

## Patient Preferences for Psychiatric Advance Directives

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*Limited research has examined patients' preferences for psychiatric advance directives (PADs). This study examines the preferences and interest in PADs among patients with severe mental illness. Participants in a randomized controlled trial of PAD facilitation versus usual care were interviewed about their preferences and interest in PADs. Preferences scores were estimated and compared among patients wishing to complete types of PADs. The large majority of participants indicating an interest in a PAD that included a healthcare power of attorney gave greatest importance to enabling surrogate decision making and continuity of care during crises, a minority who expressed interest in a stand-alone advance instruction for mental health treatment or no PAD at all gave highest priority to avoiding unwanted treatment. Persons with severe mental illness have diverse interests in PADs. Most patients give high priority to improving surrogate decision making and continuity of care with PADs.*

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Psychiatric advance directives (PADs) are legal mechanisms, available in various forms in 21 US states, the United Kingdom and elsewhere, which allow individuals with mental illness to document their wishes regarding future mental health treatment in the event of an incapacitating psychiatric crisis, through the drafting of advance instructions and/or appointment of a surrogate decision maker (Appelbaum, 2004; Swanson, Tepper, Backlar, & Swartz, 2004). PAD statutes in the US are typically designed with two features: advance instructions (AIs), an instructional directive that contains written consent to, or refusal of mental health care, and health care power of attorney (HCPA), which appoints a proxy decision maker. PADs most often are irrevocable during periods of incapacity, such that patients bind themselves to such decisions in advance. In the UK, the new Mental Capacity Bill of 2004 authorizes PADs in a limited form. These UK instruments can only be utilized to refuse, rather than give consent to, treatment during a future period of incapacity. They cannot be used to detain a patient in a mental health treatment facility, and they are overridden by the UK Mental Health Act provisions for involuntary treatment (Exworthy, 2004).

Studies suggest that if given the opportunity and necessary assistance, the majority of patients with severe mental illness (SMI) would complete an AI and/or HCPA ( Backlar, McFarland, Swanson, & Mahler 2001; Noble & Douglas, 2004; Srebnik , Russo, Sage, Peto, & Zick, 2003; Swanson et al., 2003; Swanson, Swartz, Ferron, Elbogen, & Van Dorn, 2006; Swanson et al., under review). However, studies demonstrate that clinicians are somewhat ambivalent about PADs; while they tend to support the advance-consent (or "prescriptive") function of PADs, many are also concerned about the advance-refusal (or "proscriptive") function of PADs – particularly a scenario in which a patient may use a PAD to refuse all future treatment. Mental health professionals are generally more supportive of surrogate-decision making PADs and less supportive of stand-alone advance instructional PADs. Clinicians are also significantly more likely than patients to favor the so-called "Ulysses contract" function of PADs, i.e., making them irrevocable during a mental health crisis (Swanson et al., 2003). The current study examines the relative values or preferences patients place on these potential functions or goals of PADs:

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prescription, proscription, surrogate decision making, and irrevocability during a crisis.

*Preferences associated with psychiatric advance directives.* Medical decision analysts have developed several strategies for quantifying preferences or utilities for health outcomes (Froberg & Kane, 1989a, b, c, d). These methods permit estimation of preferences or importance weights for outcome domains, which can later be used to compute preference-weighted outcomes by multiplying a score on an outcome measure by the preference weight for that outcome and summing the results. Several recent investigators have examined preference measurement for mental illness outcomes (Lee et al., 2000; Lenert, Ziegler, Lee, Sommi, & Mahmoud, 2000; Revicki, Shakespeare, & Kind, 1996; Shumway, 2003). Most studies have focused on preferences for health status associated with antipsychotic medication – especially therapeutic gains vs. side effects (Lee et al., 2000; Lenert et al., 2000; Revicki et al., 1996; Swartz et al., 2003; Shumway, 2003; Rosenheck et al., 2005). To our knowledge, no studies have applied these methods to PADs.

Preferences are examined among 469 participants in a randomized controlled trial of a structured, manualized PAD facilitation intervention compared to a control condition in which participants were offered written PAD information and referral for assistance to existing public resources (Swanson et al., under review). In the trial, 61% of F-PAD participants completed legal advance instructions and/or authorized a proxy decision maker; 3% of control group participants completed these instruments. PAD instructional documents were rated by psychiatrist-raters to be highly consistent with standards of community practice.

This analysis examines the following questions:

1) What relative value do patients place on the prescriptive, proscriptive, irrevocability and surrogate decision making functions of PADs and to what extent are these preferences related to demand for PADs?

2) How do participants' demographic, clinical and functional characteristics relate to their PAD preferences?

