ACCEPTANCE, LOSS, AND DEATH ATTITUDES

by

Megan Millmann, MS

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by

Megan Millmann

APPROVED BY

_____

Mary Short, PhD, Chair

_____

Ryan Marek, PhD, Committee Member

_____

Heather Kanenberg, PhD, Committee Member

APPROVED/RECEIVED BY THE COLLEGE OF HUMAN SCIENCES AND HUMANITIES

_____

Samuel Gladden, PhD Associate Dean

_____

Glenn Sanford, PhD Dean

Dedication

To all those that have loved and lost.

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ABSTRACT

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Megan Millmann
University of Houston-Clear Lake, 2021

Dissertation Chair: Mary Short, PhD

The awareness of mortality is undeniably emotion provoking. A person's attitude toward death has a strong predictive impact on psychological wellbeing. Therefore, it is important to understand factors that shape these attitudes. The primary aim of this study was to explore the influence of exposure to death through human loss on death attitudes from an ACT framework. Specifically, the study sought to understand how characteristics of the loss (i.e., cause of death, relationship to deceased, relationship closeness) impact death attitudes. Data was collected from 226 individuals that have experienced a loss of another human. The survey utilized standardized measures including the Death Attitudes Profile-Revised, Multidimensional Psychological Flexibility Inventory, and Religious Commitment Inventory-10 to investigate differences in death attitudes across varying demographics (age, religion, SES) when considering characteristics of the loss and specific ACT processes. Correlation analyses revealed greater number of losses experienced to be associated with lower levels of fear and greater levels of acceptance toward death. Hierarchical regression analyses found age, traumatic losses, ACT processes (acceptance and values), and commitment to religion, to be significant predictors of neutral acceptance attitudes toward death. Additionally, age and acceptance were significant predictors of death avoidance. Results have implications for the

importance of individuals to intentionally be mindful of mortality and engage with the death and dying process of significant others. Exposure to and active awareness of death will increase overall acceptance and mortality. Further, the present study hypothesizes ACT as a potential intervention for negative attitudes toward death and psychological disorders where negative death attitudes essentially contribute to the maintenance of the disorder.

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CHAPTER I:

INTRODUCTION

From the moment a person is born, one's existence is threatened and guaranteed to end. Despite the universal increase in life expectancy (Roser et al., 2019) and medicine's goal to maintain life (Sinclair, 2011), death is inevitable for all human beings. Individuals die at all ages, by various causes, sometimes expectedly, and sometimes suddenly and tragically. Globally, 56 million deaths will occur in a given year with 6.2 million being children and adolescents under the age of 15 (Ritchie & Roser, 2019; World Health Organization, 2018). Approximately 25 million adult deaths will occur because of cardiovascular diseases and cancers, while most youth deaths occur as a result of respiratory infections, neonatal complications, cancers, and accidents (Roser et al., 2019).

The frequency at which various causes of death occur largely depends on region, which is highly influenced by socioeconomic status. For instance, noncommunicable diseases and vehicular accidents account for a large proportion of deaths in higher income areas. In contrast, infectious diseases, birth complications, and nutritional deficiencies account for most deaths in lower- and middle-income areas (Ritchie & Roser, 2019). This has a large impact on the age at which individuals die, as demonstrated by people from North America, Australia, and parts of Europe living an average of 20 years longer than individuals living in Africa (Roser et al., 2019). Additionally, it is estimated that a third of death-related injuries are the result of violence, suicide, homicide, and war across the world (Ritchie & Roser, 2019). Iraq experiences some of the highest numbers of death caused by terrorism and war, while Brazil and Venezuela encounter some of the highest numbers of death by homicide. Within the U.S.,

individuals experience some of the highest numbers of death due to drugs, suicide, and vehicular accidents (Ritchie & Roser, 2019).

Despite differences in the common features of when and how death occurs, all humans will experience their own death. Since death is an inevitable part of being human and therefore a mutual experience shared by humanity, individuals will encounter experiences reminding them of mortality, such as life-threatening illnesses or another person's death. Coping with situations that heighten the awareness of death is undoubtedly challenging and emotion provoking. Interestingly, studies show that when death is made salient, some respond with little distress, while others experience significant distressing responses. For instance, caregivers of dying family members or friends often meet criteria for a diagnosis of depression (Hudson et al., 2004; Mockford et al., 2006), and around 10% develop prolonged grief disorder (PGD) or complicated grief (Kersting et al., 2011). Others have found caregivers express greater levels of guilt and shame following the death of a loved one (Andershed & Harstäde, 2007). In relation to one's own life-threatening experiences, elevated levels of emotional distress leading to psychiatric disorders are experienced by almost 50% of individuals diagnosed with debilitating terminal cancers (Stefanek et al., 1987; Zabora et al., 2001).

Yet, others experience relatively little distress in response to reminders of death. In a study completed by Frantz et al. (1998), one year following the loss of another person, bereaved adults reported greater appreciation for life, self-growth, and improved relationships. Additionally, near death experiences have been associated with increased compassion and improved sense of well-being (Greyson, 2013).

Whereas much of the literature has sought to understand the impact experiences with death have on quality of life, grief, and psychological distress (Kramer et al., 2011; Zabora et al., 2001), research has begun to understand the discrepancy in responses

through examining attitudes toward death (Bluck et al., 2008; Morad-McCoy, 2017; Neimeyer, 1994). Theorists claim the awareness and attitudes one has toward death influences the way one lives throughout their lifetime (Greenberg et al., 1997; Wong, 2008). Knowing that existential anxiety is a primitive response to one's recognition with the inevitability of death, research has been devoted to measuring more negative attitudes (Greenberg et al., 1997). Although there has been an increase within the literature, there has been less recognition of measuring and understanding circumstances related to positive attitudes toward dying, specifically acceptance (Gesser et al., 1988; Wong, 2008). Additionally, while some studies have aimed to study the relationship between experiences that make death salient and death attitudes, limited research has examined experiences with another person's death and the circumstances surrounding the loss.

Death Attitudes

Within the literature, attitudes toward death are conceptualized either negatively or positively (Morgan, 1995; Greenberg et al., 1997). Fear or anxiety and avoidance or denial attitudes toward death are identified as negative (Neimeyer, 1994); whereas, acceptance attitudes are identified as positive (Wong et al., 2018). Though first conceptualized as univariate constructs, each attitude is now understood to be multivariate (Wong, 2008; Wong et al., 1994). Additionally, death attitudes have been verified as independent dimensions; yet, the relationship is complex, since they can coexist with a specific attitude being more prominent. In other words, a person can be fearful of death, and at the same time, they can view death with acceptance (Wong et al., 1994).

Death anxiety/fear and Death avoidance/denial.

The terms death anxiety and death fear are used synonymously, with death anxiety typically being a result of basic fears (Furer & Walker, 2008; Neimeyer, 1994).

Individuals experiencing high levels of death anxiety often fear experiencing the loss of autonomy and control, the ending of their existence and afterlife, the pain and suffering associated with dying, and/or the negative impact their death may have on the those they leave behind (Schultz, 1978; Thorson & Powell, 1988; Fry, 1990). Death anxiety has been conceptualized by eight fears that have been categorized and measured by Hoelter's (1979) Multidimensional Fear of Death Scale (MFODS), which was partially developed from Boyar's (1964) Fear of Death Scale and Templer's (1970) Death Anxiety Scale. According to the authors, fear of death is multidimensional, consisting of eight independent factors: fear of 1) the dying process, 2) the dead, 3) being destroyed, 4) impact on significant others, 5) conscious death, 6) the unknown, 7) what happens to the body after death, and 8) premature death (Hoelter, 1979).

Death denial and avoidance often are used synonymously within the literature. Denial of death was first recognized by Kubler-Ross' (1970) 5-stage model conceptualizing one's process of coping with death. She asserted denial is the tendency for one to rationalize or elicit a temporary defense of pretending the death experience did not or will not occur. Theorists have claimed that denial of death is a way for one to manage their death anxiety. Wong (2008) asserts despite both death fear and death avoidance being deemed as negative attitudes, the two are distinct. Regarding death fear, people will confront death and the fears; whereas, with death avoidance, people do not confront death and avoid reminders of death to manage the anxiety. Therefore, some individuals can demonstrate high levels of death fear, while others can demonstrate high levels of death avoidance (Wong et al., 1994). Despite a person's attempt to manage anxiety toward death by avoiding thoughts related to the reality, denial inadvertently increases the worries and consequently results in poorer psychiatric outcomes (Arndt et al., 2005; Yalom, 2008). Death anxiety has been considered a significant contributor to

the development of mental disorders (Arndt et al., 2005) and poorer adjustment to loss (Schultz, 1978).

