



HHS Public Access

Author manuscript

Int J Aging Hum Dev. Author manuscript; available in PMC 2018 January 01.

Published in final edited form as:

Int J Aging Hum Dev. 2018 January ; 86(1): 51–68. doi:10.1177/0091415016689473.

Death Attitudes Among Middle-Aged Koreans: Role of End-of-Life Care Planning and Death Experiences

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Abstract

The purpose of this study was to examine factors affecting death attitudes among middle-aged Koreans. In addition, the study explored the interaction effect between knowledge about end-of-life care planning and the experience of death of family or friends on death attitudes. The sample was obtained from a national survey with middle-aged adults in South Korea ($n = 2,026$).

Multivariate regression analysis revealed significant main effects and an interaction effect between knowledge about end-of-life care planning and the experience of death on death attitudes. Greater knowledge of end-of-life care planning was associated with more positive attitudes toward death; however, the effect was stronger for those who had not experienced the death of family or friends. Being older and having greater life satisfaction were also associated with more positive attitudes toward death. This study suggests that end-of-life education can help middle-aged adults embrace the final stage of life and prepare for their own death.

Keywords

death attitudes; death experiences; end-of-life care planning; life satisfaction; middle-aged adults

Death is an inevitable life event; however, it is typically not a comfortable subject to discuss. The taboo against talking about death and dying in our society impedes open discussion of death (Hurd Clarke, Korotchenko, & Bundon, 2012), which in turn, may contribute to growing ambiguity as well as fear of death. Research indicates that fear of death can negatively affect individuals' lives by undermining their well-being and hindering them from engaging fully in life (Wong & Tomer, 2011; Yalom, 2008). Although death can happen at any point in life, more than three-quarters of individuals encounter their own death in their late lives (Federal Interagency Forum on Aging-related Statistics, 2011). Given the aging of the population worldwide, it is essential to better understand death attitudes (Hurd Clarke et al., 2012).

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

This is the author's manuscript of the article published in final edited form as:

Hong, M., Hong, S., Adamek, M. E., & Kim, M. H. (2018). Death Attitudes Among Middle-Aged Koreans: Role of End-of-Life Care Planning and Death Experiences. *The International Journal of Aging and Human Development*, 86(1), 51–68. <https://doi.org/10.1177/0091415016689473>

al., 2012; Röcke & Cherry, 2002). Promoting positive death attitudes among middle-aged adults may contribute to improved well-being and better preparation for death in late life.

The literature, however, shows clear limitations in understanding death attitudes. Most studies on death attitudes or perceptions have been conducted in Western society (Ron, 2010), resulting in limited knowledge about death perceptions in non-Western societies. Cultural beliefs and diversity in ethnic background contribute to different contexts in approaching death and thus need to be examined (Lin, 2003; Ron, 2010). Furthermore, scant research exists on death attitudes among middle-aged adults (Hurd Clarke et al., 2012) despite its importance for implications toward end-of-life (EOL) care preferences (McLeod-Sordjan, 2013). Some researchers reported the potential variations in death attitudes between middle-aged adults (aged between 46 and 64 years) and adults aged 65 years or older, asserting a cohort effect (Ingebretsen & Solem, 1998; Röcke & Cherry, 2002). To address these gaps in the literature, the present study examined death attitudes of middle-aged adults in South Korea.

Death Attitudes in South Korea

In Korea, a *good death* has been traditionally considered as one of the eight blessings throughout life (Hsiung, Ferrans, & Estwing, 2007). Possibly reflecting such a cultural approach toward death, research on death in Korea tends to focus on searching for the meaning of a good death. Kim and Lee (2003) investigated the meaning of good death among nurses in Korea and identified the key elements of good death such as being comfortable, not being a burden to the family, maintaining a good relationship with family, being ready to die, and believing in perpetuity. Lee, Jo, Chee, and Lee (2008) also identified common characteristics of good death and bad death among Korean college students. College students characterized good death as being able to say life is beautiful, having no regrets, and having time to think about life, whereas bad death was defined as dying before the death of their own parents.