3) How stable are the values or preferences that patients assign to these PAD functions over time?

4) Are patients' preferences about PADs affected by a facilitation intervention to assist in completing a PAD?

5) Do these PAD preferences affect the type of PAD that patients decide to complete, i.e., a stand-alone advance instructional (AI) PAD vs. a proxy decision maker via health care power of attorney (HCPA)?

6) Are there discrete groups of patients who assign relatively high vs. low ranking to the proscriptive, prescriptive, irrevocability, and surrogate decision making functions of PADs?

## STUDY DESIGN

*The Facilitated Psychiatric Advance Directive (F-PAD) Intervention.* The F-PAD is a semi-structured, manualized, guided discussion of choices involved in anticipatory mental health treatment planning. The F-PAD also provides direct assistance to patients who wish to complete a legal AI or HCPA. The intervention is described in greater detail elsewhere (Swanson et al., under review)

*Control group.* Participants in the control group were presented with a brief introduction to PADs and received written materials made available to all patients at their outpatient mental health programs, and referral to the toll-free telephone number of the local consumer organization that provides consultation and assistance to persons who wish to prepare PADs.

*Study population and sample selection criteria.* The study's sample criteria included: (1) age 18-65; (2) chart diagnosis of schizophrenia, schizoaffective disorder, other psychotic disorder, or major mood disorder with psychotic features; and (3) currently receiving community-based treatment provided through one of two county-based programs in the north-central region of North Carolina; (4) able to give informed consent to the study, which entails the ability to participate in a research interview in English and provide informative answers to basic questions about personal background, previous mental health treatment, and preferences for and against given forms of treatment.

*Screening, informed consent, recruitment and randomization.* A random sample of client cases was

drawn from two community mental health programs that provided comprehensive de-identified lists of clients pre-screened for study eligibility. Sequential admissions from these programs to the regional state psychiatric hospital were also screened. Patients were approached for informed consent to participate and if consented were administered the baseline interview, after which each participant received random assignment to the F-PAD intervention or control group. These procedures and the study protocol were approved by the Duke University Medical Center Institutional Review Board (IRB) and by the local IRBs of the public mental health programs and the state psychiatric hospital.

## MEASURES

The present study quantifies preferences for potential features or functions of PADs as they might be used to direct crisis care in persons with severe mental illness: (1) being unable to change one's mind about treatment during a crisis (irrevocability), (2) receiving treatment one's doctor thinks is best (a form of prescriptiveness assuring continuity of care), (3) having family or a friend make decisions about treatment during a crisis (surrogate decision making), and (4) avoiding unwanted treatment (a form of proscriptiveness). Participants were presented with cards listing the four preferences above and were read the following instructions: "When you think about making a psychiatric advance directive there are several things that may be important to you. Please put these cards in order to show how important these things are to you. Start with the one that is most important to you and work your way down to those least important." Participants then indicated how much less important each preference was to them than the most important preference with a possible range from 1-10. The preference rating is the numerical rating assigned each card on the 1-10 scale.

*Independent variables.* In order to assess factors that might be related to one's PAD preferences, multiple independent variables from five domains were analyzed. Variables from the *demographic domain* included: age, sex, race, marital status, education and income. The domain of *PAD barriers* included the following potential problems with

PADs: not understanding the documents enough, too much time and trouble to complete, hard to get help completing PADs, not knowing what to write or say in the PAD, the belief that the PAD will not make a difference in one's treatment, the belief that no one will pay attention to one's wishes expressed in the PAD, not trusting anyone enough to make decisions when one is ill, not having a doctor one trusts, and not liking to sign legal documents.

*Clinical variables.* Diagnosis was classified as psychotic disorder, bipolar disorder, or major depressive disorder. Substance abuse was measured using questions adapted from the Michigan Alcoholism Screening Test (MAST) and the Drug Abuse Screening Test (Selzer, 1971; Skinner, 1982). The anchored version of the Brief Psychiatric Rating Scale (BPRS) (Moerner, Mannuzza, & Kane, 1988) was used to assess current psychiatric symptoms. The Global Assessment of Functioning scale (GAF) (Endicott et al., 1976) was used to measure functional impairment. The Insight and Treatment Attitudes Questionnaire (ITAQ) (McEvoy et al., 1989) was used to measure awareness of mental health problems and acknowledgment of need for treatment in the past, currently, and in the future. Intelligence was estimated using The American National Reading Test (AMNART) (Blair & Spreen, 1989). The Decisional Competency Assessment Tool for Psychiatric Advance Directives (DCAT-PAD), which was adapted from a previous instrument modeled on the McArthur Competency Assessment Tool for Treatment (Srebnik, Appelbaum, & Russo, 2004), was used to assess four dimensions of competency — understanding, appreciation, reasoning, and choice. The DCAT-PAD measures ability to understand key components of PADs, appreciate the relevance of PADs to treatment, reason about how PADs may affect one's life, and choose whether or not to complete a PAD. It also assesses competence to make specific types of treatment choices.

