Fear of Death in Mid-Old Age

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A transition model hypothesizes that the discrepancy between desired and expected time left to live is greater for mid-old persons than young-old persons. This discrepancy arouses a greater fear of death, which is influenced by age, health, and purpose in life. With the use of the Multidimensional Fear of Death Scale, 192 older adults (60 to 84 years of age) were assessed on these variables and death fear. In structural analyses, purpose in life and the difference between the desired and the expected time left to live had direct effects on fear of body loss, with indirect effects of health; the relative size of effects differed as expected for two age groups. These variables were not related to fear of the unknown. An awareness of approaching death appears to arouse a greater fear of physical loss, but not mental or spiritual loss, in mid-old persons than in young-old persons.

VARIOUS studies suggest that fear of death tends to be greater among younger adults and middle-aged adults than among older people, for whom it is relatively low (e.g., Bengtson, Cuellar, & Ragan, 1977; Fortner, Neimeyer, & Rybarczyk, 2000; Gesser, Wong, & Recker, 1987–1988; Kastenbaum, 1992; Lonetto & Templer, 1986, Neimeyer, 1988; Neimeyer & Van Brunt, 1995; Thorson & Powell, 2000). Death acceptance appears to become predominant in old age.

However, gaps in our knowledge of the trajectory of fear of death from young adulthood to old age remain. Fortner and his colleagues (2000) attempted to clarify the relationship of age to fear of death in a meta-analysis of existing studies of individuals aged 61 to 87 years. On average, fear of death neither increased nor decreased after the individuals reached 60 years of age. However, most of the elders included in the various studies were between 65 and 75 years of age, so that what happens to people beyond age 75 is still unclear. Relatively few individuals beyond age 70 have been included in existing studies; if they were, they were not treated as a separate subgroup.

Some evidence exists that death fears do increase with awareness of the approaching end of life. Seriously ill individuals show a greater fear of death (Viney, 1984), as do elders in nursing homes who are near the end of life (Mullins & Lopez, 1982).

One can better determine the shape of the age trend of death fear in later life if one distinguishes the age ranges of young-old (ages 65–74), mid-old (ages 75–84), and old-old (ages 85 and older) individuals. Changes over small age ranges may be as important in older adulthood as they are in early childhood (Johnson & Barer, 1997).

In a recent study of death views of a Midwestern sample of 109 older adults aged 70 to 97 years (Cicirelli, 2002b), a significant quadratic age trend in certain death fears was found, forming an inverted U-shaped curve. Fear of the dying process and fear of the unknown appeared to peak among those in the mid-old age range (75–84 years of age) compared with those who were in the young-old (65–74) and old-old (85–97) groups. Death fears related to one's physical, mental, or spiritual annihilation (the core fear of terror management theory; see Greenberg, Solomon, & Pyszczynski, 1997) may increase temporarily in mid-old age and then decline with increasing acceptance of inevitable death.

In this study I investigate the general hypothesis that there is a transition period in which fear of annihilation is greater for mid-old than for young-old individuals, and that these differences are influenced by health, purpose in life, and the discrepancy between desired and expected time left to live.

As individuals increase in chronological age, they perceive that they have less time left to live. This heightened awareness of death leads them to shift their focus, for example, from knowledge-gaining goals toward emotional and social goals (Carstensen, Isaacowitz, & Charles, 1999). In a similar fashion, older adults may also shift their focus from other concerns to the fear of death itself. In the transition theory of death fears, this would occur in the mid-old age range (75–84) for the following reasons.

The mid-old age range roughly corresponds to the statistical and cultural norms for life expectancy (from birth) of Americans, which is now approximately 77 years ("Life Expectancy," 1998). As individuals grow older, they assimilate these norms from various sources (e.g., reports in the media, obituary columns).

Life expectancy norms are available both for life expectancy from birth and for life expectancy once an individual has reached a particular age. On the basis of age-based norms, an individual who has reached the age of 75 could expect to live approximately another 10 to 12 years. The latter norm would be the time period in which approaching death becomes more salient, followed by increased death fears and then death acceptance. This age-based life expectancy would provide a realistic time frame for estimating how long one desires to live in order to attain unfulfilled goals. Those individuals who experience a terminal illness or chronic disease at an age younger than the life expectancy must also face and adjust to the nearness of death. However, they are viewed as dying prematurely; there is no general cultural expectation that death is near for individuals in their twenties, thirties, forties, fifties, or even sixties. By the time surviving individuals reach the age of their life expectancy from birth, the limitations on their life span become more salient to them.