Death Acceptance.

As mentioned, fear and avoidance have been the dominant focus within the death attitude literature, but there has been less focus toward the positive psychology of death attitudes. Kubler-Ross (1970) is again recognized as one of the first to consider the positive response to death by acknowledging acceptance as a stage in her model of coping with death. Specifically, Kubler-Ross (1970) deemed death acceptance as a place of no longer struggling to resist the reality of death by recognizing its permanence and continuing to live despite the pain, fear, or confusion it might bring. Likewise, authors Klug & Sinha (1988) provided a definition of death acceptance as involving two components: 1) the deliberate cognitive awareness of one's own mortality and 2) positive emotional reactions, such as being at ease with this awareness. The current literature conceptualizes death acceptance as a 3-component model that identifies three types of death acceptance: neutral, escape, and approach acceptance (Wong et al., 1994).

Neutral acceptance is described as an individual's acknowledgement and awareness that death is inevitable and a natural part of being human (Armstrong, 1987). This type of acceptance toward death is characterized as being rational and indifferent, implying that individuals do not fear death, nor do they hope for death or like circumstances surrounding death (Wong et al.,1994). Another type of acceptance within the 3-component model is escape acceptance, where one views death as a greater alternative to existing. Researchers posit that for some, the fear of living is more prominent than the fear of death (Vernon, 1972). When one views death through escape acceptance, death is viewed as an escape from the suffering or pain and thought of as more desirable than living (Gesser et al., 1998; Wong et al., 1994). The third component

of the model is approach acceptance. This type of acceptance is heavily tied to religiosity, where one views death as an entrance into a sacred afterlife (Wong, Reker, & Gesser, 1994; Peterson & Greil, 1990).

Each type of acceptance variable from this 3-component model has shown to be independent of one another. More specifically, low correlations have been found between escape and approach acceptance. This can be explained conceptually, as both welcome death. Additionally, each type of acceptance has demonstrated a negative correlation with fear of death (Wong et al., 1994). These findings assert that individuals who view death through either neutral, escape, or approach acceptance display lower levels of anxious thoughts toward death. Neutral acceptance toward death is considered the most beneficial attitude for mental health and adjustment after a death-related experience. For instance, bereaved individuals with higher levels of neutral acceptance respond to loss in a more calming, peaceful manner (Aiken, 2001) and are not as inclined to search for an explanation of the loss (Bonanno et al., 2002). Despite escape acceptance typically being correlated with a negative outlook on life, this attitude towards death has been shown to facilitate the bereavement process (Aiken, 2001). Specifically, individuals are comforted by believing their loved one is no longer enduring a painful existence (Nozari & Dousti, 2013).

Factors Influencing Death Attitudes

As mentioned, individuals differ in how they cope with death, and much of that is related to their death attitudes. Considering the research showing the impact of death attitudes on individuals well-being (Arndt et al., 2002; Bonanno et al., 2002), it is necessary to understand the factors that affect one's attitude toward death. More specifically, it is important to understand the factors that make someone more prone to viewing death through acceptance as opposed to being anxious and fearful of death.

Several variables have been established within the literature as influencing one's attitude toward death, including age, global region and SES, death experiences, and religion/values.

Age.

Research on death attitudes and aging generally concludes that death anxiety is relatively high among young adults, with the highest rates of death anxiety occurring during middle adulthood. More stable and lower rates occur in the elderly (Thorson & Powell, 1994; Thorson & Powell, 2000). Among participants in a cross-sectional study, individuals of lower age groups reported greater levels of death anxiety, and older aged participants expressed lower levels of death avoidance (Souza et al., 2017). Another study examined death attitudes between the five developmental stages (young adulthood, early middle age, middle age, young-old, and elderly) and found that age was positively correlated with death acceptance and life purpose (Reker et al., 1987).

Region and socioeconomic status.

Within the past 40 years, literature claims the Western culture has become death avoidant (Robben, 1994). This is a result of a decrease in frequency at which individuals are exposed to death-related reminders. For instance, individuals are living longer, and death rates overall have decreased. Individuals are increasingly separated by distance, impacting the rise in people dying alone (Mitford, 2000; Robben, 1994). Differences have also been found in what is deemed an appropriate response to death. For example, among Islamic countries, expressing emotions toward death is restricted; whereas, in countries like Japan, individuals reject the idea of death as a time of sorrow (Lobar et al., 2006).

Also, individuals of low socioeconomic status (SES) experience increased reminders and frequency of mortality, due to increased experiences with homicide and

violent deaths (Cubbin et al., 2000) and poorer health due to inadequate healthcare and financial services (Stringhini et al., 2010; Saydah et al., 2013). The lack of control individuals have over their environment and increased vulnerability to the threat of death are sources of explanation for individuals of low SES showing higher levels of death anxiety (Cicirelli, 1999).

Experiences with death.

Evidence of a relationship between attitudes toward death and experiences with death has been demonstrated in the literature. For instance, much of the research examines the relationship between death attitudes and exposure to death via career (Anderson et al., 2008; Morad-McCoy, 2017), television and media, and life-threatening experiences (Nozari & Dousti, 2013). On the other hand, there are limited studies that evaluate the influence personal experiences with death of another person and the various aspects of the loss has in shaping attitudes.

Another factor to consider is the number of losses one has experienced. For instance, higher frequency of losses has been linked to lower levels of death acceptance and increased death anxiety in adults and adolescents (Boyraz et al., 2015; Morad-McCoy, 2017; Davis et al., 2016; Noppe & Noppe, 1997). Among a sample of elderly adults, a greater number of losses was associated with lower levels of fear. However, the higher number of losses increases the amount of time a person spends ruminating on their life (Kalish & Reynolds, 1977).

Additionally, it is important to consider the type of relationship and the closeness of the relationship with the deceased. Glass (1991) found that participants reported the death of someone they perceived as close to be the most influential factor of their attitudes toward death. Participants experiencing the loss of individuals they perceive as very close show greater levels of death anxiety and avoidance (Fraley & Bonanno, 2004).

Regarding relationship type, spousal loss has been associated with lower levels of death acceptance; however, this association is dependent on their grief reactions, specifically when one exerts higher levels of distress and anger following the loss (Bonanno et al., 2002; Kim & Lee, 2009). A study examining elderly adults found greater fear of death following the death of a sibling (Cicirelli, 2009). Parental death during childhood is considered one of the most impactful experiences (Kandt, 1994) and has been associated with greater levels of death fear during adulthood (Florian & Mikulincer, 1997). Interestingly, bereaved parents experience higher levels of grief symptomology yet show greater emotional regulation and less tendency to avoid thoughts and emotions related to the loss of their child (Znoj & Keller, 2002).

Another factor to consider is the circumstance for how the loss occurred. More specifically, whether the death was expected or sudden and/or traumatic may have an impact on how one experiences the loss. When a loved one dies under violent circumstances, the surviving loved ones have been shown to have more negative and less accepting attitudes toward death (Rynearson, 2013; Janoff-Bulman, 1989). Among adult populations, individuals that develop complicated grief or posttraumatic stress symptoms show decreased levels of accepting attitudes toward death (Nakajima et al., 2012). Sudden or unexpected deaths are usually caused by suicide, homicide, accidents, disaster, or unknown causes and expected deaths are usually caused by disease or the aging process (Christopher & Craig, 2007; Iserson, 1999). Researchers have found that individuals respond to sudden and traumatic losses with more denial and fear; whereas, expected loss is met with more ease (Keyes et al., 2014). Likewise, another study found a negative relationship between death anxiety and deaths by terminal illness and natural causes (Heillig, 1974).

Values and Religion.