Furthermore, a qualitative study conducted with 30 Korean older adults identified three types of attitudes toward death: religion-dependent, science-adherent, and sardonic (Yeun, 2005). Older adults with religion-dependent attitudes regarded death as a new beginning. Older adults with science-adherent attitudes had great affection for life and denied that dying is their fate, whereas those with sardonic attitudes viewed death as the dispensation of nature. Regardless of the three different types of death attitudes, most participants preferred to have open discussions about death with family members and health-care professionals to better prepare for their own death (Yeun, 2005). Given the common belief that as in many other Western societies, Korean people feel uncomfortable talking about death (Searight & Gafford, 2005), such findings may reflect some changes in accepting and thinking about death among Koreans, necessitating further research about death attitudes.

Review of Previous Studies

Most existing studies about death attitudes in Western society were conducted with older adults, focusing solely on death anxiety or fear. The literature suggests that various factors

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are related to fear of or attitudes toward death including age, gender, education, religion, health status, and life satisfaction. Studies consistently found a negative relationship between life satisfaction and death attitudes among older adults; higher life satisfaction is associated with lower levels of death anxiety (Moreno, De La Fuente Solana, Rico, & Fernández, 2008) or death fear (Carmel, 2001). However, studies offer mixed findings about the effects of age, gender, education, religion, and health status on death attitudes. Although some researchers found that age (being younger) and gender (being a woman) are associated with higher levels of death anxiety (Henrie & Patrick, 2014; Kastenbaum, 2000), other studies revealed no relationship between death anxiety and age (De Raedt, Koster, & Ryckewaert, 2013) or gender (Moreno et al., 2008; Wu, Tang, & Kwok, 2002). Furthermore, being older was found to be associated with higher levels of death fear (Moreno et al., 2008; Ron, 2010). Although some studies found higher education was associated with lower anxiety toward death among older adults (Azala, 2010; Moreno et al., 2008), no relationship was reported by other studies (Ardelt, 2003; Ron, 2010).

Prior research operationalized religion differently such as having a religion, religious orientation, or religious practices. Studies offered inconsistent findings about the relationship between religion and death attitudes. Having a religion (Lin, 2003) and greater intrinsic religious orientation (Ardelt, 2003) was found to be related to a higher level of death acceptance, but a nonsignificant relationship between religious practices and death attitudes was also found (Azala, 2010; Moreno et al., 2008; Ron, 2010). Some studies found that poorer health status was associated with higher death anxiety (Fortner & Neimeyer, 1999; Moreno et al., 2008); a nonsignificant relationship between perceived physical health and death anxiety was also found (Lockhart et al., 2001; Wu et al., 2002). These inconsistent findings could be due to differences in sample characteristics and use of different measurements. However, such mixed results lead to further investigation of missing variables that can explain death attitudes such as death experiences and knowledge about EOL care planning.

Death Experiences

As individuals get older, there can be the increasing possibility of losing loved ones such as family or friends. However, prior research provides limited evidence about how such experiences influence death attitudes. Moreno et al. (2008) found that older adults with recent death experiences are likely to report higher levels of death anxiety. However, as the authors of the study pointed out, their finding about high anxiety toward death might have been attributed to the survey question that asked study participants about their suffering due to recent death experiences. Furthermore, this evidence might only capture individuals' grieving due to the death of close people rather than the effect of death experiences on their attitudes toward death. Contrary to the findings of Moreno et al. (2008), several studies on death experiences of health-care professionals provided evidence of the positive effect of death experiences on death attitudes. Death experiences were associated with more positive attitudes toward death among medical providers (Anderson, Williams, Bost, & Barnard, 2008), physicians (Viswanathan, 1996), hospice volunteers (Bluck, Dirk, Mackay, & Hux, 2008), and social workers (Black, 2005). Despite the increasing possibility of death

experiences of family or close friends as individuals get older, little attention has been paid to how such experiences are related to death attitudes, especially among middle-aged adults.

Knowledge About EOL Planning

Death fear is concerned with managing uncertainty or ambiguity in the moment when life fades away (Kastenbaum, 1996; Lehto & Stein, 2009). Knowledge about EOL care planning may alleviate fear of death because it can help individuals envision their last stage of life and be aware of possible options that they can take in confronting death. Empirical evidence suggests that greater knowledge about EOL care planning is associated with reduced fear of death among medical students and health-care workers (Hegedus, Zana, & Szabó, 2008). An intervention study with medical residents also found that greater knowledge about EOL care planning leads to more positive attitudes toward death (Fischer, Gozansky, Kutner, Chomiak, & Kramer, 2003). Furthermore, prior studies suggested a potential interaction between death experience and knowledge about EOL care planning on death attitudes. Silveira, DiPiero, Gerrity, and Feudtner (2000) argued that individuals whose loved one is terminally ill tend to have greater knowledge about EOL care. Anderson et al. (2008) also found that personal or professional experiences of death are associated with more knowledge about EOL care with medical students.