Although older individuals may come to expect only a limited time left to live, they may desire to live longer than that. As part of a previous study of 109 elders (Cicirelli, 2002b), I assessed expected time left to live and also desired time

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left to live for five age groups: 70 to 74 years ($n = 27$), 75 to 79 years ($n = 22$), 80 to 84 years ($n = 27$), 85 to 89 years ($n = 22$), and 90 to 97 years ($n = 11$). Although both quantities decreased with increasing age as one might expect, the discrepancy between desired and expected time left to live followed an inverted U-shape curve, with values of 2.5, 4.5, 4.0, 1.5, and 1.5 for the five age groups, respectively. This discrepancy was greatest for the age range from 75 to 84 years, suggesting that elders in this age range appear to recognize their limited survival time but have a greater desire for life to be extended than those in younger or older age groups; they appear to want more time in life just as they recognize that such additional time is no longer likely. This desire for more time in life beyond what is expected seems to be less pressing among those who are younger.

In addition, various health problems including many chronic illnesses emerge rather sharply or have more serious implications in the age range from 75 to 84 years, so that approaching death is particularly salient for these older individuals. A number of indicators reveal that, when compared with young-old adults, older adults who are in their late seventies and eighties have an increased vulnerability to physical decline, such as increased chronic disease and mobility limitations (Siegler, Bosworth, & Poon, 2003), increased nursing home admissions (Kramarow, Lentzner, Rooks, Weeks, & Saydah, 1999; Manton, 1992), increased use of home health services (Whitbourne, 2005), and the incidence of heat-related deaths (Centers for Disease Control and Prevention, 1998). In sum, a number of indicators reveal a more rapid decline in health status for older adults after they reach the age of 75.

These factors place limits on older persons' lives. It is logical that these limits would seem frustrating or even fearsome if they blocked the fulfillment of valued plans in life. Thus, I hypothesize that the greater the discrepancy between the time that one desires to live and one's expected time left to live, the greater one's fear of death or nonexistence, especially in the mid-old age range when there is a heightened awareness of the nearness of death.

A sense of purpose in life, with meaningful aims and goals for the future, is considered to be another indicator of the desire to survive, and should be related to less fear of death. Ryff (1995) considered purpose in life as one of the elements in adult well-being, along with feelings of growth and autonomy. It is also associated with the temporal extension of life into the future (Rappaport, Fossler, Bross, & Gilden, 1993). An abrupt decline in health status in the mid-old age range may lead individuals to abandon or reduce their goals for the future. Thus, one might expect a relationship between an increase in health problems and a decreased purpose in life for older adults in this age range. Furthermore, if older individuals feel that they have accomplished their major life goals, their sense of purpose in life also may begin to decline.

The present study is limited to comparing young-old and mid-old individuals. My general hypothesis is that the mid-old age range is a transition period in which those death fears concerned with one's continued existence are greater for mid-old persons than they are for young-old persons, and that these differences are influenced by one's health status, purpose in life, and the discrepancy between the desired and the expected time left to live.

Hypothesized Model

In this study, I investigated a path model linking the aforementioned variables. In the model, both purpose in life and the discrepancy between desired and expected time left to live are hypothesized to directly influence fear of death, with a stronger desired − expected time related to greater fear and a greater sense of purpose related to less fear. Purpose in life, in turn, is hypothesized to be directly influenced by health, with better health related to a stronger purpose in life. The desired − expected time discrepancy is hypothesized to be influenced by both health and the exogenous variable age, with desired − expected time greater for those who are older and in poorer health. Age is also expected to be related to health and to fear of death, with increased age related to poorer health and to greater fear of death. According to the transition model, the strength of these hypothesized relationships is expected to differ for the young-old and the mid-old, with the influence of the desired − expected time discrepancy on fear of death being greater for the mid-old than for the young-old.

