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Death Education among Social Science College Students: The Good, the Bad, and the Unchanged

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Abstract: Personal identity is often dictated by the social roles a person fulfills (e.g., mother, son, partner, employee, etc.) and these social roles are defined by the greater family unit and surrounding social environments. Monumental events, such as death, often change a person's social roles and demand a reorganization of the family unit. To provide comprehensive end-of-life care, human services professionals become an integral piece of care provisions as they are trained in serving the mothers, fathers, and children of the world, more so than treating the biological aspects of illness. It is for this reason that understanding the impacts of education on social science majors is important. To date, research on the effects of end-of-life education has largely focused on the negative affect among those in healthcare-related programs, leaving gaps in the literature surrounding the impacts, both negative and positive, of death education on future human services professionals. The current study explores pre–post semester changes in negative and positive affect among social science students ($n = 92$) enrolled in courses focused on end-of-life compared to those in an aging and human services-focused courses. Using paired and individual samples t -tests, within- and between-group changes were explored. Students in the experimental group reported lower death anxiety scores post-semester ($M = 4.34$, 95% CI [2.60, 6.08], $t(74) = 4.97$, $p < 0.05$), but this was not the case for the control group. Between group differences revealed that students in the experimental group displayed a greater decrease in fear of others dying ($x = 4.08$, $sd = 6.23$) than those in the control group ($x = 1.24$, $sd = 0.95$) and they reported larger increases in subjective happiness by an average of 0.61 points ($sd = 2.42$) when compared to those in the control group who reported an average increase of 0.10 points ($sd = 2.45$). Findings are discussed in terms of within- and between-group differences and suggestions for future research are provided.

Keywords: death and dying; social science; positive affect; negative affect; college students



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1. Introduction

When asked the question of *Who are you?*, individuals typically report on major social roles with responses such as *I am a mother and a partner* or *I am a son and a college student* and so on. These social roles dictate aspects of internal identity structures and change over the course of life. People are understood within the context of larger social systems that change with birth, death, marriage, and other meaningful life events. Placement within surrounding social systems transforms biological bodies into important social beings, which in turn changes the social system itself. From a functionalist standpoint, when people become physically ill, they seek the help of healthcare practitioners to rid their bodies of illness and disease. This is done in an effort to maximize personal well-being as well as to preserve the family system. However, when illness can no longer be eradicated and cured, individuals and their families are presented with the painful Herculean tasks of restructuring social roles and family dynamics that accompany the end of life. In order to treat the *whole* person and, by extension, the greater family unit, human service professionals trained in serving the mothers, fathers, and children of the

world are incorporated into the regimen of care alongside doctors and nurses. To date, research dedicated to better understanding the impact of death education has largely focused on college students in healthcare-related fields, while the impact on those in social science disciplines, whose focus is more on the social relationships within families, is less understood.

Several studies have explored changes in college students' internal processes following death education and an abundance of these studies fall within health professions. Specifically, attention has been focused on the outcomes of death education on medical students and residents [1–7] as well as nursing students [8–12]. A proportion of these healthcare-related studies that evaluated the impact of death education on death anxiety have found a reduction in death anxiety after exposure to educational content [1,3]. Similarly, when compared to control groups, those who received death education scored lower on measures of death anxiety [4] and also viewed interactions with the dying more positively [5]. Other studies focused more generally on factors beyond the direct implications of death education, such as change based on academic level [8], emotional intelligence [9], and professional experience [11].

Although the impact of end-of-life education on those in healthcare-related disciplines has dominated the extant literature, a smaller body of evidence has begun to reveal the impact on students majoring in other areas of the human ecology, such as psychology [13,14], counseling [15,16], human services [17], and social work [18,19]. In fact, [14] assessed the extent of dying education options in psychology departments in nine Midwestern states in the USA and that found only 20% of departments had offered a death education course in the previous five years. Evidence on the outcome of death education among students in more general fields of study have revealed a variety of outcomes and techniques for approaching data. For instance, [15] explored graduate counseling and students' attitudes toward death in a qualitative study using free-response narratives and found the course increased understanding and reduced fear of death. Moreover, [17] found a statistically significant decrease in death anxiety in human services students who participated in death education as compared to those who had not. For social work students, [18] discovered statistically significant increases in both mindfulness and empathy and [19] revealed a decrease in death avoidance among social work students who participated in education using pre–post measures. Among this smaller body of research dedicated to exploring education-related changes among students outside healthcare-focused disciplines, findings have not been consistent.