In sum, there is a clear gap in the literature about how middle-aged adults in Eastern society perceive death. Due to the paucity of EOL research among middle-aged adults, potentially important effects of death experiences and knowledge about EOL care planning on death attitudes have been left unexamined. The purpose of this study was to examine death attitudes of middle-aged Koreans. The specific objectives were (a) to examine the effects of demographic factors (i.e., age, gender, education, and religion), health status, and life satisfaction on death attitudes and (b) to explore the main effects and an interaction effect of knowledge about EOL care planning and the experience of the death of family or friends on death attitudes. Prior research indicates that the relationship between death experience and death attitudes may be different depending on the extent to which individuals are aware of EOL care planning. The findings of the present study can add culturally specific knowledge to the existing body of death research as well as offer practical implications regarding EOL care planning for middle-aged adults.

Method

Study Sample

This study used secondary data drawn from a national survey conducted in 2011 in South Korea (Countermeasure according to arriving at the Old Age of Baby-boomers and Pre-elderly [COBP]). The COBP was a cross-sectional study designed to examine preparation for retirement and aging among middle-aged Koreans and consisted of 141 questions about family caregiving experiences, financial preparation for aging, death attitudes, and EOL care planning. Proportionate quota sampling was used to select a sample for the COBP survey. Based on population sizes in 15 administrative districts, middle-aged adults born between 1946 and 1964 were proportionately selected from each administrative district. In-person interviews were conducted over a period of 5 weeks in 2011, and informed consent was

obtained from all individual participants. A total of 2,026 middle-aged adults participated in the survey. The average age of respondents was 56.33 ($SD = 5.26$) with a range of 48 to 67 years at the time of the survey. Half of the respondents (51%) were male and identified as having a religion (50.1%). The majority were employed (71.0%) and had a high school or higher education (74.8%). Table 1 presents the demographic characteristics of respondents.

Measures

Death attitude was assessed using a Death Attitude Scale (Moon & Nam, 2008). This 10-item scale assesses the extent to which a respondent agrees or disagrees with each statement on a 4-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). Statements include "I am ready to accept death whenever it comes," "Death is a natural part of life," and "It is important to die well." The possible range of scores is 10 to 40 with higher scores indicating positive attitudes toward death. In this sample, the internal consistency of the scale was .76. In prior research, this scale has been found to be associated with the frequency of death thoughts among young-old adults (Chung, Kim, & Koo, 2014) and positive attitudes toward aging among older adults (Moon & Nam, 2008).

Knowledge about EOL care planning was measured using a scale developed for the original survey. The scale consists of five items and assesses the level of knowledge about five components of EOL care plans using a 4-point Likert scale (1 = *never heard* to 4 = *know well*) with a possible score range of 5 to 20. The five components include advance directives, death with dignity, hospice, last will, and organ donation. Although euthanasia is not legalized in South Korea, cancer patients at the final stage and their family have been often asked if they prefer to die with dignity, which means no more treatment. Considering such circumstances, death with dignity has been actively discussed in South Korea and often examined in health-care research. After developing the scale, an experienced social work researcher reviewed and confirmed the scale, establishing content validity of the items. In this sample, the internal consistency of the scale was .72. Death experience was measured using a dichotomous item that asked if respondents had experienced the death of family or friends in the previous year (1 = *Yes*, 0 = *No*).

Life satisfaction was measured using a Korean version of the Satisfaction with Life Scale (K-SWLS). The K-SWLS consists of five items that assess perceived life satisfaction using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). The possible range of scores is from 5 to 35 with higher scores indicating higher satisfaction with life. The original version of the SWLS was developed in English by Diener, Emmons, Larsen, and Griffin (1985) and has been translated into many different languages. In this sample, the internal consistency of the K-SWLS was .89.

Perceived health status was assessed using a 4-point item asking respondents to rate their perceived health (1 = *very bad* to 4 = *sured very good*). Religion was measuring a dichotomous variable asking if the participant has any religion (1 = *having a religion*, 0 = *no religion*). Education was measured using an ordinal variable with six response categories (1 = *no education* to 6 = *higher than master's degree*).

