Financial Services Review 29 (2021) 85-99

Encouraging living will completion using social norms and family benefit

Reem Hussein^a, Russell N. James III^{a,*}

^aDepartment of Personal Financial Planning, College of Human Sciences, Texas Tech University, Lubbock, TX 79409-1210, United States

Abstract

Advance directives, such as a living will, can help families control their medical treatments and, in some cases, appropriately limit end-of-life medical expenses. However, usage of such documents remains relatively low. Applying concepts from Terror Management Theory, this study randomly assigned 1,771 online participants to living will descriptions referencing social norms, family benefit, both, or neither. References to family benefit alone significantly increased intentions to complete documents among men, but non-significantly decreased intentions among women. References to social norms alone modestly increased intentions for both groups. Combining references to both family benefit and social norms generated the largest increase. © 2021 Academy of Financial Services. All rights reserved.

JEL classifications: D1; D14; D15

Keywords: Estate planning; Advance directives; Living wills; Terror management theory

1. Introduction

Advance directives include statements of preferences regarding the use of life-sustaining technology (living will) and appointment of another to make health care decisions for them when they cannot (durable power of attorney for healthcare; King, 1996). Estate planning in general is an important part of family financial resource management (Delgadillo, 2014; Kabaci & Cude, 2015) and by allowing individuals to express their wishes regarding their end-of-life health care, a living will document can limit the financial impact of this end-of-life medical care (Nicholas, 2011).

^{*} Corresponding author. Tel.: +1-806-787-5931; fax: +1-806-834-5130.

E-mail address: russell.james@ttu.edu (R.N. James, III)

Despite the benefits of advance directives, completion rates remain low (Salmond & David, 2005). A review of 150 studies published from 2011 to 2016 found that only 37% of U.S. adults had completed any advance directives (Yadav et al., 2017). It is possible that death anxiety and mortality salience play a role in the low completion rates of advance directives. Discussions about death and dying tend to be a taboo topic in the United States (McLaughlin & Braun, 1998; Walter, 1991). Terror Management Theory (TMT) provides a theoretical framework for people's management of death-related thoughts. This study tests the effects of two messages consistent with a TMT approach, social norms and family benefit, both alone and together on intentions to complete a living will advance directive.

2. Literature review

Death anxiety and the desire to avoid death-related topics may be one issue that prevents people from completing their advance directives. Meeker and Jezewski (2005) concluded that the primary reason why people do not complete end-of-life planning is to avoid facing their own mortality. Duke et al. (2007) found that procrastination in completing advance directives related to denial and avoidance.

2.1. Theory

TMT, based on the body of work by cultural anthropologist Ernest Becker (1973), provides a theoretical framework for mortality salient decision making (Greenberg et al., 1997). It suggests that death reminders generate two defenses, a proximal defense of avoidance and a distal defense of pursuit of symbolic immortality (Pyszczynski et al., 1999). The pursuit of symbolic immortality is expressed by supporting one's surviving "in-group" and their cultural worldviews (Burke et al., 2010). Both avoidance and support of in-group cultural worldviews aid in managing the fear of death (Greenberg et al., 1997).

As Iverson and Buttigieg (1997, p. 1487), explain, "the 'in-group' is defined as the clique with which the individual identifies." We do not live forever, but our sources of identity, such as "our people" (family members, loved ones, or other in-group members) or our values (i.e., values supported by our identifying in-group) will continue in the world. They will survive us. In experiments, death reminders increase the importance of being positively remembered by this surviving in-group (Greenberg et al., 2010). As such, in-group social norms (a.k.a., herd behavior) will tend to become more powerful in a death salient context (Fritsche et al., 2010; Gailliot et al., 2008; Maheswaran & Agrawal, 2004) as will leaving a positive impact on surviving loved ones such as family members (Burke et al., 2010; James, 2016a). The following experiments explore the potential practical application of this general theoretical principle to the area of living wills by separately testing a message emphasizing a social norm, a message emphasizing a family benefit, and a message emphasizing both a social norm and a family benefit. James (2016a) presents an economic model predicting similar outcomes. Mortality salience generates responses of avoidance and pursuit of "lasting social impact" simply as the result of utility maximization when such includes expectations

86

of future circumstances, as suggested by Brunnermeier and Parker (2005), and utility from the circumstances of others, as suggested by Gary Becker (1974). Thus, with both models the two predicted outcomes triggered by a mortality salient condition are the same: avoidance and/or some form of social impact related to one's surviving in-group. This is relevant given the plausibility of experiencing mortality salience when contemplating completion of a living will document.