METHODS

Design

In this study, I used a two-group design to test the hypothesized model in the young-old and mid-old age groups, with two measures of death fear as dependent variables.

Participants

The participants were 192 elders aged 60 to 84 years who were randomly selected from a computer listing of registered voters aged 60 and older in a medium-sized Midwestern city. Of those identified and telephoned, 56% agreed to participate in the study. I divided the sample into two age groups: the young-old group (132 participants aged 60–74) and the mid-old group (60 participants aged 75–84; I did not include an old-old group in this study because too few individuals were available for interview). Of the sample, 69% were women; 67% of the participants were married and living with their spouse. On average, their educational level consisted of some college or special training beyond high school.

Measures

Health.—I used a self-rating of health (excellent, very good, good, fair, or poor) to assess elders' health status, with a high score indicating better health. This frequently used global measure of perceived health has been shown to have concurrent validity in relation to other measures of health (e.g., chronic conditions, serious illness, activity limitations, and physicians' judgments) as well as 7-year survival (Ferraro & Feller, 1996; Mangiano, et al., 1993; Rakowski, Fleishman, Mor, & Brynt, 1993; Siegler et al., 2003); a stability of .55 over a 4-year period has been reported (Lang, 2000).

Discrepancy between expected and desired time left to live.—I obtained the individual's expected time left to live, in years, by asking the participant, "About how many more years do you think you will live?" Individuals' expected time left to live is an estimate that takes into account such factors as

individuals' perceptions of their own health, longevity of parents and other close family members, and life expectancy of their birth cohort (Kalish, 1985; Marshall, 1975). The face validity of the measure is evident. In terms of concurrent validity, I obtained a correlation of .47 for the sample of the present study between the respondent's judgment of expected time left to live and the expected years of life remaining for persons in the same birth cohort based on life expectancy tables. Lang's (2000) work on the related concept, subjective nearness to death, indicated a stability of .41 over a 4-year interval, as well as expected correlations with having poor health and being neurotic.

I obtained the desired time left to live by asking the participant, "About how many more years would you *like* to live?" I obtained the discrepancy score, desired – expected time, by subtracting the expected time left to live from the desired time left to live for each participant. The stability of the desired time seems a reasonable assumption because it is based on and compared with a relative stable cultural norm of life expectancy. Despite gender differences in life expectancy for the national population, gender was not significantly related to expected time left to live, desired time left to live, or the discrepancy between the two in the present sample.

Purpose in life.—I selected Crumbaugh's (1968) Purpose in Life scale as an indicator of participants' purpose in life. This scale was designed to measure the degree to which a person experiences a sense of purpose in life accompanied by meaningful goals and aims. The original test consisted of twenty 7-point items rated from 1 (low purpose) to 7 (high purpose). Crumbaugh reported an internal consistency of .85 and a 3-week test–retest reliability of .88 for the measure, as well as evidence for convergent and discriminant validity. This included positive correlations of scores on the scale with ministers' and therapists' ratings of their clients, and with lack of anomie, and negative correlations with depression.

For this study, I used a subset of nine items. The positive (high purpose) descriptor for these items is as follows: (a) in life, I have very clear goals and aims; (b) my personal existence is very purposeful and meaningful; (c) I am usually exuberant and enthusiastic; (d) in achieving life goals, I have progressed to complete fulfillment; (e) my life is running over with exciting good things; (f) in retirement, I will do some of the exciting things I have always wanted to do; (g) as I view the world in relation to my life, the world fits meaningfully with my life; (h) I regard my ability to find a meaning, purpose, or mission in life as very great; (i) I have discovered clear-cut goals and a satisfying life purpose. The internal consistency reliability of this measure for the participants in the present study was .79.