*Treatment variables* included the short form of the Working Alliance Inventory (WAI) adapted for use with SMI individuals (Horvath & Greenberg, 1989; Neale & Rosenheck, 1989). Perceived satisfaction with mental health services was measured operationally by utilizing several items from the Mental Health Statistics Improvement Program (MHSIP) Consumer Survey index of treatment satisfaction (Ganju, 1999).

The final domain included *coercive, legal, and leverage variables*. Respondents were asked if they had been involuntarily committed in the past 6 months. Additionally, respondents' lifetime experiences of "leverage" in outpatient treatment was assessed (Monahan et al., 2005), i.e., any of four policies commonly used to promote treatment adherence. Two of these types of leverage derive from the social welfare system: use of representative payeeship (typically a family member or mental health center assigned by the Social Security Administration to manage a disability recipient's money) and housing supports contingent on treatment adherence. Two more derive from the judicial system: criminal sanctions requiring treatment and involuntary outpatient commitment (including other functionally equivalent judicial orders) (Monahan et al., 2005). Perceived coercion was measured using the MacArthur Perceived Coercion Scale, adapted for reference to outpatient treatment (Swartz, Wagner, Swanson, Hiday, & Burns, 2002). Finally, covariates were chosen for analysis based on prior studies of the correlates of PADs (Swanson et al., under review).

## ANALYSIS

The current paper employed multiple strategies to answer the questions of interest. Participants' raw scores on each of the four preference ratings were non-normally distributed, as evidenced by Shapiro-Wilk tests. Several standard score transformations failed to normalize these distributions; therefore, the preference scores were dichotomized (Tabachnick & Fidell, 2001). Specifically, respondents providing a preference above the median value were coded as 1 and compared to those at or below the median.

For the first question (association between PAD preferences and potential PAD demand), chi-square analyses were conducted to test for significant differences between PAD demand groups (no PAD, AI only, any HCPA) in the proportions of each group scoring above the median on each of the four PAD preference scores. In addition, median values for each preference score were examined and Phi coefficients were calculated to examine the association between preferences. For the second question (demographic, clinical and functional

factors related to preferences), bivariate and multivariable logistic regression analyses were utilized to determine factors significantly associated with each preference. Multivariable logistic regression models were estimated with stepwise selection at  $p < 0.10$ . For the third question (stability of preferences over time), repeated measures logistic regression analysis was used to examine the impact of time (baseline to one-month) on the stability of preferences. To address the fourth question (F-PAD intervention affect on preferences), a covariate for experimental assignment was added to the above repeated measures regression model. For the fifth question (relationship between PAD preferences and the type of PAD one completes), chi-square analyses were conducted to examine potential associations between participants' baseline preferences and whether they completed a stand-alone AI, any type of HCPA, or no PAD. For the sixth question (typologies of PAD preferences), groups consisting of the most prevalent typologies were examined.

For the first analysis described above, we included the full sample of participants enrolled in the randomized trial with non-missing data on the measures of preferences ( $N = 456$ ) was utilized. However, for several subsequent analyses, the sample was restricted to participants in both arms of the study who indicated, prior to randomization that (1) they did not already have an advance instruction for mental health treatment and/or a health care power of attorney; and (2) they wished to complete one or both of these types of PADs ( $N = 381$ ). Thus, the control group was matched with the intervention group with respect to baseline PAD status and initial inclination to complete a PAD. Restriction of the sample in this manner minimized the effect of potential selection bias associated with PAD completion, while allowing for the examination of the effects of PADs and retaining the integrity of the randomized study design (cf., Swanson et al., under review).

## RESULTS

*Sample characteristics.* The average age of participants was 42 years (standard deviation = 10.7 years). The sample was 60% female, 58% African American, 39% white, and 3% from other racial

backgrounds. Only 11% were married or cohabiting. Twenty-eight percent of the sample had less than a high school education. At the time of enrollment, 57% of participants were living independently.