Data Analysis

Descriptive statistics and correlation tests between continuous variables were performed to assess the characteristics of the study sample and the bivariate association between study variables, respectively. Using hierarchical analysis, we examined “factors affecting death attitudes.” We entered the variables following four steps: (a) background characteristics (age, gender, education, and religion), (b) knowledge and physical health, (c) death experiences and knowledge about EOL planning, and (d) the interaction term of death experiences and knowledge about EOL planning. An interaction term was created by multiplying two centered variables, knowledge on EOL care planning and death experience of family or friends. The assumptions for conducting multiple regression analysis were examined (Cohen, Cohen, West, & Aiken, 2003) and found to be adequately met. SPSS 21.0 was used for all statistical analyses.

Results

Descriptive Statistics

The average death attitude score was 27.02 ($SD = 4.23$, range = 10–40), indicating that respondents hold slightly positive attitudes toward death. Approximately 3 in 10 respondents experienced the death of family or friends in the previous year. The average score for knowledge of EOL care planning was 13.12 ($SD = 2.29$, range = 5–20), demonstrating a moderate level of knowledge. Out of the five knowledge items, organ donation was the most familiar as almost 80% of respondents answered they *know* or *know well* about organ donation. On the other hand, only 40% knew about advance directives, showing the lowest perceived knowledge.

A correlation analysis between continuous variables (Table 2) showed that the strongest association between age and educational levels ($r = -.47, p < .001$). Between the predictor variables and the dependent variable (death attitudes), the strongest association was found between knowledge about EOL planning and death attitudes ($r = .26, p < .001$), followed by the association between life satisfaction and death attitudes ($r = .11, p < .001$).

Regression Analysis

With all predictors in the model, age ($\beta = .116, p < .001$), education ($\beta = .059, p < .01$), life satisfaction ($\beta = .059, p < .001$), death experiences ($\beta = .072, p < .001$), knowledge about EOL planning ($\beta = .281, p < .001$), and the interaction term between death experiences and knowledge about EOL planning ($\beta = -.073, p < .001$) were significant. Respondents who were older, had a higher level of education, and had greater life satisfaction were more likely to have positive attitudes toward death. Main effects and an interaction effect of knowledge of EOL care planning and death experiences of family or friends on death attitudes were found. Knowledge of EOL care and death experiences of family or friends in the previous year were associated with death attitudes (see Table 3). Middle-aged Koreans with better perceived knowledge of EOL care planning and who had experienced the death of family or friends in the previous year were more likely to have positive attitudes toward death. However, the interaction effect suggests that the effects of knowledge of EOL care planning were stronger for those who have not experienced the death of family or friends. Figure 1

displays the interaction effect between knowledge of EOL care planning and death experiences on death attitudes. With all of the factors in the equation, the final model accounted for 9.2% (adjusted $R^2 = .092$) of the variation in death attitudes.

Discussion

To fill the gap in the literature about death attitudes among middle-aged adults in Eastern society, we examined factors associated with death attitudes among middle-aged Koreans. Furthermore, we explored the main effects and the interaction effect of death experiences and knowledge of EOL care planning on death attitudes. We found significant main effects as well as an interaction effect of death experiences and knowledge about EOL care planning on death attitudes. In addition, age and life satisfaction were also positively related to death attitudes.

Our descriptive analyses showed highly positive attitudes toward death among middle-aged Koreans, which might reflect a traditional cultural perspective toward death originating in Buddhism. Although Korea has developed into a multireligious society, Buddhism has largely influenced Korean culture since ancient time (Shin, Cho, & Kim, 2005). In Buddhism, birth, aging, illness, and death are essential parts of life and it is believed that there is life after death (Yeun, 2005). Because Buddhists view death as moving to the next life as crossing the river of death (Shin et al., 2005), death is considered an acceptable, natural life event. Consistent with our findings, Shin et al.'s (2005) qualitative study found positive perspectives toward death among Korean older women. Their participants viewed death as the end of suffering in life and a turning point to move to the next life or return to the original place.

