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Development of Filial Obligation in Young Adults: An Examination of Crisis and Lifespan Theory

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DEVELOPMENT OF FILIAL OBLIGATION IN YOUNG ADULTS: AN EXAMINATION OF CRISIS AND LIFESPAN THEORY

by

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ABSTRACT

Formal care institutions are unable to meet care demands. As a result, informal caregivers (friends, family, neighbors) are called upon to fulfill this need. Adult children make up the majority of these informal caregivers. Adult children vary with respect to whether or not they provide care, and the amount of care provided. Filial obligation and attachment are positive predictors of these care behaviors. A better understanding of how these factors emerge and invoke caregiving behaviors is crucial.

The primary hypothesis of this study was that anxiety attachment dimension score would positively relate to baseline filial obligation, and that avoid attachment dimension scores would negatively relate to filial obligation at baseline. The second hypothesis was that participants randomized to the experimental group (filial challenge task, requiring administration of a living will to their parents) would experience greater change in filial obligation pre- to post-0task than would those randomized to the control group (autobiographical questionnaire). The third hypothesis was that anxious and avoid attachment dimension scores would moderate the (filial obligation) response to the filial challenge task (living will), whereby those with higher anxious attachment dimension scores would experience greater increases in filial obligation and those with higher avoid attachment dimension scores will experience greater decreases in filial obligation. Overall, hypotheses were not supported, though post-hoc analyses suggest an empirical basis for future research. Empirical and theoretical implications of these findings are discussed. Future work may examine complementary experimental paradigms for studying the development of filial responsibility.

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INTRODUCTION

As Baby Boomers enter later life, the escalating number of older adults requiring age-related care will place severe demands on formal and informal caregiving networks. According to the Administration on Aging (AoA) (2016), the number of older adults 65 years and older in 2014 (46.2 million) will more than double by 2060 (98 million). Demands associated with such increases will strain existing health-care systems. Even at current expenditure levels, there is a significant amount of unmet need for long-term care, and no foreseeable resolution (Allen & Mor, 1998). Formal and government institutions are presently unable to meet the immense requests for care. As a result, an increased emphasis on community-based care, also known as informal (unpaid) care is emerging (Chappell & Penning, 2005; Shaji & Reddy, 2012). Informal care is defined as non-professionals, including family members, friends, or neighbors, providing care in place of, or in combination with professional services (Ory, Hoffman, Yee, Tennstedt, & Shulz, 1999).

An estimated 34.2 million adults provided informal care for an adult over age 50 within the past year (AARP, 2015). The total opportunity cost of informal elder-care is $522 billion annually, while the cost of replacing informal care with skilled care is approximately $642 billion (Chari, Engberg, Ray, & Mehrotra, 2015). The burgeoning older adult population, disparate formal care services, and the economic value of informal caregiving requires an increased emphasis on informal care networks.

Approximately 41.3% of informal caregivers to frail older adults are adult children (Pinquart & Sorensen, 2011). Adult children are both a vital and limited support system for aging parents. Understanding factors acting to enhance an adult child's likelihood of providing informal care and the duration of that care (time until institutionalization) is imperative. Many factors serve to effect ability and willingness to provide care, such as demographic factors—including gender, ethnicity, and age—as well as caregiver proximity and care recipient factors (Marks, 1996a). Thus, development of an evidence-based model for the development of caregiving behaviors may facilitate creation of clinical interventions to optimize caregiving outcomes for both caregiver and care recipient.

A large gender gap in care provision exists. Females constitute three-fifths of informal caregivers and provide more care hours than male counterparts (AARP, 2015)— although, this gap seems to be shrinking with younger cohorts (Kramer, 2004). With regard to ethnicity, minority caregivers are more likely to provide informal support to relatives than Non-Hispanic Whites, and this may be due in part to higher levels of perceived social obligation and collectivism in Black and Hispanic cultures (Dilworth-Anderson, WIlliams, & GIbson, 2002). Ethnic minority caregivers are more likely to be children, and due to stronger gender-role socialization, are also more likely to be female (Pinquart & Sorenson, 2005). Majority of caregivers also tend to be later middle age (ages 50-64), as well as young old age (ages 65-74) (Marks, 1996b). In addition to demographic variables, geographic proximity (living closer to the dependent parent) is a positive predictor of caregiving (Marks, 1996b).

Care recipient characteristics also play a role in the determination of what care they receive. For instance, care recipient disability type and level of impairment influence care. Care

recipients with dementia received more hours of informal care compared to recipients with normal cognitive function (Friedman, Shih, Langa, & Hurd, 2015). Additionally, older and more severely disabled adults were more likely to receive informal care.

Psychosocial factors, such as filial obligation and attachment style are also associated with care behaviors (Rossi & Rossi, 1990; Silverstein, Gans, & Yang, 2006; Sorenson, Webster, & Roggman, 2002) . For the first time in history, an individual is likely to spend more years as an adult child with living parents than as a parent of a child under age 20 (Hagestad, 1990; Stein et al., 1998). Despite the substantial amount of time spent as an adult child, little is known about the development of these parent-child relationships throughout adulthood, and how these constructs unfold across the lifespan. A review of the literature suggests two such constructs; one with a substantive and well-established developmental trajectory, and the other with well-established empirical and conceptual relevance to caregiving outcomes.

Attachment Style

In the late 1980s, Hazan and Shaver (1994) applied attachment theory to adult relationships and found that core principals of infant attachment theory also pertained to adult relationships. The concept of adult attachment builds on Bowlby's "working model," which reflects the internal representations that individuals develop in infancy of the world and of significant people within it, including the self (Bowlby, 1958, 1969; Dykas & Cassidy, 2011). These representations develop into generalized beliefs and expectations about the warmth and responsiveness of others and about the worthiness of the self. Attachment theory suggests these early cognitive models may change subtly over time, but remain influential across the lifespan

(Collins, 1996). There is evidence that adult attachment dimensions play an important role in adult bonds, including romantic relationships. Secure attachment was significantly and positively correlated with trust in relationships, self-confidence, and marital satisfaction, whereas anxious attachment was inversely related with those same outcome variables (Feeney & Noller, 1990). Adult attachment dimensions are also implicated in friendships, with more securely attached individuals indicating higher levels of intimacy in their friendships than individuals who are less securely attached (Grabill & Kerns, 2000).

Bartholomew and Horowitz (Bartholomew & Horowitz, 1991) proposed that these working models that persist into adulthood consist of two parts: (1) thoughts about self and (2) thought about others. They further proposed that these thoughts are generally positive or generally negative. Attachment has traditionally been examined categorically based on a four-group taxonomy (secure, anxious-preoccupied, dismissive-avoidant, and fearful-avoidant) derived from Ainsworth's infant-caregiver attachment styles, however, recent research suggests that a dimensional approach based on working models is a more accurate representation of the dynamic nature of attachment behaviors among adults (Fraley & Spieker, 2003).

Attachment theory provides a useful framework for the study of caregiving behavior between adult children and aging parents because of its history of emphasis on the continuity of careseeking and caregiving behaviors across the life span (Ainsworth, 1989; Bowlby, 1969; Bowlby, 1982; Shaver & Hazan, 1993). With respect to caregiving behaviors, Cicirelli (1983) found that secure attachment was negatively associated with perceived burden. Secure caregiver attachment was found to predict later placement of loved ones into aged-care facilities and longer maintenance of community-based care (Markiewicz, Reis, & Gold, 1997). Cicirelli (1983) found

that adult children's secure attachment predicted commitment to provide future help (Sorenson et al., 2002). Additionally, attachment and filial obligation predicted caregiver preparedness, with the relationship between attachment and preparedness mediated by filial obligation (Paulson & Bassett, 2016).