2.2. Avoidance and word choice in experiments

Previous experiments demonstrate the impact of descriptions using a more or less mortality-salient approach. Results are consistent with the idea that mortality-salient descriptions tend to increase avoidance. Salisbury and Nenkov (2016) found that changing the description of annuity benefits from paying "each year you live" to paying "each year you live until you die" decreased interest in purchasing them. James (2016b) found that in a charitable bequest description, replacing "last will and testament" with "last will and testament that will take effect at your death" significantly decreased interest in making such gifts. In studying preferences for cancer treatments, O'Connor (1989) found that a negative frame presenting the risk of dying reduced interest in more aggressive cancer treatments as compared with a positive frame presenting the chance of survival.

2.3. Social impact descriptions in experiments

Previous research also supports the heightened impact of supporting one's surviving ingroup and their cultural worldviews in a mortality salient context. A simple expression of this response is found in an increased desire to comply with social norms following mortality reminders (Gailliot et al., 2008). Fritsche et al. (2010) showed that in the presence of statements of pro-environmental social norms, mortality salience increased sustainable behaviors. Maheswaran and Agrawal (2004) studied the effects of mortality salience on consumer behavior. They found that "when mortality is salient, people are more willing to act in concert with the opinions of others" (p. 214).

Social norms have proven effective in descriptive word choice experiments related to other end-of-life planning contexts. James (2016b) found that adding a social norm statement ("many people like to leave a gift to charity in their wills") to the description of a charitable bequest gift significantly increased interest in making the gift. Sanders and Smith (2016) conducted an experiment in which lawyers asked clients during the process of drafting a will if they wanted to leave a gift to charity in their will. They found that highlighting a social norm of charitable giving with the phrase, "Many of our customers like to leave a gift to charity in their will" to charity.

Another expression of support for one's surviving in-group is a desire to benefit one's own family. This concern is paramount in estate planning. Previous research studies in charitable bequests indicate that the desire to meet family needs and expectations is the most challenging barrier for such gifts. Interviews with a sample of bequest fundraisers in Australia found that attitudes towards estate planning were overwhelmingly influenced by expectations of honoring family ties (Baker, 2008). Madden and Scaife (2008) found that even those who included a charitable bequest in their estate plans explained their bequests in terms of family responsibilities. James (2015) found that resolving the conflict between family and charitable bequests by combining a reminder of family connections to a charitable cause with the opportunity to leave a charitable gift in honor of a family member was particularly effective in increasing charitable bequest intentions.

2.4. Applications to medical conversations

The low level of completed advance directives may relate to the presentation of or conversations around the documents. From a broad perspective, previous research has suggested the need to reconceptualize advance directives as part of a process to communicate and negotiate goals of medical care that satisfy the individual's wishes and values (Morrison et al., 1995; Teno et al., 1997). This may be aided by simple descriptive wording changes.

Other experiments have found significant effects from slight wording changes for descriptions of various types of medical decisions. Malloy et al. (1992) found that how life-sustaining interventions were described influenced whether individuals accepted or rejected the treatments in their advance directives. In a study of word choice in the context of choice of cancer treatments, McNeil et al. (1982) concluded that respondents were more willing to accept the riskier option if the outcomes of treatments were positively framed.

Previous studies test the need to improve and enhance the formulation and implantation of advance directives (Schneiderman et al., 1992; Teno et al., 1997). This study tests the extent to which social norms and/or a reference to family benefit impact the intention to complete the living will advance directive document.

Hypothesis 1: A social norms reference will increase intentions to complete a living will advance directive.

Hypothesis 2: A family benefit reference will increase intentions to complete a living will advance directive.

2.5. Socio-demographic factors

Grounded in differing theoretical justifications, several socio-demographic factors, including age, income, race, and gender, have been consistently associated with differences in rates of advance directive completion. The following experimental study includes controls for these factors. In addition, given the documented relevance of these factors for advance directive completion, the analysis also explores how these factors interact with the experimental treatments.

Older age has been associated with higher advance directive completion rates and more openness to end-of-life discussions (Moorman & Inoue, 2013; Pollack et al., 2010). Moorman and Inoue (2013) find that one year of age was associated with a 3% increase in the likelihood of having end-of-life planning documents. Older adults would be more likely than younger adults to be knowledgeable of end-of-life planning as a product of their own life experiences, as well as those of their spouses, and family members (Carr & Khodyakov,

2007). This may be because as people age, they utilize medical services that gives them opportunities to learn about end-of-life planning documents.

