A Death and Dying Class Benefits Life and Living: Evidence From a Nonrandomized Controlled Study

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Abstract

Humanistic theorists have long emphasized the importance and benefits of death awareness (Yalom, 1980) yet the literature on death education has focused on fear and anxiety. In the present study, 150 undergraduate students taking either a class on death and dying or a comparison class completed a pre and post-questionnaire on attitudes (negative and positive), values (intrinsic and extrinsic) and eudaimonic wellbeing (meaning in life and vitality). Results revealed that compared to their peers in another class, students studying death and dying significantly increased in death acceptance, intrinsic values, meaning in life, and vitality. Furthermore, increases in intrinsic values mediated the relationship between participation in death and dying education and meaning in life. Results are discussed in light of experiential learning, posttraumatic growth, and terror management.

Keywords
dead acceptance, death and dying attitudes, death anxiety, death education, intrinsic values, meaning in life, self-determination theory, well-being

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There is general consensus that death and dying are taboo topics in our society. As explained by clinical psychologist and author Mary Pipher (2019),

> Our American culture is in denial about death. We are not encouraged to discuss it or contemplate it. Often when we try to talk about it we are told, “Don’t be morbid.” We are not educated about how to communicate with dying loved ones about their approaching deaths. (p. 70)

What happens when people are encouraged to contemplate and discuss death and dying and taught how to communicate about the topic with others, including dying loved ones? Opportunities to take a class on death and dying have risen exponentially since the first such class was taught in 1963 (Hasha & Kalich, 2019). Across the United States, thousands of college courses on dying and mortality offer students an educational experience in which they purportedly come out able to talk openly and honestly about death (Hayasaki, 2014). However, there is a paucity of controlled quantitative research with validated multidimensional measures examining the negative and positive impact of these classes (Durlak & Riesenber, 1991; MacDougall & Farreras, 2016). Do they succeed in making students more accepting and less anxious about the topic? Do they have any other beneficial effects, such as an increased sense of meaning, vitality, and shifts toward more intrinsic values?

Overall, there is a lack of death education in fields where it is particularly needed. For instance, only a fifth of students studying a health profession take a full course on death and dying (Wass, 2004) and yet researchers have found that the more that nurses have anxiety about death, the more negative their attitudes toward working with dying patients (Gurdogan et al., 2019). Similarly, personal death anxiety predicts the amount of distress that new counselors feel when helping grieving clients (Kirchberg et al., 1998) and yet many counselors may not have had adequate education and training on the topic, given that none of the professional benchmarks of the Council for Accreditation of Counseling and Other Related Educational Programs mentions death or grief (Rogalla-Hafley, 2018). Because of its potential to better prepare counselors, Doughty and Hoskins (2011) have called for national and international professional organizations to support relevant death education and to formally include the topic in counseling curricula. Undergraduate courses on death and dying provide a unique and rich opportunity to educate students on a topic that many of them will later face in their chosen careers.

In addition to experts calling for education around death and dying, recently researchers have noted that students are interested in and motivated to study the topic. For instance, a sample of 1,897 adolescents indicated
positive attitudes toward death education (de la Herrán Gascón et al., 2021). And in a qualitative study, Testoni et al. (2021) reported that university students enrolled in a death education course during the COVID-19 pandemic, in a heavily affected area, found the class to be a positive experience that could significantly benefit future health professionals. Likewise, a qualitative study of a college death and dying class found that students were motivated to increase their knowledge and comfort of death and dying, to become better able to support others, and to grow as a person (Buckle, 2013).

Given the personal and professional goals that undergraduate courses on death and dying have the potential to meet, it is important to know whether these courses do in fact benefit students. Researchers have primarily examined the impact of death education on anxiety and fear and the results have been mixed. In a meta-analysis of 47 studies, 17 of which were with university students, Durlak and Riesenberg (1991) found that experiential death education led to decreases in fears and anxiety around death and dying, whereas didactic death education led to an increase in discomfort with death. In contrast, in a meta-analysis of 62 studies, Maglio and Robinson (1993) found that death education participants endorsed increased death anxiety compared with no-treatment control groups, with didactic programs leading to greater increases in anxiety than experiential programs.