Research indicates that individuals with high scores on anxious and avoidant attachment dimensions tend to exhibit caregiving characteristics at the opposite end of the continuum from characteristics of caregivers with secure attachment. With respect to caregiving behavior in adult romantic relationships, Hazan & Shaver's (2009) cross-sectional study found individuals high on the anxiety dimension provided "intrusive, compulsive, and frequent care toward romantic partners." By contrast, Bartholomew and Horowitz's (1991) cross-sectional study examined the relationship between adult attachment style and spousal caregiving behaviors in a sample of 77 adults and found an inverse relationship between avoid dimension scores and frequency of caregiving behaviors toward their partner.

Filial Obligation

Filial obligation, or responsibility for assisting older parents, is an aspect of the broader concept of familial norms known as filial expectancies. As a social norm, filial responsibility reflects the generalized expectation that children should support their older parents in times of need. Filial obligation is defined by Rossi and Rossi (1990) as an individual's sense of duty, obligation, or responsibility to care for aging parents. Filial obligation is conceptually distinct from personal intentions to provide support and the supportive behaviors themselves, though it is

predictive of both factors (Rossi & Rossi, 1990; Silverstein et al., 2006). Despite these findings, development and application of intra-individual obligations toward parents remain equivocal.

Filial Obligation and Depression

Filial obligation is also associated with caregiving outcomes such as depression, however the direction of the relationship is unrequited. One study found higher levels of filial obligation to be associated with less stressful and more rewarding feelings when helping dependent parents, with lower stress associated with less depression (Cheng, 2015). By contrast, a study examining 164 adult caregiving daughters found that a greater sense of obligation was correlated with higher scores on the Center for Epidemiological Studies Depression Scale. The incongruity in findings relating filial obligation to depression may be due to variable utilization of long-term care and other support services. Paulson and Lichtenberg (2011) found that among informal caregivers of older adults, non-immediate family members resorted to long-term care sooner in their care recipient's disease process. Non-immediate family members also reported lower levels of stress and depression. Immediate family members, who by virtue of their close kinship with the care recipient may experience greater feelings of obligation were more likely to delay institutionalization, conceivably because they are more willing to tolerate greater stress, depression and care recipient factors such as cognitive functioning, and behavior disturbance.

Development of Filial Obligation: Life-span & Needs-based theories

Different theories are understood to explain the development of filial obligations. Margaret Blenker, who first introduced the concept of filial maturity, proposed that filial obligation is prompted by a filial crisis that occurs when adult children realize they must be a reliable source of support for their parents (Blenker, 1965). By contrast, Corrine Nyddegar believed that the filial role is not the result of a filial crisis but rather the product of complex and life-long processes involving children's development and interaction with parents (akin to attachment style) (Nydeggar, 1991). Blenker and Nyddegar beliefs underlie two principal theoretical frameworks for conceptualizing emerging filial obligations: Needs-based or 'Crisis' theory and Life Course theory.

Needs based or 'Crisis' theory, sometimes referred to as Special Goods Theory, focuses on the need of the parent (Keller, 2006). When children are younger they require special goods from the parent in order to flourish, just as parents in old age require special goods from the adult child (Miller, 2003). Goodin (1985) proposed that obligation is an operation of vulnerability. According to Goodin, ''if one party is in a position of particular vulnerability to or dependency on another, the other has strong responsibilities to protect the dependent party'' and that children have obligations to care for their parents "…precisely because their parents are most vulnerable to them; and the most important component of their vulnerability is emotional rather than material.'' Further support for needs-based theory is the finding that filial obligation is shown to increase in response to parent need (Adams, 1968). Additionally, cognitive dissonance theory may influence the provision of care after the caregiving role is assumed (Festinger, 1957; Finley, Roberts, & Banahan, 1988). Individuals who provide care endorse higher levels of filial

obligation presumably in attempt to align cognitions with behaviors. Just as individuals who do not provide care endorse lower levels of filial obligation, presumptively in response to a reconciliation of cognition-behavior disparities. Regardless of the direction of the relationship between filial obligation and need, or whether that relationship is bidirectional, filial obligation tends to engender positive caregiving behaviors (Rossi & Rossi, 1990; Silverstein et al., 2006).

Several arguments exist within the broader life-course theory framework of filial obligation. The first involves reciprocity, or debt owed, between parents and children, based on the idea that adult children owe their parents something in return for favors and sacrifices provided to them over the life course (Blieszner & Hamon, 1992; Dykstra & Fokkema, 2007). Proponents of this argument posit the unique characteristics of the parent-child relationship in question do not contribute to filial obligation. In contrast to the reciprocity argument, the friendship model of filial obligation emphasizes the special features of the parent-child relationship, in which support arises out of a mutual love and liking for one another(Dixon, 1995; English, 1979). According to the famous philosopher and researcher, Jane English, "The duties of grown children are those of friends and result from love between them and their parents, rather than being things owed in repayment for the parents' earlier sacrifices" (English, 1979). In a similar vein, attachment styles developed in infancy and persist into adulthood contribute to filial obligation(Paulson & Bassett, 2015). The commonality of parent debt and friendship perspectives is that filial obligation develops gradually over time regardless of perceived paternal adversity of one's parent.

Past research emphasized the exclusivity of the two theories, however, this thesis takes a different approach and recognizes the obligation to fulfill the need cannot be separated from the

context in which the need arises. In other words, the two theories are not mutually exclusive, but rather complementary. As is true in other disciplines and areas within Psychology, human actions and values cannot be separated from the context in which they occur. For example, exemplary work place performance is a function of both individual characteristics developed overtime as well as contextual factors, such as management style (Afzalur Rahim, Antonioni, & Psenicka, 2001). Therefore, filial attitudes toward parents should not be examined independently from the need for care or filial "crises". Murray, Lowe and Horne's (Murray, Lowe, & Horne, 1995) findings highlight the significance of need in facilitating filial obligation; they found that emerging concerns about managing care needs of an aging parent facilitates maturation of one's filial perspective, characterized by recognition and acceptance of caregiving obligations. On the contrary, saliency of the need does not, alone, explain why we should care for our parents and not our friends or neighbors. Filial obligation has often been characterized as developing from early socialization to cultural standards for socially responsible behavior within the context of parent-child relationships (Cicirelli, 1993). Illustrated in the Orlando Care and Aging Model (See figure 1), filial obligation matures over the life course, however, they are further cultivated through interaction with social contexts and life events, such as cognitive decline in a parent (Tsutsui, Muramatsu, & Higashino, 2013).

Social Desirability

College students, like others, engage in social impression management. Rossi and Rossi (1990) posited that filial obligation is relative to one's social role as a son, daughter, or other family member. Failure to meet culturally prescribed social roles is often a cause of guilt,

shame, or social sanction (adversity, social rejection). Thus, it may be important to examine social desirability as a prospective control variable.

OBJECTIVES

Based on this integration, three hypotheses will be examined, as follows:

Significant individual differences exist with regard to perceived obligation. Past work has shown that filial obligation and attachment together predict helping behaviors toward an elderly parent—with high scores on the anxiety dimension positively predicting care behaviors and high scores on the avoid dimension negatively predicting caregiving. Together, these findings suggest that individual differences in filial obligation may reflect underlying differences in attachment style. Attachment style was measured using the two working model attachment dimensions: (1) attachment anxiety (model of self) and (2) attachment avoidance (model of other).