Previous research studies have also found that an individual with a higher level of income is more likely to have advance directive documents (Carr, 2012; Moorman & Inoue, 2013). Rosnick and Reynolds (2003) found that people whose incomes were less than \$30,000 were 66% less likely to have a living will than those whose income were \$30,000 or more. Carr (2012) found that people were more likely to complete other end-of-life planning when they drafted a financial last will and testament, which is less likely among individuals with fewer assets.

Previous studies have also found that completion rates of advance directives were consistently higher among Whites than other ethnicities (Alano et al., 2010; Pollack et al., 2010). Hopp and Duffy (2000) found that Whites were significantly more likely to discuss treatment preferences and, as a results, were also more likely to complete advance directives than were African Americans. Others have found that obtaining estate planning documentation may be more of a barrier for African Americans (Lehman & James, 2018).

Several studies have found that being female increases the odds of having written advance care planning (Alano et al. 2010; Bravo et al., 2003). It is possible that gender differences reflect the fact that women are more likely to experience widowhood. Women may also be more likely to talk about their end-of-life treatment preferences with others that may trigger documenting those wishes in advance directives. There are also gender differences in mortality or illness perception. Fletcher and Sarkar (2013) found that among terminal patients, women showed a better understanding that their illness was incurable and was at an advanced stage compared with men.

Previous studies have found that education was positively related to completion rates of advance directives (Alano et al., 2010; Carr & Khodyakov, 2007). Moorman and Inoue (2013) found that individuals with a college degree were more likely to have advance directives than those who have only a high school education. Individuals with lower education levels may not be aware of the importance and availability of end-of-life planning and, in addition, the technical language used in living will documents may be difficult to understand (Hopp & Duffy, 2000).

3. Methodology

3.1. Participants

Participants for the experiment were recruited using Amazon's Mechanical Turk (MTurk; https://www.mturk.com). Participants were recruited with the description "University survey of opinions on health/medical planning" and payment of 75 cents for completing the survey. If participants clicked on the description, they read, "Survey of Health/Medical Opinions. We are conducting an academic survey about opinions on medical planning options and opinions, this takes around 8-10 minutes, and it is intended to advance research about people and their medical planning, so please make sure you can commit the time. At the end of the survey, you will receive a unique 'completion code' to receive credit for taking our survey."

The analysis excluded answers from participants who reported already having completed living will documents. The outcome question about the likelihood of completing a living will document would measure a different behavior (i.e., changing current plans) if the participant already had a living will. Further, the practical issue is understanding how to motivate those who do not yet have planning documents, rather than motivating a revision of existing documents. After excluding participants who already had living will documents, the sample size used in the analysis was 1,771. The study was approved by the Human Subjects Institutional Review Board (IRB2019-862) of the authors' affiliated university.

3.2. MTurk and participant attention

Experimental participants in social science research have traditionally been recruited from convenience samples such as nearby college students. Locating experimental participants using MTurk offers several advantages. Participant diversity can be much greater across many measurements including geography, age, cognitive scores, income, and race. Further, some experimental evidence finds that the attentiveness of participants recruited from MTurk exceeds that of student samples. Across three separate studies, Hauser and Schwarz (2016) found, "In all studies, MTurkers were more attentive to the instructions than were college students" (p. 400). Other studies have found responses collected online from participants recruited via MTurk compare favorably with responses collection in-person (Buhrmester et al., 2011; Casler et al., 2013).

There are other online sources for recruiting participants. However, MTurk appears to perform well compared with these other online sources. For example, Kees et al. (2017) found that Qualtrics and Lightspeed panel respondents performed worse on measure reliability tests compared with MTurk respondents. They found, "In comparisons across five samples, results show that the MTurk data outperformed panel data procured from two separate professional marketing research companies across various measures of data quality" (Kees et al., 2017, p. 141).

These advantages have led to the widespread use of MTurk as a source for participant recruitment across the social sciences. (A recent Google Scholar search finds over 40,000 documents referencing this service.) This includes experimental research in financial planning in general (Fulk et al., 2018; Yazdanparas & Alhenawi, 2017) and end-of-life financial planning decisions in particular (James, 2018; James & Routley, 2016).

Participant attention is important in the experiments described below. Participants are randomly assigned to read either control or experimental phrases. Inattention would increase the likelihood that even a highly effective experimental phrase would generate no significant difference between the treatment and control groups (Bates & Lanza, 2013; Mullinix et al., 2015; Paolacci et al., 2010). Thus, to the extent that inattention is a problem in the below experiments, the impact of the experimental phrases would tend to be *understated* in the results.