Since the publication of the two meta-analytic studies of death education (Durlak & Riesenberg, 1991; Maglio & Robinson, 1993), researchers have continued to examine the impact of death and dying courses. Compared with students enrolled in five other undergraduate classes, students in a death and dying course that included an experiential component reported higher levels of death anxiety and fear at the end of the semester (Knight & Elfenbein, 1993). In contrast, other studies have found that undergraduate students who took a class on death and dying reported decreased fear of death (Wong, 2009) and decreased death anxiety (McClatchey & King, 2015) compared with students who did not participate in such a class. Similarly, researchers found that compared with a nonrandomized control group, high school students who participated in death education aimed at encouraging an open dialogue around death and spirituality experienced decreases in fear of death (Testoni et al., 2020).

Although some quantitative studies assessing death education have used valid (Knight & Elfenbein, 1993), multidimensional measures (McClatchey & King, 2015) with a nonrandomized control group (Testoni et al., 2020), researchers have tended to measure only negative outcomes, primarily anxieties and fears. Orientations toward death and dying, however, can be neutral or positive. Qualitative studies of university students have shown benefits
following participation in death and dying classes (Buckle, 2013; Harrwood et al., 2011; Hasha & Kalich, 2019; Testoni et al., 2021). The paucity of experimental death education studies that include positive outcomes is curious given that humanistic theorists have long emphasized the importance of facing death, dying, and mortality to live full lives and experience the range of human emotion and experience (Frankl, 1959; Yalom, 1980). As psychotherapists explain, life and death are interdependent (Yalom, 1980) and facing existential issues gives people greater access to the positive aspects of life (Perry, 2020). Yalom (1980) draws on many great thinkers in stating that “learning to die well is to learn to live well” (p. 30).

Reflecting the fact that much of the quantitative research on death education has lacked measures of positive outcomes, researchers have also indicated that there is a lack of theory-based studies of death education (Testoni et al., 2020). Self-determination theory’s distinction between intrinsic and extrinsic values (Grouzet et al., 2005; Ryan & Deci, 2017) provides a theoretical framework for examining the influence of death education. Intrinsic values are defined as inherently rewarding and congruent with basic psychological needs, whereas extrinsic values are materialistic and tend to be pursued as a means to an end (Hope et al., 2019). A large body of research has demonstrated that when individuals prioritize intrinsic values for close relationships, community contribution, and self-growth relative to extrinsic values for wealth, status, and image, they experience greater well-being and self-actualization (Kasser, 2002; Lekes et al., 2010; Ryan & Deci, 2017).

Influenced by the seminal work of Becker (1973), terror management theorists have proposed that people’s innate fear of death leads them to seek symbolic immortality by generating cultural worldviews and seeking extrinsic rewards (Cozzolino et al., 2004). Studies grounded in the theory have shown that reminders of death do lead individuals to prioritize extrinsic values (Arndt et al., 2004; Kasser & Sheldon, 2000), yet Kasser (2016) reports that deeper reflections on death may lead to shifts away from extrinsic values, toward more intrinsic values. Vail et al. (2019) further point out that few researchers have examined an assumption of terror management theory that awareness of death is a threat to psychological well-being. Instead, they have presumed that a constant awareness of death leads individuals to live in a state of dread (Testoni et al., 2018). However, consciously thinking about death and regularly facing mortality may lead individuals to reflect on their values, reevaluate the materialistic values espoused by society, and orient toward more meaningful, growth-oriented values (Vail et al., 2012). Kasser (2016) has emphasized the importance of interventions to decrease materialism. For example, Lekes et al. (2012) randomly assigned participants to either reflect on their personal values or to think about their daily habits.
(control condition) over the course of a month and found that those who reflected deeply on their values oriented toward more intrinsic values, away from extrinsic pursuits, and consequently experienced greater well-being. Experiential classes on death and dying may be another type of intervention that reduces the focus on extrinsic, materialistic life goals.

Although no research to date has examined whether a class on death and dying leads to shifts toward intrinsic values, away from extrinsic pursuits, a few studies have examined the influence of sustained reflection on mortality and values. For example, Cozzolino et al. (2004) found that an in-depth reflection on death that involved imagining an actual death, reflecting on the life they had led up to that point, and considering the perspectives of loved ones led to shifts toward more intrinsic values. Moreover, researchers have reported shifts toward intrinsic values when individuals write about their mortality (vs. dental pain) over the course of 6 days (Lykins et al., 2007; Prentice et al., 2017). It follows that a class on death and dying in which experiential learning is utilized to engage in the topic in a meaningful way over the course of a semester could influence value priorities.

