

Health Care Proxies: Whom Do Young Old Adults Choose and Why?*

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Journal of Health and Social Behavior 2007, Vol 48 (June): 180–194

Dying persons are encouraged to name as durable power of attorney for health care (DPAHC) someone who will thus be empowered to make end-of-life treatment decisions for them in the event that they become incapacitated. We use data from the Wisconsin Longitudinal Study to investigate whether and whom older adults designate as their DPAHC. DPAHC appointments are affected by recent hospitalizations, personal beliefs (including religion, fear of death, and the belief that doctors rather than patients should control health care decisions), and personal experience with the recent painful death of a loved one. The selections of DPAHC designees are generally consistent with the hierarchical compensatory model: Married persons overwhelmingly name their spouses, while unmarried parents appoint their children. Women are more likely than men to rely on children. Parents of one or two children tend to bypass their children for another relative. Unmarried, childless persons show considerable heterogeneity in their choices. We discuss implications of these findings for health care policy and practice.

Demographic, technological, and sociopolitical shifts over the past five decades have created a new context of dying for older adults. Chronic illnesses—ongoing conditions for which there is no cure—now account for more than two-thirds of all deaths among older adults (Federal Interagency Forum on Aging-Related Statistics 2004). Innovative medical technologies enable the sick and dying to extend the length, though not necessarily the quality, of their lives. As a result, older adults often are mentally incapacitated at the end of

life and are unable to make decisions about their own medical treatments. To help incapacitated patients make decisions about their end-of-life care, policies and practices have been developed that encourage patients to formally state their treatment preferences when they are still physically and mentally well (e.g., Patient Self-Determination Act of 1990).

These initiatives are intended to spare the dying and their family members from distress during the final days of the patient's life. As the widely publicized Terri Schaivo case revealed

* The authors were supported by National Institute on Aging grant P01 AG21079–01. The Wisconsin Longitudinal Study has its principal support from National Institute on Aging grants AG 9775, AG13613, and AG21079, with additional support from National Science Foundation grant SES-9023082, the Spencer Foundation, and the Graduate School of the University of Wisconsin. A public-use version of the Wisconsin Longitudinal Study is available from the Inter-university Consortium for Political and Social Research at the

University of Michigan or the Data and Program Library Service, University of Wisconsin–Madison. An earlier version of this paper was presented at the 2005 annual meeting of the Gerontological Society of America. We thank the editor, the three anonymous reviewers, and M. E. Hughes for their helpful comments. Address correspondence to Deborah Carr, Department of Sociology, 8128 Social Science Building, University of Wisconsin, 1180 Observatory Drive, Madison, WI 53706 (email: carr@ssc.wisc.edu).

in 2005, family members must make difficult choices if the dying person did not leave formal instructions stating his or her treatment preferences, or if the dying person did not appoint an advocate to make decisions for him or her. Although high-profile debates over end-of-life issues continue, little is known about the choices that individuals make for their care, or the factors shaping these choices.

We investigate one set of choices that older adults make for their end-of-life care: the decision to grant durable power of attorney for health care (DPAHC) to someone who will make decisions about their health care in the event that they become unable to do so. Specifically, we (1) identify the factors that influence whether an older adult has executed a DPAHC, (2) describe whom one selects to have his or her DPAHC, and (3) evaluate the factors that influence this specific choice. We use data from the most recent wave (2003–2004) of the Wisconsin Longitudinal Study, a long-term study of men and women who were born in 1939 and who are now in their mid-60s. Identifying how younger old persons prepare for end-of-life health concerns has important implications for understanding the late-life challenges facing the large Baby Boom cohort, the oldest of whom are now turning age 60. Identifying obstacles to appointing a DPAHC is the first step toward developing programs and practices to encourage meaningful end-of-life planning.

BACKGROUND

End-of-Life Planning

During their final days, most chronically ill older adults have limited mobility, impaired cognitive functioning, pain, and difficulty recognizing family. Dying persons who have not made formal plans for their end-of-life care often have little control over the medical treatment they receive. Difficult decisions about stopping or prolonging treatment typically fall upon distressed family members who may not agree with one another (Brock and Foley 1998). Moreover, health care providers may prolong futile yet costly medical treatments (Emanuel and Emanuel 1994). In response to the well-documented financial and emotional costs associated with unwanted or unnecessary end-of-life treatments, practitioners and policy advocates have urged older adults to create an advance directive. The advance directive has two components: a living will, and a DPAHC

document. A living will is a formal document specifying the medical treatment one would like to receive in the event that he or she is incapacitated. In a DPAHC document, the patient appoints a person to make decisions about the patient's health care in the event the patient becomes incapable of making such decisions.

The living will has received significant attention from policy makers and researchers. National associations, including the American Medical Association (1996) and the American Geriatrics Society (1995), have advocated the use of living wills. Despite strong public support for the use of living wills, studies reveal that less than 50 percent of older adults have one (Hahn 2003). Recent studies and public statements by health care providers call into question the effectiveness of the document (Fagerlin and Schneider 2004). The living will may not effectively transmit the patient's wishes under certain conditions: The content may be unclear, the preferences stated in the document may not be relevant to the patient's current condition, the physician may not have access to the document at the critical decision-making moment, and family members may not know its content or may not know how to translate the patient's preferences into specific treatment decisions (Ditto et al. 2001; Silveira, DiPiero, and Gerrity 2000).

Most living wills begin with the statement, "If I have a terminal condition, then . . ." This statement requires a physician to evaluate whether the patient's condition is terminal. Until that determination is made, the content of the living will does not hold, despite what the patient and family had hoped. Also, some older patients prefer that their family members' preferences or physicians' recommendations prevail over the preferences articulated in the living will, particularly when there is disagreement over the suitability of a given treatment (High 1994; Puchalski et al. 2000; Terry et al. 1999).