Hypothesis 1: High scores on the avoid dimension will predict lower levels of baseline filial obligation. High scores on the anxiety dimension will predict higher levels of filial obligation at baseline.

The filial challenge exposes students to momentary instances of parent dependence, in which students may experience higher levels of filial obligation in efforts to mitigate potential consequences resulting from parent adversity. Additionally, the experimental filial challenge task is expected to increase filial obligation indirectly through the fostering of filial maturity by consideration of parents [by students] as human beings beyond the parent-role with unique needs and wishes.

Hypothesis 2: participants who are randomized to the experimental group, who will be asked to complete the filial challenge task (living will), will experience greater change in filial

obligation pre- to post-task than will participants who are randomized to the control task (autobiographical questionnaire).

Evidence suggests that filial obligation is a function of parent-need and increases in response to efforts toward protecting the vulnerable parent. On the other hand, evidence also suggests filial obligation emerges gradually in response to debt accumulated over the lifespan as parents provide favors to, and make sacrifices for, their developing children. Gradual emergence of filial obligation over the life span is also the result of emotional bonds formed between parents and children. It is reasonable to assume that college students have prior existing obligations constructed toward parents based on emotional bonds and reciprocity, however, parents of undergraduate university students are typically between the ages of about 40 and 60, and do not have need for functional support from others. Thus, it is expected that pre-existing attachment style will moderate the filial obligation response to the filial challenge task.

Hypothesis 3: Baseline scores on the avoid and anxious attachment dimensions will moderate the (filial obligation) response to the filial challenge task (living will), whereby those with high anxiety attachment dimension scores will experience greater increases in filial obligation and those with high avoid attachment dimension scores will experience greater decreases in filial obligation.

METHODS

Sample

The sample included students in undergraduate psychology courses at the University of Central Florida (UCF). Students participated through the University's Psychology research participation system known as SONA. SONA is a cloud-based participant management software where students receive course credit for their participation. Inclusion criteria required students at least 18 years old whose primary language is English, and whose biological parents are living and fluent in English per the student's report. Exclusion criteria included students previously (prospective participants will be asked if there was "extended time while the parent was ill for more than 2 weeks) or currently providing care to a parent.

252 students were randomly assigned to experimental or control groups. Assignment was delineated using an online random number generator (RANDOM.ORG) designed by Dr. Mads Haahr at Trinity College, Dublin. The random numbers were derived from atmospheric noise rather than from predetermined algorithms. This service is advantageous as it provides true randomness rather than pseudo-random numbers via algorithms (Haahr, 1998). Of the 252 students young adults assigned, 49 completed both baseline and exit measures.

Measures

Collected Demographic information included gender, age, number of siblings, sibling order (youngest, middle, eldest), ethnicity, family financial situation ("Now think about your

family when you were growing up, from birth to age 16.Would you say your family during that time was pretty well off financially, about average, or poor?"), parent's education level, parent's race, and parent's geographic proximity—how many years did they live with parent?

Filial Obligation

The Obligation Scale (Cicirelli, 1990) is a seven-item instrument assessing global feelings of obligation. The respondent is asked to indicate, on a 5-point response scale, the importance of each statement as a reason for helping the parent. This measure includes questions such as, "I feel a sense of obligation to help," "It's a child's duty to help," and "I feel I should do my part in helping."

Attachment

Numerous and highly varying measurements of attachment style exist. This study was developed using a model with three dimensions – close, depend, and anxiety. Individual differences in adult attachment style were measured using the Revised Adult Attachment Scale developed by Collins and Read (Collins, 1996). This 18-item scale contains the three six-item subscales: (1) the close subscale measures the extent to which a person is comfortable with closeness and intimacy; (2) the depend subscale was used to assess the extent to which a person is comfortable depending on others and believed that people can be relied on when needed; and (3) the anxiety subscale measures the extent to which a person is worried about being rejected and abandoned by others. These three underlying dimensions are proposed as guiding principles

that determine how attachment styles manifest themselves in adult relationships. For example, a person with a secure attachment style is comfortable with emotional intimacy, feels others are dependable and available when needed, and is not worried about being abandoned or unloved (Collins & Read, 1990). Participants rated the extent to which each item of the questionnaire was descriptive of her feelings in close relationships on a scale ranging from 1 (not at all characteristic of me) to 5 (very characteristic of me). Sample items are “I find it relatively easy to get close to people,” “I find it difficult to allow myself to depend on others,” and “I often worry that other people don’t really love me.” Additionally, the dimensions can be translated back to the adult attachment styles referenced in the original literature on this subject (Collins & Read, 1990). Collins and Read (1990) reported Cronbach’s alpha coefficients of .69 for Close, .75 for Depend, and .72 for Anxiety.

Depressive Symptoms

Depression was measured using the Center for Epidemiologic Studies Depression Revised 10-item scale (CES-D-R 10)(CES-D; "Center for epidemiological studies depression scale revised (CES-D-R 10)," ; L. Radloff, 1977). Two of the ten items are positively worded and eight are negatively worded. Participants were asked to respond ‘yes’ or ‘no’ to each item based on whether they had experienced it during the preceding week. Scores ranged from 0 to 30, with higher scores indicating greater depressive symptoms. The CES-D-R 10 has an internal consistency reliability ranging from .85 to .90 across studies (L. S. Radloff, 1977).

Social Desirability Scale

Social desirability was measured using the Marlowe-Crowne Social Desirability Scale short Form C (M-C SDS Form C) (Crowne & Marlowe, 1960). The M-C SDS Short Form C consists of 13 items and utilizes a true/false format. This measure includes questions related to culturally accepted behavior such as, "Before voting I thoroughly investigate the qualifications of all the candidates" or culturally questionable behavior, "My table manners at home are as good as when I eat out in a restaurant." Scores range from 0-33, with high scores indicating high conformity to social rules and conventions (social desirability). The M-C SDS has an internal consistency coefficient of .88 (Crowne & Marlowe, 1960).

Follow-up Questions

Follow-up Questions were asked to obtain a summary of responses to the filial challenge task, as well as to infer the student's perception and feelings after completing the task (See Appendix).

Procedure

Students who met criteria for inclusion participated through the university's SONA system. Students either received a web link with study instructions or they signed up for a timeslot to complete the study in person. Participants received a unique identification number (ID). ID numbers were used to link demographic and baseline data to post-test data. After completing the screening survey, students who were eligible were notified to complete the pre-test questionnaire. Pre-test data included demographic information and filial obligation, attachment style, depression and social desirability scales. These measures were completed using

a Qualtrics survey. After submission of pre-test data, randomly assigned active group students were directed to a script comprised of excerpts from the Five Wishes Living Will survey in which they had until the end of the semester in which they enrolled in the study to complete the Five Wishes Living Will survey and submit a summary of parent's responses. Students were instructed to administer the Five Wishes Living Will survey to *one* parent and record their responses in Qualtrics. The survey consisted of multiple choice and open-ended questions (see appendix). Sample questions included "If my doctor and another health care professional both decide that I am likely to die within a short period of time, and life-support treatment would only delay the moment of my death (Choose *one* of the following): "I want to have life-support treatment," "I do not want life-support treatment. If it has been started, I want it stopped," and "I want to have life-support treatment if my doctor believed it could help. But I want my doctor to stop giving me life-support treatment if it is not helping my health condition or symptoms." Open-ended questions include "The person I choose as my health care agent is: _____"

Following completion of pre-test questionnaires, randomly assigned control group students were directed to an autobiographical survey on Qualtrics in which they had until the end of the semester in which they enrolled in the study to complete and submit the survey. Students were instructed to administer the autobiographical survey to one parent and record a summary of their responses in Qualtrics. The survey consisted of multiple choice and open-ended questions. Sample questions include, "Were you named after anyone? Who?" and "What were your (see appendix) hobbies as a child?"