Fear of death.—Although many researchers (e.g., Feifel, 1990) are interested in the multidimensionality of death fears, one might agree with terror management theorists (Greenberg et al., 1997) that the core fear of death is that of annihilation of one's existence. Thus, in using multidimensional measures of death fear such as the Multidimensional Fear of Death Scale (MFODS; Hoelter, 1979; Neimeyer & Moore, 1994), one would expect predictors to be more strongly related to indicators of fear of annihilation than to other dimensions of fear of death. Earlier findings confirm this prediction (Cicirelli,

1999, 2002a, 2002b; Neimeyer & Moore). However, the core fear of annihilation can be interpreted as including both the annihilation of the spirit and the annihilation of the corporeal body at death. These fears are relatively independent of each other but they are conceptually connected by a common underlying theme, the loss of personal identity. This interpretation allows one to use different indicators of the core fear of death when studying fear of death in old age. A subscale of the MFODS, Fear of the Unknown (five items) can be regarded as fear relating to an unknown fate of the spirit after death, and another three subscales can be regarded as indicators of fear relating to the annihilation of the body. These are Fear of Being Destroyed (four items), Fear of the Dead (six items), and Fear for the Body After Death (six items). For the participants in this study, internal consistency reliabilities for these four subscales were .75 for Fear of Being Destroyed, .66 for Fear of the Dead, .69 for Fear for the Body After Death, and .71 for Fear of the Unknown. (I did not use the other four MFODS subscales, Fear of the Dying Process, Fear of Conscious Death, Fear of Premature Death, and Fear for Significant Others, in the study because their content did not fit my definition of the core fear of death concerned with the loss of one's existence.)

I carried out an exploratory principal components analysis by using study participants' scores on the four MFODS subscale scores. I extracted only a single component, with an eigenvalue of 2.40 and explaining 51% of the variance. Factor loadings for the subscales were as follows: Fear of the Dead, .79; Fear of Being Destroyed, .79; Fear for the Body After Death, .83; and Fear of the Unknown, .16. Results of this analysis are consistent with an earlier factor analysis (Cicirelli, 2002a) of all eight MFODS dimensions. I summed the first three dimensions to form a single measure, with a high score indicating greater fear. I labeled this combined measure Fear of Body Loss, because the content of component MFODS subscales reflects fears associated with the loss or annihilation of the corporeal body. The remaining subscale, Fear of the Unknown, refers to loss or annihilation of the noncorporeal aspects of the individual, such as the soul, mental abilities, or sense of identity.

Procedure

Following completion of an informed consent document, I interviewed each participant individually, with verbal instructions regarding the instruments.

Statistical Analysis

Using LISREL, maximum likelihood estimation (Byrne, 1998; Jöreskog, & Sörbom, 1993), I obtained path coefficients in the hypothesized model in analyses for the two age groups. I used nested analyses, first when coefficients for the two age groups were free to vary (Model 1) and then when these coefficients were partially (Model 2) or fully constrained (Model 3) to be equal across age groups (Byrne; Loehlin, 1992). I carried out separate analyses for each of the two measures of fear of death (Fear of Body Loss and Fear of the Unknown). In the model, three indicators were available for Fear of Body Loss (Fear of the Dead, Fear of Being Destroyed, and Fear for the Body After Death), but only single indicators were available for the other variables.
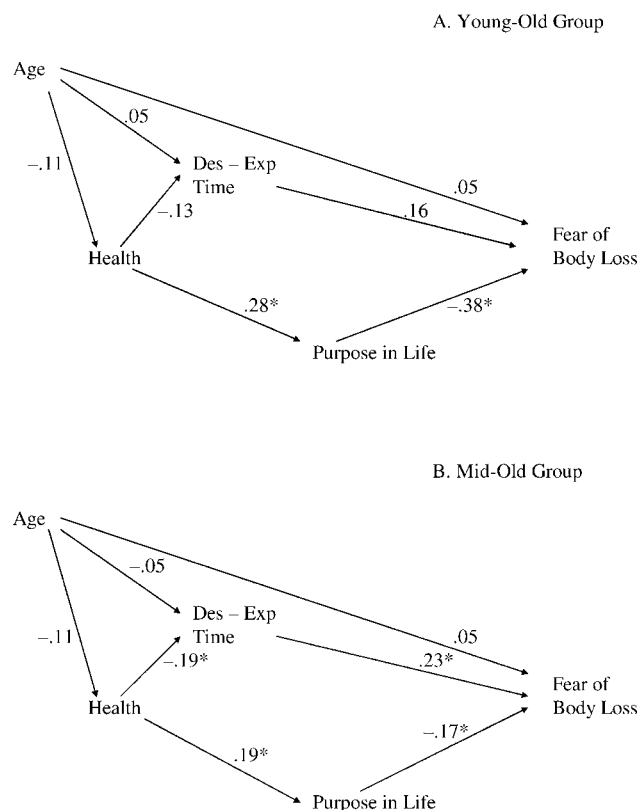
Figure 1. Path diagram of fear of body loss as a function of purpose in life, health, age, and the discrepancy between the desired and expected time left to live for young-old and mid-old groups (an asterisk indicates coefficients significant at the .05 level).