Other variables that have been shown to be associated with death attitudes are an individual's values and morals, which often relates to religion. Overall, religion has been a variable examined as an influential variable of death attitudes, demonstrating mixed results because of varying conceptualizations of religiosity and death attitudes. As approach acceptance refers to the belief in a content afterlife (Dixon & Kinlaw, 1983), and the belief in an afterlife has been heavily associated to religion, these two variables have been found to be positively related (Peterson and Greil, 1990). Approach acceptance has been negatively correlated with death anxiety, implying that individuals who view death through approach acceptance are less likely to have an anxious or fearful attitude towards death (Harding et al., 2005; Dezutter et al., 2009).

Yet, the relationship between religious beliefs and death anxiety is complex. Several authors have found a negative relationship between religious beliefs and death anxiety, asserting higher levels of anxiety are related to less engagement with religion (Templer, 1972; Feifel & Nagy, 1981). Some have found no relationship (Kalish & Reynolds, 1977; Abdel-Khalek & Lester, 2009), and others have even found a positive relationship (Templer & Ruff, 1975). Interestingly, lower levels of death fear are associated with strong views of faith or nonfaith, but those who are uncertain, experience greater levels of death anxiety (Drolet, 1990). Individuals who are not religious may elicit a more neutral acceptance attitude toward death because they view it as natural and it urges them to live meaningfully (Alexander & Adlerstein, 1959).

Although religion has been shown to be related to death attitudes, studies have found mixed results. Thus, it may be that religion is associated with death values. Specifically, death attitudes may vary because of an individual's commitment to personal and social values, as their values serve as a protective factor for their well-being and

provides meaning to their life (Wong et al., 2018), which impacts their overall acceptance toward death (Wong, 2008). More specifically, death attitudes may be related to religion because religion often has a strong commitment to the upholding of personal and social values. Thus, it may mean that having strong moral and personal values is just as important or more important than religion. However, to our knowledge, this has yet to be studied.

Acceptance and Commitment Therapy.

Existential theories such as terror management theory (TMT) and meaning management theory (MMT) have posited experiences that make death salient motivates individuals to spend more time doing what matters to them through living by their values (Wong et al., 2018; Greenberg et al., 1986). Though it has yet to be studied, one conceptualization of how moral and personal values may be related to death attitudes comes from the theoretical underpinnings of Acceptance and Commitment Therapy (ACT). The authors of ACT assert that all humans experience unwanted thoughts, sensations or feelings, and the suffering associated with these private events relates to one's own level of psychological flexibility (Hayes et al., 2004). Psychological flexibility refers to one's ability to experience events consciously and fully (Harris, 2009; McCracken et al., 2008). When individuals are psychologically inflexible, they actively avoid unwanted private events, and the energy exerted to the avoidance prevents them from being fully present and able to engage in valued living (Hayes et al., 2004; Wilson & Murrell, 2004).

Essentially, ACT asserts that the effort to control the uncomfortable event through avoidance, inadvertently increases the discomfort because less time is spent engaging in acts according to values that form a meaningful life. Suffering is reduced through valued living and the acceptance or the willingness to experience aversive events without

attempting to control the discomfort (Hayes et al., 2004). Though the basis of ACT is flexibility, the core is whether we live according to our values. When conceptualizing death attitudes from an ACT framework, avoidance of experiences related to the death anxiety (e.g., reminders, negative thoughts and feelings, increased heart rate) deprives one from living a more meaningful life in accordance with their values. Rather than focusing on suppressing the fear and anxiety, individuals can relinquish the control and face the associated experiences to live a meaningful life consistent with one's values. Thus, it can be inferred the fulfillment humans experience through their values ultimately reduces anxiety toward death and increases more accepting attitudes toward death (Bayati et al., 2017; Schoulte, 2012).

Present Study

The present study sought to expand the understanding within the literature of variables that impact attitudes toward death. A plethora of research has examined the predictive impact of death attitudes on psychological well-being and coping with death following the loss of another person (Kramer et al., 2011; Zabora et al., 2001). While studies have demonstrated support of an association between death attitudes and death experiences that make death salient (Bluck et al., 2008; Davis et al., 2016; Fernandez-Campos, 2013), there is lack of research regarding the circumstances of loss and the effects exposure to death has on shaping death attitudes.

This study aimed to explore how experiences with the death of another person influences an individual's attitude toward death. Specifically, the five death attitudes were examined in relation to total amount of exposure to death as defined by the total number of losses a person has experienced. Further, exploratory analyses were performed to examine the relation between specific loss characteristics, including participants' relationship to a person they knew that died, their perceived closeness to the individual,

and the nature in which this person's death occurred (i.e., suddenly, traumatically, or expectedly).

Further, given the impact research has shown in relation to demographic variables such as age, income, religious affiliation, and commitment to religion on attitudes toward death, the study sought to provide greater clarification for these relationships. Lastly, a recent measure has been developed to provide a more accurate and precise way of assessing ACT theory. The Multidimensional Psychological Flexibility Inventory (MPFI) created by Rolffs et al. (2016) breaks down each dimension that contributes to the constructs of psychological flexibility and inflexibility from an ACT framework. While previous measures like the Acceptance and Action Questionnaire-II (AAQ-II) are developed to examine a unitary construct (e.g., psychological flexibility or experiential avoidance), the MPFI is the first multidimensional measure that allows one to separately examine each individual process. Thus, this study also sought to gain more understanding of the relationship between ACT components and death attitudes.

It was hypothesized that experiencing the loss of another person would be influential in predicting death attitudes. More specifically, it is expected that death attitudes will be related to various aspects of the loss, including relationship to the deceased, perceived closeness, the nature in which the death occurred, and time since the loss. It is likely age, religion, and various ACT components are important in determining death attitudes.

CHAPTER II:

METHODS

Participants and Recruitment

Participants were adults (18 years and older) of all ethnic backgrounds and recruited in two ways. First, participants were undergraduate students recruited using the University of Houston-Clear Lake Research Participant Pool and in-class recruitment with professors' permission. Students who participated via in-class recruitment were offered extra credit determined by the professor for their participation. Second, participants were recruited using "snowball" emailing methods by asking contacts to participate and then send to their own contacts to complete. Those participating through email recruitment were provided the opportunity to be entered into a raffle to win a $25 stipend.

Measures

Demographics.

The demographic questions were developed by the study authors and included age, race/ethnicity, gender, socioeconomic status, and religious affiliation.

ACT Variables.

The Multidimensional Psychological Flexibility Inventory (MPFI) is a 60-item measure of psychological flexibility according to the Hexaflex Model of ACT (Rolffs, Rogge, & Wilson, 2018). This measure provides two global composite scores for flexibility and inflexibility. Global flexibility is represented by six subscales that assess the six dimensions of flexibility from the Hexaflex model: acceptance, present moment awareness, self as context, defusion, values, and committed action. Likewise, the composite score of inflexibility is calculated from six subscales that assess inflexibility from the Hexaflex model: experiential avoidance, lack of contact with the present

moment, self as content, fusion, lack of contact with values, and inaction. Each subscale consists of five statements with each item rated on a 6-point Likert scale ranging from 1 (Never True) to 6 (Always True). Higher scores reflect greater levels of the process being assessed. This is the first measure that independently measures values from committed action through an ACT perspective and therefore does not have a conceptual equivalent to compare. However, the MPFI has demonstrated high levels of internal consistency with αs ranging from .84 to .96 (Rolffs et al., 2016; Rolffs, 2019). Additionally, correlations between subscales are low – providing evidence that the scales can be treated as non-overlapping, independent variables (Rolffs, Rogge, & Wilson, 2018; Rolffs, 2019).

Religion.

The Religious Commitment Inventory-10 (RCI-10) is a 10-item screening measure that assesses commitment to religion (Worthington et al., 2003). The scale measures adherence to religious beliefs, values, and practices encompassing items that assess interpersonal and intrapersonal religious commitment (Worthington, 1988). Items are rated on a 5-point Likert rating scale from 1("Not at all true of me") to 5 ("Totally true of me)" with higher total scores indicating a greater level of commitment to religion. The RCI-10 demonstrates strong construct and discriminate validity and internal consistency with coefficient alphas ranging from .87 to .93 (Worthington et al., 2003).

Death Experience.