Students who completed the study online were instructed to administer the survey either by phone or in-person at their leisure. Students who completed the survey in person administered

their survey over the phone from a private room in the UCF Psychology Clinic immediately after completion of the pre-test questionnaire.

Within a week of survey administration, active and control group students who completed the study online received a web link directing them to complete post-test questionnaires. Participants who completed the study in person completed the post-test questionnaire in the OLDeR Lab. Post-test data included the filial obligation, attachment style, and depression measures. Post-test data also included questions assessing the student's feelings and thoughts toward administering the living will. Cumulative time for pre-test questionnaire, survey administration, and post-test questionnaire was approximately 45 to 90 minutes for active and control groups. Times varied depending on individual differences in administration speed, response time, and response length. Students were awarded 2 SONA credits for their participation.

Statistical Methodology

Descriptive statistics of the proposed research compared and contrastes experimental and control groups on demographic variables. Because the research employed a randomization protocol, control and experimental groups were compared on demographic and baseline variables prior to hypothesis testing. Multivariate Analysis of Variance (MANOVA) was used to compare continuous demographic and baseline variables. Chi-Square was used to compare categorical demographic and baseline variables.

The primary hypothesis that participants in the experimental group will score higher on the filial obligation measure than those in the control group was examined using an Analysis of

Covariance (ANCOVA; Van Breukelen, 2006). Specifically, baseline measures of filial obligation was used as the control variable. Demographic variables known to be significantly different between the experimental and control groups based on the aforementioned MANOVA were included as control variables.

RESULTS

The final sample consisted of 49 undergraduate students at the University of Central Florida. Approximately 70% of the sample were between ages 18 and 20 and 24% of the sample were between ages 21 and 24.The sample was predominately female (58%). More than half (56%) of the sample identified as White, followed by 14% who identified as Hispanic, 12% who identified as Asian/Pacific Islander, 10 % who identified as Black or African American and 2% who identified as other or multiracial. Participants rated their family SES as poor (8%), average (54%), or well off (34%). With regard to filial relationships, 62% of students endorsed a very close relationship with their mother while 40% of students indicated a very close relationship with their father. The mean rating for mother's health was 8.44 (1.65) and the mean rating for father's health was 7.94 (1.76). Parent's health was indicated by students using a 1 to 10 rating scale (higher number indicated better health). With regard to baseline filial obligation and depressive symptoms, student mean score on the filial obligation scale was a 27.31 (6.41) and their mean score on the CESD was a 19.10 (8.47). None of these variables were normally distributed (Shapiro-Wilk $p < .05$ for all) and so chi-squared analyses and Mann-Whitney U tests were used to assess between-group differences on demographic variables, of which there were none (See Table 1).

Before testing the study hypotheses, the data was examined to identify any influential data points using Cook's distance values and Leverage values. The Cook's D-statistic is a measure of the change in the regression coefficients that would occur if this

case was omitted, thus revealing which cases are most influential in affecting the regression equation. An observation with a Cook's D-statistic larger than 1 is considered influential. One data point yielded a Cook's D-statistic larger than the threshold and was removed from the data set (Stevens, 1984). Leverage is a measure of how far an observation on the predictor variable is from the mean of the predictor variable. The higher the leverage value, the more potential it has to impact the fitted model. Data points with large leverage values were eliminated (Stevens, 1984).

Hypothesis 1, regarding the prospective relationship between scores on the anxiety and avoid attachment dimensions and filial obligation, was evaluated using a linear regression. Results were anxiety (B=.71, SE=.94, p>.05) and avoid (B= -.58, SE=1.49, p<.05) attachment dimensions did not predict baseline filial obligation (See Table 2).

Hypothesis 2 posited that respondents who completed the filial challenge task would report a larger increase in filial obligation relative to participants who completed the control condition. This was examined using a one-way ANCOVA, with group assignment as the factor and baseline filial obligation as a continuous control variable. Results were that the pre-trial filial obligation score significantly related to the post-trial filial obligation score, F (1, 45) = 15.77, p<.01, ηp^2 = .26, but no between group differences in post-task filial obligation (See Table 3), F (1, 45) = .09, p > .05, ηp^2 = 0.00. Post-hoc repeated-measures t-tests were completed examining pre-post changes in filial obligation within groups. The one-tailed change in filial obligation was statistically significant for experimental group participants (t=-1.73, p=.049, d=.37), but not for the experimental group participants (t=-0.81, p=.21, d=.16) (See Table 4).

Hypothesis 3 addressed the relationship between attachment and filial obligation, hypothesizing that among those in the experimental group, avoid and anxiety attachment dimensions will moderate the (filial obligation) response to the filial challenge task (living will), whereby those with higher anxiety attachment dimension scores will experience greater increases in filial obligation and those with higher avoid attachment dimension scores will experience greater decreases in filial obligation. In the first block of the multiple regression testing the moderation effect of the anxiety dimension, baseline filial obligation predicted post-task filial obligation (B=.53, SE=.16, p<.01), but the anxiety attachment dimension did not (B=-.43, SE=1.07, p > .05). The addition of the interaction term in the second block did not significantly contribute to the prediction of post-task filial obligation (B=.12, SE = .18, p >.05). Results were the anxiety attachment dimension did not moderate the relationship between baseline filial obligation and post filial obligation in response to the filial challenge task (See Table 5). In the first block of the multiple regression testing the moderation effect of the avoid dimension, baseline filial obligation predicted post-task filial obligation (B=.55, SE=.16, p<.01), but the avoid attachment dimension did not (B=-.34, SE=1.47, p >.05). The addition of the interaction term in the second block did not significantly contribute to the prediction of post-task filial obligation (B=.27, SE = .25, p >.05). Results were the avoid attachment dimension did not moderate the relationship between baseline filial obligation and post filial obligation in response to the filial challenge task (See Table 5).

DISCUSSION

The goals of this study were to examine a theoretical model addressing the development of filial obligation in a sample of young adults. There are three primary findings of this study. First, avoid and anxiety attachment dimensions did not significantly predict filial obligation at baseline. Second, relative to individuals who completed the autobiographical task, individuals who completed the filial challenge task did not report statistically significant elevations in filial obligation. A post-hoc, within-subjects analysis indicated that mean filial obligation scores increased among experimental-group participants, but not among control group participants. Though this ancillary finding is consistent with the *a priori* hypotheses, conservative interpretation of this finding is indicated for reasons discussed below. Third, neither anxiety nor avoid dimensions moderated the response (filial obligation) to the experimental manipulation (filial challenge task). Overall, findings did not support hypotheses, and a number of interesting questions are raised by this.