To address this concern, participants were screened using an attention check task before beginning the study. The following block of text appeared,

You are about to start the research survey, and we appreciate your time and effort. Your honest efforts in this survey could benefit the accuracy of information provided in the financial services

90

industry. However, it is critically important that you actually take the time to read instructions closely and follow them; if not, our data based on your responses will be invalid. In order to demonstrate that you read instructions, several places in this survey will contain special instructions, such as here. In order to demonstrate that you read instructions, please select the option "no answer" for the next question that asks about how often you take surveys. Then type exactly the following words in the next box, "I read the instructions" in the box labeled "Any comments or questions before we start?" If you do not type the words "I read the instructions" exactly as they appear between the quotations you will not be allowed to complete the survey. Please type this without any quotations or punctuation. Thank you very much.

This was followed by the multiple-choice question, "How often do you take surveys? _____ Often ___ Sometimes ___ Seldom ___ Never ___ no answer" and an open text box after "Any comments or questions before we start?" Participants who did not answer these questions in the nonstandard way directed by the large block of text, that is, those who skipped the text and just answered the questions quickly, were excluded from participating in the experiment.

3.3. Instrument

Respondents answered survey questions online using the Qualtrics platform during October 14-15, 2019. Participants were randomly assigned to one of four groups. Each group read slightly different descriptions of a living will advance directive document and then estimated the likelihood that they would complete such documents in the next 30 days. The four groups are referred to as Base, Base + Family Benefit, Base + Social Norm, and Base + Social Norm + Family Benefit. The four corresponding statements are listed in Table 1.

All statements began with the identical base description of a living will document. A social norm was introduced by adding to the end of the description the sentence, "Many people like to have a living will." A family benefit was introduced by adding the sentence, "A living will can relieve family members of difficult decisions." The combination of social norms and family benefit were introduced together by adding the sentence, "Many people like to have a living will because it can relieve family members of difficult decisions."

Finally, all respondents were asked, "If you were given the opportunity to complete a living will document at no cost to you in the next 30 days, what is the percentage likelihood that you would do so?" Participants answered from 0 to 100 using a horizontal slider bar.

	Text	
Base	The living will is a legal document used to address certain future health care decisions only when individuals become incapacitated or unable to make the decisions on their own. The living will is only used at the end of life if a person can- not be cured (terminally ill) or is permanently unconscious.	
Base + Family Benefit	A living will can relieve family members of difficult decisions.	
Base + Social Norm	Many people like to have a living will.	
Base + Social Norm + Family Benefit	Many people like to have a living will because it can relieve family members of difficult decisions	

Table 1 Living will phrases

3.4. Control variables

The independent variables for this study include the individual's age, gender, income, education, and race. Age, education, and income were translated into single variable formats by using reported range midpoints (or the lowest value for the open-ended top range and highest value for the bottom range) to transform grouped data into continuous variables. The age categories were 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-79, 80-84, and 85 or older, and were converted to 21, 30, 40, 50, 60, 67, 72, 77, 82, and 85. Income categories were less than \$10,000, and then intervals of \$10,000-\$19,999; \$20,000-\$29,999; \$30,000-\$39,999; \$40,000-\$49,999; \$50,000-\$50,999; \$60,000-\$69,999; \$70,000-\$79,999; \$80,000-\$89,999; \$90,000-\$99,999; \$100,000-\$149,999; and greater than or equal to \$150,000. These income categories were converted to \$10,000; \$15,000; \$25,000; \$35,000; \$45,000; \$55,000; \$65,000; \$75,000; \$85,000; \$95,000, \$125,000; and \$150,000. Education level was converted to the estimated number of years of education. The response to "What is the highest level of education that you have completed?" was converted to nine for "Less than high school," 12 for "High school," 13 for "Some college," 14 for "Associate degree," 16 for "Bachelors degree," 18 for "Master degree," and 20 for "Doctorate degree."

4. Results

4.1. Descriptive statistics

Table 2 shows the characteristics of the survey participants by their assignment to each living will phrase from Table 1. The average age for participants was 38 years old, 52% were female, and 77% were White. The average years of education for respondents was 14 years and the mean annual income was \$49,000.

The average reported probability that an individual would sign a living will document if given the opportunity to do so at no cost in the next 30 days across the entire sample was 67.8%. The lowest reported probability was for the base group, 65.3%. Adding the family

Variable	Overall	Base group	Base + Family Benefit group	Base + Social Norms group	Base + Family Benefit + Social Norms group
Likelihood	67.78	65.26	67.72	68.52†	69.68*
Male	0.48	0.47	0.51	0.46	0.50
White	0.77	0.77	0.78	0.77	0.79
Income	49,009	51,008	50,725	46,770	47,477
Education	14.93	15.00	14.99	14.82	14.93
Age	38.20	37.97	38.00	38.36	37.98
n	1,771	456	434	435	446

Table 2 Group means (N = 1,771)

Note: t test comparing each experimental group with base group, $\dagger p < .10$, *p < .05.

benefit statement increased this to 67.7%. Adding the social norms statement increased this to 68.5%. Adding both at the same time increased this to 69.7%.

