort in facing death is my belief in the afterlife.

- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.30 I see death as a relief from the burden of this life.

- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.31 Death is neither good nor bad.

- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)

4.32 I look forward to life after death.

- Strongly Disagree (1)
- Disagree (2)
- Moderately Disagree (3)
- Undecided (4)
- Moderately Agree (5)
- Agree (6)
- Strongly Agree (7)
4.33 The uncertainty of not knowing what happens after death worries me.
☐ Strongly Disagree (1)
☐ Disagree (2)
☐ Moderately Disagree (3)
☐ Undecided (4)
☐ Moderately Agree (5)
☐ Agree (6)
☐ Strongly Agree (7)
5.1 The following questions concern your opinion about suicide. Please select the alternative that you find is in best accordance with your opinion. There are no "right" or "wrong" answers!

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree (5)</th>
<th>Disagree (4)</th>
<th>Undecided (3)</th>
<th>Agree (2)</th>
<th>Strongly Agree (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is always possible to help a person with suicidal thoughts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide can never be justified.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committing suicide is among the worst thing to do to one's relatives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most suicide attempts are impulsive actions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide is an acceptable means to terminate an incurable disease.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a person has made up his/her mind about committing suicide no one can stop him/her.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many suicide attempts are made</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) (2) (3) (4) (5) (6)
because of revenge or to punish someone else. (7)
People who commit suicide are usually mentally ill. (8)
It is a human duty to try to stop someone from committing suicide. (9)
When a person commits suicide it is something that he/she has considered for a long time. (10)
There is a risk of evoking suicidal thoughts in a person's mind if you ask about it. (11)
People who make suicidal threats seldom complete suicide. (12)
Suicide is a subject that one should rather not talk about. (13)

Loneliness could for me be a reason to take my life. (14)

Almost everyone has at one time or another thought about suicide. (15)

There may be situations where the only reasonable resolution is suicide. (16)

I could say that I would take my life without actually meaning it. (17)

Suicide can sometimes be a relief for those involved. (18)

Suicides among young people are particularly
puzzling since they have everything to live for. (19)

I would consider the possibility of taking my life if I were to suffer from severe, incurable, disease. (20)

A person once they have suicidal thoughts will never let them go. (21)

Suicide happens without warning. (22)

Most people avoid talking about suicide. (23)

If someone wants to commit suicide it is their own business and we should not interfere. (24)

It is mainly loneliness that drives people to suicide. (25)
<p>| A suicide attempt is essentially a cry for help. (26) | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| On the whole, I do not understand how people can take their lives. (27) | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| Usually relatives have no idea about what is going on when a person is thinking of suicide. (28) | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| A person suffering from a severe, incurable, disease, expressing wishes to die should get help to do so. (29) | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| I am prepared to help a person in a suicidal crisis by making contact. (30) | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| Anybody can commit suicide. (31) | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |</p>
<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
<th>Not sure</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can understand that people suffering from severe, incurable, disease commit suicide. (32)</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>People who talk about suicide do not commit suicide. (33)</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>People do have the right to take their own lives. (34)</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>Most suicide attempts are caused by conflicts with a close person. (35)</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>I would like to get help to commit suicide if I were to suffer from a severe, incurable, disease. (36)</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>Suicide can be prevented. (37)</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

6.1 The questions below focus on additional personal and professional characteristics.

6.2 What is your current age?
6.3 Please select the option below that best represents your gender.
- Male (0)
- Female (1)

6.4 In which counseling program are you currently enrolled?
- Mental Health/Clinical Mental Health (1)
- Rehabilitation (2)
- Both (3)
- Other (0) ________________
- I don't know (5)

6.5 Which organization(s) currently accredit(s) your counseling program?
- CACREP (1)
- CORE (2)
- Both (3)
- Other (0) ________________
- I don't know (5)

6.6 Please select the choice that best represents your current academic standing in your counseling program.
- Before practicum (0)
- In practicum (1)
- After practicum (2)

