

Medical Advance Care Planning for Persons With Serious Mental Illness

Mary Ellen Foti, M.D.

Stephen J. Bartels, M.D., M.S.

Melanie P. Merriman, Ph.D., M.B.A.

Kenneth E. Fletcher, Ph.D.

Aricca D. Van Citters, B.A.

Objective: This study examined preferences regarding medical advance care planning among persons with serious mental illness, specifically, experience, beliefs, values, and concerns about health care proxies and end-of-life issues. **Methods:** A structured interview, the Health Care Preferences Questionnaire, was administered to a convenience sample of 150 adults with serious mental illness who were receiving community-based services from the Massachusetts Department of Mental Health. Clinical information and demographic data were also collected. **Results:** A total of 142 participants completed the questionnaire. Although more than one-quarter had thought about their medical treatment preferences in the event that they became seriously medically ill, very few had discussed these preferences. A majority of respondents (72 percent) believed that someone should be designated to make medical health care decisions for a person who is too sick to make or communicate these decisions him- or herself. Common end-of-life concerns included financial and emotional burdens on family, pain and suffering, interpersonal issues such as saying “goodbye,” spiritual issues, and funeral arrangements. Participants were most uneasy about the prolonging or stopping of life support by proxy decision makers. A total of 104 respondents (69 percent) expressed interest in formally selecting a health care proxy. **Conclusions:** Although persons with serious and persistent mental illness have little experience with medical advance care planning, they show substantial interest in it. Furthermore, they are able to consider and communicate their preferences. This study supports the feasibility, acceptability, and utility of a standardized approach to medical advance care planning with this population. (*Psychiatric Services* 56:576–584, 2005)

End-of-life care planning through written advance directives and designation of a proxy promotes individual health care preferences after decision-making capacity is lost (1). Extensive research describes end-of-life care planning and preferences in the general medical population (2–5), but little is known about this topic for persons with serious mental illness.

Approximately 50 percent of psychiatric patients have known medical conditions, and 35 percent have undetected medical conditions (6). The life expectancy of individuals with schizophrenia is nine or ten years shorter than that expected for the general population (6–9). Furthermore, medical comorbidity is associated with more serious psychiatric symptoms, worse health status, and worsened health care outcomes (6,10–16). Despite poor health outcomes, individuals with serious mental illness have limited opportunities to engage in advance care planning discussions (17). Many who have thought disorders, cognitive deficits, and emotional dysregulation are assumed to have impaired capacities to formulate and communicate health care choices (18–21), and persons with guardianships are automatically excluded from advance care planning (22).

Capacity to make treatment decisions often fluctuates over the course of mental illness. For example, understanding treatment options can be impeded by psychiatric symptoms or cognitive disorganization (23). Similarly, individuals with schizophrenia may have acute psychotic symptoms

Dr. Foti and Dr. Fletcher are affiliated with the department of psychiatry at the University of Massachusetts Medical School. Dr. Foti is also State Medical Director of the Massachusetts Department of Mental Health in Boston. Dr. Bartels and Ms. Van Citters are with the New Hampshire–Dartmouth Psychiatric Research Center in Lebanon, New Hampshire. Dr. Bartels is also with the department of psychiatry of Dartmouth Medical School in Hanover, New Hampshire. Dr. Merriman is with the University of Miami School of Nursing and with Touchstone Consulting in Miami. Send correspondence to Dr. Foti at the Massachusetts Department of Mental Health, 25 Staniford Street, Boston, Massachusetts 02114-2503 (e-mail, maryellen.foti@dmh.state.ma.us).

or long-standing thought disorders that can impair their ability to make informed decisions (24). Tailored educational interventions can improve understanding to a level that falls within the range of informed decision-making capacity (24). Thus several states have created statutes that reflect “fluctuating capacity” of persons with serious mental illness, allowing for documentation of treatment preferences during an individual’s stable and competent phases (25). Although the Patient Self-Determination Act (PSDA) (26) requires federally funded health care facilities to inform competent patients of their right to make medical care decisions, including accepting or refusing treatment and completing advance directives, application of the act to persons with serious mental illness has focused on psychiatric advance directives (22,27,28). Legal, medical, and ethics scholars argue that the PSDA grants individuals who have serious mental illness the right to document preferences for psychiatric treatments in the event that they become incompetent to participate in decision making as a result of their mental illness (22,29–32).