RESULTS

Group Differences in Measures of Fear and Other Variables

Scores for the Fear of Body Loss measure differed significantly for the two age groups, $t(190) = -2.17$, $p < .05$, with a greater fear for the mid-old group ($M = 36.32$) than for the young-old group ($M = 34.60$), supporting the existing finding (Cicirelli, 2002b) that death fear was greater for the mid-old than for a young-old group.

However, there was no significant difference between the two age groups on Fear of the Unknown measure, $t(190) = 0.38$, $p > .05$. In fact, the score for the Fear of the Unknown measure was slightly smaller for the mid-old group ($M = 9.05$) than for the young-old group ($M = 9.25$).

The discrepancy between the desired and expected time to live was significantly greater ($M = 4.05$) for the mid-old group than for the young-old group ($M = 2.28$), $t(190) = 2.44$, $p < .05$. However, purpose in life was significantly less ($M = 46.67$) for the mid-old group than for the young-old group ($M = 49.42$), $t(190) = 2.59$, $p < .05$. In addition, self-rated health was significantly poorer ($M = 4.24$) for the mid-old group than for the young-old group ($M = 4.70$), $t(190) = 2.11$, $p < .05$.

Relationships in the Model for Fear of Body Loss

To determine whether fear of body loss could be explained in the same way for the young-old and mid-old groups, I estimated the path model for a set of related (nested) models by using separate data for the two groups. The transition model of fear of death implies that corresponding path coefficients for the two groups will differ. If there is no difference in the fit of the path model when coefficients are free to vary compared with when they are constrained to be equal, then the transition hypothesis is not supported.

I first estimated the model (Model 1) when the path coefficients for the two groups were free to vary (so that all corresponding path coefficients could differ for the two groups). Indicators of fit for this analysis were as follows: $\chi^2(20) = 10.12$, $p = .98$; the Goodness of Fit Index (GFI) = .98; the Root Mean Square Residual (RMR) = .04; and the Normed Fit Index (NFI) = .95. All these suggest an acceptably good fit.

I next estimated Model 2, a nested model in which the corresponding gamma coefficients linking age with health, age with desired – expected time, and age with body loss were constrained to be equal for the two groups while the remaining coefficients were free to vary. Indicators of fit for this analysis were as follows: $\chi^2(22) = 15.98$, $p = .98$; GFI = .98; RMR = .03; and NFI = .97, also a reasonably good fit. However, when I compared the two models, the difference between them was marginally significant, $\Delta\chi^2(2) = 5.86$, $p = .06$, with the slightly better values for the RMR and NFI suggesting that Model 2 may be a somewhat better fit than Model 1 to the data.

I also estimated Model 3, a nested model in which all corresponding coefficients for the two groups were constrained to be equal. Indicators of fit for this analysis were as follows: $\chi^2(24) = 16.66$, $p = .96$; GFI = .96; RMR = .06; and NFI = .95, also a reasonably good fit. However, when I compared the two models, the difference between Model 1 and Model 3 was not significant, $\Delta\chi^2(4) = 6.54$, $p > .10$. Thus I cannot conclude that the fully constrained model represents a better fit than does Model 1.

The path diagrams resulting from Model 2 are shown in Figure 1 for the young-old and the mid-old groups, with the effects of age constrained to be equal for both groups. The direct effect of age on desired – expected time was only .05, not surprising in that both desired time left to live and expected time left to life were each age dependent. The direct effect of age on health was .11, indicating worsening health with increasing age for both groups. The direct effect of age on fear of body loss was only .05. The direct effect of health on desired – expected time to live was −.13 for the young-old group and −.19 for the mid-old group, with better health related to less discrepancy between the two times; however, the difference between the two coefficients was not statistically significant. The effect of health on purpose was .28 for the young-old group and .19 for the mid-old group, with better health related to a greater sense of purpose in life; again, the difference between these coefficients was not statistically significant. The effect of desired – expected time to live on fear of body loss was .16 for the young-old group and .23 for the mid-old group, with a greater discrepancy between the two times related to greater fear; the difference between these coefficients was also not significant. Finally, the effect of purpose on fear of body loss was −.38 for the young-old group and −.17 for the mid-old group, with greater purpose related to less fear; the difference between the two coefficients was significant at the .10 level. The indirect effect of health on fear of body loss was −.13