A two-sample *t* test was conducted to measure the statistical significance of these differences in the reported likelihood of completing a living will document. Thus, each group was compared against the base group, where the description included references to neither social norms nor family benefit. The increase in intentions to complete a living will document resulting from addition of the family benefit statement was not statistically significant (p = .222). Adding the social norm statement generated a marginally significant increase (p = .093). Adding both the social norm and family benefit statements generated a statistically significant increase in the intention to complete a living will document (p = .025).

4.2. Regression results

Table 3 reports the coefficients (standard errors in parentheses) from ordinary least square regressions. The outcome variable in the regression is the stated probability of completing a living will document. Column 1 of Table 3 shows results without control variables using the base statement as the reference group. Column 2 of Table 3 shows results with the control variables included. In the controlled regression, the addition of either the social norm statement alone or the combined family benefit and social norm statement significantly increased intentions to complete a living will document. The increase resulting from adding the family benefit statement alone was not statistically significant.

The significant associations with control variables matched the associations found in previous research. (However, this consistency is notable as previous research measured past document completion and this study measured future document completion intentions.) Those who were older, female, or had higher incomes reported a greater likelihood of completing living will documents.

Table 3	Reported likelihood of completing a living will document when adding references to family benefit,
social no	rms, or both (ordinary least squares regression)

Variable	Coefficient	Coefficient
Intercept	65.262*** (1.3756)	53.945*** (5.8270)
Base (reference)		
Base + Family Benefit	2.4615 (1.9698)	2.5215 (1.9126)
Base + Social Norms	3.2553 (1.9573)	3.7641* (1.9005)
Base + Family Benefit + Social Norms	4.4178* (1.9698)	4.6290** (1.9131)
Male		-10.6302^{***} (1.3652)
White		1.5320 (1.6421)
Income		0.00012*** (0.00002)
Education		0.1150 (0.3534)
Age		0.1896*** (0 0.0595)

Note: Standard errors in parentheses; n = 1,771.

***, **, and * indicate statistical significance at p < .001, p < .01, and p < .05 levels, respectively.

Variable	Coefficient
Intercept	55.4383*** (5.947)
Base (reference)	
Base + Family Benefit	-1.2525(2.6804)
Base + Social Norms	4.2404 (2.650)
Base + Family Benefit + Social Norms	3.1312 (2.6213)
Male	-13.040^{***} (2.678)
White	1.4128 (1.6463)
Income	0.00012*** (0.0000)
Education	0.1061 (0.3534)
Age	0.18962*** (0.0595)
Male \times Family Benefit	7.60389** (3.8281)
Male \times Social Norms	-0.8689 (3.8132)
Male \times Family Benefit + Social Norms	3.1551 (3.8294)

Table 4 Reported likelihood of completing living will document with interaction between gender and references to family benefit, social norms, or both (ordinary least squares regression)

Note: Standard errors in parentheses; n = 1,771.

***, **, and * indicate statistical significance at p < .001, p < .01, and p < .05 levels, respectively.

Although these messages had positive effects on intentions to complete living will documents, it is possible that some messages worked better for some socio-demographic groups than for others. To formally test for this, additional regressions were run including interaction variables between the intervention group and each control variable. No interactions were significant except for gender. In particular, as reported in Table 4, the addition of family benefit statement alone had a significantly (p < .01) greater positive impact for men than for women.

To further explore this relationship, Table 5 reports the results of the controlled regression when the sample was restricted either to men only or women only. This shows that the addition of the family benefit statement alone significantly increased intentions to complete a living will document for men, but non-significantly decreased intentions to complete a living will document for women. Following this same pattern, the coefficient for the combined family benefit and social norms statement was larger than for the social norms statement alone among men (6.23 vs. 3.34) but was smaller among women (3.00 vs. 4.09).