**Present Study**

The present study builds on previous research in several ways. This was the first study to assess whether a class on death and dying is linked to shifts in values and whether an increase in intrinsic values mediates the relationship between participation in a death and dying class and well-being. The present study represents only the second to our knowledge that assesses death education using the Multidimensional Orientation Toward Dying and Death Inventory (MODDI-F; Wittkowski, 2001), a multidimensional measure of death and dying with demonstrated reliability and validity (MacDougall & Farreras, 2016). Importantly, this measure includes multiple subscales related to death and dying as well as multiple subscales of death acceptance. In line with humanistic theorists, we also examined whether a death and dying class can lead to enhanced eudaimonic well-being, including vitality (Ryan & Frederick, 1997), described as a sense of being alive and energized as well as an enhanced sense of meaning in life (Steger et al., 2006). Ryan and Deci (2001) noted that

research on well-being has been derived from two general perspectives: the hedonic approach, which focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance; and the eudaimonic approach, which focuses on meaning and self-realization and defines well-being in terms of the degree to which a person is fully functioning. (p. 141)
In their pivotal review, these authors highlight that although the two forms of well-being are positively correlated and often predict similar outcomes, eudaimonic well-being may be more durable and important across a human life that is unavoidably filled with painful experiences of loss. To our knowledge, no previous studies have examined whether a class on death and dying leads to increases in vitality and meaning in life, although Spitzenstätter and Schnell (2020) measured meaningfulness in their assessment of a mortality awareness intervention.

The present study used a controlled, nonrandomized design to examine the impact of a death and dying class. Despite the mixed results in the death education literature, experiential classes, compared with lecture-based, have consistently emerged as preferable in minimizing fears and anxiety around the topic (Durlak & Riesenberg, 1991; Maglio & Robinson, 1993). In line with these findings, the present study examined a semester-long experiential death and dying class. According to Wass (2004), death education involves both acquiring knowledge and clarifying values and attitudes toward death. Students in the present death and dying class were invited to do so throughout the semester. Like other experiential death education programs (e.g., Dadfar et al., 2016), the class involved sharing personal feelings in group discussions, brainstorming how to approach issues related to death and dying, and discussion of cases. The topics covered were those typically included in death and dying courses, and included innovative pedagogy focused on meaningful engagement (Noppe, 2004).

Experiential learning theorists Kolb and Kolb (2017) emphasize the importance of reflection and the death and dying class also included many opportunities for reflection through essays on personal experiences with death and dying, journaling about field trips, guest presentations, readings, and discussions, and engaging in a personally meaningful final project. As Carl Rogers well understood, experiential learning extends beyond what a teacher provides, to all aspects of a student’s life outside of the education setting (see Quackenbush et al., 2021). As described in qualitative studies (e.g., Hasha & Kalich, 2019) and observed by the first author and professor of the present death and dying class, students studying death and dying naturally apply the learning and exercises to their home and work lives.

We expected that students in a death and dying class, engaged in experiential activities around the topic, would significantly increase in acceptance of death and dying and significantly decrease in fear of death and dying over the course of a semester compared with students not engaged in the topic, who would experience no change (Hypothesis 1). We further hypothesized that
students studying death and dying would experience a move toward greater intrinsic values, meaning in life, and vitality, over the course of a semester compared with students in the comparison class (Hypothesis 2). Finally, we expected that the change in intrinsic values would mediate the relation between participation in the death and dying class and eudaimonic well-being. Specifically, for students in the death and dying class but not the comparison class, the more they prioritized intrinsic values, the greater their well-being (Hypothesis 3).

Method

Participants

At a small, public liberal arts college in the northeastern United States, undergraduate students enrolled in a class titled Death and Dying and students in a comparison class, Abnormal Psychology, were invited to participate in a study assessing their attitudes toward death and dying, their well-being, and their values. Both classes were taught by the first author. Students in Abnormal Psychology were chosen as a comparison group because the class was similar in size (approximately 30 students), level (200), and style of instruction (taught by the same professor using discussion-based and experiential activities) to the Death and Dying class. The data were collected over the course of three fall semesters from 2017 to 2019, prior to the COVID-19 pandemic. Participants completed questionnaires at the start and end of the semester, 3½ months later. A total of 161 students completed the prequestionnaire and 150 students completed the postquestionnaire for a response rate of 93%. Among the 150 participants, 81 were enrolled in the death and dying class ($M_{age} = 21.13, SD_{age} = 3.63$) and 69 in the comparison class ($M_{age} = 20.18, SD_{age} = 1.29$). In the death and dying class, 60 participants were female, 15 male, three nonbinary, and two did not disclose their gender, whereas in the comparison class, 50 participants were female, 17 male, one nonbinary, and one did not disclose their gender. The ethnic background of the participants reflected that of the university, which is 90% White.