Many practitioners recognize these problems and urge adults to execute a DPAHC in addition to completing a living will. The assumption is that adults will carefully choose a person to represent them in the decision-making process, and that the person chosen to have decision-making power will have in-depth knowledge of the patient's wishes. However, little is known about whom older adults appoint to play this role, or about the factors that guide these choices. We know of only one pop-

ulation-based study that has documented older adults' DPAHC appointments: Hopp (2000) documented the sociodemographic predictors of DPAHC completion, yet did not examine the predictors of the specific types of appointments.

Understanding whom older adults choose and identifying the factors that guide these choices are important goals. Most states have policies that give priority to specific family members as substitute decision makers, in cases where the patient has not formally appointed one. However, it is unclear whether state-level priorities mesh with older adults' actual preference hierarchies (High 1994). In most states, if a patient does not have a DPAHC, living will, or legally appointed guardian, then the right to make decisions falls to family members in the following order: spouse, adult children, siblings, and other family members. The provisions of specific states vary, however; some specify the order, while others allow the patient's best interests to supersede a preset hierarchy. States also vary in whether they grant decision-making power to common-law spouses, friends, or long-time companions. Some states require that all adult children or siblings unanimously make a decision as a "class," while others use more flexible criteria (American Medical Directors Association 2003).

Who is Chosen and Why?

The hierarchical compensatory model, originally developed to explain family caregiving, provides a conceptual framework for examining older adults' DPAHC appointments. The model proposes that older people have a rank-ordered preference for receiving assistance from others (Cantor 1979). Most adults will turn first to family members and will turn to nonfamily only when kin are unavailable. Cantor (1979) further specifies that older people prefer to receive support from their spouse, followed by their children, other relatives, and professional caregivers or formal organizations. Empirical studies generally support the hierarchical model; older adults are more likely to both prefer and receive support from a spouse, followed by children, other relatives, and friends (Cantor and Brennan 2000).

We assess whether this conceptual model applies to DPAHC appointments and examine whether married parents, married childless persons, unmarried (i.e., separated, divorced,

widowed, or never married) parents, and unmarried childless persons reveal different patterns of appointing DPAHC. We expect that these patterns will reflect a core assumption of the conceptual model; that is, the frequency with which a given person is selected to make end-of-life decisions occurs in the following order, contingent upon whether a respondent has each such living relative: spouse, child, other relative, friend, and professional.

The hierarchical compensatory model has been critiqued, however, for assuming that a universal norm dictates the order of one's preferences without regard to cultural, socioeconomic, or historical variations in filial norms, or idiosyncratic influences on one's personal preferences (Noelker and Bass 1994). Thus, we further propose that both whether one grants DPAHC and whom one selects to have DPAHC not only reflects mere availability and cultural norms prescribing the choice of close kin to have decision-making power, but also depends on how personal preferences and direct experiences with end-of-life issues shape such choices. We evaluate five sets of possible influences on both whether one grants DPAHC and whom one chooses to serve in this capacity: family roles and relations, socioeconomic status, health care encounters, personal beliefs, and experiences with death.

First, we consider family roles (i.e., marital and parental status) and whether one has a confidante in the family. We expect that married persons and parents will be more likely than unmarried or childless persons to appoint a DPAHC. Similarly, those who feel that they can confide in a family member will be more likely to appoint a DPAHC, compared to those without a confidante. One of the most widely endorsed cultural values among older adults is that they do not want to be a burden (Steinhauser et al. 2000). By appointing a DPAHC, older adults may ultimately spare their family members from difficult disagreements over life and death decisions.

Second, we consider one indicator of socioeconomic status: educational attainment. We hypothesize that higher education increases the likelihood that one will appoint a DPAHC. Appointing a DPAHC requires some familiarity with legal documents and a level of comfort in interacting with professionals who may assist in drafting the document, such as doctors or lawyers. Education is an indicator of one's cultural capital and suggests one's com-

fort level in interacting with highly educated professionals. Education also is associated with higher levels of perceived and desired control: More educated people may prefer to manage decisions about their own health care needs (Mirowsky and Ross 1998).

Third, we consider health and health care encounters; specifically, we consider self-rated health and recent hospitalizations as factors that may affect DPAHC appointments. Several studies show that physical health symptoms are not significantly associated with end-of-life planning (Pfeifer, Mitchell, and Chamberlain 2003; SUPPORT Principal Investigators 1995); thus, we consider the influence of a subjective health evaluation. We expect that persons who were hospitalized in the year prior to interview will be more likely than nonpatients to have appointed a DPAHC. The Patient Self-Determination Act, passed by Congress in 1990, requires that all government-funded hospitals and nursing homes give patients an opportunity to complete an advance directive upon admission. This encounter may raise adults' awareness of and familiarity with end-of-life planning.

Fourth, we assess whether personal beliefs affect one's appointment of a DPAHC. Although we do not directly assess one's attitudes toward end-of-life planning, we consider three belief systems that may shape one's feelings about the necessity, value, and appropriateness of end-of-life planning: religious affiliation, fear or avoidance of death, and beliefs about physician control versus patient control over health care. We expect that persons who have greater anxiety about death will be less likely to appoint a DPAHC, because fear of death is considered one of the main obstacles to discussing end-of-life issues (Winland-Brown 1998). We also expect that persons who believe that doctors rather than patients should make decisions about medical care will be less likely to appoint a DPAHC, because appointing a DPAHC implies that one would like their preferences communicated and heeded at the end of life (Lambert et al. 2005). Finally, we expect that Catholics and conservative Protestants will be less likely than mainline Protestants to appoint a DPAHC, reflecting belief in religious teachings on personal control over life and death and the morality of life-extending treatments (Talone 1996).