In contrast to psychiatric advance directives, medical advance care planning has been neglected for persons with serious mental illness (33,34). However, it has been extensively studied in the general population. Advance care planning studies have increased steadily over the past decade (35), and a vast and culturally diverse literature of research domains, toolkits, organizational principles, and policies now exists (36,37). However, it is not known whether these innovations apply to persons with serious mental illness, because this group has been specifically excluded from the research (38). The purpose of this article is to provide descriptive information about mental health consumers’ attitudes, concerns, preferences, and experiences with medical advance directives and end-of-life issues.

Methods

Participants

The study participants were clients of the Massachusetts Department of

Mental Health who were receiving services from one of five contracted community mental health agencies. Two agencies were located in suburban settings and three in urban environments. All participants met state criteria for a serious and persistent mental illness, consisting of a *DSM-IV* chart diagnosis of an axis I or axis II disorder with directly related functional disability as measured by the Current Evaluation of Risk and Functioning–Revised (CERF-R), an 18-item scale assessing client functioning and risk (39,40). Participants


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were 18 years of age or older, were able to communicate in English, and provided written informed consent. If a potential participant was legally incompetent—that is, under guardianship—and willing to participate, written informed consent was obtained from both the participant and the guardian. Two institutional review boards approved the study protocol and the document that was used for obtaining informed consent.

Measures

A data collection form was used to gather information about sociodemographic characteristics, psychiatric diagnoses, medications, medical conditions, frequency of medical specialty visits or hospitalizations, and CERF-R scores. Participants’ health status, exposure to advance care planning, values, beliefs, and end-of-life concerns were obtained with use of the Health Care Preferences Questionnaire (HCPQ). (The HCPQ is available at www.promotingexcellence.org/mentalillness.)

The HCPQ documents participants’ attitudes and preferences for scenario-specific choices (38,41) and assesses basic health care values (42–44). HCPQ components include health status, assessed with the Short-Form-12 (SF-12) (45,46); advance care planning; scenario-based treatment preferences; beliefs, values, and concerns about end of life; interview feedback and follow-up; and an interviewer’s addendum.

Procedures

Agency staff were trained on the study objectives, the function of advance care planning, the purpose of a health care proxy, and appropriate procedures for obtaining informed consent. Twenty-seven interviewers were trained to administer the HCPQ by using practice sessions and a manual that included instructions for each item. Instructions reminded interviewers what to emphasize when reading the item, what items to skip on the basis of subjects’ responses (skip patterns), and how to address questions or concerns from respondents. All interviewers completed a written test of their knowledge about advance care planning and demonstrated proficiency in administration of the HCPQ.

Recruitment of participants began in November 2000 and ended in July 2001. Posters and contact information were displayed in agencies’ residential group homes and supported-housing complexes. As potential participants expressed interest, study coordinators responded with a cued script that explained the study and emphasized its voluntary nature. Participating agencies provided residen-

tial or supported housing services to approximately 450 psychiatric clients, of which the first 150 eligible volunteers were included in the study.

Analyses

Frequency distributions were computed for participants' demographic, diagnostic, and medical treatment characteristics; responses to HCPQ questions; and the interviewers' addendum. Narrative responses were analyzed by using a coding system developed by the authors that categorized response themes. Independent-sample *t* tests were used to compare CERF-R scores between the study sample and a community sample of consumers, and SF-12 physical and mental component scores between the study sample and the general population and selected subpopulations. Possible scores on the CERF-R domains range from 1 to 6, with higher scores indicating greater disability or greater risk. Scoring of the SF-12 physical component score and mental component score are norm based, with a mean±SD of 50±10; higher scores indicate better health functioning. Finally, chi square analyses and independent-sample *t* tests were used to identify relationships between attitudes toward advance directives and demographic and clinical characteristics. The medical scenario-based treatment preferences are discussed in our accompanying article in this issue of *Psychiatric Services* (47).