Procedure

Students who volunteered to participate completed a prequestionnaire during the week of the first class and a postquestionnaire during the last week of class. The Death and Dying class met once a week on Wednesday for 3½ hrs and participants completed the questionnaire prior to the introduction of any material. The Abnormal Psychology class met twice a week on Tuesday and
Thursday (an hour and 40 min each) and students were informed during the first class that they would be invited to participate in a study on attitudes toward death and dying, values, and well-being in the subsequent class. This was a stipulation of the university’s institutional review board (IRB) given that students in Death and Dying expected to be confronted with such material, whereas students in Abnormal Psychology did not.

Both classes were taught by the first author, using a discussion-based, experiential style of instruction. The abnormal psychology course covered the topics typically included in such a class: a history of the field of psychological abnormality, the fundamental paradigms within the field, and a consideration of the symptoms, etiology, assessment, and treatment of each of the major psychological disorders (e.g., anxiety, mood, schizophrenia). The Death and Dying class, a psychology course, was approached from an interdisciplinary perspective in which students participated in a range of activities, including visiting a funeral home and listening to a funeral director discuss the experience of growing up in a funeral home, walking through historic and newer cemeteries, listening to guests from different cultures describe the rituals involved in their experiences of death and grief, engaging in conversation on end-of-life care, and trying out games used in grief support groups for children. Assignments included a “deathography” in which students described their experiences with death and dying and how these experiences have influenced their attitudes toward death and dying, researching obituaries and writing their own, carrying out an academic or artistic final project on a topic meaningful to them, reading a memoir by a dying person, and reading a novel with themes of grief. A focus of the course was learning and practicing how to have conversations around death and dying in an open, compassionate, and thoughtful manner. Throughout both classes, students were encouraged to reflect deeply and critically.

Measures

On the prequestionnaire students were asked to report demographic information, as well as their experiences with death. The following measures were administered at the beginning and end of the semester.

Death and Dying Attitudes. The MODDI-F (Wittkowski, 2001) was used. The MODDI-F is made up of 47 items using a 4-point Likert-type scale from agree not at all to agree almost totally. The eight subscales measure both fear/anxiety (fear of one’s own dying, fear of one’s own death, fear of another person’s dying, fear of another person’s death, fear of corpses) and acceptance (acceptance of one’s own dying and death, acceptance of another...
person’s death, rejection of one’s own death). Items included “I am afraid of losing loved ones through death”; “The possibility of losing my personal dignity when I am dying appalls me”; “Ultimately, I am at peace with the fact that even people who are close to me have to die”; and “I have a positive attitude to the process of dying as a necessary stage in my life.” The MODDI-F has been shown to meet or exceed acceptable values for both internal consistency reliability, with Cronbach’s alpha ranging from .82 to .92, and test–retest reliability, with intraclass correlation coefficients ranging from .79 to .89 (MacDougall & Farreras, 2016). The reliability scores of all subscales in the present sample were good, ranging from $\alpha = .83$ to $\alpha = .90$.

**Eudaimonic Well-Being**

**Meaning in Life.** The Meaning in Life Questionnaire (Steger et al., 2006), a 10-item measure was used. Participants responded to five items on the presence of meaning in their lives (e.g., *My life has a clear sense of purpose*) and five items on the search for meaning in their lives (e.g., *I am searching for meaning in my life*) using a seven-item scale from *absolutely true* to *absolutely untrue*. The reliability in the present sample was acceptable, $\alpha = .70$.

**Vitality.** The Subjective Vitality Scale (Ryan & Frederick, 1997) had participants respond to seven statements regarding their energy and vitality (e.g., *I look forward to each new day; I feel alive and vital*) on a 7-point scale from *not at all true* to *very true*. The vitality scale has been validated (Bostic et al., 2000) and showed good reliability in our sample, $\alpha = .86$.