One possible explanation for non-significant findings is that the living will task does not elicit or simulate a filial crisis that is analogous to that experienced among adult children of older adults with life limiting disorders. A filial crisis marks the shift for which an adult child realizes they must become a reliable source of support for a parent (Nydeggar, 1991). This crisis is prompted by health adversity on behalf of the parent (Nydeggar, 1991). This is the first study to our knowledge to test an experimental paradigm aimed at eliciting or simulating filial crisis. It is possible that other paradigms,

such as a vignette in which an adult child imagines parental adversity, might more specifically affect thoughts related to the decline of a loved one and one's own corresponding responsibilities. In order to better understand whether the manipulation was powerful enough to elicit a filial response, qualitative data about the participant's experience was collected. Majority of respondents stated the experience was uncomfortable and they had never discussed this topic before with their parent. Characteristic feedback from students included: "It felt a bit odd because we've never discussed these things before," "It was fine. We never really had these kinds of conversations before," "it was weird asking these types of questions," and "Extremely uncomfortable." Two students reported feeling emotional during the experience, stating "sad because I didn't like thinking about my mother sick or dying" and "I was not expecting those questions, it was very emotional." Based on the qualitative data, it is likely that the paradigm did in fact elicit thoughts surrounding parent's future dependence and expectations toward filial responsibilities. Thus, this particular task may be a useful paradigm in eliciting filial crisis.

A second explanation for null findings is limited statistical power. This study was innovative with respect to testing two major theories posited to underly developing obligations. As is often the case for innovative paradigms, little empirical basis existed on which to estimate necessary statistical power. The effect size for this study was estimated based on one prior study (Paulson & Bassett, 2015) which examined the relationship between close attachment, preparedness, and filial obligation. A power analysis suggested that a sample size of 44 would yield .80 statistical power to detect a similarly sized effect.

Lack of statistical power is supported by study effects trending in line with hypothesis 2. Specifically, the experimental group experienced a small, statistically significant increase in filial obligation while the control group showed a modest and non-significant increase over time.

A third reason for the lack of support for the primary hypotheses may be participant age. Undergraduate students are typically in their late teens and early 20s and majority of their parents are likely to be in their 40s and 50s. Individuals in mid-life are less likely to be dependent on their adult children, thus, participants may be too far removed from the immediacy of becoming a reliable source of support for parents.

Lastly, non-significant findings may suggest that life-span and needs-based theories do not adequately explain emerging filial obligations. An adult child's attachment style and level of parent need may not directly lead to filial obligation but rather is attenuated or enhanced by social conventions. Beliefs about filial responsibility are often conceptualized through a cultural lens. In Hispanic culture, familismo (familism) describes strong identification, attachment and loyalty of individuals to their families (Clark & Huttlinger, 1998; Wilmoth, 2001; Neary & Mahoney, 2005). Mexican American college students report higher levels of familism compared to nonHispanic students (Kline, Killoren, & Alfaro, 2016). This finding is consistent in Cuban and Central Hispanic Americans as well (Sabogal, Marin, & Otero-Sabogal, 1987). Similarly, in Asian cultures, family-centered cultural values, known as filial piety or "Xiao" influence children's attitudes and behaviors toward their aging parents (Li, 1997). In Japan, the concept of "amae" refers to four principles that guide decision making in Japanese families, one of which revolves around the responsibility of

family to care for its elders (Li, 1997). In Chinese families, hierarchical family relationships take priority over spousal relationships and friendships and wife of the first-born son is usually expected to provide majority of the care, but all children are expected to "repay parental sacrifice via filial piety" (Char, Tseng, Lum, & Hsu, 1980). Chinese Americans report high levels of filial piety (Dong, Zhang, & Simon, 2014) and these expectations were not diminished with more acculturation in the US. African Americans also demonstrate higher levels of filial obligation compared to Whites (Pinquart & Sorensen, 2005). Because the family is a main source of socialization, filial beliefs are influenced by intergeneration transfer of familial norms. Thus, although the parent-child relationship as measured by attachment style is an important predictor of filial attitudes, sociocultural values (such as familism and filial piety) may influence the intensity, organization, and conceptualization of these beliefs.

Clinical Implications

These findings add to the current knowledge of how filial obligation unfolds over life span. This further enhances our ability to identify individuals who will acquire caregiving roles in the future. Finally, understanding whether the caregiver trajectory is modifiable by manipulating filial obligation provides clinicians with prospective therapeutic targets that may facilitate promotion of caregiving for aging parents.

Limitations

One limitation of this study was lack of statistical power due to a small sample size. Effect sizes described by these data may inform future research efforts. Additionally, the age range collected in this sample was quite narrow. The majority of individuals were between the ages 18 and 20. The decision to use an upper age bound of 24 was based on the filial shift that occurs young adulthood. The filial shift consists of Individuation, which occurs when the adult child achieves psychological separation from parents while maintaining the emotional qualities of the parent-child relationship (Grotevant & Cooper, 1986; Youniss & Smoller, 1985) Parent-child relationships gradually transform from hierarchical to symmetrical and mutually supportive (Anderson & Sabatelli, 1990; Mendonca & Fontaine, 2013). Given the unique filial perspective associated with this developmental period, only individuals in young adulthood were included in the study. Nonetheless, given theoretical perspectives on filial attitudes in the context of adult development described above, extending the sample to include middle-aged adults may demonstrate more robust effects from the filial challenge task as their parents are typically in later life and are at more immediate risk for experiencing health problems that result in dependency. Given the large attrition in the online sample, there were concerns regarding study engagement. Less than half of online participants who completed baseline measures also completed follow-up data. The low follow-up rate raises concerns about the effort required of students to complete the study tasks. Students may have found the study tasks to be too cumbersome to complete and thus did not finish the study. Unlike the in-person sample where students completed the pre and post-task questionnaires and administered the survey to a parent in the lab, there were no study checks in place to ensure online participants administered the

survey to their parents and completed the pre and post-tasks in an effortful and engaged fashion. This methodological limitation is common to studies that are administered completely, or as this one was, partially online.

Future Research

Future research might examine these theories using more proximal representations of life-span and filial crisis variables. Although attachment style is one measure of parent-child relationships, other measures, such as self-reported relationship quality may be better predictors of filial obligation from the perspective of life-span theory. Additionally, it is possible the living will task might not adequately simulate a filial crisis. Vignettes related to declining parent health might better elicit a filial crisis. Given the positive association between filial obligation and commitment to future care, it is important to understand how filial attitudes develop over time. Informal care support is imperative given the growing number of older adults requiring age-related care (Chappell & Penning, 2005; Shaji & Reddy, 2012). Informal care has important implications for both society and care recipient outcomes. Informal care reduces the enormous financial impact of formal care services on the strained US healthcare system (Chari, Engberg, Ray, & Mehrotra, 2015). Informal care is also associated with aging in place (Albert, Simone, Brassard, Stern, & Mayeux, 2005), asset protection (Brown, 2006), and expression of cultural and individual preferences for in-home care (Bayer & Harper, 2000). Since filial obligation influences the decision to provide care and the frequency of care provided (Rossi & Rossi, 1990; Silverstein et al., 2006), the ability to facilitate expression of this value may facilitate the provision of informal care in our aging society.