5. Implications

A living will advance directive can be an important part of end-of-life planning. However, usage of such documents is relatively low. This study tested the effects of different messages on intentions to complete a living will advance directive. Completing such documents involves explicitly planning for one's own end of life. Past theoretical work suggested that mortality salience is likely to trigger responses of avoidance and pursuit of lasting social impact (a.k.a., symbolic immortality) through support of one's surviving in-group. This second effect can be expressed by increased interest in complying with group norms and benefitting surviving family members. Matching with successful interventions in other

94

Table 5	Reported likelihood of completing living will document for male only or female one (ordinary least
squares r	egression)

Variable	Male respondents only	Female respondents only
Intercept	35.932*** (8.4710)	62.848*** (7.8822)
Base (reference)		
Base + Family Benefit	6.2123* (2.8521)	-1.3153(2.5664)
Base + Social Norms	3.3366 (2.8598)	4.0912 (2.5431)
Base + Family Benefit + Social Norms	6.2281* (2.9171)	3.0018 (2.5118)
White	0.2114 (2.4560)	2.522 (2.2061)
Income	0.0001*** (0.0000)	0.00011*** (0.0000)
Education	0.3258 (0.5352)	-0.16991(0.4687)
Age	0.2932*** (0.0918)	0.09493 (0.0776)
n	858	913

Note: Standard errors in parentheses.

****, **, and * indicate statistical significance at p < .001, p < .01, and p < .05 levels, respectively.

mortality salient contexts, the current study tested the effects of referencing social norms, family benefit, or both combined.

References to social norms alone modestly increased intentions to complete living will documents. Combining both social norms and family benefit references significantly increased intentions. Referencing family benefit alone significantly *increased* intentions to complete documents among men, but non-significantly *decreased* intentions among women (i.e., the decreased intentions among women were not statistically significant).

Even though both the social norms and family benefit messages fit with the theoretical prediction of a desire to support one's in-group and their values, the differences in results suggests that these two references may work through distinct mechanisms. This also fits with the overall result that the most effective approach was to combine both messages. The suggestion to combine both messages also matches an experimental result from charitable bequest decision-making. In that experiment, a family benefit message referenced both family connections with a charitable cause and provided an opportunity for a memorial or tribute bequest (James, 2015). Both this family benefit intervention and a social norm intervention increased interest in charitable bequests, but the greatest impact came from using both messages together (James, 2015).

5.1. Limitations and future research

These results provide a first exploration of the use of these phrasing interventions to encourage living will document completion, but they are subject to various limitations such as an online sample and a hypothetical context. Findings resulting from a non-probability crowdsourcing sample lack formal statistical generalizability and thus cannot be used to estimate national population means. Participant inattention to the wording differences would lead to an understatement of the impact of the phrasing differences reported here. Placing the benefit description interventions at the end of, rather than the beginning of, the lengthy living will description statement may also have led to a muted difference in responses across the groups (James, 2018).

A post hoc analysis also found a significant gender interaction with the family benefit message. Although not predicted a priori, this difference may warrant future exploration. The post hoc exploration of gender interactions, while potentially instructive for future research, is subject to multiple comparison limitations as it was part of an exploratory examination of five control variables (gender, race, income, age, and education). Finally, future studies may consider using different sources for participant recruitment to see if these results replicate with alternative samples and the inclusion of additional demographic variables.

6. Conclusion

Although subject to various limitations, these results are important for both theoretical and practical reasons. They provide the first experimental evidence on the effect of different messages on the estimated likelihood of completing living will advance directives. They are important practically not only by showing that the combination of social norms and family benefit messages can be, overall, beneficial, but because they show that the family benefit message was particularly powerful for men. Additionally, they provide evidence that the insights gleaned from work completed with other forms of end-of-planning may also apply to advance directives. This suggest the promise of cross-disciplinary research to provide understanding across end-of-life decisions whether related to healthcare, life insurance, annuities, or estate planning (James, 2016a).

Advanced planning can ensure that patients' preferences for medical treatment is followed; thus, accomplishing both personal and family financial goals. However, achieving this often requires memorialization in a written document. Therefore, understanding how to encourage the documentation of such preferences can be an important step to achieving important life, health, and financial outcomes.

References

- Alano, G. J., Pekmezaris, R., Tai, J. Y., Hussain, M. J., Jeune, J., Louis, B., El-Kass, G., Ashraf, M., Reddy, R., Lessor, M., & Wolf-Klein, G. P. (2010). Factors influencing older adults to complete advance directives. *Palliative & Supportive Care*, 8, 267-275.
- Baker, C. (2008). "Family Comes First": Fundraisers' Perspectives on Charitable Bequests, TASA Conference 2008. Melbourne, Australia: TASA 2008 Conference Proceedings: Re-imagining Sociology, The Australian Sociological Association.
- Bates, J. A., & Lanza, B. A. (2013). Conducting psychology student research via the Mechanical Turk crowdsourcing service. *North American Journal of Psychology*, 15, 385-394.
- Becker, E. (1973). The Denial of Death. New York: Free Press.

Becker, G. (1974). A theory of social interactions. Journal of Political Economy, 82, 1063-1093.