Finally, we consider prior experiences with end-of-life issues. We evaluate whether one has

experienced the death of a spouse or parent in the past ten years, and the extent to which that death was painful. The United States has been described as a death-denying society, where adults will not broach the topic of death unless they are directly confronted with it (Kellehear 1984). Qualitative studies suggest that older adults are more likely to prepare for their end-of-life care if they have known someone with severe cognitive impairment (Bravo, Dubois, and Paquet 2003) or if they had personal experience with a significant other's serious illness or injury (Inman 2002). We expect that persons who experienced the recent death of a significant other will be more likely than the nonbereaved to appoint a DPAHC, and this influence will be more powerful for those who witnessed a painful death. Those witnessing another's suffering may be motivated to avoid a similar fate and thus may make end-of-life preparations.

DATA AND METHODS

Sample

Analyses are based on data from the Wisconsin Longitudinal Study (WLS), a long-term study of a random sample of 10,317 men and women who graduated from Wisconsin high schools in 1957. Study participants were first interviewed during their senior year in high school, when they were 17–18 years old (1957). Subsequent interviews were completed at ages 36 (in 1975), 53–54 (in 1992–1993), and 64–65 (in 2003–2004).¹ Some strata of the U.S. population are not represented in the WLS, however. By design, all sample members graduated from high school; 75 percent of Wisconsin youth overall graduated from high school in the late 1950s. Nearly all study participants are white. Despite these limitations, the sample is broadly representative of older white American men and women who have completed at least a high school education. Non-Hispanic whites who have completed at least a high school education account for more than two-thirds all American women and men ages 60–64 in 2000 (U.S. Bureau of the Census 2003).

Our analyses are based on the 3,838 respondents (1,724 men and 2,114 women) who completed one-hour-long telephone interviews and self-administered mail questionnaires in 1992–1993 and 2003–2004. We further limit our analysis to the random 70 percent subsample who were administered the end-of-life

planning questions and the random 80 percent subsample who were asked the religious affiliation questions in 2003–2004; topical modules were given to randomly selected subsamples to reduce the overall length of the interview. Each random subsample was generated independently, so individuals who received one topical module may not have received the other.

Dependent Variable

We focus on two outcomes: (1) whether one has appointed a DPAHC; and (2) whom one has appointed to have their DPAHC. Respondents are asked, “Have you made legal arrangements for someone to make decisions about your medical care if you become unable to make those decisions yourself? This is sometimes called a Durable Power of Attorney for Health Care.” Persons who responded “yes” are coded as 1, and those who responded “no” are coded as 0; this variable is then used as the outcome in a binomial logistic regression analysis. Those who indicate that they have appointed a DPAHC are also asked, “Who has that authority?” More than 25 different answers were given; we coded the responses into the following eight mutually exclusive categories: spouse or romantic partner; child (including grandchild, stepchild, or child-in-law); sibling (including sibling-in-law); other relative (e.g., niece, nephew, cousin, etc.); friend (including roommate or coworker); physician/health care provider; clergy; and attorney/financial planner. In the second phase of our analysis we estimate multinomial logistic regression models in which we consider these categories as possible outcomes. When the cell size is too small to estimate the model, we merge conceptually similar categories (e.g., professionals and friends are merged into a “nonrelative” category).

Independent Variables

We evaluate five sets of characteristics as possible influences on DPAHC appointments: family roles and relationships, socioeconomic status, health and health care encounters, personal beliefs, and direct experiences with end-of-life issues.

Family roles and relationships. We consider marital and parental roles, as well as emotional support from family members. Marital status refers to one’s current (2003–2004) status and measures: currently married or cohabiting with romantic partner (reference category); never

married; and formerly married (i.e., divorced, separated, or widowed). Parental status refers to the number of living children one has. A continuous measure (ranging from 0 to 13) was recoded into the categories: no children (reference category), 1–2 children, 3–4 children, and 5 or more children. Perceived support from family members was evaluated in the 1992–1993 interview with the question, “Is there a person in your family with whom you can really share your very private feelings and concerns?” Responses of “yes” are coded as 1, and “no” is the reference category. We use an early (1992) measure to ensure that these beliefs are assessed prior to the time that one appointed a DPAHC.

Socioeconomic status. We include one measure of socioeconomic status: educational attainment. The categories are: 12 years of education (reference category), 13–15 years, and 16 or more years.

Health and health care encounters. We consider the influence of self-rated health and recent hospital admissions. Self-rated health is assessed in 2003–2004 with the question, “How would you rate your health at the present time: excellent, good, fair, poor, or very poor?” Responses of “fair” or “poor” are coded as 1, and responses of “good” or better are coded as 0. Recent hospital admissions are measured in 2003–2004 with the question, “In the past 12 months, have you been a patient in the hospital for at least one night?” Responses of “yes” are coded 1; “no” is coded as 0.