6.7 In what state is your current counseling program located (e.g., Colorado)?

6.8 Please choose the most accurate classification of your religious beliefs from the choices below.
- None (0)
- Atheist (1)
- Agnostic (2)
- Muslim (7)
- Catholic (e.g., Roman Catholic, Anglican, Oriental or Eastern Orthodox) (3)
- Protestant (e.g., Methodist, Baptist, etc.) (4)
- Other (5) ________________

6.9 Please rate the strength of your religious beliefs using the sliding scale below. For example, if you believe very strongly in your religion, then slide the bar closer to 10, but if you do not have very strong beliefs in your religion, then slide the bar closer to the 0.
- _____ Not strong at all (1)
6.10 Do you have any previous experience as a helping professional (e.g., employed as a case manager, crisis line worker, social worker, etc.).
- Yes (1)
- No (0)

If No Is Selected, Then Skip To Have you had any type of death educat...

6.11 Please estimate how many years of experience as a helping profession you have (e.g., 5 years).

6.12 Consider your professional experience before entering the counseling program. Please select any of the following scenarios that you have experienced as a helping professional prior to your enrollment in the counseling program (not during your counseling program or your personal life). You may select more than one option. Professional relationship refers to the time frame that the client was under your care.
- Client with suicidal thoughts during the professional relationship. (3)
- Client made a suicide attempt during the professional relationship. (4)
- Client died by suicide during the professional relationship (5)
- Client died by suicide after our professional relationship ended (2)
- I have no experience with suicidal behaviors as a professional (0)
- Client with a history of suicidal behaviors (thoughts, plans, attempts, etc.), but I never experienced any suicidal behaviors during the professional relationship. (1)

If I have no experience with s... Is Selected, Then Skip To Have you had any type of death educat...

6.13 Please estimate the total number of clients who experienced suicidal behaviors that you have worked with as a professional helper, but not when a counseling student (e.g., 5 clients).

6.14 Have you had any type of death education?
- Yes, during counseling program (1)
- Yes, outside of counseling program (2)
- No (0)

Answer If Have you had any type of death education (please describe... Yes, during counseling program Is Selected Or Have you had any type of death education (please describe... Yes, outside of counseling program Is Selected

6.15 Please describe your past death education experiences (e.g., content driven, emotional processing, etc.).
6.16 Have you had any experience with suicide prevention training?
- Yes, during counseling program (1)
- Yes, outside of counseling program (2)
- No (0)

6.17 Please describe your past suicide prevention training experiences (e.g., content driven, suicide theory, role plays, etc.).

6.18 Consider your experiences as counseling student. Please select any of the following scenarios that you have experienced while a student in your counseling program (not during personal life or before you were enrolled in the counseling program). You may select more than one option. During the counseling process refers to the period of time when the person was your client.
- Client with suicidal thoughts during the counseling process (3)
- Client made a suicide attempt during the counseling process (4)
- Client died by suicide during the counseling process (5)
- Client died by suicide after the counseling process ended (2)
- I have no experience with suicidal behaviors as a student (0)
- Client with a history of suicidal behaviors (thoughts, plans, attempts, etc.), but I never experienced any suicidal behaviors during the counseling process (1)

6.19 Please estimate the total number of clients who experienced suicidal behaviors that you have worked with as a counseling student (e.g., 5 clients).

6.20 In your opinion, what is the counselor's role when counseling a person who is experiencing suicidal behaviors of any kind (e.g., help them find the resources to do so, immediately call the police, etc.)?
Appendix G: Institutional Review Board Approval Forms

The following research study has been approved by the Institutional Review Board at Ohio University for the period listed below.

**Project:** Death and Suicidio: An Exploration of Attitudes Among Counseling Students

**Researcher(s):** Eric Tod Beeson

**Adviser:** Christine Sunti Bhat

**Department:** Counselor Education

**Approval Date:** 10/14/14

**Expiration Date:**

This approval is valid until expiration date listed above. If you wish to continue beyond expiration date, you must submit a periodic review application and obtain approval prior to continuation.