**Intrinsic and Extrinsic Values.** A shortened version of the Aspiration Index (Kasser & Ryan, 1996) was used to measure intrinsic and extrinsic values. Participants were asked to rate the importance of 18 long-term aspirations on a 9-point scale from *not at all* to *extremely*. Intrinsic values included “I will assist people who need it, asking nothing in return”; “I will work to make the world a better place”; and “I will know and accept who I really am.” Extrinsic values included “I will keep up with fashions in hair and clothing”; “I will have enough money to buy everything I want”; and “My name will be known by many people.” The reliability score for intrinsic values was acceptable at $\alpha = .79$ and the reliability score for extrinsic values was good at $\alpha = .84$.

**Results**

**Preliminary Analyses**

**Dimension Reduction for Death and Dying Scales.** A principal components analysis with a direct Oblimin rotation was performed on the eight MODDI-F
subscales. The analysis yielded only a single factor that accounted for 58.19% of the item variance, eigenvalue = 4.65. The component matrix showed that each of the eight subscales correlated with the main factor at least .651. Because the subscales reflect a clear unidimensional structure, we calculated a mean across the eight subscales that reflected acceptance of death. Specifically, the five fear/anxiety and rejection of death scales were reversed and combined with the two acceptance scales. The internal reliability across the eight subscales after reversal was very high, \( \alpha = .90 \). The aggregated measure of acceptance of death served as the central outcome variable.

**Descriptive Statistics.** A correlation matrix of all key variables is displayed in Table 1. Intrinsic values were correlated with vitality, meaning in life, and extrinsic values over time. Death acceptance was negatively correlated with extrinsic values over time.

**Group Differences on Key Variables.** Between-group \( t \) tests revealed no differences at pretest between the students who took the death and dying and comparison classes: acceptance of death, \( t(148) = 1.33, p = .18 \); intrinsic value importance, \( t(148) = 0.04, p = .97 \); extrinsic value importance, \( t(148) = -1.74, p = .13 \); meaning in life, \( t(148) = 1.53, p = .13 \); and vitality, \( t(148) = 1.75, p = .08 \).

**Gender Differences on Key Variables.** On the prequestionnaire, male students reported greater death acceptance \( (M = 2.94) \) than female students \( (M = 2.64) \), \( t(148) = 2.46, p = .02 \). There were no gender differences approaching significance for the other four outcome measures \( (ps > .10) \). Because of the small percentage of men and because there were no interactions with gender, we conducted our main analyses without including gender. The results are nearly identical if gender is included.

**Experiences With Death.** Participants reported experiencing an average of 4.12 (\( SD = 3.10 \)) deaths of people close to them and 3.44 (\( SD = 2.96 \)) deaths of other individuals/extended family. Out of these deaths, 3.44 were expected (e.g., natural causes, cancer, other illness) and 2.60 were unexpected (e.g., accident, violence, suicide). Experiences with death were not significantly different between the two classes: deaths of close family members/friends, \( t(148) = -0.26, p = .80 \); deaths of acquaintances or extended family with whom they were not close, \( t(147) = 0.50, p = .62 \); deaths that were expected, \( t(154) = 1.43, p = .16 \); and deaths that were unexpected, \( t(154) = -0.66, p = .51 \).
## Table 1. Descriptive Statistics of All Key Variables.

<table>
<thead>
<tr>
<th>Key Variables</th>
<th>M (SD)</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>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre: Death Acceptance</td>
<td>2.72 (0.62)</td>
<td>.74*</td>
<td>−.03</td>
<td>.03</td>
<td>−.24*</td>
<td>−.12*</td>
<td>−.03</td>
<td>.05</td>
<td>−.02</td>
<td>−.03</td>
</tr>
<tr>
<td>2. Post: Death Acceptance</td>
<td>2.83 (0.61)</td>
<td>—</td>
<td>.02</td>
<td>.12</td>
<td>−.24*</td>
<td>−.18*</td>
<td>−.09</td>
<td>.03</td>
<td>.07</td>
<td>.11</td>
</tr>
<tr>
<td>3. Pre: Intrinsic Values</td>
<td>7.67 (0.86)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.54*</td>
<td>.17*</td>
<td>.09</td>
<td>.33*</td>
<td>.35*</td>
<td>.32*</td>
</tr>
<tr>
<td>4. Post: Intrinsic Values</td>
<td>7.82 (0.84)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.07</td>
<td>.21*</td>
<td>.18*</td>
<td>.45*</td>
<td>.29*</td>
</tr>
<tr>
<td>5. Pre: Extrinsic Values</td>
<td>4.50 (1.32)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.77*</td>
<td>.19*</td>
<td>.10</td>
<td>.07</td>
</tr>
<tr>
<td>6. Post: Extrinsic Values</td>
<td>4.60 (1.31)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.19*</td>
<td>.19*</td>
<td>.11</td>
</tr>
<tr>
<td>7. Pre: Meaning in Life</td>
<td>4.74 (0.80)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.59*</td>
<td>.27*</td>
</tr>
<tr>
<td>8. Post: Meaning in Life</td>
<td>4.91 (0.85)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.35*</td>
</tr>
<tr>
<td>9. Pre: Vitality</td>
<td>4.27 (1.15)</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<td>—</td>
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<td>—</td>
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<td>—</td>
</tr>
<tr>
<td>10. Post: Vitality</td>
<td>4.45 (1.24)</td>
<td>—</td>
<td>—</td>
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</table>