Results

Sample characteristics

The participants' demographic characteristics are summarized in Table 1. The participants were middle-aged (42±10 years) and predominantly Caucasian (137 respondents, or 91 percent). Most had never been married (129 respondents, or 86 percent), and more than half were men (83 respondents, or 55 percent). Psychiatric diagnoses included schizophrenia spectrum disorders (99 respondents, or 66 percent), affective disorders (42 respondents, or 28 percent), and personality disorders or posttraumatic stress disorder (nine respondents, or 6 percent). Most participants received a second- or first-generation antipsychotic (128 respondents, or 87

percent), approximately half received an antidepressant (69 respondents, or 47 percent) or an anticonvulsant or mood stabilizer (80 respondents, or 56 percent), and less than a third received an anxiolytic medication (43 respondents, or 29 percent). Sixty percent of the sample (90 respondents) had at least one medical diagnosis. The most common medical conditions included cardiovascular disease (33 respondents, or 22 percent), endocrine disease (19 respondents, or 13 percent), and respiratory illnesses (16 respondents, or 11 percent). More than half the respondents (78 respondents, or 52 percent) had had one to four medical appoint-

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ments in the previous three months, and 7 percent (ten respondents) had had five or more appointments. Eleven clients (8 percent) had been hospitalized for a medical condition during the previous three months.

The participants had similar demographic, clinical, and functional characteristics to those of the larger Massachusetts Department of Mental Health population. However, minor differences were found with respect to four of the 18 CERF-R functional status domains. Compared with the larger population (*N*=4,631), the study participants were more likely to

hold jobs (mean score of 3.8±1.7 compared with 4.3±1.7; *t*=3.24, *df*=4,733, *p*<.001), had lower service needs (2.4±1.0 compared with 2.7±1.2; *t*=2.77, *df*=119.9, *p*=.007), had a lower risk of sexual offenses (1.1±.3 compared with 1.2±.6; *t*=3.70, *df*=135.8, *p*<.001), and had a lower risk of leaving services (1.7±1.1 compared with 1.9±1.2; *t*=2.13, *df*=4,738, *p*=.033).

The physical and mental health status of study participants was compared with published norms for the general population and with data for subgroups with chronic medical illness (45,46). Overall, the study participants had worse physical and mental health functioning compared with the general population and had similar physical functioning to individuals with diabetes and hypertension. Physical and mental component scores of the SF-12 were significantly lower for the study population (46.7±10.2 and 45.5±10.8, respectively) than for the general population (50.1±9.5 and 50.0±9.6, respectively; *t*=-4.25, *df*=2,475, *p*<.001 and *t*=-5.46, *df*=2,475, *p*<.001). However, physical component scores of the study sample were similar to those of persons with hypertension (46.5±7.0) and diabetes (44.8±15.9). As expected, mental component scores indicated greater impairment for study participants than for persons with hypertension (53.0±7.0; *t*=-8.86, *df*=456, *p*<.001) or diabetes (52.5±14.1; *t*=-5.31, *df*=456, *p*<.001) (45).

Advance care planning

Participants reported little experience with advance care planning. More than one-quarter (41 respondents, or 27 percent) indicated that they had existing preferences for medical treatment if they were to become seriously ill, but only 20 percent of these (eight respondents, or 5 percent of the entire sample) had spoken with their doctor about their preferences. Only three participants (2 percent) had documented their health care preferences. Participants with undocumented preferences explained that they had "never thought about writing them down before" (24 participants, or 57 percent), were "too young" or "felt it was too soon" (seven participants, or 17 percent),

Table 1

Characteristics of a sample of 150 persons with severe mental illness who participated in a study of preferences regarding advance care directives