The approval remains in effect provided the study is conducted exactly as described in your application for review. Any additions or modifications to the project must be approved by the IRB (as an amendment) prior to implementation.

Adverse events must be reported to the IRB promptly, within 5 working days of the occurrence.
The amendment, detailed below, and submitted for the following research study has been approved by the Institutional Review Board at Ohio University.

**Project:** Death and Suicide: An Exploration of Attitudes Among Counseling Students

**Amendment:** Reduce time between recruitment emails; move ACES listserv recruitment emails to final wave

**Primary Investigator:** Eric Tod Beeson

**Co-Investigator(s):**

**Advisor:** Christine Sunithi Bhat

**Department:** Counselor Education

**Robin Stack, CIP, Human Subjects Research Coordinator**
Office of Research Compliance

**Date:** Oct. 23, 2013

**Protocol Expiration Date:** 10/14/2014
Eric Beebe
Counselor Education
Campus Box 4036
Emporia, KS 66841

October 4, 2013

Dear Professor Beebe:

Your application for approval to use human subjects has been reviewed. I am pleased to inform you that your application was approved and you may begin your research as outlined in your application materials. Please reference the protocol number below when corresponding about this research study.

Title: Death and Suicide: An Exploration of Attitudes among Counseling Students
Protocol ID Number: 14033
Type of Review: Full
Time Period: 10/15/2013 - 10/15/2014

If it is necessary to conduct research with subjects past this expiration date, it will be necessary to submit a request for a time extension. If the time period is longer than one year, you must submit an annual update. If there are any modifications to the original approved protocol, such as changes in survey instruments, changes in procedures, or changes to possible risks to subjects, you must submit a request for approval for modifications. The above requests should be submitted on the form Request for Time Extension, Annual Update, or Modification to Research Protocol. This form is available at www.emporia.edu/research/irb.html.

Requests for extensions should be submitted at least 30 days before the expiration date. Annual updates should be submitted within 30 days after each 12-month period. Modifications should be submitted as soon as it becomes evident that changes have occurred or will need to be made.

On behalf of the Institutional Review Board, I wish you success with your research project. If I can help you in any way, do not hesitate to contact me.

Sincerely,

[Signature]

Dr. Pamela McDonald
Chair, Institutional Review Board

An Equal Opportunity Employer
### Appendix H: Exposure to Others’ Suicidal Behaviors by Type

*Participants’ Reported Exposure to the Suicidal Behaviors of Others by Type and Relationship*

<table>
<thead>
<tr>
<th>Person with suicidal behavior</th>
<th>Ideations</th>
<th>Attempts</th>
<th>Deaths</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>42 (23)</td>
<td>11 (6)</td>
<td>4 (2.2)</td>
<td>7 (3.8)</td>
</tr>
<tr>
<td>Sibling</td>
<td>33 (18)</td>
<td>12 (6.6)</td>
<td>4 (2.2)</td>
<td>7 (3.8)</td>
</tr>
<tr>
<td>Child</td>
<td>14 (7.7)</td>
<td>4 (2.2)</td>
<td>1 (1)</td>
<td>5 (2.7)</td>
</tr>
<tr>
<td>Intimate partner</td>
<td>38 (21)</td>
<td>12 (6.6)</td>
<td>1 (1)</td>
<td>4 (2.2)</td>
</tr>
<tr>
<td>Other relatives</td>
<td>54 (29.5)</td>
<td>46 (25)</td>
<td>40 (30)</td>
<td>8 (4.4)</td>
</tr>
<tr>
<td>Friends</td>
<td>86 (47)</td>
<td>53 (29)</td>
<td>42 (23)</td>
<td>13 (7.1)</td>
</tr>
<tr>
<td>School/Work mates</td>
<td>49 (26.8)</td>
<td>42 (23)</td>
<td>37 (20)</td>
<td>9 (4.9)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>139 (76)</td>
<td>110 (60)</td>
<td>94 (51.4)</td>
<td>44 (24)</td>
</tr>
</tbody>
</table>