*p < .05.
Central Analyses

Death and Dying Attitudes. To test whether the death and dying class impacted attitudes toward death compared with the comparison class, we conducted mixed between-within analyses of variance (ANOVAs), with group (death and dying class/comparison class) as the between factor and time (pre/post) as the within factor for the aggregate death acceptance variable. We further tested each subscale of the death and dying attitudes measure. The results are summarized in Table 2. Whereas the death and dying students increased in death acceptance over the semester, the comparison participants tended to decrease in acceptance. In addition, on four of the subscales, the death and dying students decreased in death and dying fears over the semester, whereas comparison participants tended to increase. However, participants in the death and dying and comparison group experienced no changes in fear of dying over the semester.

Table 2. ANOVA Results Comparing the Death and Dying Class to the Comparison Class on Pre- and Postattitudes Towards Death and Dying.

<table>
<thead>
<tr>
<th></th>
<th>Group × Time</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$p$</td>
<td>T1</td>
<td>T2</td>
<td>T1</td>
</tr>
<tr>
<td>Overall death acceptance</td>
<td>$F(1, 148) = 28.63$</td>
<td>&lt;.001</td>
<td>2.78</td>
<td>3.05</td>
<td>2.65</td>
</tr>
<tr>
<td>Fear of one’s own dying</td>
<td>$F(1, 148) = 0.73$</td>
<td>.39</td>
<td>2.50</td>
<td>2.47</td>
<td>2.69</td>
</tr>
<tr>
<td>Fear of one’s own death</td>
<td>$F(1, 148) = 10.91$</td>
<td>&lt;.001</td>
<td>2.13</td>
<td>1.82</td>
<td>2.17</td>
</tr>
<tr>
<td>Fear of another person’s dying</td>
<td>$F(1, 148) = 24.00$</td>
<td>&lt;.001</td>
<td>1.89</td>
<td>1.52</td>
<td>2.06</td>
</tr>
<tr>
<td>Fear of another person’s death</td>
<td>$F(1, 148) = 5.11$</td>
<td>.02</td>
<td>2.76</td>
<td>2.45</td>
<td>2.98</td>
</tr>
<tr>
<td>Fear of corpses</td>
<td>$F(1, 148) = 7.52$</td>
<td>.007</td>
<td>1.63</td>
<td>1.35</td>
<td>2.06</td>
</tr>
<tr>
<td>Acceptance of one’s own dying</td>
<td>$F(1, 148) = 18.90$</td>
<td>&lt;.001</td>
<td>2.49</td>
<td>3.03</td>
<td>2.49</td>
</tr>
<tr>
<td>Acceptance of another person’s dying</td>
<td>$F(1, 148) = 16.53$</td>
<td>&lt;.001</td>
<td>2.56</td>
<td>2.97</td>
<td>2.50</td>
</tr>
<tr>
<td>Rejection of one’s own death</td>
<td>$F(1, 148) = 12.37$</td>
<td>&lt;.001</td>
<td>1.91</td>
<td>1.60</td>
<td>1.88</td>
</tr>
</tbody>
</table>
Intrinsic Values. The same repeated measures analysis of variance was conducted with intrinsic values as the dependent variable. As shown in Table 3, a significant Group × Time interaction effect emerged. Those who took the death and dying course increased in their endorsement of intrinsic values, whereas those in the comparison class decreased. There were no effects with the same analysis for extrinsic values (ps > .20).

Eudaimonic Well-Being. Identical ANOVAs were conducted with Meaning in Life and Vitality as the dependent variables. The Meaning in Life ANOVA yielded a significant Group × Time interaction (see Table 3). Death and dying students increased in meaning in life, whereas comparison students remained constant over time. As demonstrated in Table 3, the Vitality ANOVA also yielded a significant Group × Time interaction. Students in the death and dying course increased in vitality, whereas comparison students changed little.