Contrary to previous evidence, [20] were unable to confirm significant differences on measures of death anxiety and attitudes towards death between foreign language, business, and economics students who received a 90 min lecture on death education compared to a control group. Additionally, [21] compared 34 students enrolled in an introductory course on aging to 22 students in a course focused on death and dying where students' major disciplines were not specified but the course itself covered a variety of topics "...with students studying the psychological, biological, and social aspects of growing older" [21]. Although between-group differences were non-significant, which is contradictory to previous research, both groups of students displayed reduced death anxiety with less pronounced changes in attitudes towards aging. Lastly, [22] confirmed that increased knowledge did not impact attitude, anxiety or fear relating to death and dying among students in unspecified disciplines enrolled in a single credit health course that included death-related content compared to a control group.

Most of the research dedicated to the impact of death education for students in all fields has largely focused on aspects of negative affect. The positive psychology movement expands the traditional conceptualizations of well-being to encompass not only the absence of illness but the presence of positive factors [23] in order to adopt a more holistic approach in understanding well-being. Doing so is important to provide a comprehensive and thorough understanding on the impact that death education has on students' internal processes and overall well-being. Death education is not simply about learning to help

others. Education focused on end-of-life matters often impacts the emotional growth and personal perspectives of students exposed to this area of knowledge. According to [24] there are four dimensions of death education. One of these areas, the effective dimension focusses on students' feelings and attitudes about death. When asked about the main goals of death education, students themselves identified cognitive comfort and personal growth as two areas in which they hoped to experience change [13]. End-of-life education directly addresses a rather taboo topic not directly discussed in many contexts, which can lead to change in students beyond educational growth.

In sum, the literature on death education and internal change among students has predominantly focused on changes in death anxiety and fear of death among those in healthcare-related fields. The current project aims to address this gap in the literature by exploring the change in death anxiety, fear of death, and positive well-being among students enrolled in social science courses. Specifically, the researchers will compare data from family science and sociology students who received death education to those in an adult development course. Exploring these trends among differing student populations is important considering that the experience of working with those who are dying and their families is not isolated only to medical professionals. Many students in fields unrelated to medicine and medical practice work with the dying and their families in social work, therapeutic, advocacy, and educational capacities. Furthermore, this study aims to also measure the ways in which positive factors of well-being change as a result of death education. Exploring change in terms of both negative and positive affect provides a more holistic view of the implications that death education has on well-being.

2. Methods

Sample and Procedure

Family science and sociology students enrolled in college courses focused on death and dying were invited to participate in the current study as the experimental group and students enrolled in an aging-focused course, without a central focus on end-of-life, were invited to participate as the control group. Students in the experimental group were exposed to a variety of topics surrounding dying and death across the lifespan, grief and bereavement experiences; cross-cultural comparisons of social experiences; family systems impact; and sociocultural dimensions related to the end of life. Assignments were also varied and included opportunities for self-explorative processes and site visits to death-related service industries, such as local funeral homes, hospices, and cemeteries. Students in the control group were enrolled in a human services course or an aging course where topics such as diversity in the social experiences and aging, philosophies within family welfare, service provisions for vulnerable populations, societal impacts on individuals and families, and contemporary topics in aging and human services were discussed.

A total of 140 students were invited to participate in the current study and 120 students responded to the survey. Of these, 28 individuals provided data at only one time point (i.e., pre-semester data only or post-semester data only), rendering their data unusable for the current study. The final sample included 92 college students with approximately 77.2% ($n = 72$) comprising the experimental group and 22.8% ($n = 21$) comprising the control group. Using the sample size method of $n = N/1 + N(e)^2$ from [25], a sample size for the current study of 103 participants is suggested. Although the initial response rate of 120 meets this threshold, the adjusted final sample of 92 is slightly below the target. There has been longstanding criticism in the field surrounding the inefficiency of sample size calculators [26] and more general recommendations for sample size within the social sizes used for decades suggest a range between 30 and 200 participants [27]. The mean age of the sample was 22.1 years and the majority identified as women ($n = 82$, 89.1%) and as seniors ($n = 52$, 56.5%). Regarding race/ethnicity, 66.3% identified as White or Caucasian ($n = 61$), 25.0% ($n = 23$) as Black or African American, and the remaining 8.7% ($n = 8$) of the sample identified across other racially and ethnically diverse identities.