*Note.* Statistics include participants who reported suicidal behaviors in either “often” or “sometimes” category. 87.4% reported some previous exposure.
Appendix I: Personal Suicidal Behaviors by Suicide Potential

**Counseling Student’s Reported Suicidal Behavior by Suicidal Potential**

<table>
<thead>
<tr>
<th>Suicide potential</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>n (% Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidal behavior</td>
<td>Thoughts</td>
<td>88</td>
<td>35</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Serious considerations</td>
<td>95</td>
<td>56</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Attempts</td>
<td>12</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

None reported 17(9.3)

*Note. 1 = no suicide potential; 2 = minimal suicide potential; 3 = more suicide potential; 4 = most suicide potential, that was reported in this study. Mean suicide attempts by those with previous suicide attempts was 1.67 (SD = 1.95) and range from 0 to 10; The number of participants without any thoughts, considerations, and attempts was 17 (9.3%)
Appendix J: Exposure to the Suicidal Behaviors of Clients

Participants’ Reported Exposure to Client’s Suicide Behaviors Before and During Enrollment in the Counseling Program

<table>
<thead>
<tr>
<th>Markers of Client Suicide</th>
<th>Before</th>
<th>During</th>
</tr>
</thead>
<tbody>
<tr>
<td>No experience with suicidal behaviors of clients</td>
<td>32 (18)</td>
<td>109 (59.6)</td>
</tr>
<tr>
<td>Client with suicidal behaviors prior to the counseling relationship, but none after</td>
<td>40 (38.5)</td>
<td>56 (30.6)</td>
</tr>
<tr>
<td>Client with suicidal thoughts during counseling relationship</td>
<td>52 (28)</td>
<td>51 (27.9)</td>
</tr>
<tr>
<td>Client with suicidal attempt during the counseling relationship</td>
<td>25 (14)</td>
<td>7 (3.8)</td>
</tr>
<tr>
<td>Client suicide after the counseling relationship ended</td>
<td>6 (3)</td>
<td>1 (0.5)</td>
</tr>
<tr>
<td>Client suicide during the counseling relationship</td>
<td>11 (6)</td>
<td>2 (1.1)</td>
</tr>
<tr>
<td>Total # clients with suicidal behaviors</td>
<td>4.28 (14.4)</td>
<td>4.18 (4.33)</td>
</tr>
</tbody>
</table>

Note. 51 of participants had no experience with suicidal clients before or during the counseling program (n = 93)
Appendix K: Data Exploration Graphs

Histogram

Mean = 2.93
Std Dev. = 0.865
N = 153

Normal Q-Q Plot of Acceptability Weighted Mean
Histogram

Condemnation Weighted Mean

Frequency

Mean = 3.30
Std Dev = 0.724
N = 195

Normal Q-Q Plot of Condemnation Weighted Mean

Expected Normal

Observed Value
Histogram

Mean = 3.89
Std. Dev. = 1.471
N = 180

Normal Q-Q Plot of escape acceptance Weighted Mean

Expected Normal

Observed Value
Even though you would prefer another way to die, painful circumstances in life might lead to suicida...

Normal Q-Q Plot of Even though you would prefer another way to die, painful circumstances in life might lead to suicida...
Detrended Normal Q-Q Plot of Even though you would prefer another way to die, painful circumstances in life might lead to suicide...
Please select the choice that best represents your current academic standing in your counseling prog...

Histogram:
- Mean = 0.81
- Std Dev = 0.669
- N = 159

Normal Q-Q Plot of Please select the choice that best represents your current academic standing in your counseling prog...
Please select the choice that best represents your current academic standing in your counseling program.

