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Use of Psychiatric Advance Directives During Psychiatric Crisis Events

Debra Srebnik · Joan Russo

Abstract This paper presents the first empirical data regarding the rates and predictors of using psychiatric advance directives. Directives were accessed in only 20% of crisis events for the 69 participants selected on the basis of frequent use of psychiatric emergency and hospital services. Directives were 10 times more likely to be accessed when a surrogate decision-maker was involved in the crisis event. Directives were also more likely to be accessed over time and for people who had repeated crises, fewer prior hospitalizations, no substance use, and no prior outpatient commitment orders. Creation of more directives to increase clinician and system familiarity and more consistent appointment of surrogate decision-makers could increase use of directives.

Keywords Psychiatric advance directives ·
Mental health advance directives · Advance directives

Psychiatric advance directives document mental health treatment preferences of clients in advance of acute symptomatology in which capacity for, and meaningful participation in, decision-making may be compromised (Appelbaum 1991; Srebnik and LaFond 1999; Swanson et al. 2000). Directive instructions may include preferences about medications, electroconvulsive therapy, restraint and seclusion, hospitalization, methods of de-escalating crises, alternatives to hospitalization, and persons to contact regarding care of dependents and household. A surrogate

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decision-maker may also be named within a power-of-attorney document in a directive. Clients themselves appoint the surrogate decision-maker, in contrast to guardians who are appointed by courts. Along similar lines, psychiatric advance directives specify client-identified preferences for treatment during psychiatric crises, while outpatient commitment employs court-ordered leverage to gain client adherence to outpatient treatment (Swanson et al. 2000).

Professional, self-help, and advocacy organizations as well as researchers have touted the use of psychiatric advance directives to improve treatment and enhance client autonomy and recovery (Frese 1998; Honberg 2000; Lipton 2000; Priaulx 1998, NMHA 2002; Scheyett et al. 2007). Further, research has shown that completing a psychiatric advance directive can improve the working alliance between clients and clinicians (Swanson et al. 2006a). Twenty-five states also have statutes explicitly authorizing the documents, and nearly all others permit the documents through their health care living will and power-of-attorney statutes (Fleischner 1998; Srebnik and Brodoff 2003; http://pad.duhs.duke.edu/statutes.html 2008). Hypothesized benefits of directives include decreasing perceived coercion; increasing treatment collaboration, motivation and adherence; expediting crisis care; and reducing psychiatric hospitalizations (Backlar et al. 2001; Geller 2000; LaFond and Srebnik 2002; Miller 1998; Rosenson and Kasten 1991; Srebnik 2004; Winick 1996).

Many mental health systems have spent considerable resources promoting psychiatric advance directives, and when informed about the documents, studies have shown that half to three-quarters of psychiatric outpatients are interested in completing one (Srebnik et al. 2003; Swanson et al. 2006b). However, a recent survey of 1,011 psychiatric outpatients across five U.S. cities revealed that only 4–13%

of respondents had completed a psychiatric advance directive (Swanson et al. 2006b). The discrepancy between patient's interest in and completion of directives can be attributed to a variety of barriers including understanding of the documents, skepticism about whether directives will be beneficial, and difficulty obtaining witnesses or a proxy decision-maker (Swanson et al. 2003). Support and assistance to complete directives can help overcome these barriers (Peto et al. 2004; Swanson et al. 2006a).

Once a directive is completed, a more complex problem arises in assuring that doctors and clinicians access the document when needed. Research suggests that health care advance directives, typically used for end-of-life decisions, are not consistently accessed. For example, one study showed that health care advance directives, created in nursing homes were successfully delivered to hospitals and incorporated in the hospital records in only 25 of 71 hospitalizations. Further, directives remained in nursing home charts for 74% of 106 outcome events overall (Danis et al. 1991).

Alerting personnel to the presence of health care or psychiatric advance directives, and assuring the documents can be retrieved are key factors in facilitating use of directives. Indeed, the concerns most frequently raised by clinicians providing input for the current study were how emergency and hospital staff would learn that a directive exists, and if one exists, how to retrieve it at any hour of the day (Srebnik and Brodoff 2003). A survey of 591 clinicians similarly revealed that operational issues such as lack of communication between staff and lack of access to directives presented more significant barriers to implementing psychiatric advance directives than clinical issues (Van Dorn et al. 2005). Further, psychiatrists rating psychiatric advance directives have considered the documents to be almost uniformly clinically feasible, useful, and consistent with practice standards (Srebnik et al. 2005; Swanson et al. 2006a).