Personal beliefs. Our analyses include indicators of religious affiliation, attitudes toward death, and beliefs about personal control versus physician control over health care; all are assessed in the 2003–2004 interview. Religious affiliation is obtained with the question, “What is your religious preference?” Specific affiliations are coded into these categories: Catholic (reference group), mainline Protestant (e.g., Presbyterian, Episcopalian), conservative Protestant (e.g., Evangelical, Baptist, Pentecostal), other (e.g., Jewish, Buddhist), and no formal religion. Death avoidance ($\alpha = .70$) is a two-item scale assessing one’s desire to avoid thinking about death; items are drawn from the Death Attitude Profile-Revised (Wong, Reker, and Gesser 1994). Respondents are asked their level of agreement with two statements: (1) “I avoid thinking about death altogether” and (2) “Whenever the thought of death enters my mind, I try to push it away.” The six response

categories range from “agree strongly” to “disagree strongly.” Items are averaged; higher scores reflect a higher level of death avoidance.

Beliefs about personal control versus physician control over health are assessed with a three-item scale ($\alpha = .59$). Items are adapted from the Wake Forest University Trust Scales (Hall et al. 2001), which asks respondents to indicate their level of agreement with three statements: (1) “When there is more than one method to treat a problem, I should be told about each one” (reverse-coded); (2) “I would rather have my doctor make the decisions about what’s best for my health than to be given a whole lot of choices”; and (3) “The important medical decisions should be made by my doctor, not by me.” The five response categories range from “strongly agree” to “strongly disagree.” Items are averaged, where higher scores indicate a greater level of acquiescence to physician control.

Direct experiences with end-of-life issues. We include two indicators of the quality of death experienced by close relatives. Respondents who lost either a spouse or parent in the ten years prior to the 2003–2004 interview are then asked a series of questions about the perceived quality of his or her death. Persons who experienced both parental and spousal deaths are asked questions about the spouse only, while those who experienced the deaths of both parents are asked about the most recent decedent. Bereaved respondents are asked, “During his/her last week of life, how much pain did your spouse/parent have?” Response categories include “don’t know,” “no pain,” “slight pain,” “moderate pain,” and “se-

vere pain.” Three dummy variables were constructed to indicate: no deaths to parent or spouse in last ten years (omitted reference); parent or spouse died in past ten years, with no, slight, or unknown level of pain; and parent or spouse died in past ten years, moderate or severe pain. Descriptive statistics for all variables are presented in the appendix.

Analytic Plan

Our analysis has three parts. First, we conduct bivariate analyses to assess marital and parental status differences in whether one has appointed a DPAHC and whom one chooses. Second, we estimate binary logistic regression models to identify factors that influence whether one has appointed a DPAHC. We estimate models for the full sample as well as separate models for married persons with children, married persons without children, unmarried (i.e., formerly and never married) persons with children, and unmarried persons without children. Finally, we conduct multinomial logistic regression analyses to identify predictors of whom one has named to make decisions for them. The latter analyses are conducted separately for each of the four family subgroups, because one’s choice of a DPAHC designee is constrained by his or her family statuses (e.g., a childless person cannot name a child as their DPAHC designee).

RESULTS

Table 1 shows the proportion of sample members who have appointed a DPAHC and the frequency distributions of specific appoint-

TABLE 1. Frequency of Durable Power of Attorney for Health Care Appointments, by Marital Status and Presence of Living Children.

	Total Sample	Married with Children	Married and Childless	Unmarried with Children	Unmarried and Childless
Appointed DPAHC	53.0%	53.7%	63.5%	53.5%	47.0%
DPAHC: Spouse/romantic partner	57.0%	69.4%	79.6%	3.2%	5.5%***
DPAHC: Child/grandchild/stepchild/child-in-law	34.0%	27.2%	2.0%	80.1%	2.7%***
DPAHC: Sibling/sibling-in-law	2.6%	.4%	4.1%	6.3%	32.9%***
DPAHC: Other relative	2.3%	.4%	4.1%	4.4%	32.9%***
DPAHC: Friend/co-worker/roommate	1.5%	.4%	4.1%	3.2%	16.4%***
DPAHC: Physician/hospital	.6%	.5%	2.0%	.6%	1.4%
DPAHC: Clergy	.1%	0.0%	0.0%	0.0%	2.7%***
DPAHC: Attorney/financial professional	2.0%	1.8%	4.1%	2.2%	5.5%
N	3,838	2,982	88	608	160

Notes: DPAHC = durable power of attorney for health care. Distribution of persons named as DPAHC are calculated only for those respondents who have named a DPAHC (n = 2,034). Tests of difference in χ^2 were used to assess significant differences across marital and parental status categories, where * $p \leq .05$, ** $p \leq .01$, and *** $p \leq .001$ (two-tailed tests).

ments, by marital and parental statuses. Slightly more than half of WLS participants (53 percent) have executed a DPAHC. The proportions range from 47 percent among unmarried childless persons to 64 percent among married childless persons; these differences are not statistically significant. Among those who appointed a DPAHC, the specific choices for designees vary widely across family groups. Nearly all married parents (96 percent) choose either a spouse or child; 69 percent select their spouse, while 27 percent name a child. Less than 2 percent of married parents choose another relative, friend, or a professional. Among married childless persons, the majority name their spouse (80 percent), while a similar proportion of unmarried parents name a child as DPAHC. These patterns reveal the primacy of the nuclear family in the end-of-life planning process.

In contrast, we find considerable heterogeneity in the choices made by those who have neither a spouse nor child. Equal proportions of unmarried childless persons name a sibling or another relative (33 percent each). Another 16 percent choose a friend or co-worker. A

handful of unmarried childless persons name a nonmarital romantic partner or an ex-spouse.² Unmarried childless persons are more likely than married persons or parents to name professionals, such as clergy, as their DPAHC designees. In sum, those who do not have a spouse or child will reach into their broader social networks for assistance with end-of-life decision making.

Who Has Appointed a DPAHC?