All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Institutional Review Board of Georgia Southern University (H15432). After seeking and receiving Institutional Review Board approval (H15432), students were informed of the study at the beginning of the semester by the faculty-researchers teaching each course. Faculty researchers emphasized that participation was completely voluntary and unrelated to students' performances in the course. It was also explained to students that the faculty member/researcher teaching the course would not have access to the data while the semester was in session and would have no way of knowing who did and did not participate until following final grade submission at the end of the semester. During data collection, the faculty member/researcher stepped out of the class to maximize the anonymity and comfort for invited participants to decide whether they wanted to participate in the study or whether they preferred to opt out. A trained research assistant stepped in to facilitate data collection by administering and collecting informed consent forms and surveys.

Students were allotted in-class time to complete two questionnaires over the course of the semester and each survey took less than 20 min to complete. Students who decided not to participate were instructed to submit a blank copy of the survey. Pre-semester data was collected at the beginning of the term to gather baseline data on the measures incorporated in the surveys and then once again at the end of the semester to collect data on post-semester data. A random identifier was included in the surveys in order to match pre-semester data to post-semester data. Completed surveys were stored in a secured, locked cabinet and were not touched until the semester was over and final grades had been submitted. Following this, data were entered electronically in preparation for analysis.

3. Measures

Data were collected on both negative and positive affect measures to gain a holistic sense of experiences pre-post a semester of coursework.

3.1. Negative Affect

3.1.1. Death Anxiety

Death anxiety was measured with the use of [28] death anxiety scale. This measure consisted of 17 items with response options on a five-point Likert scale. Likert responses were *strongly agree*, *agree*, *neutral*, *disagree*, and *strongly disagree* with higher numbers representing stronger agreement. Internal consistency was good after evaluating pre-semester ($\alpha = 0.79$) and post-semester data ($\alpha = 0.82$). Items were then collapsed into one scale extending from 17–85 with pre-semester scores reflecting an average response of 47.84 ($sd = 8.80$) and post-semester scores of 43.73 ($sd = 9.19$) for both the experimental and control groups. A breakdown of mean responses by each group on death anxiety across the semester can be found in Tables 1 and 2.

3.1.2. Collett–Lester Fear of Death Scale

Self-reported fear of death was measured using the 32-item Collett–Lester fear of death scale [29]. Participants were presented with instructions to contemplate “How disturbed or made anxious are you by the following aspects of death and dying?” [29] and to provide a first impression of their response to each item without thinking too deeply about the individual prompt. This measure evaluated fear of death along four subscales each containing eight items. Internal consistency was high for all subscales during the pre- and post-semester points in the semester and items were therefore collapsed into the corresponding subscales with each scale ranging from 8–40. Subscales were fear of *your own death* ($\alpha^{pre} = 0.89$, $\alpha^{post} = 0.91$), *your own dying* ($\alpha^{pre} = 0.90$, $\alpha^{post} = 0.90$), *the death of others* ($\alpha^{pre} = 0.83$, $\alpha^{post} = 0.85$), and *the dying of others* ($\alpha^{pre} = 0.89$, $\alpha^{post} = 0.90$). Each item was assessed using a five-point Likert rating with a response of five indicating *very*, a response of three indicating *somewhat*, and a response of one indicating *not at all*. Sample items for

each of the subscales, respectively. included prompts such as *How it would feel to be dead*, *The physical degeneration involved*, *losing someone close to you*, and *Having to be with someone who is dying*. Mean responses and standard deviations associated with each subscale for both the experimental and control groups can be found in Tables 1 and 2, respectively.

Table 1. Pre- and post-semester mean responses, standard deviations, and within-sample *t*-tests for the experimental group.

	Pre-Semester Responses		Post-Semester Responses		<i>t</i> -Tests
	M	SD	M	SD	
Negative Affect					
Death Anxiety	47.77	9.17	43.32	8.45	5.47 *
Fear of Death					
Fear of Own Death	23.52	8.26	21.23	7.78	3.45 *
Fear of Own Dying	28.17	7.34	25.86	7.61	3.25 *
Fear of Others' Death	27.45	6.42	24.75	6.63	4.55 *
Fear of Others' Dying	27.68	7.60	23.59	7.44	5.52 *
Positive Affect					
Personal Growth					
Readiness for Change	15.87	2.71	15.94	3.02	0.25
Planfulness	19.61	4.05	19.55	3.84	−0.18
Using Resources	9.97	3.27	10.32	3.40	0.96
Intentional Behavior	15.87	3.14	15.92	3.20	0.18
Subjective Happiness	20.58	4.63	21.18	4.74	2.11 *
Life Satisfaction	25.51	6.28	26.14	5.61	1.26

* $p < 0.05$.