APPENDIX A: TABLES

Table 1 Baseline Characteristics

	Total	Experimental	Control	
Number of Participants	48	22	26	
	%	**%**	**%**	**χ^2 or (Mann-Whitney U)****
Female	58.0	63.6	56.0	0.18
Age (mode = 18)	28.0	27.3	34.6	(238.0)
Ethnicity				7.23
White	56.0	68.2	50.0	
Hispanic or Latino	14.0	4.5	23.1	
Black or African American	10.0	4.5	15.4	
Asian/Pacific Islander	12.0	13.6	11.5	
Other	1.0	4.5	0.0	
Multiracial	1.0	4.5	0.0	
Family SES (self-report)				0.24
Well Off	34.0	31.8	38.5	
Average	54.0	59.1	53.8	
Poor	8.0	9.1	7.7	
Born in US	75.6	77.3	76.9	<0.01
Closeness with Mother				2.52
Very Close Relationship	62.0	59.1	69.2	
Closeness with Father				7.36
Very Close Relationship	40.0	50.0	34.6	
	***M*(SD)**	***M*(SD)**	***M*(SD)**	
Mother's Health*	8.44 (1.65)	8.16 (2.19)	8.67 (1.05)	(242.00)
Father's Health*	7.94 (1.76)	7.45 (2.15)	8.36 (1.22)	(346.50)
Filial Obligation (baseline)	27.31 (6.41)	25.91 (6.82)	28.50 (5.91)	(353.50)
CESD (baseline)	19.10 (8.47)	17.95 (8.60)	20.08 (8.40)	(324.00)

*Parent health is rated using a 1-10 scale with higher scores indicating better health

**No between-group comparison on demographic variables indicated statistically significant differences

Table 2 Correlation Table

	M (SD)	1	2	3	4	5	6	7	8
1. CESD	19.10 (8.47)		0.104	-0.163	0.395†	0.418	0.008	0.313	-0.219
2. Filial Obligation Baseline	27.31 (6.41)			.523†	0.098	-0.004	0.12	0.023	.293*
3. Filial Obligation Exit	28.77 (5.26)				-0.161	-0.181	.288*	0.178	-0.284
4. Anxiety Attachment	2.96 (1.14)					.480†	0.017	0.082	-0.268
5. Avoid Attachment	2.71 (.71)						-0.095	-0.116	-0.293
6. Contact frequency with mom♦	4.77 (2.22)							.631†	-0.004
7. Contact frequency with dad♦	2.79 (1.95)								-0.008
8. Social Desirability	6.90 (2.72)								

* $p<.05$

† $p<.01$

♦ *Contact Frequency was measured as days per a week*

Table 3 Results of regression analysis examining relationship between attachment dimensions and baseline filial obligation

	*B**	*SE*
Anxiety Attachment	0.71	0.94
Avoidant Attachment	-0.58	1.49
Constant	26.76	3.75

*Predictors did not significantly relate to baseline filial obligation

Table 4 Results of ANOVA examining relationship between group assignment and filial obligation

Predictor	**Sum of Squares**	***df***	**Mean Square**	***F***	***Partial* η2**
Intercept	703.75	1	703.75	33.58*	0.42
Baseline Filial Obligation	330.42	1	330.42	15.77*	0.26
Group	1.94	1	1.94	0.09	0.00
Error	943.00	45	20.96		

*p<.001

Table 5 Filial Obligation Values

	Pre-Task	Post-Task	*t*-test	*Cohen's d*
Control	28.50 (5.91)	29.46 (4.66)	-0.81	0.16
Experimental	25.91 (6.82)	27.95 (5.90)	-1.73*	0.37
Overall	27.31 (6.41)	28.77 (5.26)		

**1-tailed p-value <.05*

Table 6 Results of regression analysis examining hypothesized moderation of response to filial challenge task

	Step 1		**Step 2**	
	Anxiety Attachment			
Variance accounted for	r^2 = .40		r^2 = .42	
	B	*SE*	*B*	*SE*
Baseline Filial Obligation	0.53*	0.16	0.54*	0.16
Anxiety Attachment	-0.43	1.07	-0.55	1.10
Interaction			0.12	0.18
Constant	28.54	1.08	28.61	1.10
	Avoid Attachment			
Variance accounted for	r^2 = .40		r^2 = .43	
	B	*SE*	*B*	*SE*
Baseline Filial Obligation	0.55*	0.16	0.52*	0.16
Avoid Attachment	-0.34	1.47	0.27	1.58
Interaction			0.27	0.25
Constant	28.63	1.05	28.46	1.06

*p < .01

APPENDIX B: FIGURES

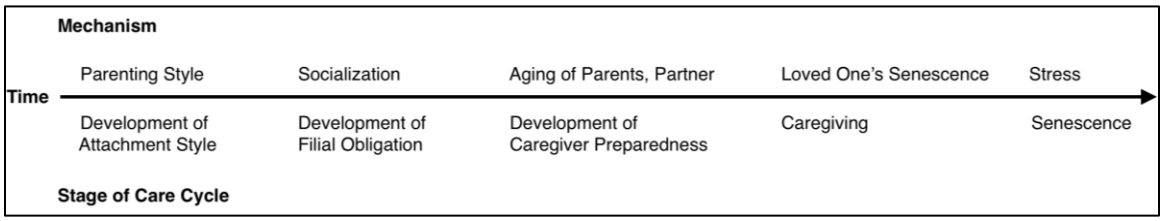

Figure 1: The Orlando Care and Aging Model

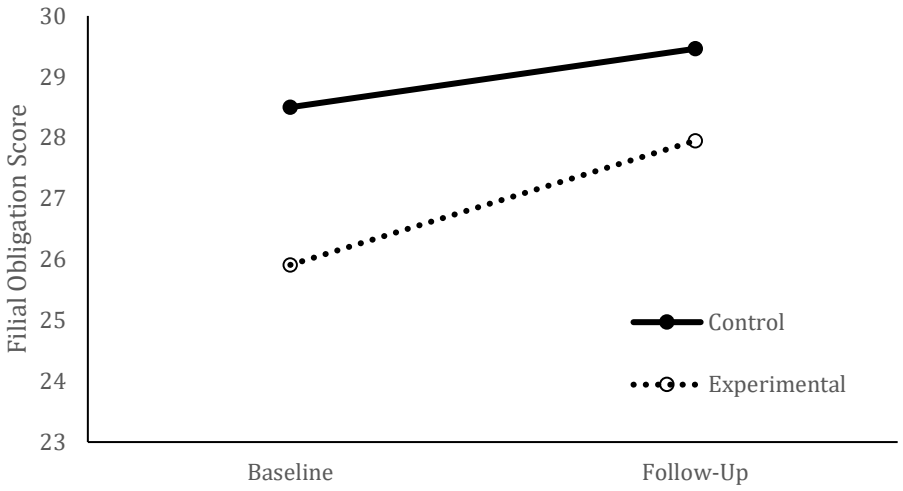

Figure 2: Change in filial obligation score from baseline to follow-up

APPENDIX C: IRB APPROVAL LETTER

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Rachel Bassett**

Date: **October 26, 2018**

Dear Researcher:

On the IRB approved the following modifications to human participant research until 10/03/2019 inclusive:

Type of Review:	IRB Addendum and Modification Request Form Expedited Review
Modification Type:	Added in-person location for study; uploaded an additional consent form and a revised protocol
Project Title:	Induced change in filial obligation among young adults: An experimental study
Investigator:	Rachel Bassett
IRB Number:	SBE-17-13255
Research ID:	N/A

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

If continuing review approval is not granted before the expiration date of 10/03/2019, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

All data, including signed consent forms if applicable, must be retained and secured per protocol for a minimum of five years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained and secured per protocol. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

This letter is signed by:

Signature applied by Renea C Carver on 10/26/2018 02:59:47 PM EDT

Designated Reviewer

APPENDIX D: SURVEY MEASURES

Five Wishes Living Will

****PLEASE NOTE: THIS VERSION OF "FIVE WISHES" IS INTENDED FOR RESEARCH PURPOSES ONLY AND IS NOT ENFORCEABLE BY LAW****

Introduction: I'm now going to ask you some questions about your medical wishes, as well as your personal, emotional, and spiritual needs if you were to become seriously ill.