The death experience questions were developed by the study authors and included prompts pertaining to their experience with a personal death that was most significant to the participant. The domains included the relationship to the deceased, perceived closeness to the deceased, length of time since the loss, and the cause of the death. For relationship to the deceased and cause of death, participants were given a drop-down

menu with a list of varying choices. Perceived closeness of the relationship was rated on an 11-point Likert scale where 0 indicates not close at all and 10 indicates extremely close. According to Kelley et al. (1983), there is no standard method to conceptualize the relationship descriptor "close." The importance resides in the scientific principles of simply defining a construct that is measurable and contributes to a greater understanding of the construct (Mashek & Aron, 2004). Thus, relationship closeness for this study is being operationalized as a high degree of interdependence where there is a strong and frequent impact each person has on one another in the relationship. Individuals are in a close relationship when bounded by shared interests, a high level of comfort, trust, and self-disclosure, and a high sense of value for the relationship (Dibble et al., 2012; Parks & Floyd, 1996).

Outcome Variable: *Death Attitudes*.

Death Anxiety Profile-Revised (DAP-R; Wong et al., 1994) is a 32-item, self-report measure of attitudes toward death and a revision of the DAP first developed by Gesser et al., (1988). The DAP-R includes five subscales: Fear of Death/Dying, Approach Acceptance, Escape Acceptance, Neutral Acceptance, and Avoidance. Items are rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Examples of item statements include, "I avoid death thoughts at all costs," "I would neither fear death nor welcome it," and "I have an intense fear of death." Wong et al. (1994) completed a factor analysis demonstrating the five factors as relatively independent. Additionally, the DAP-R has demonstrated adequate validity and internal consistency for each subscale with αs ranging from .65 to .97 (Boyraz et al., 2015; Clements & Rooda, 2000; Wong et al., 1994). This scale has been used with a variety of populations and translated and used in several countries (Souza et al., 2017; Jansen et al., 2019; Guillemin et al., 1993; Brudek et al., 2020).

Procedure

Data collection began following CPHS approval. For all recruitment methods, online administration was conducted through the University-based Qualtrics website, and each participant was provided with a link to the Qualtrics site where the survey was held. Upon arrival to the site, they were presented with an informed consent form. Once participants read the form, they were asked to click on a button signifying they understand what they are consenting to and that they agree to participate. After providing consent, participants completed the survey containing questions about demographics and personal losses, death attitudes, religiosity, and ACT principles. Participation in the study lasted approximately forty-five minutes.

Participants wishing to earn research credit, extra credit, or receive the $25 stipend were asked to click on a link and provide their contact information to ensure they receive the incentive. Extra credit and research credit was assigned after completion of the survey. Participants selected from the raffle received an email with instructions for collecting the stipend. To ensure confidentiality, participant contact information was not linked with their questionnaire response, and all information collected was stored securely.

Statistical Analyses.

All data was analyzed using SPSS (Version 27). Descriptive statistics were calculated for demographic data including age, gender, ethnicity, income, and religion. Independent-samples t-tests were conducted to determine group differences in gender and race on death attitudes. One-way ANOVAs were conducted to determine group differences between loss characteristics, income, and each death attitude. Additionally, Pearson's correlations were conducted between all continuous variables.

Five four-step hierarchical multiple regression analyses were conducted to determine the predictive power of age, loss characteristics (relationship to deceased and cause of death for deceased), religion affiliation, commitment to religion, and ACT variables (acceptance and values) on each of the five death attitudes. Religion was dichotomized as religious vs. nonreligious. Relationship to deceased was dummy coded into three groups. The first group included parent, sibling, or child (reference group); the second group included grandparent; the third group included extended family member, friend, or spouse. The nature of death was dummy coded into three groups as unexpected physical illness (reference group), expected physical illness, and traumatic death.

CHAPTER III:

RESULTS

Participants

Of the 324 participants who began the survey, 70 participants did not complete the survey in its entirety and 28 participants had not experienced a death. Incomplete surveys and participants who had not experienced a death were eliminated from analysis, reducing the sample to 226 participants. Of the 226 participants, 185 (81.9%) identified as women, and 131 (58%) described themselves as White. The average age of participants was 31.59 and a majority identified as religious (N = 167; 73.9%). The sample was compromised of the following household income levels: $24,999 or less (20.4%), $25,000 - $49,999 (22.1%), $50,000 - $74,999 (14.6%), $75,000 - $149,999 (35%), and $150,000 or above (8%).

Regarding loss characteristics, participants reported experiencing an average of 7 human losses. When considering one death that was the most impactful, 53 (23.5%) participants reported the loss of a parent, sibling, or a child, 84 (37.2%) reported the loss of a grandparent, and 89 (39.4%) reported the loss of an extended family member, friend, or romantic partner/spouse. Of these deaths, 102 (45.1%) were the result of a sudden/unexpected physical illness, 70 (31%) were expected due to a physical illness, and 54 (23.9%) were caused by a traumatic event. A majority of participants (N = 185; 81.9%) rated their perceived closeness to the individual as a 7 or higher (M = 8.12; SD = 2.21.

Standard Measures

Means and standard deviations for death attitudes (DAP-R), acceptance and values (MPFI) and commitment to religion (RCI-10) are provided in Table 1.

Table 1.
Mean scores for Death Attitudes, ACT variables, and Commitment to Religion (N = 226)

Measure/Subscale	*M*	*SD*
DAP-R		
Fear of Death	4.07	1.45
Death Avoidance	3.55	1.63
Neutral Acceptance	5.46	.87
Approach Acceptance	4.63	1.51
Escape Acceptance	3.81	1.53
MPFI		
Acceptance	3.61	.83
Values	4.29	.96
RCI-10	23.24	11.86

Note: DAP-R = Death Attitude Profile-Revised; MPFI = Multidimensional Psychological Flexibility Inventory; RCI-10 = Religion Commitment Inventiory-10

Death Attitudes and Demographics

Independent samples t-tests revealed significant differences between religious and nonreligious participants in levels of escape acceptance. Religious participants scored significantly higher on the Escape Acceptance Subscale (M = 3.97; SD = 1.55) than nonreligious participants (M = 3.37; SD = 1.37), $t(224) = -2.63$, $p < .01$, $d = .40$. Likewise, religious participants scored significant higher on the Approach Acceptance subscale (M = 5.15; SD = 1.19) than nonreligious participants (M = 3.15; SD = 1.35), $t(224) = -10.71$, $p < .001$, $d = 1.62$. Religious participants also scored significantly higher on the Death Avoidance subscale (M = 3.68; SD = 1.62) than nonreligious participants (M = 3.18; SD = 1.61), $t(224) = -2.03$, $p < .05$, $d = .31$. A one-way ANOVA revealed significant differences between income and fear of death, $F(4, 221) = 3.44$, $p < .05$, $\eta^2 = .06$. Pairwise comparisons revealed participants with an income of $24,999 or less (M = 4.45; SD = 1.49) reported significantly greater levels of fear toward death compared to those with an income of above $150,000 (M = 3.28; SD = 1.17), $p < .05$. Significant differences were also found between income and death avoidance, $F(4, 221) = 4.025$, $p < .01$, $\eta^2 = .07$. Pairwise comparisons revealed participants with an income of $24,999 or

less (M = 3.94; SD = 1.74), had significantly higher scores on death avoidance than those with an income of above $150,000 (M = 2.74; SD = 1.28), p <.05.

Pearson's correlations were computed to examine the relationship between age and death attitudes. There were negative correlations found with fear of death, r = -.25, p < .01 and death avoidance, r = -.20, p < .01, meaning older participants report lower levels of fear toward and avoidance of death. A positive correlation was found with neutral acceptance, r = .16, p < .05, meaning older participants hold a more neutral acceptance attitude toward death.

Death Attitudes and Loss Characteristics

Pearson's correlations were computed to examine the relationship between total number of deaths experienced and death attitudes. A negative relationship was found with fearful attitude toward death, r = -.16, p < .05, indicating the more deaths a person has experienced the less fearful they are of death. Additionally, a positive relationship was found with approach acceptance, r = .14, p < .05, indicating the more deaths a person has experienced the more likely they are to have an approach acceptance attitude toward death. Point-biserial correlations were computed to examine the relationship between relationship to deceased, nature of death, and each of the death attitudes. Significant negative associations were found among participants that reported losing a person due to a traumatic event. Specifically, those that experienced a traumatic death scored lower on escape acceptance attitudes toward death, r = -.15, p < .05, as well as neutral acceptance attitudes toward death, r = -.14, p < .05, indicating exposure to traumatic deaths of another human being are associated with lower levels of acceptance toward death. One-way ANOVAs were conducted to examine mean differences in relationship to deceased on each death attitude as well as the cause of death on each death attitude. Results were not significant among all 10 ANOVAs conducted.