Detrended Normal Q-Q Plot of Please select the choice that best represents your current academic standing in your counseling program.
## Appendix L: Mean Suicide Attitude Scores by Group and One-Way ANOVA

### Comparison of Suicide Attitude Scores by Covariates

<table>
<thead>
<tr>
<th>Personal Variables</th>
<th>$n$ (%)</th>
<th>Acceptance $M$ (SD)</th>
<th>Condemnation $M$ (SD)</th>
<th>Preventability $M$ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age $a$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youngest 70 (38)</td>
<td>2.93(.86)</td>
<td>3.30(.72)</td>
<td>2.11(.63)</td>
<td></td>
</tr>
<tr>
<td>Middle 49 (27)</td>
<td>3.01(.77)</td>
<td>3.21 (.79)</td>
<td>2.01(.61)</td>
<td></td>
</tr>
<tr>
<td>Oldest 64 (35)</td>
<td>2.87(.86)</td>
<td>3.46(.68)</td>
<td>2.26(.63)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male 27 (15)</td>
<td>2.83(1.07)</td>
<td>3.28(.70)</td>
<td>2.13(.64)</td>
<td></td>
</tr>
<tr>
<td>Female 156 (85)</td>
<td>2.94 (.81)</td>
<td>3.30(.72)</td>
<td>2.11(.63)</td>
<td></td>
</tr>
<tr>
<td>Religious beliefs</td>
<td>**</td>
<td>**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Christianity 83 (45)</td>
<td>2.53(.67)</td>
<td>3.55(.63)</td>
<td>2.11(.62)</td>
<td></td>
</tr>
<tr>
<td>Some Christianity 100 (57)</td>
<td>3.26(.85)</td>
<td>3.10(.74)</td>
<td>2.12(.65)</td>
<td></td>
</tr>
<tr>
<td>Others’ Suicidal Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Exposure 23 (12.6)</td>
<td>3.06(.80)</td>
<td>2.90(.55)</td>
<td>2.01(.53)</td>
<td></td>
</tr>
<tr>
<td>Some Exposure 160 (87.4)</td>
<td>2.91(.86)</td>
<td>3.30(.72)</td>
<td>2.12(.63)</td>
<td></td>
</tr>
<tr>
<td>Personal Suicidal Behaviors</td>
<td>**</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No previous suicidal thought, considerations, and/or attempts 17 (9.3)</td>
<td>2.25(.59)</td>
<td>3.66(.52)</td>
<td>2.47(.67)</td>
<td></td>
</tr>
<tr>
<td>At least one prior suicidal thought, considerations, and/or attempts 166 (90.7)</td>
<td>2.99(.85)</td>
<td>3.26(.73)</td>
<td>2.08(.62)</td>
<td></td>
</tr>
</tbody>
</table>
### Comparison of Suicide Attitude Scores by Covariates continued

<table>
<thead>
<tr>
<th>Personal Suicidal Potential</th>
<th>**</th>
<th>**</th>
<th>**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>96 (52.5)</td>
<td>3.30(.80)</td>
<td>3.05(.73)</td>
</tr>
<tr>
<td>Hope never, but not sure</td>
<td>69 (37.7)</td>
<td>2.56(.63)</td>
<td>3.50(.55)</td>
</tr>
<tr>
<td>Possibility under some</td>
<td>14 (7.7)</td>
<td>2.46(1.02)</td>
<td>3.84(.73)</td>
</tr>
<tr>
<td>circumstances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possibility</td>
<td>4 (2.2)</td>
<td>1.75(.29)</td>
<td>4.25(.46)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Variables</th>
<th>n (%)</th>
<th>M (SD)</th>
<th>M (SD)</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Work Experience b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>79 (43.2)</td>
<td>3.03(.90)</td>
<td>3.19(.76)</td>
<td>1.99(.60)</td>
</tr>
<tr>
<td>≥ 1 year</td>
<td>104 (56.8)</td>
<td>2.85(.81)</td>
<td>3.38(.69)</td>
<td>2.21(.64)</td>
</tr>
</tbody>
</table>