Regarding clinical characteristics, 59% of participants had a chart diagnosis of schizophrenia or related psychotic disorder, 27% had bipolar disorder, and 14% had depression with psychotic features. Ten percent had a concurrent chart diagnosis of substance use disorder. The mean score on the Brief Psychiatric Rating Scale (BPRS) was 33.6, with a standard deviation of 9.2, indicating a moderate level of symptomatology. The mean score on the Global Assessment of Functioning (GAF) scale was 40.0, with a standard deviation of 10.3, consistent with moderate functional impairment. The mean score on the Insight and Treatment Attitudes Questionnaire (ITAQ) was 18.1 with a standard deviation of 4.3, indicating reasonably high awareness of illness and the need for treatment.

Regarding mental health services utilization, 72% of participants reported at least one outpatient visit during the past month, while 35% had been hospitalized for psychiatric disorder in the previous six months.

Forty-eight percent of the sample reported past experiences of leveraged community treatment (outpatient commitment, criminal justice sanctions, money, or housing conditioned on outpatient treatment participation); 24% were currently under one or more of these types of leverages (Monahan et al., 2005). There were no significant differences between the experimental and control groups on baseline independent variables.

*Research question 1: Association between baseline PAD characteristics and potential interest in PADs.* Table 1 shows the proportion of participants above the median for each of the baseline preferences by interest in potentially creating a PAD. For the entire sample ( $N = 456$ ), the prescriptive preference (wishing to specify treatments recommended by one's physician) had the highest median value (8.5), while the proscriptive preference (avoiding unwanted treatment) was valued slightly less (7.0). Finally, the preference for surrogate decision making (6.0) and to make one's wishes irrevocable even during a period of crisis (4.0) were regarded as somewhat less important. Chi-square results indicate that respondents potentially wishing to complete a HCPA were

significantly more likely to place a high value on the surrogate decision making function of PADs. Those wishing to complete a stand-alone advance instruction only, and those who did not wish to complete any type of PAD, placed significantly higher value on avoiding unwanted treatment.

*Distribution of baseline PAD preferences.* Table 2 displays median values for the participants' preferences in addition to the correlation ( $\phi$ ) coefficients for participants in the experimental group ( $N = 131$ ) who completed some type of PAD. Similar to results for the entire sample in Table 1, participants in this group placed the highest value on the prescriptive preference (median value 8.0), followed by the preference to enable family and friends to make decisions (surrogate decision making, median value 7.0), placing a lower value on avoiding unwanted treatment (proscriptive, median value 5.0), and irrevocability of PADs in a crisis (median value 4.0). Overall, the  $\phi$  coefficient indicated weak correlations between preferences, ranging between  $\pm 0.02$  and 0.25. However, participants who placed high value on irrevocability tended to place a low value on avoiding unwanted treatment and vice versa. In addition, participants who placed a high value on receiving treatment the doctor recommended (prescriptiveness/continuity of care) also highly valued the ability to enable family and friends to make decisions during crises.

*Research question 2: Models assessing PAD preferences.* Tables 3 and 4 display the bivariate and multivariable models, respectively, for each of the PAD preferences among participants in the experimental group who completed any type of PAD. Participants with comorbid substance abuse problems were significantly less likely to place a high value on the crisis-irrevocability function of a PAD. The preference to prescribe treatment that one's doctor thinks is best was largely unrelated to any subject characteristics in bivariate analysis. Participants who endorsed several perceived barriers to creating a PAD, such as not trusting someone enough to make decisions, not trusting one's doctor enough and preferring to not sign legal documents endorsed a lower preference for surrogate decision making. Placing a high value on avoiding unwanted treatment was significantly more likely among participants with income above the median, those who self-reported a better understanding of PADs,

Table 1

*Distribution of baseline psychiatric advance directives (PAD) preferences for full sample by potential interest in PADs (N = 456)*

	Ulysses contract % above median value (4.0)	Prescriptive % above median value (8.5)	Proscriptive % above median value (7.0)	Surrogate % above median value (6.0)
<i>Potential PAD interest</i>				
<i>a. None (n = 52)</i>	48.1%	51.9%	55.8%	34.60%
<i>b. AI only (n = 66)</i>	36.4%	43.9%	56.1%	30.30%
<i>c. Any HCPA (n = 338)</i>	44.4%	49.1%	39.6%	56.20%
<i>Significance</i>				
<i>a vs. b</i>	ns	ns	ns	ns
<i>a vs. c</i>	ns	ns	*	**
<i>b vs. c</i>	ns	ns	**	***

*Note.*  $p < 0.10$  (trend); \*  $p < .05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

Table 2

*Correlation of baseline preference ratings for participants who complete PADs (n = 131): Phi correlation*

	Median Value (1-10)	Prescriptive	Surrogate	Proscriptive
Irrevocability	4.0	0.0991	-0.0231	-0.2539**
Prescriptive	8.0		0.2057*	-0.0253
Surrogate	7.0			0.0668
Proscriptive	5.0			

*Note.*  $p < 0.10$  (trend); \*  $p < .05$ ; \*\*  $p < 0.01$

those with a higher IQ, and those with higher DCAT-PAD scores demonstrating understanding of PADs hospitalization decisions.