Variable																You believe some- one should make health care decisions for a seriously ill per- son, even in the absence of written instructions						
	Total sample		You have existing preferences for medical treatment if you should become seriously ill				You have selected a person to be your health care proxy				You want more information about selecting a proxy				Yes (N=108)		No (N=42)		p			
			Yes (N=41)		No (N=107)		Yes (N=25)		No (N=114)		Yes (N=103)		No (N=47)									
	N	%	N	%	N	%	p ^a	N	%	N	%	p	N	%	N	%	p	N	%	N	%	p
Age (mean± SD years)	42± 10		41± 11		42± 10		.626 .001	44± 10		41± 10		.195 .016	42± 10		42± 11		.758 .013	43± 11		39± 9		.048 .169
Gender																						
Male	83	55	14	17	69	83		9	11	71	62		50	60	33	40		56	68	27	33	
Female	67	45	27	42	38	59		16	27	43	38		53	79	4	21		52	78	15	22	
Race or ethnicity							.027					.863					.963					.289
Caucasian	137	91	34	25	101	75		23	18	106	93		94	69	43	31		97	71	40	29	
Other ^b	13	9	7	54	6	46		2	20	8	7		9	69	4	31		11	85	2	15	
Marital status							.251					.006					.769					.324
Never																						
married	129	86	33	26	94	74		17	14	102	90		88	68	41	32		91	71	38	30	
Other ^c	21	14	8	38	13	62		8	40	12	11		15	71	6	29		17	81	4	19	
Guardianship							.187					.830					.138					.063
Present	17	11	7	41	10	59		3	20	12	80		9	53	8	47		9	53	8	47	
Absent	124	83	34	26	97	74		22	18	102	82		94	71	39	29		99	74	34	26	
Psychiatric diagnosis							.540					.854					.527					.861
Schizo- phrenia	99	66	24	25	73	75		17	18	76	67		65	66	34	34		70	71	29	29	
Mood dis- order	42	28	13	33	28	67		7	19	30	26		31	74	11	26		31	74	11	26	
Personality disorder or PTSD	9	6	3	33	6	67		1	11	8	7		7	78	2	22		7	78	2	22	
Medical diagnoses							.509					.083					.139					.432
None	60	40	13	22	45	78		6	11	50	89		36	60	24	40		40	67	20	33	
One	33	22	10	30	23	70		9	30	21	70		26	79	7	21		26	79	7	21	
Two or more	57	38	18	32	39	68		10	19	43	81		41	72	16	28		42	74	15	26	
Medical spec- ialty visits in the past three months							.446					.094					.020					.963
None	48	32	11	23	36	77		5	11	42	89		26	54	22	46		34	71	14	29	
One or more	88	59	26	30	62	71		18	23	62	78		65	74	23	26		62	71	26	30	
Education							.954					.119					.060					.847
Less than high school	30	20	8	27	22	73		2	7	25	93		25	83	5	17		22	73	8	27	
High school equivalent or greater	116	77	31	27	83	73		22	20	87	80		76	66	40	35		83	72	33	28	
Religious affiliation							.435					.194					.130					.461
Catholic	77	51	20	26	56	74		11	15	63	85		59	77	18	23		59	77	18	23	
Other ^d	66	44	21	32	44	68		14	24	45	76		43	65	23	35		47	71	19	29	
Religious							.105					.398					.601					.787
Not at all to some- what	96	64	23	25	71	76		15	17	75	83		70	73	26	27		72	75	24	25	
Very or extremely	48	32	18	38	30	63		10	23	34	77		33	69	15	31		35	73	13	27	

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Table 1

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Variable	Total sample		You have existing preferences for medical treatment if you should become seriously ill				p ^a	You have selected a person to be your health care proxy				p	You want more information about selecting a proxy				p	You believe someone should make health care decisions for a seriously ill person, even in the absence of written instructions				
			Yes (N=41)		No (N=107)			Yes (N=25)		No (N=114)			Yes (N=103)		No (N=47)			Yes (N=108)		No (N=42)		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	p	
SF-12, PCS ^e (mean±SD score)	47±10		47±8		47±8		.904	43±10	48±10		.016	46±11	48±9		.260	46±10	50±10		.014			
SF-12, MCS ^f (mean±SD score)	46±11		48±11		45±11		.154	48±12	45±10		.152	45±11	47±11		.482	46±11	44±9		.203			

^a Significance testing used t tests for continuous variables and chi square tests for categorical variables. Because there were multiple analyses, significance values should be interpreted with caution.