Student Counseling Suicidal Clients

| No                          | 129 (70.5) | 2.89(.85) | 3.30(.74) | 2.11(.62) |
| Yes                         | 54 (29.5)  | 3.00(.87) | 3.30(.69) | 2.13(.68) |

Professional Suicidal Clients

| No                          | 123 (67.2) | 2.93(.87) | 3.24(.76) | 2.04(.60) |
| Yes                         | 60 (32.8)  | 2.91(.83) | 3.41(.64) | 2.27(.68) |
### Comparison of Suicide Attitude Scores by Covariates continued

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Group</th>
<th>n   (%)</th>
<th>Mean ± SD</th>
<th>Suicide Training</th>
<th>Death Education</th>
<th>Academic Standing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>76 (41.5)</td>
<td>2.99 ± 0.94</td>
<td>3.14 ± 0.78</td>
<td>2.08 ± 0.68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>107 (58.5)</td>
<td>2.88 ± 0.79</td>
<td>3.42 ± 0.66</td>
<td>2.14 ± 0.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In CED</td>
<td>76 (41.5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outside CED</td>
<td>50 (27.32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>19 (10.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>94 (51.4)</td>
<td>2.92 ± 0.86</td>
<td>3.20 ± 0.73</td>
<td>2.04 ± 0.67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>90 (49.2)</td>
<td>2.93 ± 0.86</td>
<td>3.40 ± 0.71</td>
<td>2.20 ± 0.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In CED</td>
<td>51 (27.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outside CED</td>
<td>54 (29.51)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>15 (8.2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** ANOVA *p* < .05; **p* < .001.

Ages: X = 32.4 (SD = 9.74) with range from 20 to 63 years old.

Mean years of experience for the entire sample was 3.39 (5.42), but the mean years of experience after removing participants with no previous professional experience was 5.97 (6.05).
## Rotated Component Matrix for Participants’ DAP-R Results

<table>
<thead>
<tr>
<th>Loading</th>
<th>Item</th>
<th>Loading</th>
<th>Item</th>
<th>Loading</th>
<th>Item</th>
<th>Loading</th>
<th>Item</th>
<th>Loading</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.79</td>
<td>30</td>
<td>0.861</td>
<td>24</td>
<td>0.84</td>
<td>29</td>
<td>0.869</td>
<td>12</td>
<td>0.815</td>
<td>32</td>
</tr>
<tr>
<td>0.79</td>
<td>17</td>
<td>0.791</td>
<td>14</td>
<td>0.819</td>
<td>9</td>
<td>0.857</td>
<td>19</td>
<td>0.804</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>0.769</td>
<td>6</td>
<td>0.769</td>
<td>23</td>
<td>10</td>
<td>0.8</td>
<td>7</td>
<td>0.896</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>0.764</td>
<td>11</td>
<td>0.745</td>
<td>26</td>
<td>0.785</td>
<td>2</td>
<td>7</td>
<td>0.891</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>0.724</td>
<td>5</td>
<td>0.679</td>
<td>3</td>
<td>0.752</td>
<td>20</td>
<td>8</td>
<td>0.882</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>0.534</td>
<td>1</td>
<td>0.691</td>
<td>18</td>
<td>0.87</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.83</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.771</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.737</td>
<td>27</td>
</tr>
</tbody>
</table>