Death Attitudes, ACT Variables, and Religious Commitment

Pearson's correlations were computed to examine the relationship between death attitudes, acceptance and values from an ACT perspective, and commitment to religion; the results are presented in Table 3. Higher levels of acceptance were associated with lower levels of fear toward death and avoidance toward death, while higher levels of acceptance were associated with greater levels of neutral acceptance toward death. Regarding values, lower levels of fear toward death were associated with higher levels of values engagement. Inversely, higher levels of values engagement were associated with higher levels of approach and neutral acceptance toward death. Lastly, greater levels of commitment to religion were associated with lower levels of fear toward death and greater levels of approach and escape acceptance attitudes toward death.

Table 2.
Correlations Between Death Attitudes, ACT Variables, and Religion Commitment (N = 226)

	FD	DA	NA	AA	EA	A	V	RC
Fear of Death	--	.73**	-.39**	-.14*	-.19**	-.19**	-.15*	-.20**
Death Avoidance		--	-.29**	.03	-.13*	-.27**	-.13	-.10
Neutral Acceptance			--	.06	.27**	.28**	.24**	.07
Approach Acceptance				--	.38**	-.01	.15*	.57**
Escape Acceptance					--	.04	.03	.25**
Acceptance						--	.42**	.15**
Values							--	.27**
Religious Commitment								--

Note. FD = Fear of Death; DA = Death Avoidance; NA = Neutral Acceptance; AA = Approach Acceptance; EA = Escape Acceptance; A = Acceptance; V = Values; RC = Religious Commitment
* p < .05; ** p < .01; *** p < .001

Regression

Five, hierarchical multiple regressions were conducted to predict each of the five attitudes toward death. For each regression, age was entered at step one, relationship to deceased (dummy coded with immediate family as the reference group), and nature of death (dummy coded with unexpected illness as the reference group) were entered at step two, religious affiliation (coded for analyses as 0 = religious, 1 = nonreligious) and religious commitment were entered into step 3, and ACT variables (acceptance and values) were entered at step four. The final models of each regression were only significant for neutral acceptance and death avoidance as the dependent variable (See Table 3). These two models are discussed in detail below.

Table 3.
Hierarchical regression predicting neutral acceptance and death avoidance (N = 226)

Variable	Neutral Acceptance				Death Avoidance			
	B	SE_B	β	ΔR^2	B	SE_B	β	ΔR^2
Step 1				.03*				.04**
Age	.01	.01	.16*		-.03	.01	-.20**	
Step 2				.03				.01
Age	.02	.01	.21**		-.02	.01	-.19*	
Relationship_Grandparent	.26	.17	.14		.001	.33	.00	
Relationship_Extended	.20	.17	.11		.05	.31	.02	
Nature_Expected	-.12	.14	.06		.03	.25	.01	
Nature_Traumatic	-.27	.16	-.13		.24	.30	.06	
Step 3				.03*				.03*
Age	.01	.01	.21**		-.02	.01	-.18*	
Relationship_Grandparent	.32	.17	.18		-.12	.33	-.04	
Relationship_Extended	.24	.17	.13		-.02	.31	-.01	
Nature_Expected	-.13	.13	-.07		.05	.25	.02	
Nature_Traumatic	-.29	.16	-.14		.27	.30	.07	
Religion Commitment	.01	.01	.09		-.01	.01	-.13*	
Religion Affiliation	-.36	.14	-.18**		.68	.26	.18**	
Step 4				.07***				.05**
Age	.01	.01	.18*		-.02	.01	-.15*	
Relationship_Grandparent	.25	.17	.14		.003	.32	.001	
Relationship_Extended	.22	.16	.12		-.03	.31	-.01	
Nature_Expected	-.12	.13	-.06		-.01	.25	-.002	
Nature_Traumatic	-.32*	.15	-.16		.30	.29	.08	
Religion Commitment	.001	.01	.01		-.01	.01	-.08	
Religion Affiliation	-.28	.14	-.14*		.48	.26	.13	
Acceptance	.17	.08	.17*		-.44	.14	-.22**	
Values	.15	.07	.17*		-.03	.12	-.02	

Note. Relationship_Extended = Extended family member, friend, spouse; Nature Expected = Expected Death due to Physical Illness; Nature Traumatic = Death caused by Traumatic Event; Religion Commitment = Commitment to Religion; Acceptance = ACT Process; Values = ACT Process
** p < .05; ** p < .01; *** p < .001*

Neutral Acceptance

At stage one, age significantly contributed to the regression model, $F(1, 224) = 5.93$, $p < .05$ and accounted for 2.6% of the variability in neutral acceptance scores. Adding loss characteristics (relationship to the deceased and nature of death) to the model in step 2 accounted for an additional 2.6% of variation in neutral acceptance, however this change in variation was not significant, $R^2 = .05$, $F(5, 220) = 2.40$, $p > .05$. In step 3, the addition of religious affiliation and commitment to religion scores significantly accounted for an additional 3% of the variance, $R^2 = .08$, $F(7, 218) = 2.76$, $p < .05$. Adding step 4 to the model significantly accounted for an additional 7.1% of the variance in neutral acceptance, $R^2 = .15$, $F(9, 216) = 4.23$, $p < .001$. Among the predictive variables, age ($\beta = .18$ $p < .05$), acceptance ($\beta = .17$, $p < .05$), and values ($\beta = .17$, $p < .05$) demonstrated a significantly positive association with neural acceptance, while religious affiliation ($\beta = -.14$, $p < .05$) demonstrated a significantly negative association with neutral acceptance. The slope for traumatic death is also significant (B = -.32, $p < .05$), indicating participants that reported a death caused by traumatic circumstances scored .32 points lower on neutral acceptance than those that reported a death caused by an unexpected physical illness.

Death Avoidance

At stage one, age significantly contributed to the regression model, $F(1, 224) = 8.98$, $p < .05$ and accounted for 3.9% of the variability in death avoidance scores. Adding loss characteristics (relationship to the deceased and nature of death) to the model in step 2 accounted for an additional 0.5% of variation in death avoidance, however this change in variation was not significant, $R^2 = .04$, $F(5, 220) = 1.99$, $p > .05$. In step 3, the addition of religious affiliation and commitment to religion scores significantly accounted for an additional 3.4% of the variance, $R^2 = .08$, $F(7, 218) = 2.59$, $p < .05$. Adding step 4

to the model significantly accounted for an additional 4.8% of the variance in death avoidance, $R^2 = .12$, F (9, 216) = 3.41, $p < .01$. Among the predictive variables for the overall model, only two predictors remained significant. Specifically, age ($\beta = -.15$, $p < .05$) and acceptance ($\beta = -.22$, $p < .01$) demonstrated a significantly negative association with death avoidance.

CHAPTER IV:
DISCUSSION

Prior research has identified a plethora of variables that are associated with death attitudes. Yet, findings are very mixed regarding such variables like age, religion, and experiences that make mortality salient (Bluck et al., 2008; Franke, 1984; Spitzenstätter & Schnell, 2020). Further, there is a significant gap in understanding the unique aspects of these variables and how they relate to death attitudes. Thus, the present study was designed to expand and provide further clarity to our understanding of factors that influence attitudes toward death.

Loss variables

One primary aim was to understand the relationship between exposure to death (death of someone) and one's attitude toward death. Results revealed individuals that have experienced a greater number of losses reported lower levels of fearful attitudes toward death and consequently, reported greater levels of approach acceptance. This is consistent with prior research that indicates higher levels of exposure to death is associated with more positive views toward death (Harrawood et al., 2009; Morad-McCoy, 2017; Spitzenstätter & Schnell, 2020; Wallace et al., 2019). Likewise, this finding is consistent with ACT theory that asserts exposure or willingness rather than avoidance, ultimately leads to greater levels of acceptance (Hayes et al., 2012). Therefore, it is important for individuals to intentionally be mindful of mortality. One should willingly approach and engage with the death and dying process of significant others as exposure to and active awareness of death will increase overall acceptance of mortality.