Consistent with some prior findings, this study found that age (Henrie & Patrick, 2014; Kastenbaum, 2000) and life satisfaction (Carmel, 2001; Moreno et al., 2008) were associated with death attitudes. Interestingly, age and death attitudes were significantly related even though the range of age was not substantial in this sample. Russac, Gatliff, Reece, and Spottswood (2007) found that fear of death peaks around the 50s and then decreases, which is consistent with our findings. Given the age range of 46 to 64 years in our sample, participants aged more than 50 years might have undergone their peak of death fear and experience decreasing fears toward death and resulting in more positive death attitudes. This study also found a main effect of death experiences of family or friends on death attitudes. Given the strong emphasis on familism and interpersonal relationships in Eastern culture (Lee, Yoon, & Kropf, 2007), the death of a loved one may have a great deal of influence on middle-aged Koreans, providing increasing opportunities to think about their own death and to consider death as an inevitable stage of their lives. As a result, they may have more positive attitudes toward death.

Among all predictors included in our study, knowledge about EOL care planning was the strongest factor associated with death attitudes. This finding is consistent with empirical evidence that showed the effectiveness of EOL care educational programs on death perceptions among health-care professionals (e.g., Claxton-Oldfield, Crain, & Claxton-Oldfield, 2007). Considering the cultural value on good death defined as being comfortable

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and not being a burden to family among Koreans (Kim & Lee, 2003), individuals with better knowledge about EOL care planning might learn that some EOL care services such as hospice and advance directives can help them to have a good death, which may bring about more positive attitudes toward death. The concept of self-efficacy may explain this crucial effect of knowledge on death attitudes. According to Bandura (1988), self-efficacy refers to an individual's personal judgment about their capability to perform tasks. Bandura's cognitive theory furthermore suggests that perceived self-efficacy plays an essential role in developing anxiety; anxiety is aroused when individuals perceive their lack of ability to cope with potentially harmful external events (Bandura, 1988). In contrast, lack of knowledge about EOL care planning may elevate fear of death because people may not know what to expect when they die or how to deal with it. Awareness about possible EOL care options and benefits of each option can empower individuals and help them embrace their own impending death.

Furthermore, the interaction analysis revealed an interaction effect between death experiences and knowledge about EOL planning, indicating the moderating role of knowledge about the EOL planning on the relationships between death experiences and death attitudes. Regardless of the experience of death, greater knowledge about EOL care planning was associated with positive death attitudes. However, the effect of knowledge about EOL care planning on death attitudes was greater among those without death experiences than among those with death experiences. A possible explanation is that as death experiences led to more exposure to EOL-related issues that may influence their death attitudes, the effect of EOL care planning knowledge itself might be attenuated. For example, individuals who lost their loved one are likely to have multiple contacts with health-care professionals to consult about the severe illness of their loved one or discuss EOL treatments, influencing their attitudes toward death, and possibly weakening the influence of EOL care knowledge on death attitudes. On the contrary, given the possibly limited experiences with EOL care issues, knowledge about EOL care planning can play a critical role in death attitudes for those without death experiences, underlining the importance of EOL planning knowledge to reduce fear or anxiety of death.

This study's findings should be considered in relation to a number of limitations. Due to the cross-sectional design, we cannot draw any causal relationship among the factors examined in the study. For example, individuals who have positive attitudes toward death may seek more information on EOL care planning and become knowledgeable about such planning rather than vice-versa. Furthermore, nonprobability sampling of the original survey limits the generalizability of our findings. Third, use of dichotomous variables such as religion or death experiences may limit further understanding about the influence of such factors on death attitudes. For example, due to the dichotomous measure of death experience (yes or no), the potential difference between those who experience the death of a loved one and those with multiple death experiences in the previous year could not be detected. Lastly, our regression model explained a small amount of variability in death attitudes (i.e., 9.2%). However, as highlighted by multiple researchers (Colton & Bower, 2002; Howell, 1997; Newman & Newman, 2000), R^2 cannot determine if the model is adequate and it is inappropriate to identify an acceptable value of R^2 . Statistically significant relationships between predictors and a dependent variable can provide critical implications even if R^2 is

small. A small R^2 instead may imply the necessity of examining other variables (Rakes, Dunn, & Rakes, 2013).