^b African American (N=6), Asian (N=4), and other (N=3)

^c Married (N=6), divorced (N=8), separated (N=4), and widowed (N=3)

^d Other Christian (N=33), Jewish (N=9), and other (N=19)

^e Physical component score of the Short Form-12

^f Mental component score of the Short Form-12

and had not “gotten around to it” (five participants, or 13 percent).

Beliefs, values, and end-of-life concerns

Most participants (108 participants, or 72 percent) believed that someone should be designated to make health care decisions for a person who is too sick to do so. Nearly two-thirds (93 respondents, or 62 percent) specified at least one individual who could act as their health care proxy, including a family member (61 respondents, or 66 percent); a physician, psychiatrist, or mental health care worker (22 respondents, or 23 percent); or a friend (seven respondents, or 7 percent). However, less than one-fifth (25 respondents, or 18 percent) had selected a person to act as their health care proxy.

Ninety-five percent of the sample (142 respondents) identified concerns about proxy decision making and end-of-life care issues. Leading concerns about proxy decision making (165 concerns identified) were those related to life support in the context of a coma or brain damage, including decisions to “pull the plug”

and fears of remaining “a vegetable” (62 respondents, or 44 percent), the places in which the person would live and receive care (17 respondents, or 12 percent), medication or medical errors (12 respondents, or 9 percent), and issues related to a funeral, burial, cremation, or the person’s will (12 respondents, or 9 percent). Nine participants (6 percent) indicated no concerns and believed that their family would take care of everything. Specific concerns about end-of-life care are shown in Table 2. The most common concerns were financial (33 percent) and emotional (30 percent) burden to family or loved ones, pain and suffering (30 percent), interpersonal issues (22 percent), funeral and disposition of the individual’s body (21 percent), and spiritual concerns (16 percent).

Comfort, distress, and understanding of the questionnaire

The average time to complete the entire HCPQ was 43.6±16.1 minutes, with a range of 14 to 118 minutes. Ninety-six percent of participants (144 participants) completed the questionnaire, and 4 percent (six par-

ticipants) terminated the process before completion. Among participants who completed the interview, most (84 participants, or 58 percent) were comfortable with the interview and “with talking about the end of life.” Two-thirds of participants (98 participants, or 68 percent) reported minimal interview-related stress, 26 percent (38 participants) reported some stress to moderate stress, and 4 percent (six participants) reported a great amount of stress. Most (111 participants, or 77 percent) were willing to participate in a follow-up interview, and 103 (72 percent) expressed interest in receiving more information about completing a formal health care proxy designation.

The interviewers rated understanding and comfort with the questionnaire for 134 of 150 participants. Most participants (94 participants, or 70 percent) were described as not at all or not very uncomfortable. Only one participant was rated as extremely uncomfortable. Most participants (90 participants, or 71 percent) understood the questions without additional explanation, 35 participants (26 percent) required clarifications, and

nine participants (7 percent) were rated as possibly having misunderstood some questions. Twenty-nine participants (22 percent) reacted negatively to at least one question; however, no untoward effects of such reactions were observed during or after the interview.

Diagnostic, demographic, and health status characteristics were examined to identify differences among participants' reactions to the interview. No differences were associated with patient-reported stress or comfort with the interview. In contrast, participants who were perceived by the interviewer as being uncomfortable with the interview had lower mental health functioning (mean mental component score of 42.4 ± 10.6 compared with 47.5 ± 10.5 ; $t=2.55$, $df=130$ $p=.01$), and participants who were perceived by the interviewer to have a negative reaction to any questions were younger (mean age of 38.7 ± 10.1 years compared with 43.4 ± 10.8 years; $t=-2.10$, $df=132$, $p=.04$).

Characteristics associated with end-of-life preferences

Few clinical or demographic differences were noted between participants with respect to end-of-life care preferences. As shown in Table 1, women were more likely than men to have preferences for medical treatment if they were to become seriously ill, to have selected a person to act as their health care proxy, and to want more information about selecting a proxy. Persons with worse physical health status were more likely to have selected a health care proxy, and individuals who had never been married were less likely to have selected a proxy. Caucasians were less likely than individuals from ethnic minority groups to have medical treatment preferences. Individuals who had made at least one medical visit in the past three months were more likely to be interested in obtaining more information about completing an advance directive than individuals who had made no visits. Finally, individuals who were older and had worse physical health status were more likely to believe that someone should make health care decisions for a seriously ill