The likelihood of directives being accessed may be increased by methods to alert clinicians, such as an electronic medical record flag indicating a directive exists, a medic alert-type bracelet or necklace with directive information, and someone to inform clinicians of the directive's existence. In addition, procedures to transfer psychiatric advance directives must be implemented as the documents are usually created by outpatients, but intended for use by clinicians in emergency and inpatient settings. Time to adopt these procedures may be important for the procedures to become more a part of routine clinical practice. Hospital settings in which there is a formal admission process and requirements to ask patients about advance directives may also be more conducive to accessing directives than more fast-paced emergency settings.

Psychiatric advance directives will be of little use unless the conundrum of how to access the documents during psychiatric crises is solved. This paper presents the first empirical data regarding the rates and circumstances under which psychiatric advance directives are accessed during psychiatric crises. The overall access rate, frequency of accessing directives within service settings and the individuals who access the documents are presented first. Demographic, clinical and service system predictors of accessing directives are then examined. Rates and predictors of accessing directives are analyzed at both the crisis event level and at the client level aggregated over crises.

Methods

Participants and Settings

Participants were part of a larger study of the feasibility of completion and use of psychiatric advance directives. The University of Washington Institutional Review Board approved participant selection and recruitment methods. Electronic medical records were used to screen for adults enrolled in ongoing services at two community mental health centers in Washington State who had at least two psychiatric emergency services or hospitalizations within the previous 2 years. This population of frequent users of emergency and hospital services was selected as they were predicted to have continued psychiatric crises in which advance directives could be used. Of the 475 potentially eligible adults, 303 were still in services and able to consent (158 could not be contacted largely due to long-term hospitalization or incarceration, six were unable to provide consent, six were unable to provide interviews in English, two were considered to agitated to approach for study consent); and of those, 133 provided informed consent to participate. Twenty-seven people withdrew from the study before completing a directive leaving 106 individuals who completed an advance directive. Detailed information regarding recruitment and characteristics of the 106 participants are presented elsewhere (Srebnik 2004). Sixty-nine of the 106 participants had at least one psychiatric crisis event in which the document could have been used and thus were the focus of the present analysis.

The two community mental health centers were located in two counties each with county-wide psychiatric crisis triage units, 24-h phone-bank crisis "clinics", after-hours mobile crisis teams, and involuntary detention staff. Hospitalization of patients from the two mental health centers almost exclusively occurred in one of six identified community hospitals or the state hospital.

Procedures

Dissemination of Directives and 'Alerts' for Clinicians

Participants completed advance directives using the AD-Maker software (Sherman 1998) coupled with peer support. Details of the support provided and the content of resulting directives are provided elsewhere (Peto et al. 2004; Srebnik et al. 2005).

Directives were disseminated and clinicians alerted to the existence of directives through multiple strategies. First, directives were mailed to up to five persons selected by participants. A copy of the directive was also sent to any surrogate decision-maker appointed in a directive. A copy of each directive was placed in the client's outpatient medical record. In addition, a data "flag" was added to the client's electronic county mental health registry to indicate whether a client had a directive. The registry was viewable to staff in emergency and hospital settings who were trained to refer to the registry to check for client's current services. Both psychiatric crisis triage units also had a copy of all directives on-site in a notebook designated for this purpose.

To assure availability of directives system-wide, the documents were stapled to client's crisis safety plans which were stored at the 24-h county crisis clinics. The crisis clinics fax crisis plans to clinicians upon request. Clinicians in all emergency and hospital settings had been previously trained to request and refer to crisis plans. The first author updated this training with information about accessing psychiatric advance directives. Training for hospital staff also stressed asking about psychiatric advance directives along with routine admissions questions regarding health care advance directives.

Participants were provided with a wallet card noting the existence of a psychiatric advance directive and where to call to have it faxed. Approximately 9 months after completing directives, participants were also provided a bracelet or dogtag necklace with this information. Emergency services and hospital staff were re-trained at this time.

Defining a Psychiatric Crisis and Access to Directives

The central focus of this paper was to describe the rates and circumstances under which psychiatric advance directives are accessed during psychiatric crises. These are described using the crisis event as the unit of analysis and also using the client as the unit of analysis.