Table 2. Pre- and post-semester mean responses, standard deviations, and within-samples *t*-tests for the control group.

	Pre-Semester Responses		Post-Semester Responses		<i>t</i> -Tests
	M	SD	M	SD	
Negative Affect					
Death Anxiety	48.62	4.42	45.52	10.45	1.38
Fear of Death					
Fear of Own Death	24.67	6.42	24.48	7.47	2.63 *
Fear of Own Dying	28.95	6.54	25.52	6.45	3.53 *
Fear of Others' Death	28.76	6.01	27.19	5.19	1.50
Fear of Others' Dying	29.57	5.59	28.33	5.83	1.30
Positive Affect					
Personal Growth					
Readiness for Change	15.14	2.74	14.76	3.31	−0.76
Planfulness	18.62	3.40	18.52	4.06	−0.20
Using Resources	9.86	2.90	10.14	3.23	0.43
Intentional Behavior	15.24	3.14	15.05	3.17	−0.51
Subjective Happiness	21.67	3.06	21.76	2.51	0.18
Life Satisfaction	26.29	5.36	26.65	3.69	1.24

* $p < 0.05$.

3.2. Positive Affect

3.2.1. Personal Growth

Personal growth among participants was measured with the use of the personal growth initiative scale [30]. This measure consisted of 16 items ranked on a six-point Likert scale. The instructions ask participants to rate their level of agreement with each statement where zero represents strong disagreement and five represents strong agreement. This measure evaluated personal growth across four subscales, each having good internal consistency in data collected before and after the semester: readiness for change ($\alpha^{pre} = 0.82$, $\alpha^{post} = 0.90$), planfulness ($\alpha^{pre} = 0.90$, $\alpha^{post} = 0.92$), using resources ($\alpha^{pre} = 0.85$, $\alpha^{post} = 0.88$), and

intentional behavior ($\alpha^{pre} = 0.88$, $\alpha^{post} = 0.89$). Sample items for each subscale, respectively, include statements such as “I can tell when I am ready to make specific changes in my life”, “I set realistic goals for what I want to change about myself”, “I ask for help when I try to change myself”, and “I take every opportunity to grow as it comes up”. Mean responses and standard deviations associated with each subscale for both the experimental and control groups can be found in Tables 1 and 2, respectively.

3.2.2. Subjective Happiness

Subjective happiness was measured with the use of [31] work. The subjective happiness scale included four items each offering a seven-point Likert scale, but each scale represented different anchor points. For instance, participants were asked to rate how they consider themselves from a response option of 1, representing *not a very happy person*, and a response option of 7, representing *a very happy person*. Another item asked participants to rank how they view themselves in comparison to others with 1 representing *less happy* and 7 representing *more happy*. Likert responses of 2 through 6 were not defined on the scale by researchers and instead left up to the interpretation of the respondent. Internal consistency was good after evaluating pre-semester ($\alpha = 0.80$) and post-semester data ($\alpha = 0.81$). Items were then collapsed into one scale ranging from 4 to 28 with pre-semester scores reflecting an average response of 20.88 ($sd = 4.26$) and post-semester scores a 21.21 ($sd = 4.33$) for both the experimental and control groups. A breakdown of mean responses by each group on subjective happiness across the semester can be found in Tables 1 and 2.

3.2.3. Life Satisfaction

Life satisfaction was measured with the satisfaction with life scale [32] and contained five items focusing on how satisfied respondents were with their current circumstances. Each item was measured with the same seven-point Likert scale with response options of *strong disagree*, *disagree*, *slightly disagree*, *neither agree or disagree*, *slightly agree*, *agree*, and *strongly agree* with higher scores indicating stronger agreement. Internal consistency was good after evaluating pre-semester ($\alpha = 0.87$) and post-semester data ($\alpha = 0.81$). Items were then collapsed into one scale ranging from 5 to 35 with pre-semester scores reflecting an average response of 25.61 ($sd = 5.96$) and post-semester scores a 26.16 ($sd = 5.22$) for both the experimental and control groups. A breakdown of mean responses by each group on subjective happiness across the semester can be found in Tables 1 and 2.