Table 2

End-of-life concerns reported by 142 persons with severe mental illness who completed the Health Care Preferences Questionnaire^a

Response category	N	%
Financial burden on family or loved ones; family welfare	47	33
Emotional burden on loved ones	43	30
Being in pain and suffering	42	30
Interpersonal concerns; leaving friends and family; saying "goodbye"; being at peace with people	31	22
Funeral and disposition of my body	30	21
Spiritual concerns	22	16
Not knowing what lies ahead	19	13
Practical concerns; wills; care of pets	17	12
Being alone	10	7
Losing control	9	6
Quality of medical care	7	5
Becoming physically disabled	7	5
Depending on others to care	6	4
How decisions will be made; my instructions	5	4
Life support; coma; "being a vegetable"	5	4
Medications; getting none; getting the right ones	5	4
Recovery or getting better	3	2
Being located where I want to be	3	2
Feeling unable to breathe; being buried alive	3	2
Other	15	10

^a Each participant reported one, two, or three concerns, for a total of 356 responses.

person, even in the absence of written instructions.

No other demographic characteristics were associated with interest in or preferences regarding advance care directives. Persons with preexisting end-of-life care preferences were more likely to have picked someone to be their health care proxy (14 participants, or 38 percent, compared with 11 participants, or 11 percent; $\chi^2=13.04$, $df=1$, $p<.001$). In addition, individuals who wanted additional information about completing an advance care directive were more likely to think that a person should be named to make health care decisions for a person who is too sick to do so (86 respondents, or 84 percent, compared with 22 respondents, or 47 percent; $\chi^2=21.55$, $df=1$, $p<.001$). Because of the presence of multiple comparisons, these findings should be interpreted with caution.

Discussion

Despite the small number of community-based persons with serious mental illness who reported experience with advance care planning in this study, nearly three-quarters (72 percent) believed that someone should be designated to make health care de-

cisions for a person who is too sick to do so, and 69 percent expressed interest in obtaining more information about formally designating a health care proxy. This substantial level of interest is similar to that seen in studies of psychiatric advance directives (22,48). For example, a recent survey of persons with schizophrenia indicated that 7 percent had a psychiatric advance directive and that 67 percent would like assistance with completing a psychiatric advanced directive (23). Unfortunately, as in the general population, mental health consumers have little experience with advance directives.

Sixty-nine percent of our sample and 76 to 78 percent of the general population have expressed interest in designating a health care proxy (38). Persons with serious mental illness differ from the general population in their preferences for health care proxy designation; only 63 percent were likely to designate a family member as their proxy, compared with 85 to 90 percent in the general population (27,38). This finding may reflect the high prevalence of unmarried individuals with serious mental illness (86 percent in this sample) as well as the potential for estrangement

from family members in this population (49,50). With regard to proxy decision making and end-of-life issues, HCPQ respondents and the general population are strikingly similar. Both groups are most concerned about a proxy's prolonging or terminating life support (51,52), and they both prioritize emotional and financial burden on family, pain and suffering, and saying "goodbye" to friends and family (28,52,53).

Few demographic or clinical characteristics were associated with interest in advance directives and end-of-life care preferences. Women were more likely than men to endorse end-of-life treatment preferences and interest in the designation of a health care proxy. In addition, individuals who had ever been married, who had made medical visits in the previous three months, or who had worse physical health were more likely to express interest in designating a health care proxy. As noted in the general population, older age and poor physical health status were associated with the belief that someone should make a health care decision for a seriously ill person (54). Of note, attitudes toward end-of-life care were not associated with psychiatric or medical problems, educational level, guardianship status, or religious beliefs. In general, these findings suggest that the most physically impaired psychiatric patients are likely to be the most receptive to an opportunity to talk about advance directives and end-of-life care preferences.

The results of this study suggest that persons with serious mental illness are emotionally capable of engaging in medical advance care planning. Most participants understood the questions, and mental status rarely appeared to affect responses. These findings underscore an important distinction between functional capability and legal competence in making health care decisions (55–59). When decision-making capacity is in question, it is critical to assess relevant decision-making tasks. Persons with serious mental illness were able to consider, comfortably tolerate, and articulate preferences about medical advance directives. In most instances they identified a person who might

serve as their health care proxy.