Mediation Analyses. Mediation analyses were performed to test whether the relations of group to eudaimonic well-being were mediated by change in intrinsic values. Specifically, we tested the sequential indirect effects of intrinsic values with the association between group and change in meaning in life and change in vitality from pre- to postassessment. The mediation analyses used the change scores from T1 to T2 for intrinsic values and eudaimonic well-being.

Using Hayes Process Macro, we conducted mediation analyses using SPSS software. The results partially supported our hypothesis. Change in intrinsic values did not mediate the relation between group and vitality (indirect effect: b = .03, 95% confidence interval [CI] = [−.01, .10], p > .05). However, we found that an increase in intrinsic values mediated the relationship between taking the death and dying course and an increased sense of meaning in life over time. As shown in Figure 1, group condition was
significantly associated with change in intrinsic values; change in intrinsic values was positively related to change in meaning in life over time; and the indirect effect of the group on meaning in life through intrinsic life values was significant (Hayes, 2017).

**Discussion**

Herman Feifel (1977), known as the first modern death educator, wrote, “In responding to our finiteness, we shall find it easier to define values, priorities, and life goals, and move toward a more common sharing of our humanity.” (p. 14). The present study found evidence that death and dying education leads college students to place greater priority on intrinsic values (for close relationships, self-growth, and helping others). Feifel (1977) further contended that death education benefits everyone. Our study found some support for this contention; a class on death and dying led to significantly reduced death anxiety and significantly greater death acceptance, meaning in life, and vitality, compared with another class. Finally, we found that changes in intrinsic values mediated the relationship between participation in death and dying versus the comparison class and meaning in life.

The research on the impact of death education on anxieties and fears around death has been mixed, arguably because of poorly constructed measures as well as courses taught from a primarily didactic versus experiential style (Durlak & Riesenberg, 1991; MacDougall & Farreras, 2016). In the present study, the death and dying course was taught using an experiential modality and it was assessed using a validated, multidimensional scale of death and dying attitudes that included not only fears and anxiety but also acceptance. Our findings support research demonstrating that death

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**Figure 1.** Mediation Analysis Showing That Change in Intrinsic Values Is Related to Increased Meaning in Life Over Time for Students in the Death Education Versus the Comparison Class.
education courses lead to decreases in anxiety and fear (McClatchey & King, 2015; Testoni et al., 2020) as well as research that has shown that experiential modes of course delivery are more effective in reducing death anxiety and fear (Durlak & Riesenberg, 1991). We further found that acceptance of death and dying significantly increased in students who participated in a class on death and dying compared with students who had not.

Our study goes beyond previous death education research not only because we examined death and dying attitudes more holistically, but because we looked at meaning in life and vitality, two types of eudaimonic well-being. Humanistic scholars have long argued that reflection on death and dying is beneficial. As explained by Yalom (1980),

> Virtually every great thinker . . . has thought deeply and written about death; and many have concluded that death is inextricably a part of life, and that lifelong consideration of death enriches rather impoverishes life. (p. 30)

The present study supports this view in that students who studied death and dying compared with those who had not increased in vitality and the degree to which they find their lives to be purposeful and meaningful.

An experiential class on death and dying provides an opportunity to reflect on values and what is important in life. Although the degree to which our participants endorsed extrinsic values did not change, students studying death and dying did significantly increase in their endorsement of intrinsic values. This is congruent with interventions designed to increase the priority placed on intrinsic values through reflective practice (Lekes et al., 2012) as well as studies that have specifically had participants reflect on death (Cozzolino et al., 2004) and mortality (Lykins et al., 2007; Prentice et al., 2017). Following a large body of research demonstrating that intrinsic relative to extrinsic values are linked to greater well-being (see Ryan & Deci, 2017), we found that changes in intrinsic values mediated the relationship between participation in a death and dying class and increases in meaning in life.

The present study is limited in that participants were mostly White. Future studies would benefit from examining the impact of a death and dying class in a culturally diverse sample. The present study is further limited in that participants could not ethically be randomly assigned to participate either in a class on death and dying or a comparison class. Given that students in the two classes did not differ in their experience with death, nor in any of the outcome variables at the beginning of the semester, we feel confident that the shifts experienced by students in the death and dying class were due to the opportunity that they had to reflect on death and dying, to read and listen to the experiences of others, and to generally be immersed in an experiential education on this topic. A
meta-analysis of randomized controlled studies of psychosocial interventions (death education and psychotherapy) on death anxiety supports our findings (Menzies et al., 2018). These researchers found that overall the psychosocial interventions resulted in reduced anxiety among participants.