Table 2 shows the factors that are associated with appointing a DPAHC. Consistent with the bivariate analyses, neither marital status nor the presence or number of children are significant predictors. However, perceived closeness to a family member is a powerful predictor: Persons who believe that they can confide in a family member are 1.3 times as likely as those without a confidante to appoint a DPAHC. Persons with some college and those with a college degree are more likely than high school graduates to appoint a DPAHC (O.R. = 1.3 and 1.45, respectively). Consistent with past studies, we find that physical health is not a significant predictor of appointing a DPAHC; how-

TABLE 2. Logistic Regression Predicting Whether Respondent Has Named a Durable Power of Attorney for Health Care

	Odds Ratios	95% C.I.
Gender (1 = female)	1.10	.96–1.26
Family roles and relationships		
Formerly married	.86	.71–1.03
Never married	.83	.51–1.36
1–2 children	1.20	.83–1.75
3–4 children	1.13	.78–1.63
5+ children	1.00	.67–1.48
Has family member confidante	1.33**	1.08–1.63
Socioeconomic status		
Education: 13–15 years	1.31**	1.09–1.57
Education: 16+ years	1.45***	1.24–1.70
Health and health care encounters		
Self-rated health: fair/poor	.85	.67–1.07
Admitted to hospital, past year	1.75***	1.42–2.17
Personal beliefs		
Mainline Protestant	.96	.83–1.11
Conservative Protestant	.65**	.50–.85
No formal religion	.85	.66–1.10
Other religion	.50*	.28–.91
Death avoidance scale (range: 1–6)	.86***	.81–.91
Physician control over health scale (range: 1–5)	.92*	.83–1.01
Experience with death		
Parent or spouse died, moderate/severe pain	1.41**	1.13–1.75
Parent or spouse died, no pain	1.17	.99–1.38
Pseudo R ²		.049
χ ² ; d.f.		142.76; 19
N		3,838

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Note: Odds ratios (exponentiated log-odds) and confidence intervals are presented.

TABLE 3. Multinomial Logistic Regression Predicting Whom Respondent Appointed as Durable Power of Attorney for Health Care, Married Persons with Children (n = 1,595)

	Appointed Spouse (vs. somebody else)		Appointed Child (vs. somebody else)	
	Odds Ratios	95% C.I.	Odds Ratios	95% C.I.
Gender (1 = female)	.92	.52–1.63	1.90*	1.05–3.43
Family roles and relationships				
Has family member confidante	1.05	.36–3.03	.63	.21–1.86
1–2 children	.89	.51–1.55	.50*	.28–.90
Socioeconomic status				
Education: 13–15 years	1.01	.50–2.06	.69	.33–1.46
Education: 16+ years	2.30*	1.09–4.85	1.23	.57–2.68
Health and health care encounters				
Self-rated health: fair/poor	.97	.37–2.55	.88	.32–2.41
Admitted to hospital, past year	1.75	.68–4.52	1.54	.58–4.10
Personal beliefs				
Mainline Protestant	.64	.34–1.21	.60	.31–1.16
Conservative Protestant	.62	.20–1.95	.39	.12–1.31
Other religion	.15*	.03–.77	.04*	.00–.47
No formal religion	.72	.23–2.27	.36	.10–1.23
Death avoidance scale (range: 1–6)	1.02	.81–1.28	1.03	.81–1.31
Physician control over health scale (range: 1–5)	.74	.49–1.11	.92	.60–1.40
Experience with death				
Parent or spouse died, moderate/ severe pain	2.10	.64–6.93	2.04	.60–6.94
Parent or spouse died, no pain	1.25	.59–2.62	1.10	.51–2.38
Pseudo R ²			.049	
χ ² ; d.f.			142.76; 19	
N			3,838	

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

Note: Odds ratios (exponentiated log-odds) and confidence intervals are presented.

ever, persons who have spent a night in the hospital in the past year are 1.75 times as likely as others to have appointed a DPAHC.

Personal beliefs also are important influences. Conservative Protestants are 65 percent as likely as Catholics to have named a DPAHC. The higher one's score on the death-avoidance scale, the lower the odds that one has appointed a DPAHC. Similarly, the more strongly one believes that doctors should control health care decisions, the lower the odds of having appointed a DPAHC. Direct experience with a loved one's death is a significant predictor of naming a health care proxy. Those who experienced the loss of a parent or spouse in the decade prior to interview are more likely than the nonbereaved to have appointed a DPAHC. Moreover, the effect is larger for those who witnessed a painful death versus a painless one (O.R. = 1.41 vs. 1.17, respectively), and the latter effect is not statistically significant (i.e., $p \leq .10$).

We also assessed the distinctive influences on DPAHC appointments within each of the four family categories: married with children, married and childless, unmarried with children, and unmarried and childless (models not

shown; available upon request).³ The results for married parents generally mirror those for the full sample, because married parents account for 78 percent of the overall sample (see Table 3). Among married parents, those with a college education are more likely than high school graduates to have appointed a DPAHC. Persons with a confidante in the family are more likely than others to have appointed a DPAHC. Higher scores on the death-avoidance scale are associated with a reduced likelihood of appointing a DPAHC. Hospital patients and those who witnessed the painful death of a loved one have higher odds of appointing a DPAHC.

Among formerly married parents, in contrast, only two characteristics affect the appointment of a DPAHC: death attitudes and recent experience with familial death. Higher scores on the death-avoidance scale decrease the odds of appointing a DPAHC, while those who experienced a loved one's death—regardless of the pain level—are nearly twice as likely as the nonbereaved to appoint a DPAHC.