**Note.** Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations. Item 8 crossloaded on Component 3 at .439. Item 27 crossloaded on Component 4 at .402
**DAP-R Results Component Transformation Matrix**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.838</td>
<td>-.336</td>
<td>-.197</td>
<td>.359</td>
<td>.128</td>
<td>.030</td>
</tr>
<tr>
<td>2</td>
<td>.396</td>
<td>.566</td>
<td>.678</td>
<td>.062</td>
<td>-.201</td>
<td>-.135</td>
</tr>
<tr>
<td>3</td>
<td>-.278</td>
<td>.363</td>
<td>-.116</td>
<td>.798</td>
<td>.370</td>
<td>-.062</td>
</tr>
<tr>
<td>4</td>
<td>.064</td>
<td>.010</td>
<td>.295</td>
<td>-.308</td>
<td>.848</td>
<td>.309</td>
</tr>
<tr>
<td>5</td>
<td>-.242</td>
<td>-.620</td>
<td>.623</td>
<td>.357</td>
<td>-.122</td>
<td>.164</td>
</tr>
<tr>
<td>6</td>
<td>.033</td>
<td>.224</td>
<td>-.112</td>
<td>.090</td>
<td>-.270</td>
<td>.925</td>
</tr>
</tbody>
</table>

### Appendix N: PCA Component Matrix of 37-item ATTS

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>-.54</td>
<td>.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>-.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>-.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Appendix N: PCA Component Matrix of 37-item ATTS continued**

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.41</td>
</tr>
<tr>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.43</td>
</tr>
<tr>
<td>1</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.42</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.42</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.51</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.47</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.40</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.46</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.46</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.40</td>
</tr>
</tbody>
</table>

*Note.* Rotation failed to converge in 25 iterations. (Convergence = .083).
### Appendix O: PCA of 13-item ATTS Results

**ATTS Results Rotated Component Matrix**

<table>
<thead>
<tr>
<th>ATTS Item Number</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>.854</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>.810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>.788</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>.775</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>.721</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>.656</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-.592</td>
<td>.429</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>.764</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>.698</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>.680</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>.724</td>
</tr>
<tr>
<td>37</td>
<td></td>
<td></td>
<td>.708</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>.623</td>
</tr>
</tbody>
</table>

### ATTS Results Component Transformation Matrix

<table>
<thead>
<tr>
<th>Dimension</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.908</td>
<td>-.375</td>
<td>-.187</td>
</tr>
<tr>
<td>2</td>
<td>.410</td>
<td>.697</td>
<td>.589</td>
</tr>
<tr>
<td>3</td>
<td>-.090</td>
<td>-.611</td>
<td>.786</td>
</tr>
</tbody>
</table>

Appendix P: Graphs used to Test the Assumptions of Hierarchical Multiple Regression in the Prediction of Counseling Students’ Acceptance of Suicide

Histogram
Dependent Variable: Acceptability

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Acceptability
Appendix Q: Graphs used to Test the Assumptions of Hierarchical Multiple Regression in the Prediction of Counseling Students' Condemnation of Suicide

![Histogram](image1)

- Dependent Variable: Condemnation
- Mean = 1.34E+15
- Std. Dev. = 0.3852
- N = 183

![Normal P-P Plot](image2)

- Dependent Variable: Condemnation
- Expected Cum Prob
- Observed Cum Prob
- Range: 0.0 to 1.2
Partial Regression Plot
Dependent Variable: Condemnation