Results from the subsequent multivariable models (Table 4) demonstrate that among experimental participants completing PADs, non-white participants expressed a lower preference for having irrevocable PADs, as did participants with bipolar disorder, major depression and comorbid substance abuse. Somewhat surprisingly, participants expressing uncertainty about what to document in a PAD expressed a higher preference for irrevocability. Participants who felt they had a doctor they could trust placed a high value on using the PAD prescriptively to assure treatment as recommended by one's doctor. Participants who felt they had no one they could trust enough to make decisions, not surprisingly, placed a low value on surrogate decision making. Finally, participants with income above the median were more likely to value PADs as a mechanism to avoid unwanted treatment.

*Research questions 3 and 4: Stability of preferences over time and effects of facilitation.* Repeated measures logistic regression was utilized to assess the impact of time (baseline to one-month) on the stability of preferences for respondents assigned to the control and experimental groups, as well as the impact of the F-PAD intervention on the stability of preferences (Table 5). These analyses indicate that, controlling for group assignment, the preference value placed on the prescriptive, proscriptive, and irrevocability functions of PADs declined significantly over time. Conversely, however, controlling for the time-decay effect, there was no significant effect of the F-PAD intervention on subject preferences for these PAD functions.

*Research question 5: Relationship between baseline preferences and type of PAD completed.* The fifth question sought to explore whether or not participants' baseline PAD preferences affected the type of PAD completed. Bivariate logistic regression analyses (not shown) indicated a significant relationship between the preference of avoiding treatment and not completing any type of PAD (OR = 1.56,  $p < 0.05$ ). Also, there was a significant and negative bivariate relationship between avoiding unwanted treatment and completing any type of HCPA (OR = 0.53,  $p < 0.01$ ). The relationship between irrevocability and completing any type of

HCPA tended toward significance (OR = 1.45,  $p = 0.09$ ). There were no other significant relationships between baseline preferences and the completion of a stand-alone AI, any type of HCPA, or no PAD at one month.

*Research question 6: Typologies of PAD preferences.* The final question explored the most prevalent typologies or patterns of PAD preference ratings with the full sample of participants enrolled in the randomized trial with non-missing data on the measures of preferences. The most prevalent typologies, in descending order were: (1) participants who placed *low* values on all PAD functions except avoiding unwanted treatment (12.0%); (2) participants who placed *high* values on all PAD functions except irrevocability (10.7%); (3) participants who placed *high* values on all PAD functions except the ability to avoid unwanted treatment (10.2%); and (4) participants who valued the ability to avoid unwanted treatment and would adhere to their doctor's recommended treatment, and (5) participants who valued the ability to avoid unwanted treatment and would value their family's input into treatment decisions. These final two typologies were both endorsed by 7.2% of participants.

## DISCUSSION

Because PADs allow patients to state their wishes for treatment in advance of an incapacitating crisis, it is important to understand the underlying values and preferences embodied in these legal tools. Perhaps to a surprising extent, this representative sample of participants with severe mental illness placed the highest value on continuity of care by gaining treatment their doctors think is best. Such interest in following recommended treatment recommendations sharply contrasts with the fears of psychiatrists that a high proportion of patients will use PADs to thwart recommended treatment (Swartz et al., 2005). These participants also place a relatively high value on avoiding unwanted treatment, but a recent analysis from this study demonstrated that the great preponderance of these requests in completed PADs were consistent with community psychiatric practice standards. For example, most proscriptive elements of PADs sought to avoid re-exposure to poorly tolerated medications. And no participant in

Table 3  
 Bivariate logistic regression models of baseline PAD preferences for participants who complete PADs ( $n = 131$ )