None of the personal characteristics considered is a significant predictor of the DPAHC appointments of childless persons, regardless of their marital status. Neither model fit was

statistically significant at the $p \leq .05$ level. The nonsignificant results could reflect the small size of the two childless subgroups (88 and 160 for married and unmarried, vs. 2,982 and 608 for married and unmarried persons with children, respectively). Alternatively, the poor model fit could reflect the fact that persons with nontraditional family statuses do not have clear social, normative, or institutional structures in place to guide their health care decisions.

Multinomial Logistic Regression: Whom Do Older Adults Choose as DPAHC Designees?

Next, we investigate the selection of a specific person as a DPAHC designee, among those who appointed a DPAHC. We estimated separate multinomial and binary logistic regression models for each of the four family subgroups. For married persons with children we predict whether one designated a spouse, a child, or someone else. For married persons with no children we predict whether one designated a spouse or someone else. For unmarried persons with children we predict whether one designated a child or someone else. For unmarried, childless persons we predict whether one designated a relative (e.g., sibling, cousin, etc.) or a nonrelative (i.e., friend or professional). The reference category includes those who named "someone else" in the models for married persons and unmarried parents, while the reference category is "nonrelative" in models for unmarried, childless persons.

The analyses for the two childless samples yielded no statistically significant coefficients; nor were the overall model fits statistically significant, as evidenced by the model χ^2 and degrees of freedom. Thus, we do not present models for either childless subgroup (all models are available from the corresponding author). The results for the married with children and unmarried with children subgroups are presented in Tables 3 and 4, respectively. Gender and family roles guide married parents' choice of DPAHC designees. Women are almost twice as likely as men to name a child, while persons with only one or two children are half as likely as those with larger families to name a child.⁴ College graduates have more than twice the odds of naming their spouse, relative to appointing "someone else."

The binary logistic regression models for unmarried persons with children are shown in Table 4. Unmarried persons with only one or

two children are half as likely as those with larger families to name a child as DPAHC designee. Those who can confide in a family member have 2.4 times the odds of naming a child as their proxy. As with married persons, personal beliefs and experience with the deaths of significant others do not affect whom one chooses; rather, they increase the odds that one will appoint a DPAHC.

DISCUSSION

Our study documented the specific choices that persons in their early 60s make with regard to DPAHC appointments and revealed the ways that family roles, attitudes related to end-of-life planning, and the end-of-life experiences of significant others affect those choices. Our analyses yielded six findings that have potentially important implications for health care among current cohorts of older adults. First, our findings suggest that the hierarchical compensatory model (Cantor 1979), originally developed to explain patterns of caregiving and social support, is a reasonably good framework for understanding the selection of DPAHC designees. Consistent with past studies, we found that married persons overwhelmingly choose their spouse, while unmarried parents typically select their children as DPAHC designees (Hopp 2000). Also consistent with Cantor's (1979) model, we found that persons with neither a spouse nor child most often turned to another relative, such as a sibling. In contrast, married persons and parents rarely turned to another relative, a friend, or a professional. These findings suggest that older persons select as their decision makers those closest to them, and look beyond their immediate kin only when close family members are not available.

However, older adults do not always name as DPAHC designee the person who would be predicted by the hierarchical compensatory model (Cantor 1979). Thus, the norms prescribed by the model are not universalistic; rather, individuals will innovate to meet their own needs and the presumed needs of their loved ones. For example, married women with children are more likely than their male counterparts to name a child as DPAHC designee. Consistent with gendered patterns of mortality in later life, older married women may anticipate that their husbands will die prior to the time when their own health care decisions are needed. Consequently, women may feel that

TABLE 4. Binary Logistic Regression Predicting Whom Respondent Appointed as Durable Power of Attorney for Health Care, Unmarried People with Children (n = 314)

	Appointed Child (vs. somebody else)	
	Odds Ratios	95% C.I.
Gender (1 = female)	.87	.43–1.78
Family roles and relationships		
Has family member confidante	2.44*	1.15–5.19
1–2 children	.43**	.23– .80
Socioeconomic status		
Education: 13–15 years	2.11	.78–5.66
Education: 16+ years	.67	.32–1.38
Health and health care encounters		
Self-rated health: fair/poor	.59	.23–1.52
Visit to hospital for own health, past year	.71	.31–1.65
Personal beliefs		
Mainline Protestant	1.08	.55–2.12
Conservative Protestant	.55	.17–1.80
No formal religion	2.02	.68–5.97
Death avoidance scale (range: 1–6)	.97	.73–1.29
Physician control over health scale (range: 1–5)	.90	.57–1.43
Experience with death		
Parent or spouse died, moderate/ severe pain	1.17	.54–2.51
Parent or spouse died, no pain	1.47	.72–3.00
Pseudo R ²		.136
χ ² ; d.f.		29.80; 15*
N		254

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Note: Odds ratios (exponentiated log-odds) and confidence intervals are presented.

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children are a better choice to represent their health care preferences.

We also found that the choice of a DPAHC designee varied based on the number of children one has. Among both married and unmarried parents, those with only one or two children were less likely than those with larger families to name a child as DPAHC designee. This pattern may reflect sheer availability. The more children one has, the greater the overall frequency of contact with children and the greater the likelihood that a child is proximate, willing, and able to take on the role of DPAHC designee. Alternatively, personal preferences and cultural norms for naming a child as DPAHC designee may vary based on one's family size. Parents with just one child may not want to burden their only child with difficult end-of-life decisions, as that child has no siblings to turn to for support or affirmation. Parents of two children may not want to choose between them and select only one as DPAHC designee; they may prefer to appoint their spouse (if married) or another person (if not married) as their decision maker.