Bravo, G., Dubois, M. F., & Paquet, M. (2003). Advance directives for health care and research: Prevalence and correlates. *Alzheimer Disease and Associated Disorders*, *17*, 215-222.

Brunnermeier, M. K., & Parker, J. A. (2005). Optimal expectations. American Economic Review, 95, 1092-1118.

- Buhrmester, M., Kwang, T., & Gosling, S. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high quality data? *Perspectives on Psychological Science*, *6*, 3-5.
- Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of terror management theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review: An Official Journal of the Society* for Personality and Social Psychology, Inc., 14, 155-195.
- Carr, D., & Khodyakov, D. (2007). End-of-life health care planning among young-old adults: An assessment of psychosocial influences. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 62, S135-S141.
- Carr, D. (2012). I don't want to die like that...": The impact of significant others' death quality on advance care planning. *The Gerontologist*, 52, 770-781.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29, 2156-2160.
- Delgadillo, L. M. (2014). Financial clarity: Education, literacy, capability, counseling, planning, and coaching. *Family and Consumer Sciences Research Journal*, 43, 18-28.
- Duke, G., Thompson, S., & Hastie, M. (2007). Factors influencing completion of advanced directives in hospitalized patients. *International Journal of Palliative Nursing*, 13, 39-43.
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist*, 18, 12-23.
- Fritsche, I., Jonas, E., Kayser, D. N., & Koranyi, N. (2010). Existential threat and compliance with pro-environmental norms. *Journal of Environmental Psychology*, 30, 67-79.
- Fulk, M., Grable, J. E., Watkins, K., & Kruger, M. (2018). Who uses robo-advisory services, and who does not? *Financial Services Review*, 27, 173-188.
- Gailliot, M. T., Stillman, T. F., Schmeichel, B. J., Maner, J. K., & Plant, E. A. (2008). Mortality salience increases adherence to salient norms and values. *Personality & Social Psychology Bulletin*, 34, 993-1003.
- Greenberg, J., Kosloff, S., Solomon, S., Cohen, F., & Landau, M. (2010). Toward understanding the fame game: The effect of mortality salience on the appeal of fame. *Self and Identity*, *9*, 1-18.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In M. P. Zanna (Ed.), Advances in Experimental Social Psychology (Vol. 29, pp. 61-139). San Diego, CA: Academic Press.
- Hauser, D. J., & Schwarz, N. (2016). Attentive Turkers: MTurk participants perform better on online attention checks than do subject pool participants. *Behavior Research Methods*, 48, 400-407.
- Hopp, F. P., & Duffy, S. A. (2000). Racial variations in end-of-life care. Journal of the American Geriatrics Society, 48, 658-663.
- Iverson, R. D., & Buttigieg, D. M. (1997). Antecedents of union commitment: The impact of union membership differences in vertical dyads and work group relationships. *Human Relations*, 50, 1485-1510.
- James, R. N. III., (2015). The family tribute in charitable bequest giving: An experimental test of the effect of reminders on giving intentions. *Nonprofit Management and Leadership*, 26, 73-89.
- James, R. N. III., (2016a). An economic model of mortality salience in personal financial decision making: Applications to annuities, life insurance, charitable gifts, estate planning, conspicuous consumption, and healthcare. *Journal of Financial Therapy*, 7, 62-82.
- James, R. N. III., (2016b). Phrasing the charitable bequest inquiry. VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 27, 998-1011.
- James, R. N. III., (2018). Describing complex charitable giving instruments: Experimental tests of technical finance terms and tax benefits. *Nonprofit Management and Leadership*, 28, 437-452.
- James, R. N., III., & Routley, C. (2016). We the living: The effects of living and deceased donor stories on charitable bequest giving intentions. *International Journal of Nonprofit and Voluntary Sector Marketing*, 21, 109-117.
- Kabaci, M. J., & Cude, B. J. (2015). A Delphi study to identify personal finance core concepts and competencies of first-generation college students. *Family and Consumer Sciences Research Journal*, 43, 244-258.