The second aim was to understand how death attitudes may be influenced by unique characteristics of an experienced loss. Point-biserial correlations revealed a

negative relationship between traumatic losses (compared to all other losses) and neutral and escape acceptance attitudes toward death. Regression analyses only confirmed the traumatic losses as a significant predictor of neutral acceptance when considering all other variables measured. Deaths that occur as a result of traumatic events may be associated with heightened negative emotionality. Thus, in line with ACT, individuals may be more inclined to engage in experiential avoidance as an attempt to control the unwanted discomfort resulting in lower levels of death acceptance. Ultimately, results did not provide much evidence of loss characteristics (i.e., relationship to deceased and type of death) on death attitudes as evidenced in prior research (Boyraz et al., 2015; Chan & Chan, 2011; Wallace et al., 2019).

A possible explanation for these findings may be related to Durlak & Riesenberg's (1991) idea that death attitudes differ depending on how one learns about death; either by factual explanations or through experiences that are personally meaningful. Based on this concept, an important factor that might need to be considered is the level of importance that the loss played in one's life. Thus, relationship and type of death may not be important, because these individuals may not have had a significant impact on the way others continued through life. On the contrary, if another person's death played a significantly meaningful role in guiding one's life, then a certain attitude toward death may be more prominent than another.

Similarly, another factor may be the level of associated involvement one had with the death. For instance, level of involvement may be characterized as their presence throughout the dying process or for the actual death, participation in arrangements following the death (e.g., funeral, caretaking for children that lost a parent), and/or frequency of open communication about the experience and the deceased following the loss. In sum, for death attitudes to be related to specific loss characteristics, it may be that

the experienced loss needs to have a meaningful impact on the person, or the individual needs to be personally impacted.

Personal Characteristic Variables

Another aim of this study was to examine the relation between death attitudes and personal demographics. Consistent with the literature (Hajatour & Haroon Rashidi, 2021; Maxfield et al., 2007; Souza et al., 2017; Thorson & Powell, 2000; Zhang et al., 2019), age was a prominent predictor, as results demonstrated negative relationships with fear and avoidance attitudes and a positive relationship with a neutral acceptance attitude. It makes sense that as one ages and begins to have more years behind than ahead, they are forced to confront death instead of avoiding it, and ultimately become less fearful and more accepting of death. Thus, older age essentially makes mortality salient.

Therefore, this increased acceptance as one ages may be related to both awareness and exposure. More specifically, as one ages, individuals may realize and accept that death is closer, or they are more accepting of the experiences they have had and the life they have led. Thus, they feel "okay" about dying because they are generally satisfied with their life. On the other hand, it may be related to exposure. As mentioned, ACT posits that the more exposure one has to an anxiety provoking situation, the more accepting we are of those situations. As we age, we naturally know more people that have died; therefore, older individuals are more exposed to death, resulting in more acceptance.

Religious affiliation and commitment to religion were also found as having an influential relationship to death attitudes. As expected, religious participants were more likely to experience escape acceptance and approach acceptance compared to nonreligious participants. Due to the religious group being predominately Christian, it makes sense that these individuals would have an approach acceptance of death, as they

believe in an afterlife following death. Likewise, these individuals may endorse escape acceptance attitudes as they may believe the afterlife to be a greater alternative than life on earth; thus, it is easier to be more accepting of something greater. This is consistent with several studies showing higher levels of death acceptance among religious individuals (Dezutter et al., 2009; Peterson & Greil, 1990; Surall & Steppacher, 2020; Xu et al., 2019).

Interestingly, religious affiliation and religious commitment revealed different relationships with death attitudes. Religious commitment was significantly related to fear of death, while religious affiliation was not significantly related (r = .017, p = .80). As mentioned earlier, research is heavily mixed in terms of the relationship between religion and death attitudes, which may be explained by the idea that commitment to religion is just as or more important than actual affiliation. Thus, these findings provide potential evidence that commitment to the value of religion is important to consider when studying the relationship between religion and death attitudes. These results reiterate the complex nature of studying the role of religion in shaping death attitudes. Within an ACT framework, commitment to values provides more meaning to one's life which ultimately leads to greater well-being. These results compliment other studies that suggest commitment to the value of religion can help shape more positive attitudes toward death (Steinitz, 1980; Surall & Steppacher, 2020; Xu et al., 2019). In general, these findings imply the significance of values-based living in determining death attitudes.

ACT Variables

The final aim of the present study was to examine the relationship between death attitudes and individual processes of ACT theory (i.e., acceptance and values). Overall, correlation analyses revealed negative relationships between the ACT variables and negative death attitudes and positive relationships with positive death attitudes.

Regression analyses revealed acceptance and values positively predicted neutral acceptance, and acceptance negatively predicted death avoidance. The relationship between acceptance and values with these attitudes is theoretically expected. Specifically, a neutral acceptance view of death accepts the idea that death is inevitable and is an event that cannot be controlled. Similarly, acceptance from an ACT framework is defined as the willingness to experience aversive events nonjudgmentally, rather than attempting to control through experiential avoidance. Negative outcomes arise when one attempts to control the unwanted event (i.e., experiential avoidance) as it prevents one from exerting energy to living a life according to their values (Hayes et al., 2012; Hayes et al., 2004). Therefore, higher levels of acceptance and values should result in greater levels of positive attitudes (i.e., neutral acceptance) and lower levels of negative attitudes (i.e., death avoidance).

Considering this explanation, acceptance and values from an ACT perspective may have been found to be unrelated to escape acceptance as this attitude may indicate some level of judgement and control. For instance, a person views death as a greater alternative and hence may experience a level of unwillingness to experience the suffering occurring in this life. This lack of acceptance prevents one from living in accordance with their values and therefore hinders their ability to find meaning in their present state of being. While Wong and colleagues (1994) deem escape acceptance as a positive death attitude, from an ACT perspective, individuals may have greater overall well-being if they approach death from a more neutral acceptance framework. Thus, it may be important that individuals with escape acceptance attitudes work to increase their willingness to experience life despite the suffering and make an intentional effort to engage with their values. Taken all together, these findings provide some indication that

living an ACT-based life may be an essential component to forming accepting attitudes toward death.

Limitations

The study provided several novel results, but there are several limitations to the study. First, there was a significant level of attrition and deletion of cases that had not experienced the death of another person. There are two potential conclusions for participants not completing the study. One being the length of the survey despite the average time of completion among participants being approximately 30 minutes. Another reason for incompletion may have stemmed from the heightened emotion that is produced when thinking about mortality and experienced losses.

Another limitation includes the groupings of the categorical loss variables. For purpose of analyses, the variables relationship to deceased and nature of death each consisted of three grouped levels. This resulted in most levels consisting of 70 participants or less. These groupings were primarily based on logic, but also in an effort to make the sample even across each level. However, these grouping may have prevented a more accurate depiction of the relationship between these characteristics and death attitudes. It is possible that relationships and/or types of deaths need to be examined individually rather than as collectively. For example, parents, siblings, and children were grouped into one category while extended family members, friends, and romantic partners were grouped into another category. Therefore, attitudes may differ for loss of romantic partners compared to a loss of extended family members. However, due to the limited number of cases per certain relationships, this was unable to be assessed.

Similarly, this study specifically only had participants consider one death in relation to the qualitative variables. Considering the significant findings of greater number of losses experienced with death attitudes, it is possible that only considering one

loss prevented the ability to find significant differences. Therefore, it may be necessary to consider the quantitative aspect of these variables, as participants could have experienced multiple deaths within a certain relationship and/or had multiple losses that were caused by a specific reason (e.g., multiple friends or children and multiple expected or unexpected deaths).

The method of measuring relationship closeness may have also posed another limitation. When responding to prompts, participants were initially asked to consider only the most impactful death. This may have limited the results in two ways. First, responses on each measure may have differed if the participants were thinking about all deaths versus one death. Further, given that most rated impact at "7 or above," more varied responses may have occurred if there was a more diverse range of perceived relationship closeness.

Finally, the sample was comprised of community members and students within the United States. Due to recruitment methods, many were highly educated, younger in age, and described as Christian. Thus, the demographics do not seem to be reflective of the general population. These factors consequently affect the types of deaths experienced, relationship to the deceased, and variability in religious/nonreligious affiliation. Additionally, findings related to religion in this study should be interpreted with caution due religious affiliation being dichotomized due to the nature of analyses and limited number of cases per religion or nonreligion categories. Thus, results may differ if able to consider religions at an independent level.