Previous reports have postulated that individuals in this population may react negatively to end-of-life discussions (31,60). However, most participants were interested in medical advance care planning and were able to complete the questionnaire. Only one-fifth of participants expressed discomfort with questions, and less than one-tenth reported interview-related stress. Our findings suggest that a semistructured interview can be effective in engaging persons with serious mental illness in advance care planning. This approach has been promoted by the Agency for Healthcare Research and Quality (55).

Mental health providers are one of several logical community resources for conducting advance care planning discussions, given that persons with mental illness are likely to obtain general medical care through linkages with community mental health care providers (61). Results of studies conducted in the general population also stress the importance of providing advance care planning opportunities in the community before people develop serious medical illnesses (62). Hospitalization of individuals with serious mental illness is associated with an exacerbation of psychiatric symptoms, making advance care planning during hospitalization difficult (63). Finally, it is possible that engaging mental health care consumers in conversations about advance directives will support their recovery and affirm autonomy, choice, and self-determination.

This study had several limitations that suggest caution in considering generalizability of our results. The study sample was drawn from one urban-suburban area and was not culturally or racially diverse, and a purposive sampling method of self-selection of participants was used. Thus the end-of-life concerns of this study sample may not be representative of ethnic minorities, other cultures, or individuals in rural settings.

Although the study group consisted of volunteers, the lack of a random sampling method did not appear to affect the representativeness of the sample with respect to the target pop-

ulation of community-based persons with serious mental illness. The study participants had similar demographic characteristics and mental, physical, and functional status compared with the larger Massachusetts Department of Mental Health population. Furthermore, although the sample's SF-12 physical and mental component scores were significantly different from those of the general population, the study participants had physical impairment that was comparable to that of normative medical samples and to that of a sample in a large study of persons with serious mental illness (46). The participants also had similar rates of medical comorbidity to those reported in other studies of persons with serious mental illness (48,56,64).

Given the high level of physical impairment and prevalence of medical comorbidity (60 percent) among the study participants, the study sample represents a likely priority population for implementing advance directives, thereby underscoring the significance of our findings. We did not follow the participants who indicated that they were receptive to completing an advance directive (103 participants, or 72 percent) to determine the frequency with which receptivity converted into a completed advance care plan. This information would have important implications for the advance care planning utility of a semistructured interview such as the HCPQ. Finally, this study was based on data collected during 2000 to 2001. It is possible that public promotion of end-of-life care planning has increased the use of such planning by persons with serious mental illness, although we are unaware of any organized national or state efforts that would suggest significant differences from these results.

Conclusions

To our knowledge, this is the first study to explore preferences for medical advance directives among persons with serious mental illness. The results suggest feasibility and acceptability of a standardized approach to medical advance care planning in this population. Health care proxy designation and end-of-life care concerns can be ascertained through a semi-

structured interview conducted by mental health providers without adverse effects on participants.

Examination of medical advance directives among persons with serious mental illness is an important issue. However, knowledge in this area significantly lags behind that for the general population. Although this article presents initial findings, it is unclear whether preferences remain stable over time, which barriers impede advance care planning, or whether end-of-life treatment preferences will be implemented by health care proxies and physicians. These questions merit examination in well-designed research evaluations and will be useful in developing strategies for effectively implementing advance directives and targeting interventions that address concerns and barriers specific to this population. ♦

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Submissions for Datapoints Invited

Submissions to the journal's Datapoints column are invited. Areas of interest include diagnosis and practice patterns, treatment modalities, treatment sites, patient characteristics, and payment sources. National data are preferred. The text ranges from 350 to 500 words, depending on the size and number of figures used. The text should include a short description of the research question, the database and methods, and any limitations of the study.

Inquiries or submissions should be directed to Harold Alan Pincus, M.D., or Terri L. Tanielian, M.S., editors of the column. Contact Ms. Tanielian at RAND, 1200 South Hayes Street, Arlington, Virginia 22202 (terri_tanielian@rand.org).