- Kees, J., Berry, C., Burton, S., & Sheehan, K. (2017). An analysis of data quality: Professional panels, student subject pools, and Amazon's Mechanical Turk. *Journal of Advertising*, 46, 141-155.
- King, N. M. (1996). *Making Sense of Advance Directives: Revised Edition*. Washington, DC: Georgetown University Press
- Lehman, J., & James, R. N. III., (2018). The charitable bequest gap among African-Americans: Exploring charitable, religious, and family estate planning attitudes. *Journal of Personal Finance*, 17, 43-56.
- Madden, K., & Scaife, W. (2008). Keeping Giving Going: Charitable Bequests and Australians. Brisbane: Centre for Philanthropy and Nonprofit Studies, Queensland University of Technology. Retrieved from http:// eprints.qut.edu.au/27259/1/Keeping_Giving_Going.pdf
- Maheswaran, D., & Agrawal, N. (2004). Motivational and cultural variations in mortality salience effects: Contemplations on terror management theory and consumer behavior. *Journal of Consumer Psychology*, *14*, 213-218.
- Malloy, T. R., Wigton, R. S., Meeske, J., & Tape, T. G. (1992). The influence of treatment descriptions on advance medical directive decisions. *Journal of the American Geriatrics Society*, 40, 1255-1260.
- McLaughlin, L. A., & Braun, K. L. (1998). Asian and Pacific Islander cultural values: Considerations for health care decision making. *Health & Social Work*, 23, 116-126.
- McNeil, B. J., Pauker, S. G., Sox, H. C., Jr., & Tversky, A. (1982). On the elicitation of preferences for alternative therapies. *New England Journal of Medicine*, 306, 1259-1262.
- Meeker, M. A., & Jezewski, M. A. (2005). Family decision making at end of life. *Palliative & Supportive Care*, 3, 131-142.
- Moorman, S. M., & Inoue, M. (2013). Persistent problems in end-of-life planning among young-and middle-aged American couples. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 68, 97-106.
- Morrison, R. S., Olson, E., Mertz, K. R., & Meier, D. E. (1995). The inaccessibility of advance directives on transfer from ambulatory to acute care settings. *Journal of the American Medical Association*, 274, 478-482.
- Mullinix, K. J., Leeper, T. J., Druckman, J. N., & Freese, J. (2015). The generalizability of survey experiments. *Journal of Experimental Political Science*, 2, 109-138.
- Nicholas, L. H., Langa, K. M., Iwashyna, T. J., & Weir, D. R. (2011). Regional variation in the association between advance directives and end-of-life Medicare expenditures. *Journal of the American Medical Association*, 306, 1447-1453.
- O'Connor, A. M. (1989). Effects of framing and level of probability on patients' preferences for cancer chemotherapy. *Journal of Clinical Epidemiology*, 42, 119-126.
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. Judgment and Decision Making, 5, 411-419.
- Pollack, K. M., Morhaim, D., & Williams, M. A. (2010). The public's perspectives on advance directives: Implications for state legislative and regulatory policy. *Health Policy*, 96, 57-63.
- Pyszczynski, T., Greenberg, J., & Solomon, S. (1999). A dual-process model of defense against conscious and unconscious death-related thoughts: an extension of terror management theory. *Psychological Review*, 106, 835-845.
- Rosnick, C. B., & Reynolds, S. L. (2003). Thinking ahead: Factors associated with executing advance directives. *Journal of Aging and Health*, 15, 409-429.
- Salisbury, L. C., & Nenkov, G. Y. (2016). Solving the annuity puzzle: The role of mortality salience in retirement savings decumulation decisions. *Journal of Consumer Psychology*, 26, 417-425.
- Salmond, S. W., & David, E. (2005). Attitudes toward advance directives and advance directive completion rates. Orthopedic Nursing, 24, 117-127.
- Sanders, M., & Smith, S. (2016). Can simple prompts increase bequest giving? Field evidence from a legal call centre. *Journal of Economic Behavior & Organization*, 125, 179-191.
- Schneiderman, L. J., Kronick, R., Kaplan, R. M., Anderson, J. P., & Langer, R. D. (1992). Effects of offering advance directives on medical treatments and costs. *Annals of Internal Medicine*, 117, 599-606.

- Teno, J., Lynn, J., Connors, A. F., Jr., Wenger, N., Phillips, R. S., Alzola, C., Murphy, D. P., Desbiens, N., & Knaus, W. A. (1997). The illusion of end-of-life resource savings with advance directives. *Journal of the American Geriatrics Society*, 45, 513-518.
- Walter, T. (1991). Modern death: Taboo or not taboo? Sociology, 25, 293-310.
- Yadav, K. N., Gabler, N. B., Cooney, E., Kent, S., Kim, J., Herbst, N., Mante, A., Halpern, S. D., & Courtright, K. R. (2017). Approximately one in three US adults completes any type of advance directive for end-of-life care. *Health Affairs*, 36, 1244-1251.
- Yazdanparas, A., & Alhenawi, Y. (2017). Personality and borrowing behavior: An examination of the role of need for material resources and need for arousal traits on household's borrowing decisions. *Financial Services Review*, 26, 55-85.