While our findings generally support the compensatory hierarchical model (Cantor

1979), they also suggest that end-of-life planning may be different from the provision of instrumental support in some fundamental ways. Although older adults may want to spare their loved ones the caregiving burden (Bookwala, Lee, and Schulz 2000), those with few children may be motivated to spare them the unique stressor of end-of-life decision making. The emotional strains associated with life-and-death decisions are presumably more severe than those associated with caregiving, especially for children who are not sharing the duties with siblings.

Second, we found that unmarried childless persons show much greater heterogeneity in their DPAHC choices than either married persons or parents. Moreover, not one purported predictor variable was significantly related to the choice of a DPAHC among unmarried childless persons. These findings suggest that end-of-life planning practices may be idiosyncratic or innovative for those who violate at least one of two pervasive cultural norms: that older adults should be married and have children, and that older adults should turn to their spouse or child as their helper, if such a person is alive and available. No guidelines are pro-

vided to persons who violate the hierarchical compensatory model and instead opt for a friend or other family member rather than a spouse or child as DPAHC designee. Health care providers could promote collaboration and conversation among older adults and their family members, broadly defined—friends, colleagues, professionals, spouse, or children—to help minimize the ambiguities of the process and to better prepare surrogates to make treatment decisions (Hahn 2003).

Third, we found that highly educated persons are more likely than less-educated persons to have appointed a DPAHC. This finding is consistent with prior studies of advance-directive completion (Hopp 2000). Appointing a DPAHC often requires understanding legal and technical language, as well as being comfortable with both legal documents and professionals (Gamble, McDonald, and Lichstein 1991). Thus, persons with lower levels of education may require special interventions or programs to increase their use of advance care planning. Intervention studies have found that informational videos can be effective in informing people about and increasing their use of advance directives (Daitz, Ulene, and Gibson 1994). Such an approach may be particularly effective for those with limited education or limited access to legal professionals who assist with the DPAHC completion process.

Fourth, we found that persons who spent at least one night in the hospital in the year prior to interview were significantly more likely to have appointed a DPAHC. This suggests that the Patient Self-Determination Act has been at least somewhat successful in increasing the use of advance directives. Although patients may not necessarily appoint a DPAHC or complete a living will at the time of their hospital admission, simply having these issues raised upon intake may encourage relevant discussions with loved ones. Consistent with past studies, self-rated health did not predict one's appointment of a DPAHC, yet it is possible that the measure was simply too broad to capture one's health conditions. Persons who were admitted to the hospital in the past year may be more likely to have a serious health condition or to have had surgery; these intensive experiences may trigger end-of-life discussions and plans among older adults.

Fifth, we found that religion, attitudes about control over health, and fear of death were sig-

nificant predictors of end-of-life planning. Those who believe that physicians rather than patients should make decisions about health care, and those with a greater desire to avoid conversations about death, were less likely to have appointed a DPAHC. Our findings are encouraging from a practice perspective, because attitudes about health care and death are modifiable factors. Carefully targeted educational programs or cognitive therapy may help to assuage the fear of death and help patients to develop a greater sense of efficacy with regard to their health regimens. Such steps may help remove cognitive or emotional barriers to end-of-life planning.

Finally, the recent painful death of a loved one was a strong predictor of appointing a DPAHC. This finding is consistent with recent qualitative studies showing that older adults' feelings about end-of-life care are influenced by the deaths of others (Lambert et al. 2005; Silveira et al. 2000). Our study suggests that patients may be more likely to learn about end-of-life issues when a loved one is in danger than when they themselves face a health threat, or when they receive generic recommendations from health care providers. Research on information processing reveals that negative information has a greater influence on decision making than positive or neutral information (Tversky and Kahneman 1991). Rather than using abstract or hypothetical situations when talking to patients, doctors may instead talk to patients about their prior experiences with a loved one's death as well as their feelings about those experiences (Hopp 2000). Reviewing these experiences, especially when the memories are distressing, may help doctors and patients to develop strategies to ensure that similar experiences do not befall the patient.

Limitations and Future Directions

Our study has several important limitations, each of which raises questions to be addressed in future analyses. First, our study focused only on white, high-school-educated adults. Because attitudes toward end-of-life medical treatments vary across ethnic groups (Hopp and Duffy 2000), and because blacks are less likely than whites to marry and remain married (Federal Interagency Forum on Aging-Related Statistics 2004), patterns of DPAHC selection may be quite different for blacks and whites.

Second, our study focused on relatively young older adults, those ages 64 and 65. Some

research suggests that end-of-life planning is typically done among frail older adults who are near the end of life (Inman 2002). The WLS participants, by contrast, are quite healthy; only 9 percent rate their health as fair or poor, and just 12 percent were admitted to a hospital in the year prior to interview. Future studies should assess the extent to which both DPAHC completion and specific choices of DPAHC designees change with advancing age and declining health.

Third, we have simply documented whom people choose. However, we did not evaluate the effectiveness of such choices. Recent studies suggest that health care surrogates have only a limited understanding and knowledge of their loved ones' preferences (Ditto et al. 2001; Layde et al. 1995). Although those family members with the most frequent contact, such as spouses and children, are presumed to have the most detailed and accurate knowledge of their loved ones' preferences, very close family members also might be the most reluctant to have honest and open conversations, out of fear of upsetting one another (Briggs 2003). Cognitive obstacles also may interfere. Married persons may presume that their spouse already knows their preferences, while children of married persons may assume that such decisions are to be made between spouses, thus rendering DPAHCs unnecessary (Hopp 2000). Future studies should explore whether older adults select as DPAHC designee the person who is most knowledgeable about their end-of-life health care preferences. Studies also should identify the distinctive obstacles to meaningful end-of-life discussion among specific dyads such as husbands and wives or parents and children.