3.3. Analysis Plan

Researchers utilized a temporary non-anonymous ID to match pre–post data for each respondent. Once data was matched, information was uploaded electronically using an anonymous, randomly assigned ID in order to omit identifying information in the final data set. Data analyses included generating descriptive information, as well as within- and between-group comparisons. Specifically, within-subjects comparisons were made using paired samples *t*-tests to determine if there were significant differences between the pre–post test scores for students enrolled in the death education courses. Within-group comparisons were also examined among those in the control group. To examine between-group differences, independent samples *t*-tests were employed to determine significance between pre–post scores for people taking the death education to those in the control group.

4. Results

4.1. Negative Affect

4.1.1. Death Anxiety

Within-sample *t*-tests generated statistically significant differences on death anxiety scores pre–post the semester within the experimental group, $M = 4.34$, 95% CI [2.60, 6.08], $t(74) = 4.97$, $p < 0.05$, but not for the control group, $M = 3.10$, 95% CI [–1.60, 7.79], $t(21) = 1.38$, $p > 0.05$. An independent sample *t*-test was run to determine whether there were differences in death anxiety between those taking a course focused on death education and those in

the control group, and although the experimental group experienced a greater reduction in death anxiety pre–post the semester by an average of 4.45 points when compared to the control group at 3.10 points, these changes did not meet statistical significance, $M = 1.36$, 95% CI $[-3.57, 6.28]$, $t(92) = 0.566$, $p > 0.05$ (see Table 3).

Table 3. Independent samples t -tests comparing group differences.

	Experimental Group		Control Group		t -Tests
	Mean Difference Pre-Post Semester	SD	Mean Difference Pre-Post Semester	SD	
Negative Affect					
Death Anxiety	4.45	6.85	3.10	10.31	0.566
Fear of Death					
Fear of Own Death	2.30	5.58	3.19	5.56	−0.65
Fear of Own Dying	2.31	5.99	3.43	4.46	−0.79
Fear of Others' Death	2.70	5.01	1.57	4.80	0.92
Fear of Others' Dying	4.08	6.24	1.24	4.36	1.95 *
Positive Affect					
Personal Growth					
Readiness for Change	−0.07	2.42	0.38	2.29	−0.76
Planfulness	0.06	2.62	0.10	2.14	−0.06
Using Resources	−0.35	3.08	−0.29	3.02	−0.09
Intentional Behavior	−0.04	1.96	0.19	1.72	−0.50
Subjective Happiness	−0.61	2.42	−0.10	2.45	−0.85
Life Satisfaction	−0.62	4.04	−0.80	2.88	0.19

* $p < 0.05$.

4.1.2. Collett-Lester Fear of Death Scale

Within-sample t -tests revealed statistically significant differences on all subscales within the Collett–Lester fear of death scale [26] for those enrolled in the death education courses. Specifically, students experienced a reduction in *fear of own death* ($M = 2.30$, 95% CI $[0.97, 3.62]$, $t(71) = 3.46$, $p < 0.05$), *fear of own dying* ($M = 2.31$, 95% CI $[0.89, 3.73]$, $t(71) = 3.25$, $p < 0.05$), *fear of others' death* ($M = 2.70$, 95% CI $[1.52, 3.89]$, $t(71) = 4.55$, $p < 0.05$), and *fear of others' dying* ($M = 4.08$, 95% CI $[2.61, 5.56]$, $t(71) = 5.52$, $p < 0.05$) across the semester (see Table 1). Regarding within-sample t -tests results for the control group, it was determined that a reduction only in *fear of own death* ($M = 3.19$, 95% CI $[0.66, 5.72]$, $t(21) = 2.63$, $p < 0.05$) and *fear of own dying* ($M = 3.43$, 95% CI $[1.40, 5.46]$, $t(21) = 3.53$, $p < 0.05$) were observed over the course of the semester (see Table 2).