	n (%) or Mean (SD)	Irrevocability		Prescriptive		Surrogate		Proscriptive	
		OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>Demographic variables</i>									
Age above median 44	65 (49.6)	1.24	(0.62- 2.46)	1.03	(0.52- 2.04)	1.49	(0.75- 2.96)	0.85	(0.43- 1.70)
Male	51 (38.9)	1.09	(0.54- 2.21)	0.89	(0.44- 1.80)	0.60	(0.30- 1.23)	1.48	(0.73- 3.00)
Non-white	70 (53.4)	0.56	(0.28- 1.12)	1.25	(0.63- 2.48)	1.25	(0.63- 2.48)	1.06	(0.53- 2.12)
Married	14 (10.7)	1.40	(0.46- 4.30)	1.05	(0.35- 3.19)	2.03	(0.64- 6.42)	1.25	(0.41- 3.79)
High School Graduate or GED	102 (77.9)	1.07	(0.47- 2.45)	0.60	(0.26- 1.39)	0.60	(0.26- 1.39)	1.21	(0.53- 2.79)
Income above median (>614)	57 (47.1)	0.85	(0.41- 1.73)	0.91	(0.44- 1.85)	0.97	(0.47- 1.97)	2.64	(1.26- 5.50)
<i>PAD barriers</i>									
Don't understand enough	73 (56.2)	0.83	(0.41- 1.66)	1.08	(0.54- 2.16)	0.95	(0.48- 1.91)	0.43	(0.21- 0.88)
Time and trouble	36 (28.4)	0.82	(0.38- 1.78)	0.70	(0.32- 1.52)	0.84	(0.39- 1.81)	0.83	(0.38- 1.82)
Hard to get help with a PAD	40 (31.5)	1.18	(0.56- 2.51)	1.07	(0.51- 2.27)	0.93	(0.44- 1.96)	1.22	(0.58- 2.59)
No one will pay attention to your wishes	31 (24.2)	0.68	(0.30- 1.54)	0.59	(0.26- 1.36)	0.50	(0.22- 1.15)	1.46	(0.65- 3.28)
Will make no difference in your treatment	20 (16.3)	1.25	(0.48- 3.26)	1.40	(0.54- 3.67)	0.61	(0.23- 1.60)	1.01	(0.39- 2.66)
Don't know what to say or write in the PAD	69 (53.1)	1.46	(0.73- 2.91)	0.95	(0.48- 1.89)	1.14	(0.57- 2.26)	0.66	(0.33- 1.32)
No one you trust enough to make decisions	26 (20.2)	0.59	(0.25- 1.42)	0.91	(0.38- 2.15)	0.14	(0.04- 0.42)	1.50	(0.63- 3.57)
You don't have a doctor you trust	24 (18.3)	0.83	(0.34- 2.02)	0.46	(0.18- 1.15)	0.36	(0.14- 0.94)	1.04	(0.43- 2.53)
You don't like to sign legal documents	31 (24.0)	1.63	(0.72- 3.69)	0.72	(0.32- 1.63)	0.40	(0.17- 0.95)	1.01	(0.45- 2.28)

...continued

Table 3 (continued)  
 Bivariate logistic regression models of baseline PAD preferences for participants who complete PADs ( $n = 131$ )

	n (%) or Mean (SD)	Irrevocability OR (95% CI)	Prescriptive OR (95% CI)	Surrogate OR (95% CI)	Proscriptive OR (95% CI)
<i>Clinical/functional variables</i>					
Diagnosis					
Psychotic Disorder [reference]	78 (60.5)	-	-	-	-
Bipolar Disorder	30 (23.3)	0.59 (0.25- 1.38)	1.11 (0.48- 2.57)	2.57 (0.23- 0.23)	1.29 (0.56- 3.01)
Major Depression	21 (16.3)	0.48 (0.18- 1.28)	1.01 (0.38- 2.64)	2.64 (0.23- 0.23)	0.97 (0.37- 2.57)
Substance Abuse	55 (42.0)	0.45 (0.22- 0.91)	1.15 (0.58- 2.31)	1.31 (0.65- 2.62)	1.71 (0.85- 3.45)
BPRS	57 (43.5)	0.85 (0.43- 1.70)	1.15 (0.58- 2.30)	1.02 (0.51- 2.03)	1.72 (0.86- 3.47)
GAF	77 (58.8)	0.97 (0.49- 1.95)	0.72 (0.36- 1.44)	1.05 (0.52- 2.11)	1.35 (0.67- 2.72)
ITAQ	43 (32.8)	0.72 (0.35- 1.50)	1.00 (0.48- 2.07)	1.32 (0.63- 2.74)	1.44 (0.69- 3.00)
IQ	70 (55.1)	1.18 (0.58- 2.37)	0.63 (0.31- 1.27)	0.77 (0.38- 1.55)	2.20 (1.07- 4.51)
Understand PADs (CATPAD)	68 (51.9)	0.91 (0.46- 1.81)	0.60 (0.30- 1.19)	1.80 (0.90- 3.61)	2.22 (1.10- 4.50)
Understand Hospitalization (CATPAD)	63 (48.1)	0.67 (0.34- 1.34)	0.91 (0.46- 1.81)	1.49 (0.75- 2.96)	2.29 (1.13- 4.63)
Hospital Reasoning (CATPAD)	56 (42.8)	1.32 (0.66- 2.64)	0.96 (0.48- 1.91)	1.23 (0.61- 2.46)	1.42 (0.71- 2.85)
PADs Reasoning (CATPAD)	72 (55.0)	0.91 (0.46- 1.82)	0.87 (0.43- 1.72)	0.87 (0.43- 1.72)	1.78 (0.88- 3.59)
<i>Treatment variables</i>					
Working Alliance Inventory	70 (53.4)	0.63 (0.32- 1.26)	1.25 (0.63- 2.48)	1.60 (0.80- 3.19)	1.06 (0.53- 2.12)
Treatment satisfaction scale	43 (32.8)	0.63 (0.30- 1.31)	0.57 (0.27- 1.20)	0.66 (0.32- 1.37)	0.95 (0.46- 1.98)
<i>Coercion, legal, leverage variables</i>					
Involuntary commitment in the past 6 mos	11 (8.4)	0.83 (0.24- 2.88)	0.86 (0.25- 2.98)	0.57 (0.16- 2.05)	1.52 (0.44- 5.24)
Any leverage	33 (25.2)	1.11 (0.50- 2.44)	0.98 (0.45- 2.16)	0.71 (0.32- 1.57)	1.42 (0.64- 3.13)
Perceived Coercion	52 (40.6)	1.05 (0.52- 2.13)	1.05 (0.52- 2.13)	0.63 (0.31- 1.28)	0.75 (0.37- 1.54)