Using a nonrandomized, controlled design allowed us to examine the impact of a whole death and dying class, as opposed to studies looking at brief encounters with death. The students in the death and dying class were encouraged to reflect throughout the semester, a critical component of experiential learning (Kolb & Kolb, 2017). Wass (2004) has pointed out that brief exposure to death education not only transmits insufficient knowledge but does not give students the opportunity to reflect deeply, “to confront, clarify, and share personal understandings and attitudes about death” (p. 298). In a meta-analysis of master’s and doctoral theses examining death education in Korea, Kim (2015) supported this claim, finding that overall programs led to decreases in death anxiety and that the effect size was greatest for programs that were 10 to 15 sessions in length. Our findings are thus congruent with humanistic psychology and the theory of posttraumatic growth (Tedeschi & Calhoun, 2004); death awareness through sustained reflection can lead to positive psychological changes. While terror management theory assumes that mortality salience is a threat to psychological well-being (Vail et al., 2019) and studies demonstrate that brief encounters with mortality foster a defensive response (Arndt et al., 2004; Kasser & Sheldon, 2000), sustained encounters may invite exploration and reflection, leading to psychological benefits (Prentice et al., 2017).

Future studies would benefit from examining variables that moderate the relationship between participation in a death and dying class and various outcomes. Given that experiential death education seems to be more beneficial compared with didactic courses (Durlak & Riesenberg, 1991; Maglio & Robinson, 1993) and a key aspect of experiential learning is reflection (Kolb & Kolb, 2017), it would be interesting to look at whether the degree to which students engage in reflection during a class on death and dying impacts the outcomes. We would expect that the more reflective and engaged students are, the more they experience benefits in terms of acceptance of death and dying, prioritizing intrinsic values, and eudaimonic well-being. This is in line with previous research demonstrating that the more students engaged in an intervention inviting them to reflect on their intrinsic values, the more they increased in well-being (Lekes et al., 2012). Other individual differences, such as personality characteristics, should also be studied.

Future research would further benefit from studying the impact of death and dying courses longitudinally. Given our promising results as well as evidence that reduced death anxiety benefits the work of nurses (Gurdogan
et al., 2019) and counselors (Kirchberg et al., 1998), it would be interesting to see how taking a class on death and dying benefits individuals in the long term. Does clarifying their purpose in life lead to greater fulfillment? Does greater death acceptance impact their careers, whether in education, counseling, health care, or another field? Do they continue to prioritize their intrinsic values and does this impact their contribution to their communities as well as their well-being? Young people have indicated that they are interested in and benefit from death education (Buckle, 2013; de la Herrán Gascón et al., 2021; Testoni et al., 2021). It behooves researchers to study its impact more carefully.

Testoni et al. (2021) call for more death education offerings, emphasizing that the value and importance of these courses have become even more clear during the COVID-19 pandemic, “a period of intense uncertainty and mortality salience” (p. 10). The present study adds to qualitative research (Buckle, 2013; Harrawood et al., 2011; Hasha & Kalich, 2019; Testoni et al., 2021) and a growing body of quantitative studies (McClatchey & King, 2015; Prentice et al., 2017; Testoni et al., 2020) showing that engaging in reflective, experiential, sustained study of death and dying benefits psychological growth and well-being.

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Jennifer A. Hart graduated summa cum laude with a BA in psychology and applied mathematics from UMF as a University Honors Scholar in 2020. She was chosen by the National Student Exchange program to complete a semester at the University of Minnesota, Twin Cities. She was inducted into Psi Chi in 2018, elected as an Honors Council Representative at UMF in 2018, and honored as a Wilson Scholar in 2020. She was awarded a Research Experience for Undergraduates position to work on National Science Foundation (NSF)–sponsored research at the University of North Carolina at Charlotte in the criminal justice department in 2019. She currently works as the laboratory manager and research assistant at Bates College in the Neuroscience program doing NSF-sponsored research involving machine learning and scene categorization. Her research interests are broad and diverse, some of them include data analysis, decision-making, ecology, memory, persuasion, and prosocial behavior.