Independent sample t -tests were run to determine if there were differences in the four subscales representing fear of death between those taking a course focused on death education and those in the control group. Those in the death education courses displayed a greater decrease in *fear of others' dying* ($\bar{x} = 4.08$, $sd = 6.23$) than those in the control group ($\bar{x} = 1.24$, $sd = 0.95$) over the course of the semester, which represented a statistically significant difference, $M = 2.85$, 95%CI $[-0.05, 5.74]$, $t(90) = 1.95$, $p = 0.05$ (see Table 3).

4.1.3. Positive Affect

Less change was observed on the positive affect measures in comparison to change on negative affect measures—specifically within-group differences for the experimental group surfaced for subjective happiness; however, no other within-group changes met statistical significance. Independent sample t -tests also revealed no statistically significant differences between groups on their responses to the positive affect measures.

4.1.4. Personal Growth

Results from within-sample t -tests did not generate statistically significant differences on the personal growth subscales for either the experimental group nor the control group (see Tables 1 and 2). Independent sample t -tests were then run to evaluate between-group

differences on the personal growth subscales among those taking the death education course and those in the control group. Although statistically significant differences did not surface either, interesting patterns did reveal themselves on some of the personal growth subscales, as can be seen in review of the statistics offered within Table 3. For instance, those enrolled in the death education group experiencing an increase on the subscales of *readiness for change* by a mean change of 0.07 points ($sd = 2.42$) and *intentional behavior* by a mean change of 0.04 points ($sd = 1.96$), while those in the control group experienced a decline *readiness for change* by a mean average of 0.38 points ($sd = 2.29$) and *intentional behavior* by a mean average of 0.19 points ($sd = 1.72$). Additionally, both groups experienced an increase in *using resources* with the experimental group increasing by an average of 0.35 points ($sd = 3.08$) and the control group by an average of 0.29 points ($sd = 3.02$). Lastly, both groups reported declines across the semester in terms of *planfulness*, with those in the experimental group experiencing less of a decline by a change of 0.06 points on average ($sd = 2.26$) than those in the control group who reported an average decline of 0.10 points ($sd = 2.14$).

4.1.5. Subjective Happiness

Results on within-group differences revealed that participants enrolled in the death education courses reported higher scores on subjective happiness at the end of the semester ($\bar{x} = 21.18$, $sd = 4.74$) compared to the beginning ($\bar{x} = 20.58$, $sd = 4.63$), ($M = 0.61$, 95% CI [0.03, 1.18], $t(71) = 2.11$, $p < 0.05$) (see Table 1). Statistically significant within-group differences did not emerge among the control group, $M = 0.10$, 95% CI [−1.02, 1.21], $t(21) = 0.18$, $p > 0.05$) (see Table 2). Although statistically significant differences did not emerge in review of between group differences ($M = -0.51$, 95% CI [−1.71, −1.74], $t(92) = -0.85$, $p > 0.05$), it was determined that the students enrolled in the death education course reported slightly larger increases in subjective happiness by an average of 0.61 points ($sd = 2.42$) when compared to those in the control group who reported an average increase of 0.10 points ($sd = 2.45$) (see Table 3).

4.1.6. Life Satisfaction

In review of within-group differences, no statistically significant change was observed in life satisfaction for those in the experimental group ($M = 0.62$, 95% CI [−0.36, 1.60], $t(68) = 1.26$, $p > 0.05$) (see Table 1) nor the control group ($M = 0.80$, 95% CI [−0.55, 2.15], $t(20) = 1.24$, $p > 0.05$) (see Table 2). Statistically significant differences also did not emerge in review of between group differences for life satisfaction ($M = 0.18$, 95% CI [−1.75, 2.11], $t(88) = -0.19$, $p > 0.05$). Specific group differences revealed an average increase of 0.62 points ($sd = 4.04$) from the experimental group and 0.80 points ($sd = 2.88$) from the control group (see Table 3).

5. Discussion

Obtaining a better understanding of the ways in which college students enrolled in social science disciplines are impacted by end-of-life education is increasingly important, considering the ways in which people, in general, formulate self-schemas and build identity structures. College students enrolled in such social science programs receive an abundance of training on better understanding patterns of development that intersect with transitions in and out of social roles across lifespans that unfold within society at large. In this regard, social science professionals specializing in end-of-life care are trained to serve the parents, children, and partners of the world.