Note.  $p < 0.10$  (trend); \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 4  
 Multivariable logistic regression models of baseline PAD preferences for participants who complete PADs (n = 131)

	Irrevocability OR (95% CI)	Prescriptive OR (95% CI)	Surrogate OR (95% CI)	Proscriptive OR (95% CI)
<i>Demographic variables</i>				
Age above median 44				
Male				
Non-white	0.25 (0.09- 0.70) **			
Married				
High School Graduate or GED				
Income above median (>614)				2.96 (1.23- 7.08) *
<i>PAD barriers</i>				
Don't understand enough Time and trouble				
Hard to get help with a PAD			0.39 (0.15- 1.01) †	0.43 (0.18- 0.18) †
No one will pay attention to your wishes				
Will make no difference in your treatment				
Don't know what to say or write in the PAD	2.99 (1.10- 8.16) *			
No one you trust enough to make decisions				
You don't have a doctor you trust		0.23 (0.06- 0.88) *		
You don't like to sign legal documents			0.15 (0.04- 0.58) **	

...continued

Table 4 (continued)  
 Multivariable logistic regression models of baseline PAD preferences for participants who complete PADs (n = 131)

	Irrevocability OR (95% CI)	Prescriptive OR (95% CI)	Surrogate OR (95% CI)	Proscriptive OR (95% CI)
<i>Clinical/functional variables</i>				
Diagnosis				
Psychotic Disorder [reference]				
Bipolar Disorder	0.23 (0.07- 0.82) *			
Major Depression	0.10 (0.02- 0.47) **			
Substance Abuse	0.22 (0.08- 0.61) **			
BPRS				
GAF				
ITAQ				
IQ		0.48 (0.20- 1.14) †		
Understand PADs (CATPAD)				
Understand Hospitalization (CATPAD)				
Hospital Reasoning (CATPAD)				
PADs Reasoning (CATPAD)				
<i>Treatment variables</i>				
Working Alliance Inventory				
Treatment satisfaction scale				
<i>Coercion, legal, leverage variables</i>				
Involuntary commitment in the past 6 mos				
Any leverage				
Perceived Coercion				
Correlation between predicted probabilities and observed rates (Somers' D):	0.540	0.294	0.382	0.381
Variance explained by model (Pseudo R <sup>2</sup> ):	0.18	0.06	0.10	0.09

Note.  $p < 0.10$  (trend); \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 5  
 Repeated measures logistic regression models of time and FPAD intervention on preferences for control and experimental groups

	Irrevocability OR (95% CI)	Prescriptive OR (95% CI)	Surrogate OR (95% CI)	Proscriptive OR (95% CI)
Time (baseline to 1 month)	0.70 (0.54- 0.91) **	0.79 (0.63- 0.99) *	0.86 (0.68- 1.09)	0.50 (0.38- 0.64) ***
Control group [comparison]	[1.00] - -	[1.00] - -	[1.00] - -	[1.00] - -
Experimental group	1.08 (0.78- 1.48)	1.02 (0.73- 1.43)	0.99 (0.72- 1.37)	0.75 (0.54- 1.03) †
N observations =	756	757	756	756

Note.  $p < 0.10$  (trend); \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

the study used a PAD to refuse all treatment (Swanson et al., under review). Participants also placed high value on vesting authority for surrogate decision making in family and friends, but were less enthusiastic about invoking a so-called Ulysses contract, preventing them from changing their minds during a crisis. The Ulysses contract feature of PADs also causes most concern among ethicists who question how to resolve potential disagreement between prior and concurrent treatment requests, wondering which expresses the authentic voice of the person (Dresser, 1984; Rhoden, 1982; Swanson et al., 2000). As a result, irrevocability clauses have been modified in some PAD statutes.