Limitations in the Context of COVID-19

It is important to note that data collection occurred eight months to one year following the beginning of the COVID-19 pandemic. Reports of new cases of COVID-19 and co-occurring deaths through the media led to constant exposure and reminders of

mortality, which may have heightened individual's awareness of their own mortality more than prior to the pandemic. Further, the study did not assess whether participants had a personal diagnosis of COVID-19 or even some other personal life-threatening experience. Given the timing of this study, it is possible that the pandemic impacted the way participants were thinking about death, thus providing a possible explanation for the nonsignificant relationships found between loss characteristics and death attitudes. Additionally, this may explain why the overall sample endorsed higher levels of death acceptance compared to other death attitudes. Theoretically, the year-long exposure and awareness of death may have increased accepting attitudes toward death.

Implications

Even with these limitations, this study has several important implications. First, given the fact that frequency of death is related to death attitudes, it may be important that experiences with death are assessed and treated when initially noticed. Further, it may be helpful to address these issues even when treating other disorders, given death anxiety/fear being an underlying factor of many psychological disorders (Iverach et al., 2014). It may also be important in other illnesses too, especially where death may be a consequence of the illness. For example, a recent study found that COVID-19 anxiety was strongly predicted by death anxiety/fear (Spitzenstätter, & Schnell, 2020).

Further, given the results related to ACT variables and death, using ACT as an intervention may be important. More specifically, it may be important to infuse ACT when treating grief or negative death attitudes or just overall illness anxiety, as ACT could help individuals experience death and deal with their anxieties about death. In fact, previous research has demonstrated supportive use of ACT in targeting existential themes, which consequently results in improved well-being (Wilms, 2016; Hajatour & Haroon Rashidi, 2021; Schoulte, 2012).

The present study also utilized the MPFI, which extended research and contributed to the literature by evaluating processes of ACT independently. The AAQ-II has been the primary measure for evaluating ACT's theory of psychological flexibility, but it prevents one from knowing which processes are being evaluated. The MPFI is a relatively new measure and assumed to be a better alternative measure, due to the ability to evaluate each process that forms the global construct of psychological flexibility. In terms of this study, correlations of the processes that form the global scale of psychological flexibility ranged from .33 to .73, suggesting the scales share anywhere from 11% to 53% of their variance with one another. Thus, while the scales are interrelated as evidenced by the correlations, the processes also have their own unique variance. These findings similarly reflect those found in the initial validation study by the researchers that developed the measure (Rolffs et al., 2016). Therefore, utilizing the MPFI can provide greater insight into the specific processes associated with an individual's attitude toward death. This can provide clinicians with a more individualized and precise framework for intervening with clients in existential crises.

The present study also expanded the research by examining the impact of age on death attitudes. The findings that older individuals experience more deaths and greater levels of neutral acceptance, while younger individuals experience fewer deaths and greater levels of fear and avoidance of death, reflect most of the current research. Given that younger people most likely have less exposure to death than older individuals, and considering theory of ACT, it may suggest the importance of engaging younger people in conversations about death. Research has demonstrated that the avoidance of communicating about death inadvertently results in an increase of negative attitudes toward death, and ultimately has a negative impact on personal sense of well-being (Zhang & Siminoff, 2003; Fried et al., 2005; Wallerstedt et al., 2013). Thus, by having

conversations around the awareness of the inevitability of mortality, individuals describe greater satisfaction with the grief process and outcome (Speedlin et al., 2016), less death-related anxiety, and higher levels of death acceptance (Sherman et al., 2010). Therefore, this study extends the idea that people should embrace the finite of our existence. This can be done by having consistent conversations about death and dying, engaging with people as they are dying or with those that are grieving, and being active in preparing for our own death (e.g., writing our will). These behaviors can be enhanced through ACT, which facilitates the process of exposing oneself to death, defusing irrational thoughts associated with dying, and living a values-based life despite the discomfort associated with thoughts of the unknown.

Conclusion

Death attitudes have a significant impact on psychological well-being and the way individuals live their lives, making it vital to gain understanding of factors that form these attitudes. Despite major aims demonstrating nonsignificant findings and the need for continued examination, this study provided evidence of the relationship between death attitudes with loss, personal characteristics, and ACT processes. This study expanded the research by examining the relationship between death exposure and death attitudes among a more general population, as most of the research examining this relationship is among specific career populations. Future research should examine characteristics of loss when considering multiple losses rather than one individual loss. Additionally, research may consider factors such as personal impact of the loss and level of involvement with the death of another person. Above all, this study provides the implication that ACT may be considered as an effective treatment approach by targeting death attitudes.

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APPENDIX A:

CONSENT FORM

Informed Consent: Adult Research Participant

You are being asked to participate in the research project described below. Your participation in this study is entirely voluntary and you may refuse to participate, or you may decide to stop your participation at any time. Should you refuse to participate in the study or should you withdraw your consent and stop participation in the study, your decision will involve no penalty or loss of benefits to which you may otherwise be entitled. You are being asked to read the information below carefully and ask questions about anything you don't understand before deciding whether or not to participate.

Title: Acceptance, Loss, and Death Attitudes

Principal Investigator(s): Megan Millmann

Student Investigator(s): Megan Millmann

Faculty Sponsor: Mary Short, PhD

Purpose of the Study: As part of a doctoral dissertation project, this study aims to examine circumstances surrounding loss and perspectives on death. This study will further understanding of targeted areas for intervention with bereaved individuals.

Procedures: After reading through this consent form, you will be asked to click on a button signifying you understand that you are consenting and agreeing to participate in this study. Once you provide consent, you will then proceed to completing the survey which consists of various questionnaires with guided instruction. Following completion of the study you will be brought to a final page where you will have the option to provide contact information to EITHER: a) enter into a raffle for a $25 participant stipend, b) receive SONA credit, or c) receive extra credit for courses in which willing professors NOT requiring SONA credit have offered this as an option for participating. For those

opting to earn extra credit, you will earn the specified amount of points that have been determined by your professor. If you would not like to receive any incentive for participation in this study, you will have an option to state this and will not be required to provide contact information.

Expected Duration: Participation should take no longer than 45 minutes.

Risks of Participation: Possible study risks include feeling discomfort caused by answering questions regarding a stressful event. If participation leads to discomfort you can contact the principle investigator, Megan Millmann at millmannm4675@uhcl.edu or the crisis hotline number at 1-800-273-8255.

Benefits to the Subject

There is no direct benefit received from your participation in this study, but your participation will help the investigator(s) to better understand attitudes toward death and acceptance and commitment therapy in the context of loss.

Confidentiality of Records

Every effort will be made to maintain the confidentiality of your study records. The data collected from the study will be used for educational and publication purposes, however, you will not be identified by name. For federal audit purposes, the participant's documentation for this research project will be maintained and safeguarded by the Principal Investigator or Faculty Sponsor for a minimum of three years after completion of the study. After that time, the participant's documentation may be destroyed.

Compensation

After completion of the study, you will have the option of EITHER being entered into a raffle for a $25 stipend, receive SONA credit, or receive extra credit if you are in a course where your professor is offering extra credit but not requiring SONA. You may only choose one option. Thus, if you are a student and would rather enter into the raffle,

that is your choice, however you will not receive SONA credit or extra credit if you choose to enter into the raffle instead.

Investigator's Right to Withdraw Participant

The investigator has the right to withdraw you from this study at any time.