for the young-old group but only .07 for the mid-old group, suggesting that relatively better health was more strongly associated with less fear among the young-old group. Indirect effects of age were negligible. Finally, the multiple correlation squared for the prediction of fear of body loss was $R^2 = .25$ for the young-old group and $R^2 = .20$ for the mid-old group.

Relationships in the Model for Fear of the Unknown

I carried out analyses of nested models similar to those used to investigate fear of body loss for fear of the unknown. I estimated Model 1 first when the path coefficients for the two groups were free to vary. Indicators of fit for this analysis were as follows: $\chi^2(10) = 4.99$, $p = .89$; GFI = .98; RMR = .03; and NFI = .86. All these suggest only a moderately good fit.

I next estimated Model 2, a nested model in which the gamma coefficients linking age with health, desired − expected time, and body loss were constrained to be equal for the two groups. Indicators of fit for this analysis were as follows: $\chi^2(13) = 6.89$, $p = .98$; GFI = .98; RMR = .05; and NFI = .80, with the NFI lower than desired for a good fit. When I compared the two models, the difference between them was not significant, $\Delta\chi^2(2) = 1.90$, $p > .10$, indicating that the partially restricted Model 2 is not a significantly worse fit than the unrestricted model.

I also estimated Model 3, a nested model in which all coefficients for the two groups were constrained to be equal. Indicators of fit for this analysis were as follows: $\chi^2(17) = 7.18$, $p = .98$; GFI = .96; RMR = .05; and NFI = .79. Again, the NFI was lower than desired for a good fit. When I compared the two models, the difference between Model 1 and Model 3 was not significant, $\Delta\chi^2(4) = 2.19$, $p > .10$. Thus I cannot conclude that the fully constrained model represents a significantly worse fit than Model 1.

In the interest of parsimony, the path diagram resulting from Model 3 is presented in Figure 2. Inasmuch as all coefficients were constrained to be equal for both groups, the diagram applies to both the young-old and the mid-old groups. Looking at those path coefficients larger than .10, one can see that the effect of age on fear of the unknown is .15, with greater age leading to greater fear. The direct effect of age on health is −.11, with greater age leading to poorer health. The direct effect of health on desired − expected time left to live was −.15, with better health leading to less discrepancy between the two times. The effect of health on purpose was .25, with better health leading to a greater sense of purpose in life. However, the direct effect of desired − expected time to live on fear of the unknown was only .05, and the direct effect of purpose on fear of the unknown was also only .05; indirect effects in the hypothesized model were negligible. Finally, the multiple correlation squared for the prediction of fear of the unknown was only $R^2 = .03$, indicating that the variables in the model are poor predictors of this fear.

DISCUSSION

Study results offer partial support for the hypothesis of a transition model regarding the fear of bodily annihilation (body loss), but not regarding the fear of mental or spiritual annihilation (the unknown).
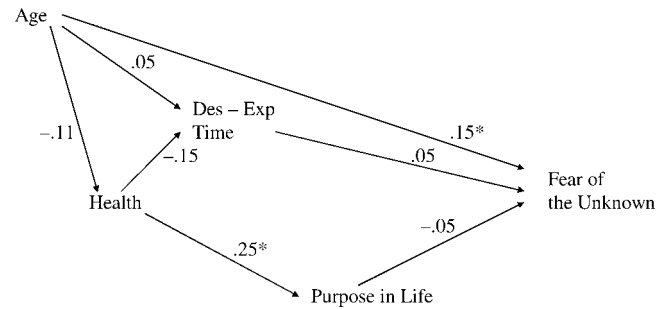

Figure 2. Path diagram of fear of the unknown as a function of purpose in life, health, age, and the discrepancy between the desired and expected time left to live for study participants (an asterisk indicates coefficients significant at the .05 level).