These results suggest that persons who give high priority to avoiding unwanted treatment may elect not to draft a PAD at all, or may complete a stand-alone instructional directive, but will be reluctant to vest surrogates with treatment decision making power. In other words, patients who wish to memorialize treatment refusal may have little interest in authorizing a health care power of attorney, which is the common form of PADs (and the most commonly accepted by clinicians). However, these findings generalize only to patients in treatment who consent to research. Other patients may have quite different preferences regarding PADs, and different priorities and goals for the PAD documents that they may complete.

In the multivariable models of the relationships between PAD preferences and demographic, clinical, treatment and experiential variables, we find a relatively small set of salient associations. Non-white participants in the study, largely African Americans, appear to be quite averse to irrevocability in PADs, perhaps reflecting mistrust of providers and a desire to maintain decision making authority even when incapacitated. Participants with schizophrenia, in contrast to those with bipolar disorder, major depression or comorbid substance abuse, place a high value on irrevocability. This may reflect experience with more prolonged periods of incapacity in schizophrenia and the recognition that these periods of impaired thinking may have grave consequences. Conversely, participants with bipolar disorder, major depression or co-morbid substance abuse may feel less of a need to give up control of decision making, perhaps because their crisis episodes tended to be briefer. Not surprisingly, participants who don't trust

their doctor also give lower priority to obtaining treatment recommended by their doctor, and socially isolated or mistrustful participants do not wish to vest surrogates with authority to make treatment decisions on their behalf. Finally, participants with higher income place greater value on avoiding unwanted treatment as a key function of PADs, perhaps because these patients with greater resources have had more experience with private, voluntary treatment such as psychotherapy, and thus are more likely to take umbrage at the prospect of coerced interventions such as commitment to a state psychiatric facility.

In analyses examining the stability of preferences over time, participants generally placed lower value on irrevocability, prescriptiveness and proscriptiveness over time, while the preference for surrogate decision making was more stable. Surprisingly, the F-PAD intervention, which involved an intensive dialogue about treatment experiences and features of PADs, had little independent effect on preference stability. Participants in the study were engaged in ongoing discussions and education about PADs and this may reflect an initial enthusiasm that was tempered by time. Participants may not have had sufficient previous experience with psychiatric advance directives to express longer term or more stable preferences about them. For example, with further contemplation, participants may have had more misgivings about deferring to their physicians' judgment, avoiding unwanted treatment or wanting an irrevocable PAD. The results included a trend for greater stability of the surrogate decision making preference among participants receiving the F-PAD intervention; thus, facilitation of PADs may have made this preference more salient among experimental participants, and seems to have prevented the decay of its perceived value over time, as seen in control participants.

The analysis of subject preference typologies demonstrates different patterns of preferences, most common were types valuing all PAD features except avoiding unwanted treatment or a type valuing all features except irrevocability. One small but salient group placed high value on avoiding unwanted treatment and saw little value in other PAD features. Thus, there is a relatively small group that sees PADs mainly as an opportunity to avoid unwanted treatment.

There are several limitations to this study. Because the study involved only participants in treatment and willing to consent to research, these findings may not generalize to all patients with severe mental illness. Patients not engaged in treatment or who refused consent to participate may have articulated different preferences about future treatment or desire for PADs. However, these patients may not have wished to complete PADs, and patients who are in treatment arguably constitute the most relevant target population for PADs.

These analyses, when combined with the recent analyses from the same study and others (Amering, Stastny, & Hopper, 2005; Srebnik et al. 2005; Swanson et al., under review) offer evidence that clinicians should have few negative concerns about their patients' interest in PADs. These combined data demonstrate that patients are unlikely to complete a PAD unless provided assistance and when provided assistance the resultant PADs are overwhelmingly feasible and consistent with community practice standards. The preferences underlying patients' interest in PADs largely reflect a wish to maintain continuity of care as recommended by their physicians, communicate important information about past care, and to vest family and friends with the authority to collaboratively work with their treatment team.

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