Condemnation vs. Christianity

Partial Regression Plot
Dependent Variable: Condemnation

Condemnation vs. Others' Behavior
<table>
<thead>
<tr>
<th>Variable</th>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>Zero-order</th>
<th>Partial</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1</td>
<td>.005</td>
<td>.005</td>
<td>.070</td>
<td>.094</td>
<td>.080</td>
<td>.067</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.001</td>
<td>.005</td>
<td>.017</td>
<td>.094</td>
<td>.019</td>
<td>.015</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>-.179</td>
<td>.134</td>
<td>-.088</td>
<td>-.078</td>
<td>-.102</td>
<td>-.085</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.097</td>
<td>.132</td>
<td>-.048</td>
<td>-.078</td>
<td>-.057</td>
<td>-.045</td>
</tr>
<tr>
<td>Religious beliefs</td>
<td>1</td>
<td>.354**</td>
<td>.097</td>
<td>-.244**</td>
<td>-.309</td>
<td>-.270</td>
<td>-.233</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.151</td>
<td>.129</td>
<td>-.104</td>
<td>-.309</td>
<td>-.091</td>
<td>-.072</td>
</tr>
<tr>
<td>Others’ behaviors</td>
<td>1</td>
<td>.293*</td>
<td>.144</td>
<td>.135*</td>
<td>.209</td>
<td>.154</td>
<td>.129</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.248</td>
<td>.142</td>
<td>.114</td>
<td>.209</td>
<td>.134</td>
<td>.107</td>
</tr>
<tr>
<td>Personal behaviors</td>
<td>1</td>
<td>-.070</td>
<td>.173</td>
<td>-.028</td>
<td>-.160</td>
<td>-.031</td>
<td>-.026</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.025</td>
<td>.174</td>
<td>-.010</td>
<td>-.160</td>
<td>-.011</td>
<td>-.009</td>
</tr>
<tr>
<td>Suicide potential</td>
<td>1</td>
<td>.320**</td>
<td>.072</td>
<td>.321**</td>
<td>.413</td>
<td>.323</td>
<td>.283</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.238**</td>
<td>.073</td>
<td>.239</td>
<td>.413</td>
<td>.245</td>
<td>.200</td>
</tr>
<tr>
<td>Previous experience</td>
<td>1</td>
<td>.056</td>
<td>.120</td>
<td>.038</td>
<td>.130</td>
<td>.036</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.087</td>
<td>.117</td>
<td>.060</td>
<td>.130</td>
<td>.058</td>
<td>.046</td>
</tr>
<tr>
<td>Student exposure</td>
<td>1</td>
<td>-.043</td>
<td>.119</td>
<td>-.027</td>
<td>.000</td>
<td>-.028</td>
<td>-.023</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.002</td>
<td>.117</td>
<td>.002</td>
<td>.000</td>
<td>.002</td>
<td>.001</td>
</tr>
<tr>
<td>Professional exposure</td>
<td>1</td>
<td>-.038</td>
<td>.129</td>
<td>-.025</td>
<td>.108</td>
<td>-.023</td>
<td>-.019</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.029</td>
<td>.126</td>
<td>-.019</td>
<td>.108</td>
<td>-.018</td>
<td>-.014</td>
</tr>
<tr>
<td>Suicide training</td>
<td>1</td>
<td>.327**</td>
<td>.103</td>
<td>.223**</td>
<td>.193</td>
<td>.236</td>
<td>.201</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.278*</td>
<td>.101</td>
<td>.190</td>
<td>.193</td>
<td>.210</td>
<td>.170</td>
</tr>
</tbody>
</table>
Appendix R: Standardized Coefficient Change in the Prediction of Condemnation of Suicide continued

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>.129</th>
<th>.098</th>
<th>.089</th>
<th>.136</th>
<th>.100</th>
<th>.084</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death education</td>
<td>2</td>
<td>.091</td>
<td>.095</td>
<td>.063</td>
<td>.136</td>
<td>.074</td>
<td>.059</td>
</tr>
<tr>
<td>Academic standing</td>
<td>1</td>
<td>-.007</td>
<td>.063</td>
<td>-.008</td>
<td>.000</td>
<td>-.008</td>
<td>-.007</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.007</td>
<td>.062</td>
<td>-.009</td>
<td>.000</td>
<td>-.009</td>
<td>-.007</td>
</tr>
</tbody>
</table>

*Note.* **p < .001; *p < .05.

Model 1 Constant = 2.838 (SE = .313).
Model 2 Constant = 3.392 (SE = .542).

*Bold* typeface indicates death attitudes were added in the model.
Appendix S: Graphs used to Test the Assumptions of Hierarchical Multiple Regression in the Prediction of Counseling Students' Belief in the Preventability of Suicide