For both age groups, the paths connecting health, desired − expected time to live, and fear of body loss were in the predicted direction; that is, as health declined, there was a greater desire to live longer than expected, and there was increased fear. However, not only did the magnitude of these variables differ for the two groups, their corresponding path coefficients also differed in the expected direction of being larger for the mid-old group than for the young-old group.

A pattern of larger coefficients for the young-old group was found for the path from health to purpose to fear of body loss. The young-old individuals have better health, leading to greater purpose in life and less fear of bodily annihilation, whereas the opposite is true for the mid-old individuals.

In the case of fear of the unknown, although age had a weak effect on fear, the two age groups did not differ significantly, failing to support previous findings (Cicirelli, 2002b; Neimeyer &Moore, 1994). One explanation may be the nature of the Fear of the Unknown instrument, which assesses fears related to an unknown or uncertain afterlife. Because the individuals in the study sample of Midwestern elders held conventional Christian faiths, it is possible that most felt little uncertainty about an afterlife, and consequently there were few differences in fear of the unknown.

Surprisingly, the effects of age on fear of body loss were negligible. However, this may have been due to the limited variability of age within the small age ranges for young-old and mid-old individuals.

The discrepancy between the desired and expected time to live emerged as an important concept, indicating how much longer older individuals want to live beyond what they perceive as their expected time to die, and revealing a need to complete unfulfilled goals. It follows that individuals would fear death if it makes the attainment of their goals impossible, and the heightened awareness of approaching death in mid-old age brings increased fear at this period in time.

The concept of discrepancy between desired and expected time to live as a factor influencing fear of future nonexistence of the body overlaps with the comprehensive model of death by Tomer and Eliason (2000, in press). In their model, future-related regret, viewed as a direct predictor of death anxiety, is evoked by situations in the future that may preclude the individual from accomplishing his or her life goals. This concept seems to be especially applicable to mid-old individuals, for whom approaching death would be would be a situation preventing them from fulfilling life goals.

In general, the present study gives some support to the notion that the mid-age range constitutes a transition period in relation to fear of death in terms of bodily annihilation. The young-old seem to be in a "honeymoon period" in which they enjoy relatively good functional health and purpose in life despite some health problems, and they still manage a relatively active lifestyle. The smaller discrepancy between their desired and expected time left to live and its somewhat weaker relationship to death fear among the young-old group provides further indication that approaching death was not particularly salient for them.

The finding that the path coefficient linking purpose to fear of body loss was more negative for the young-old group than for the mid-old group requires explanation. I hypothesize that elders in both groups have unfinished business, that is, the need to attain certain goals. However, the young-old individuals have a greater likelihood of attaining their goals than do the mid-old individuals because they have more resources, such as better health, greater vigor, more social roles (Carstensen et al., 1999), and more time to live to accomplish their tasks. Death is less of a threat to the attainment of such goals and hence there is less fear. Because the mid-old individuals have fewer resources and less time to live, the fear of death is greater because death itself poses a greater threat to the attainment of their goals. This hypothesis has to be investigated in further research.

Future studies have to be carried out on old-old persons to discover how this transition period of increased fear of death is linked to the greater acceptance of death among this group of individuals. Use of various coping strategies to adapt to approaching death would be predicted by existing theories (Carstensen, et al., 1999; Tomer & Eliason, 2000, in press).

Various limitations of the present study are recognized. Generalizations from the small sample of Whites from a medium-sized Midwestern city are limited; the study requires replication with larger and more representative samples. Another limitation is possible sampling bias resulting from the relatively greater loss of cohort members from the mid-old age group through death; survivors may have different attitudes toward death. A longitudinal study is needed, following participants from young-old to old-old age, not only to deal with sampling bias but to provide a confirmation of the transition model. Finally, the structural analysis was limited by the fact that only single measures were used to indicate each variable, with the exception of the Fear of Body Loss measure. Future studies should use additional indicators, with better measures of each concept. If confirmed, such a model would have theoretical implications for nonlinear changes in death fears over later adulthood, and the practical implications are obvious in terms of counseling to help individuals to cope with death fears at key points in the life span.

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