1. Who do you choose as your health care Agent. That is, who would you like to make healthcare decisions for you if you were to become unable to make these decisions for yourself?
Name: _____

2. Who do you choose as your second health care agent?
Name: _____

3. Your Health Care Agent can make health care decisions for you. Which of the following would you like your agent to be able to do (Please check all that apply)?

a.) Make Choices for me about my medical care or services like tests, medicine, or surgery. This care or service could be to find out what my health problem is, or how to treat it. It can also include care to keep me alive. If the treatment or care has already started, my Health Care Agent can keep it going or have it stopped.

☐YES ☐NO

b.) Interpret any instructions I have given in this form or given in other discussions, according to my Health Care Agent's understanding of my wishes and values.

☐YES ☐NO

c.) Consent to admission to an assistant living facility, hospital, hospice, or nursing home for me. My Health Care Agent can hire any kind of health care worker I may need to help me or take care of me. My Agent may also fire a health care worker, if needed.

☐YES ☐NO

d.) Make the decision to request, take away or not give medical treatments, including artificially provided food and water, and any other treatments to keep me alive.

☐YES ☐NO

e.) See and approve release of my medical records and personal files. If I need to sign my name to get any of these files, my Health Care Agent can sign it for me.

☐YES ☐NO

f.) Move me to another state to get the care I need or to carry out my wishes.

☐YES ☐NO

g.) Authorize or refuse to authorize any medication or procedure needed to help with pain.

☐YES ☐NO

h.) Take any legal action needed to carry out my wishes.

☐YES ☐NO

i.) Donate useable organs or tissues of mine as allowed by law.

☐YES ☐NO

j.) Apply for Medicare, Medicaid, or other programs or insurance benefits for me. My Health Care Agent can see my personal files, like bank records, to find out what is needed to fill out these forms.

☐YES ☐NO

k.) Listed below are any changes, additions, or limitations on my Health Care Agent's Powers (Please type or write in the space below):

5. What should your caregiver keep in mind (Please check all that apply)?

☐ I do not want to be in pain. I want my doctor to give me enough medicine to relieve my pain, even if that means that I will be drowsy or sleep more than I would otherwise

☐ I do not want anything done or omitted by my doctors or nurses with the intention of taking my life

☐ I want to be offered food and fluids by mouth, and kept clean and warm

5. Life support can mean a variety of things for different people. For example, Life support treatments means any medical procedure, device or medication to keep you alive. Life-support treatment includes: medical devices put in you to help you breathe; food and water supplied by medical device (tube feeding); cardiopulmonary resuscitation (CPR); major surgery; blood transfusions; dialysis; antibiotics; and anything else meant to keep you alive. If you wish to limit the meaning of life-support treatment because of religious or personal beliefs, please describe your limitations. You want to make very clear what you want and under what conditions (Please type or write in the space below)

6. What kind of medical treatment do you want or don't want in the four situations listed below:

CLOSE TO DEATH:

If your doctor and another health care professional both decide that I a likely to die within a short period of time, and life-support treatment would only delay the moment of my death (Choose one of the following):

☐ I want to have life-support treatment.

☐ I do not want life-support treatment. If it has been started, I want it stopped.

☐ I want to have life-support treatment if my doctor believes it could help. But I want my doctor to stop giving me life-support treatment if it is not helping my health condition or symptoms.

IN A COMA AND NOT EXPECTED TO WAKE UP OR RECOVER:

If your doctor and another health care professional both decide that you are in a coma from which you are not expected to wake up or recover, and you have brain damage, and life-support treatment would only delay the moment of your death (Choose *one* of the following):

☐ I want to have life-support treatment.

☐ I do not want life-support treatment. If it has been started, I want it stopped.

☐ I want to have life-support treatment if my doctor believes it could help. But I want my doctor to stop giving me life-support treatment if it is not helping my health condition or symptoms.

PERMANENT AND SEVERE BRAIN DAMAGE AND NOT EXPECTED TO RECOVER:

If your doctor and another health care professional both decide that you have permanent and severe brain damage, (for example, you can open your eyes, but can not speak or understand) and your are not expected to get better, and life-support treatment would only delay the moment of your death (Choose *one* of the following):

☐ I want to have life-support treatment.

☐ I do not want life-support treatment. If it has been started, I want it stopped.

☐ I want to have life-support treatment if my doctor believes it could help. But I want my doctor to stop giving me life-support treatment if it is not helping my health condition or symptoms.

IN ANOTHER CONDITION UNDER WHICH YOU DO NOT WISH TO BE KEPT ALIVE:

IF there is another condition under which you do not wish to have life-support treatment, describe it below. In this condition, you believe that the costs and burdens of life-support treatment are too much and not worth the benefits to you. Therefore, in this condition, you do not want life-support treatment. (For example, you may write "end-stage condition." That means that

your health has gotten worse. You are not able to take o yourself in any way, mentally or physically. Life-support treatment will not help you recover. Please leave the space blank if you have no other condition to describe.) (Please type or write in space below):

7. Your wish for how comfortable you would like to be. Please check off all that you agree with.

☐ I do not want to be in pain. I want my doctor to give me enough medicine to relieve my pain, even if that means I will be drowsy or sleep more than I would otherwise.

☐ If I show signs of depression, nausea, shortness of breath, or hallucinations, I want my caregivers to do whatever they can to help me.

☐ I wish to have cool a moist cloth put on m y head if I have a fever.

☐ I want my lips and mouth kept moist to stop dryness.

☐ I wish to have warm baths often. I wish to be kept fresh and clean at all times.

☐ I wish to be massaged with warm oils as often as I can be.

☐ I wish to have my favorite music played when possible until my time of death.

☐ I wish to have personal care like shaving, nail clipping, hair brushing, and teeth brushing, as long as they do not cause me pain or discomfort.

☐ I wish to have religious reading and well-loved poems read aloud when I am near death.

☐ I wish to know about options for hospice care to provide medical, emotional, and spiritual care for my loved ones and me.

8. Your wish for how you want people to treat you. Please check off all that you agree with.

☐ I wish to have people with me when possible. I want someone to be with me when it seems that death may come at any time.

☐ I wish to have my hand held and to be talked to when possible, even If I don't seem to respond to the voice or touch of others.

☐ I wish to have others by my side praying for me when possible.

☐ I wish to have members of my faith community told that I am sick and asked to pray for me and visit me.

☐ I wish to be cared for with kindness and cheerfulness, and not sadness.

☐ I wish to have pictures of my loved ones in my room, near my bed.

☐ If I am not able to control my bowel or bladder functions, I wish for my clothes and bed linens to be kept clean, and for them to be changed as soon as they can be if they have been soiled.

☐ I want to die in my home, if that can be done.

8. Your wish for what you want your loved ones to know. Please check all that you agree with.

☐ I wish to have my family and friends know that I love them.

☐ I wish to be forgiven for the times I have hurt my family, friends, and others.

☐ I wish to have my family, friends and others know that I forgive them for when they may have hurt me in my life.

☐ I wish for my family and friends to know that I do not fear death itself. I think it is not the end, but a new beginning for me.

☐ I wish for all of my family members to make peace with each other before my death, if they can.

☐ I wish for my family and friends to think about what I was like before I became seriously ill. I want the to remember me in this way after my death.