Contact Information for Questions or Problems

The investigator has offered to answer all of your questions. If you have additional questions during the course of this study about the research or any related problem, you may contact the Principal Investigator, Megan Millmann by email at millmannm4675@uhcl.edu

Identifiable Private Information

Identifiers might be removed from identifiable private information or identifiable biospecimens and that, after such removal, the information or biospecimens could be used for future research studies or distributed to another investigator for future research studies without additional informed consent from the subject or the legally authorized representative, if this might be a possibility

APPENDIX B:

DEATH ATTITUDE PROFILE-REVISED

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.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
9. Death provides an escape from this terrible world.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
10. Whenever the thought of death enters my mind, I try to push it away.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
11. Death is deliverance from pain and suffering.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
12. I always try not to think about death.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
13. I believe that heaven will be a much better place than this world.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
14. Death is a natural aspect of life.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
15. Death is a union with God and eternal bliss.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
16. Death brings a promise of a new and glorious life.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
17. I would neither fear death nor welcome it.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
18. I have an intense fear of death.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
19. I avoid thinking about death altogether.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
20. The subject of life after death troubles me greatly.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**

21. The fact that death will mean the end of everything as I know it frightens me.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
22. I look forward to a reunion with my loved ones after I die.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
23. I view death as a relief from earthly suffering.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
24. Death is simply a part of the process of life.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
25. I see death as a passage to an eternal and blessed place.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
26. I try to have nothing to do with the subject of death.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
27. Death offers a wonderful release of the soul.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
28. One thing that gives me comfort in facing death is my belief in the afterlife.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
29. I see death as a relief from the burden of this life.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**
30. Death is neither good nor bad.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
31. I look forward to life after death.	**SA**	**A**	**MA**	**U**	**MD**	**D**	**SD**
32. The uncertainty of not knowing what happens after death worries me.	**SD**	**D**	**MD**	**U**	**MA**	**A**	**SA**

APPENDIX C:

MULTIDIMENTIONAL PSYCHOLOGICAL FLEXIBILITY INVENTORY

FLEXIBILITY SUBSCALES

ACCEPTANCE

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
I was receptive to observing unpleasant thoughts and feelings without interfering with them.	O	O	O	O	O	O
I tried to make peace with my negative thoughts and feelings rather than resisting them	O	O	O	O	O	O
I made room to fully experience negative thoughts and emotions, breathing them in rather than pushing them away	O	O	O	O	O	O
When I had an upsetting thought or emotion, I tried to give it space rather than ignoring it	O	O	O	O	O	O
I opened myself to all of my feelings, the good and the bad	O	O	O	O	O	O

PRESENT MOMENT AWARENESS

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
I was attentive and aware of my emotions	O	O	O	O	O	O
I was in tune with my thoughts and feelings from moment to moment	O	O	O	O	O	O
I paid close attention to what I was thinking and feeling	O	O	O	O	O	O
I was in touch with the ebb and flow of my thoughts and feelings	O	O	O	O	O	O
I strived to remain mindful and aware of my own thoughts and emotions	O	O	O	O	O	O

SELF AS CONTEXT

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
Even when I felt hurt or upset, I tried to maintain a broader perspective	O	O	O	O	O	O
I carried myself through tough moments by seeing my life from a larger viewpoint	O	O	O	O	O	O
I tried to keep perspective even when life knocked me down	O	O	O	O	O	O
When I was scared or afraid, I still tried to see the larger picture	O	O	O	O	O	O
When something painful happened, I tried to take a balanced view of the situation	O	O	O	O	O	O

DEFUSION

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
I was able to let negative feelings come and go without getting caught up in them	O	O	O	O	O	O
When I was upset, I was able to let those negative feelings pass through me without clinging to them	O	O	O	O	O	O
When I was scared or afraid, I was able to gently experience those feelings, allowing them to pass	O	O	O	O	O	O
I was able to step back and notice negative thoughts and feelings without reacting to them	O	O	O	O	O	O
In tough situations, I was able to notice my thoughts and feelings without getting overwhelmed by them	O	O	O	O	O	O

VALUES

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
I was very in-touch with what is important to me and my life	O	O	O	O	O	O
I stuck to my deeper priorities in life	O	O	O	O	O	O
I tried to connect with what is truly important to me on a daily basis	O	O	O	O	O	O
Even when it meant making tough choices, I still tried to prioritize the things that were important to me	O	O	O	O	O	O
My deeper values consistently gave direction to my life	O	O	O	O	O	O

COMMITTED ACTION

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
Even when I stumbled in my efforts, I didn't quit working toward what is important	O	O	O	O	O	O
Even when times got tough, I was still able to take steps toward what I value in life	O	O	O	O	O	O
Even when life got stressful and hectic, I still worked toward things that were important to me	O	O	O	O	O	O
I didn't let set-backs slow me down in taking action toward what I really want in life	O	O	O	O	O	O
I didn't let my own fears and doubts get in the way of taking action toward my goals	O	O	O	O	O	O

INFLEXIBILITY SUBSCALES

EXPERIENTIAL AVOIDANCE

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
When I had a bad memory, I tried to distract myself to make it go away	O	O	O	O	O	O
I tried to distract myself when I felt unpleasant emotions	O	O	O	O	O	O
When unpleasant memories came to me, I tried to put them out of my mind	O	O	O	O	O	O
When something upsetting came up, I tried very hard to stop thinking about it	O	O	O	O	O	O
If there was something I didn't want to think about, I would try many things to get it out of my mind	O	O	O	O	O	O

LACK OF CONTACT WITH THE PRESENT MOMENT

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
I did most things on "automatic" with little awareness of what I was doing.	O	O	O	O	O	O
I did most things mindlessly without paying much attention.	O	O	O	O	O	O
I went through most days on auto-pilot without paying much attention to what I was thinking or feeling	O	O	O	O	O	O
I floated through most days without paying much attention.	O	O	O	O	O	O
Most of the time I was just going through the motions without paying much attention	O	O	O	O	O	O

SELF AS CONTENT

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
I thought some of my emotions were bad or inappropriate and I shouldn't feel them	O	O	O	O	O	O
I criticized myself for having irrational or inappropriate emotions	O	O	O	O	O	O
I believed some of my thoughts are abnormal or bad and I shouldn't think that way	O	O	O	O	O	O
I told myself that I shouldn't be feeling the way I'm feeling	O	O	O	O	O	O
I told myself I shouldn't be thinking the way I was thinking	O	O	O	O	O	O

FUSION

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
Negative thoughts and feelings tended to stick with me for a long time.	O	O	O	O	O	O
Distressing thoughts tended to spin around in my mind like a broken record.	O	O	O	O	O	O
It was very easy to get trapped into unwanted thoughts and feelings.	O	O	O	O	O	O
When I had negative thoughts or feelings it was very hard to see past them.	O	O	O	O	O	O
When something bad happened it was hard for me to stop thinking about it.	O	O	O	O	O	O

LACK OF CONTACT WITH VALUES

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
My priorities and values often fell by the wayside in my day to day life	O	O	O	O	O	O
When life got hectic, I often lost touch with the things I value	O	O	O	O	O	O
The things that I value the most often fell off my priority list completely	O	O	O	O	O	O
I didn't usually have time to focus on the things that are really important to me	O	O	O	O	O	O
When times got tough, it was easy to forget about what I truly value	O	O	O	O	O	O

INACTION

IN THE LAST TWO WEEKS…	Never TRUE	Rarely TRUE	Occasionally TRUE	Often TRUE	Very Often TRUE	Always TRUE
Negative feelings often trapped me in inaction	O	O	O	O	O	O
Negative feelings easily stalled out my plans	O	O	O	O	O	O
Getting upset left me stuck and inactive	O	O	O	O	O	O
Negative experiences derailed me from what's really important	O	O	O	O	O	O
Unpleasant thoughts and feelings easily overwhelmed my efforts to deepen my life	O	O	O	O	O	O

APPENDIX D:

RELIGIOUS COMITTMENT INVENTORY

	Not at all true of me 1	**Somewhat** true of me 2	**Moderately** true of me 3	**Mostly** true of me 4	**Totally** true of me 5
1. I often read books and magazines about my faith.	1	2	3	4	5
2. I make financial contributions to my religious organization.	1	2	3	4	5
3. I spend time trying to grow in understanding of my faith.	1	2	3	4	5
4. Religion is especially important to me because it answers many questions about the meaning of life.	1	2	3	4	5
5. My religious beliefs lie behind my whole approach to life.	1	2	3	4	5
6. I enjoy spending time with others of my religious affiliation.	1	2	3	4	5
7. Religious beliefs influence all my dealings in life.	1	2	3	4	5
8. It is important to me to spend periods of time in private religious thought and reflection.	1	2	3	4	5
9. I enjoy working in the activities of my religious affiliation.	1	2	3	4	5
10. I keep well informed about my local religious group and have some influence in its decisions.	1	2	3	4	5