Implications for Practice and Research

Despite the limitations stated earlier, this study offers crucial implications for health-care practitioners and future research. First, our study sheds light on the necessity of EOL care education programs for middle-aged adults. Fear of death is widely considered a psychological barrier to EOL care preparation (Carr, 2011). However, our findings imply that lack of knowledge about EOL care plans may lead to negative attitudes toward death, indicating the necessity of educational interventions about EOL care planning. Furthermore, our finding about the interaction effects between death experience and knowledge of EOL care planning on death attitudes underscores potentially greater benefits of such education for those without death experiences. Given the extensive focus on palliative or hospice care in the EOL care literature, emphasis on death or EOL care education tends to be limited to dying individuals and their families. Beyond this existing discussion, our study suggests that EOL care education can contribute to building and improving positive death attitudes for middle-aged adults.

Korean middle-aged adults are often depicted as a more autonomous and independent cohort compared with the previous older generations in Korea (Kim, Moon, & Shin, 2012). In this regard, educational intervention programs about EOL care may be successfully implemented for middle-aged Koreans as they tend to prefer to exercise autonomy in the last stage of life. Preparation for one's own death may not be a new concept for Koreans. Despite some reluctance to openly talk about death, there is a cultural tradition that Korean older adults prepare a funeral shroud or burial site for their own death because of a belief that someone who does such preparation could live longer (Jeon, Kim, & Yoo, 2015). This cultural tradition to prepare for one's own death may be nicely incorporated into EOL education programs.

In addition, our finding of the positive association between life satisfaction and death attitudes suggests the potential benefits of reminiscence programs on death attitudes. When individuals find meaning and self-fulfillment in their final stages of life, they may experience self-accomplishment and integrity, and furthermore confront death as a part of life (Heil & Vansteenkiste, 2009; Neimeyer, Wittkowsky, & Moser, 2004). A well-designed counseling or life reflection program could provide older adults with opportunities to look back over their lives and to focus on accomplishments rather than failures and hence ease fear toward death. Lastly, our findings provide a possible target intervention group to improve death attitudes: middle-aged adults in their 50s. If EOL care education or counseling services targeted individuals in their 50s when fear of death peaks, it may effectively address negative attitudes toward death and prepare middle-aged adults to enter late life with healthier attitudes toward death.

Further examination of potentially crucial variables related to death attitudes can enhance our understanding about how middle-aged adults perceive and prepare for their own death in the Korean context. Given the cultural value on good death in Korean society, a qualitative study using focus groups can offer an insight into the effects of loved ones' dying on

perception about good-death as well as EOL planning for middle-aged adults. Moreover, research with middle-aged adults in other societies including Western countries is needed to understand death attitudes across cultures. Lastly, longitudinal studies may be helpful in examining how middle-aged adults' attitudes toward death change over time as they experience more deaths of family or friends.

Conclusion

Death is a certain life event for everyone, and positive attitudes toward death are a critical factor that can help individuals prepare for their own death. With the growing number of older adults and increasing life expectancy, there is increasing attention to the quality of the last stage of life. The findings of this study provide practical insights to promote positive death attitudes among middle-aged Koreans. Health-care professionals need to be aware of the necessity of EOL education for middle-aged adults to help them prepare for and embrace the final stage of life.

Acknowledgments

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Biographies

Michin Hong is an assistant professor at Indiana University School of Social Work. Her areas of research focus on long-term care for older adults including family caregiving and end-of-life care. She is also interested in health disparities among ethnic minority older adults and their caregivers.

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Margaret E. Adamek is the director of the PhD Program in Social Work at Indiana University in Indianapolis, IN. As a member of the first cohort of Hartford Geriatric Social Work Faculty Scholars, she conducted a study focusing on depression among long term care residents. Her research interests center around mental health issues of older adults, particularly elder suicide.