☐ I wish for my family and friends and caregivers to respect my wishes even if they don't agree with them.

☐I wish for my family and friend to look at my dying as a time of personal growth for everyone including me. This will help me life a meaningful life in my final days.

☐ I wish for my family and friends to get counseling if they have trouble with my death. I want memories of my life to give them joy and not sorrow.

☐ After my death, I would like my body to be (Check one):

☐ Buried or ☐ Cremated

☐ My body or remains should be put in the following location (Please type or write in the space below):

☐ The following person knows my funeral wishes (Please type or write in the space below):

If anyone asks how you want to be remembered, please say the following (Please type or write in the space below):

If there is to be a memorial service for me, I wish for this service to include the following (List music songs, readings or other specific requests that you have) (Please type or write in the space below):

(Please use the space below for any other wishes. For example, you may want to donate any or all parts of your body when you die. You may also wish to designate a charity to receive memorial contributions.)

Autobiographical Questionnaire

Please write responses in the corresponding spaces provided below each question.

Introduction: I'm going to ask you some questions about your life.

1. What year were you born?

2. Did your parent's tell you anything about the day you were born?

3. Why were you given the first (and middle) name(s) that you have?

4. What types of pets did you have growing up (Check all that apply)?
   ☐ Dog
   ☐ Cat
   ☐ other

5. What was the best gift you remember receiving as a child?

6. What did world events do you remember from the time you were growing up?

7. What inventions do you most remember?

8. What's the most memorable family vacation you took?

9. If you won $30 thousand tomorrow, what would you do with the money?
   ☐ Travel
   ☐ Buy a car
   ☐ Buy something else that you deeply desired
   ☐ Place the money into savings
   ☐ other

10. In order from greatest to least, please rank (1-4) how enjoyable you find each activity.
    ___ Reading
    ___ Exercising
    ___ Cooking
    ___ Traveling

11. How do you define a good life (Please check all that apply)?
    ☐ Spending time with family and friends as much as possible
    ☐ traveling the world
    ☐ being financially well off
    ☐ Succeeding in your career

12. When you were little, what did you want to be when you grew up?

☐ Astronaut
☐ Veterinarian
☐ Doctor
☐ Teacher
☐ Other - please explain:

13. What is your favorite genre of movies?
☐ Action
☐ Romance
☐ Comedy
☐ Documentaries
☐ Historical
☐ Other – Please explain:

14. What was your relationship like with your siblings growing up?

Revised Adult Attachment Scale (Collins, 1996)

Please read each of the following statements and rate the extent to which it describes your feelings about romantic relationships. Please think about all your relationships (past and present) and respond in terms of how you generally feel in these relationships. If you have never been involved in a romantic relationship, answer in terms of how you think you would feel.

Please use the scale below by placing a number between 1 and 5 in the space provided to the right of each statement.

1----------2----------3----------4----------5
Not at all characteristic **Very characteristic of me of me**

1) I find it relatively easy to get close to people. _____
2) I find it difficult to allow myself to depend on others. _____
3) I often worry that romantic partners don't really love me. _____
4) I find that others are reluctant to get as close as I would like. _____
5) I am comfortable depending on others. _____
6) I don't worry about people getting too close to me. _____
7) I find that people are never there when you need them. _____
8) I am somewhat uncomfortable being close to others. _____
9) I often worry that romantic partners won't want to stay with me. _____
10) When I show my feelings for others, I'm afraid they will not feel the _____ same about me.
11) I often wonder whether romantic partners really care about me. _____
12) I am comfortable developing close relationships with others. _____
13) I am uncomfortable when anyone gets too emotionally close to me. _____
14) I know that people will be there when I need them. _____
15) I want to get close to people, but I worry about being hurt. _____
16) I find it difficult to trust others completely. _____
17) Romantic partners often want me to be emotionally closer than I feel _____ comfortable being.
18) I am not sure that I can always depend on people to be there when I need them. _____

Marlowe-Crowne Social Desirability Scale

13-Item Short Form Highlighted

Listed below are a number of statements concerning personal attitudes and traits.

Read each item and decide whether the statement is true or false as it pertains to

you.

1. Before voting I thoroughly investigate the qualifications of all the candidates.

True False

2. I never hesitate to go out of my way to help someone in trouble.

True False

3. It is sometimes hard for me to go on with my work if I am not encouraged.

True False

4. I have never intensely disliked anyone.

True False

5. On occasion I have doubts about my ability to succeed in life.

True False

6. I sometimes feel resentful when I don't get my own way.

True False

7. I am always careful about my manner of dress.

True False

8. My table manners at home are as good as when I eat out in a restaurant.

True False

9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.

True False

10. On a few occasions, I have given up doing something because I thought too little of my ability.

True False

11. I like to gossip at times.

True False

12. There have been times when I felt like rebelling against people in authority even though I knew they were right.

True False

13. No matter who I'm talking to, I'm always a good listener.

True False

14. I can remember "playing sick" to get out of something.

True False

15. There have been occasions when I took advantage of someone.

True False

16. I'm always willing to admit it when I make a mistake.

True False

17. I always try to practice what I preach. True False

18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.

True False

19. I sometimes try to get even, rather than forgive and forget.

True False

20. When I don't know something I don't at all mind admitting it.

True False

21. I am always courteous, even to people who are disagreeable.

True False

22. At times I have really insisted on having things my own way.

True False

23 There have been occasions when I felt like smashing things.

True False

24. I would never think of letting someone else be punished for my own wrongdoings.

True False

25. I never resent being asked to return a favour.

True False

26. I have never been irked when people expressed ideas very different from my

own.

True False

27. I never make a long trip without checking the safety of my car.

True False

28. There have been times when I was quite jealous of the good fortune of others.

True False

29. I have almost never felt the urge to tell someone off.

True False

30. I am sometimes irritated by people who ask favours of me.

True False

31. I have never felt that I was punished without cause.

True False

32. I sometimes think when people have a misfortune they only got what they deserved.

True False

33. I have never deliberately said something that hurt someone’s feelings.

True False

Follow-Up Questionnaire

1. Approximately how much time did you spend completing the Five Wishes Will?
2. How did you feel after the administering the Five Wishes Will to your parent? What was their reaction?
3. Please summarize your parent's responses to the questions in the Five Wishes Will.
4. Did any of their responses take you by surprise? If so, explain.
5. Did completing the Five Wishes make you think about your own wishes for end of life care?

Obligation Scale

Please indicate how much you agree or disagree with each of the following statements about your relationship with your care recipient. A "1" means that you strongly disagree. A "5" means that you strongly agree. Or you can indicate any number between "1" and "5" to show the extent to which you agree or disagree.

	Strongly disagree----------				----------Strongly agree
1. I feel a sense of obligation to help.	1	2	3	4	5
2. It's a child's duty to help.	1	2	3	4	5
3. I feel that I should do my part in helping.	1	2	3	4	5
4. I'm the one in the family who should help.	1	2	3	4	5
5. I was raised to believe I should help.	1	2	3	4	5
6. I would feel guilty if I didn't help.	1	2	3	4	5
7. I would feel ashamed if I didn't help.	1	2	3	4	5

Center for Epidemiologic Studies Depression Scale

Center for Epidemiologic Studies Depression Scale (CES-D), NIMH
Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.
During the Past Week:
Rarely or none of the time (less than1 day)
Some or a little of the time (1-2 days)
Occasionally or a moderate amount of time (3-4 days)
Most or all of the time (5-7 days)

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people dislike me.
20. I could not get "going."

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