Fourth, we have focused on only one aspect of end-of-life planning: the DPAHC. Practitioners encourage older adults to also complete a living will and to have in-depth discussions with family members about their future care needs. The effectiveness of any one strategy in conveying the patient's wishes may be contingent on also adopting a second or third strategy. In the WLS sample, 90 percent of persons

with a DPAHC also have a living will, and more than 80 percent of those with a living will also have a DPAHC. Nonetheless, future studies should explore the effectiveness and correlates of engaging in multiple-component versus single-component approaches to end-of-life planning.

Finally, we explored only a limited set of predictors. Our low pseudo- R^2 values (ranging from .05 to .14) suggest that a broader array of contextual factors (e.g., geographic region, urban/rural status), family-level factors (e.g., proximity, frequency of contact), and individual-level factors (e.g., IQ, personality) should be considered in future analyses. Additionally, the predictors we considered were ineffective in explaining the choices made by older adults whose family roles fail to fit into prevailing cultural norms. Social institutions and cultural norms assert the supremacy of marriage and parenthood over all other interpersonal relationships, such as friendships, sibling relationships, and romantic relationships with unmarried partners (DePaulo and Morris 2005). Unstructured open-ended interviews with childless persons, particularly unmarried childless persons, may reveal insights into the decision-making processes of those who simply do not have access to persons on the top two rungs of Cantor's (1979) hierarchy: spouses and children.

Despite these limitations, our study has provided an overview of the specific choices that older, white, middle-class adults make as they prepare for the end of life. We look forward to seeing future research that documents the extent to which these patterns vary across birth cohorts. The large Baby Boom cohort is more likely than current cohorts of older adults to have divorced, remarried, and acquired stepchildren (Hughes and O'Rand 2004). This cohort also is more highly educated than past cohorts and is believed to be particularly proactive in making health care decisions. Whether, how, and with whom the Baby Boom cohort prepares for the end of life will be of critical interest to scholars, practitioners, and policy makers in coming decades.

APPENDIX. Descriptive Statistics for All Variables Used in Analysis, by Gender (Wisconsin Longitudinal Study 1957–2004)

	Total Sample (N = 3,838)		Men (n = 1,724)		Women (n = 2,114)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
<i>Dependent Variables</i>						
Appointed DPAHC	.53		.52		.54	
DPAHC: Spouse/romantic partner	.57		.69		.48***	
DPAHC: Child/grandchild/stepchild/child-in-law	.34		.24		.42***	
DPHAC: Sibling/sibling-in-law	.03		.02		.03	
DPAHC: Other relative	.02		.02		.03	
DPAHC: Friend/co-worker/roommate	.01		.01		.01	
DPAHC: Physician/hospital	.006		.002		.008	
DPAHC: Clergy	.001		.0		.002	
DPAHC: Attorney/financial planner	.02		.02		.019	
<i>Independent Variables</i>						
Family roles and relationships						
Currently married	.80		.87		.74***	
Divorced/separated	.09		.07		.10***	
Widowed	.08		.03		.12***	
Never married	.035		.03		.04	
No children	.06		.06		.07	
1–2 children	.33		.36		.30***	
3–4 children	.45		.43		.46	
5+ children	.16		.14		.17*	
Can share private thoughts with family member (1 = yes)	.89		.87		.90***	
Socioeconomic status						
12 years of education	.55		.48		.60***	
13–15 years of education	.16		.17		.16	
16+ years of education	.29		.35		.24***	
Health and health care encounters						
Self-rated health: fair/poor	.09		.08		.09	
Spent night in hospital, past year	.12		.13		.11*	
Personal beliefs						
Roman Catholic	.39		.38		.40	
Mainline Protestant	.44		.44		.45	
Conservative Protestant	.07		.07		.07	
Other religion	.01		.01		.01	
No formal religion	.08		.10		.07***	
Death avoidance scale (range: 1–6)	3.11	1.23	3.26	1.22	2.99***	1.23
Physician control over health scale (range: 1–5)	2.12	.72	2.22	.72	2.03***	.71
Experience with death						
Parent or spouse died in past 10 years, no/little pain in final weeks	.20		.18		.21**	
Parent or spouse died in past 10 years, moderate/ severe pain	.11		.11		.11	

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ (two-tailed tests)

Notes: DPAHC = durable power of attorney for health care. Means and standard deviations are presented for continuous measures; proportions are shown for categorical variables. Two-tailed t -tests were used to assess significant gender differences.

NOTES

1. Of the 10,317 members of the original WLS sample, 9,139 (88.6%) were interviewed in 1975, 8,493 (82.3%) were interviewed in 1992–1993, and 6,278 (61%) were interviewed in 2003–2004. Of the original respondents, 1,297 (12.6%) were deceased as of the 2003–2004 interviews. Study participants in the follow-up waves have higher IQ
2. Four persons who are unmarried and childless (i.e., reported that they have no children) named a child as their DPAHC designee. Closer inspection of the data revealed that these children were the children of their nonmarital romantic partners.
3. Nearly all of the unmarried persons with children are divorced or widowed, reflecting

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very low rates of nonmarital childbearing among members of the WLS cohort (Ventura and Bachrach 2000).

4. In the multinomial logistic regression models assessing the DPAHC choices of parents, no persons have zero children. Thus, we assess the effects of having one or two children versus three or more children. We collapse the categories of three to four and five or more children used in earlier analyses, because separate indicators for each category were not statistically significant.

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