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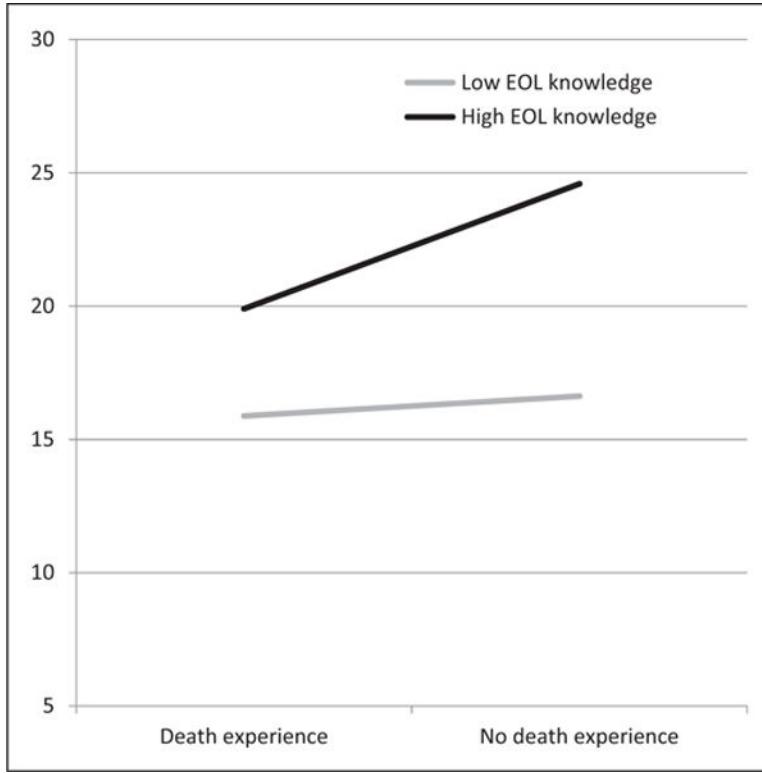
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**Figure 1.**

Interaction of death experience and end-of-life knowledge on death attitudes.

Table 1Respondents' Characteristics ($n = 2,026$).

	Frequency (%)	Mean (SD)
Age		56.33 (5.26)
Gender		
Male	1015 (50.1)	
Female	1011 (49.9)	
Marital status		
Married	1868 (92.2)	
Separated or divorced or widowed	145 (6.9)	
Never married	13 (0.9)	
Education		
No education	23 (1.1)	
Elementary school	142 (7.0)	
Middle school	345 (17.0)	
High school	1139 (56.2)	
College	358 (17.7)	
Graduate school or higher	19 (0.9)	
Having a religion	1010 (50.1)	
Employed	1439 (71.0)	

Correlation Matrix of Continuous Variables in the Regression Model ($n = 2,026$).

	1	2	3	4	5	6
1. Death attitudes	1.00					
2. Age	.08 ***	1.00				
3. Education level	.04 *	-.47 ***	1.00			
4. Perceived health	.04 *	-.16 ***	.19 ***	1.00		
5. Life satisfaction	.11 ***	-.03	-.17 ***	.20 ***	1.00	
6. Knowledge about EOL planning	.26 ***	-.08 ***	.18 ***	.19 ***	.16 ***	1.00

Note. EOL end-of-life.*
 $p < .05$.**
 $=p < .001$.

Summary of Hierarchical Regression Analysis ($n = 2,026$).**Table 3**

	Step 1				Step 2				Step 3			
	Background		Life satisfaction and physical health		Death experiences and EOL planning knowledge		Interaction term: Death experiences × EOL planning knowledge					
	β	t	β	t	β	t	β	t				
Age	.130 ***	5.151	.126 ***	4.972	.116 ***	4.660	.113 ***	4.551				
Male	-.032	-1.352	-.026	-1.096	-.040	-1.724	-.040	-1.724				
Education	.107 ***	4.092	.084 **	3.155	.056 ***	2.173	.059 ***	2.284				
Religion	-.009	-.399	-.013	-.585	-.031	-1.438	-.034	-1.555				
Physical health			.029	1.249	.003	.150	.004	.199				
Life satisfaction	.087 ***		3.818		.061 **	2.729	.059 ***	2.680				
Death experiences					.066 ***	2.949	.072 ***	3.246				
EOL planning knowledge					.244 ***	10.990	.281 ***	11.033				
Death experiences × EOL planning knowledge							-.073 ***	-2.919				
Model statistics	Adjusted $R^2 = .015$		Adjusted $R^2 = .074$		Adjusted $R^2 = .87$		Adjusted $R^2 = .87$		Adjusted $R^2 = .092$			
	$F(4, 2021) = 7.461$		$F(6, 2019) = 8.100 ***$		$F(8, 2017) = 24.068 ***$		$F(9, 2016) = 22.421 ***$					
Change statistics			Adjusted $R^2 = .009$		Adjusted $R^2 = .064$		Adjusted $R^2 = .064$		Adjusted $R^2 = .004$			
			$F(2, 2019) = 9.257 ***$		$F(2, 2017) = 70.303 ***$		$F(2, 2017) = 70.303 ***$		$F(1, 2016) = 8.502 **$			

Note. EOL = end-of-life.

 $p < .01$.

 $p < .001$.