In comparison of both within- and between-group differences, the current study noted more trends related to change in negative affect, findings that have been well represented within the extant literature (e.g., [1,3,4,17], etc.). Regarding within-group change, those enrolled in death education courses reported reductions in death anxiety, fear of own death and dying, and fear of others' death and dying, whereas those in the aging course, who served as the control group, experienced a reduction in fear of their own death and

dying. Regarding positive affect, those enrolled in the death education courses reported higher levels of subjective happiness at the end of the semester compared to the beginning, whereas the control group experienced no change in positive affect. In sum, those enrolled in the death education courses experienced more change in both negative and positive affect in comparing intergroup change at the start and end of the semester.

The primary finding between groups was also centralized around negative affect with those enrolled in death education courses reporting a greater reduction on fearing the dying of others compared to those in the control group. Within many social science courses, students are asked to critically apply content to real world scenarios in order to envision the impact their education and training could have in actual, lived contexts. In courses focused on death and dying, students are required and encouraged to explicitly focus on aspects of mortality to a greater extent than in a course where the end of life is not the central focus. In doing so, these students are afforded an educational platform from which to address areas of previous uncertainty or discomfort, which research has long confirmed can desensitize students to a difficult subject in such a way where they view the topic as more approachable [33]. Additionally, in courses focused on death and dying, the applications of course content to personal experiences are likely to be externalized to situations involving the death of another rather than applied within the context of self-mortality, especially considering that young people generally hold more of a proximal view of life rather than a heavy contemplation about the distant future [34] when their own demise would more likely fall within a normative developmental trajectory. This engagement in the external application of death-related content may help to further explain how those enrolled in death education courses in the current study were more likely to see change in their fears of others dying when compared to those in the control group.

Although the researchers of the current study anticipated more between-group change at the onset of this project, the limited findings could be attributed to the nature of the course for those in the control group. Students enrolled in an aging-focused course were invited to participate in the current study as the control group. Although the end of life was not a central focus in the aging course, topics covered may have led to thought processes aligned with issues of mortality. For instance, in discussions of dementia-related conditions, the idea that Alzheimer's Disease is terminal was explored. Additionally, when addressing normative age-related changes, it is quite common for students to discuss aspects of quality of life as it intersects with functional loss and longevity. These topics, among others, do not directly encourage an in-depth analysis of the end of life but do relate to matters of longevity. Lastly, death is a developmental process that is inextricably linked with aging for many, which makes it difficult, if not impossible, to disentangle from conversations about growing older.

Future research would benefit from an extended examination of both negative and positive affect among social science students but perhaps with a control group enrolled in courses with a clearer division from end-of-life-related content, as previously discussed. Moreover, examining specific pedagogical techniques in generating change among student participants may answer specific questions about what teaching strategies are most useful in end-of-life coursework. This would also lend insight into the concerns expressed by the researchers of the current study regarding the lack of between-group differences. For instance, research has indicated that experiential approaches may be particularly useful techniques to employ in related coursework, especially when compared to didactic approaches [35–37]. Specifically, [36] conducted a meta-analysis of experiential and didactic approaches in death education and found that experiential programs are more impactful on affective outcomes including fear and anxiety than didactic approaches. In fact, [37] confirmed that didactic approaches can actually produce significantly greater death anxiety than experiential approaches in death education. Experiential learning opportunities that have been particularly useful regarding changes among those enrolled in courses focused on end-of-life have been opportunities for service learning and volunteering [7,16]. Reference [16] found lower death-related distress for students who engaged in service

learning as part of their death education in comparison to those who took the same course but did not have to undertake service learning.

6. Conclusions

Historically, the body of literature dedicated to better understanding the impacts of post-secondary end-of-life education has largely focused on change within students enrolled in medical-focused disciplines. End-of-life education would be remiss without discussions on how individuals' internal and personal identity structures and familial processes are altered during dying and death outside of physiological and biological lenses. End-of-life content within social science courses are often presented from theoretical frameworks most appropriate for best understanding the social aspects of individual and familial changes accompanying the end of life and how these unfold within larger societal contexts. Capturing the ways in which social science students are informed by death education is critical in effectively reaching all future practitioners who work with people during end-of-life matters and not only those aiming to work in medical care. A secondary benefit in meaningfully considering the impact of end-of-life education on social science students is to offer insight on how to best protect future professionals from burnout and compassion fatigue. The current study addressed this gap in the literature by sampling from social science students enrolled in dying and death-focused courses. Findings yielded interesting insight on the ways in which these students experienced change over the course of a semester compared to others in their cohort without exposure to this content.

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