To understand how directives were accessed, participant's mental health services were followed by the study team over a 2-year period. Two strategies were used to determine whether a participant had a crisis that could have triggered use of a directive. First, participants and their outpatient case managers were sent a stamped, addressed quarterly "response card" asking whether, in the last 3 months, they had (a) used their advance directive, (b) had been admitted to a hospital for mental health treatment, or (c) had anything else occur that should have triggered use of the directive, such as contact with crisis, emergency or after-hours services. If a response card was not received within 2 weeks, the participant and case manager were contacted by phone to provide answers to the response card questions. In addition, electronic emergency service and hospital data was obtained by the research team every 2 weeks. If any question was endorsed on either the participants' or clinicians' response cards or services were identified via electronic records, both the participant and their case manager were contacted for a brief "Directive Use Interview" that included questions about whether the document was accessed, and if so, by whom and in what settings. Crisis service and inpatient charts were also examined to determine whether the directive was in the chart and whether any chart notes indicated the document was reviewed. A directive was considered to have been accessed if either interview or chart review indicated the document was retrieved or reviewed by anyone during the crisis.

It should be noted that we distinguish between accessing directives and using or "activating" them. A directive is considered "accessed" if there is any evidence that someone retrieved or viewed it, as discussed above. A directive needs to be accessed before it can be activated. Regarding activation, statutes regarding psychiatric advance directives in most states with such laws note that the documents should be activated upon a patient becoming "incapable" of making treatment decisions. Typically physicians are required to evaluate incapacity using a definition akin to inability to provide informed consent for treatment. This form of incapacity evaluation differs from court-determined incompetence. It allows for directives to be activated in emergency and inpatient settings when a person is unable or unwilling to make productive treatment decisions (Dunlap 2001; Gallagher 1998), but might not be adjudicated incompetent. In Washington, where the study was conducted, state law clarifies this further by permitting a client to specify in their directive the point at which they want the document activated. For example, a patient can note that they believe they are incapacitated for purposes of activating their directive when they make delusional statements or when they are being considered for admission to an inpatient setting. As such, crisis service and hospital staff were trained to routinely check for whether a patient had created a directive and, if so, to retrieve the document, irrespective of the person's observed decisional capacity. Even if the person was not considered incapacitated, the

document was considered to provide valuable information regarding client's treatment preferences. The optimum point at which advance directives should be activated (and therefore accessed) is as yet an unresolved clinical and legal issue (e.g., see Srebnik and Kim 2006 for a more detailed discussion).

Measures

Directive Use Interview

The Directive Use Interview asked respondents, "Was your advance directive used during this crisis?" and whether the following people (a) were involved in the crisis and (b) accessed or looked at the directive: family, friends, outpatient case manager, inpatient psychiatrist, inpatient staff, emergency room staff, crisis line, involuntary detention staff, and surrogate decision-maker. Information was generally coded "yes", "no", and "don't know". For statistical analyses, "no" and "don't know" were combined.

Chart Review Form

Crisis service and hospitalization charts were reviewed to answer the following Yes/No questions: (a) Is a copy of the psychiatric advance directive included in the chart? (b) Is there mention of the psychiatric advance directive in the chart notes for this episode? If so, the staff person (e.g., nurse, psychiatrist, social worker) who wrote the chart notes was documented.

Electronic Client Information

Age, ethnicity, and gender, psychiatric diagnosis, score on the Global Assessment of Functioning (GAF; Endicott et al. 1976), hospitalization admissions and hospital days, psychiatric emergency services, and outpatient commitment orders in the prior year were obtained for participants from electronic records of the participating agencies. Ethnicity was dichotomized as white or nonwhite because of the small proportion of several of the groups of nonwhite participants. Primary Axis I diagnoses were categorized as: schizophrenia spectrum, bipolar disorder, major depression, and other diagnoses. Recruitment site (specific community mental health center) was also identified.

Symptom severity and functioning were assessed with the Problem Severity Summary (PSS) and the Psychiatric Symptom Assessment Scale (PSAS). The PSS is a 13-item instrument designed for community mental health treatment planning and performance monitoring. The PSS has shown adequate internal consistency, sensitivity to treatment change, and concurrent, predictive, and discriminant

validity (Srebnik et al. 2002). The PSAS is a 23-item symptom severity scale, developed as a revision of the Brief Psychiatric Rating Scale (BPRS; Bigelow and Berthot 1989; Overall and Gorham 1962). Interrater reliability is strong (intraclass correlation range .62–.89 for all but one item).

Statistical Analyses

Statistical analyses were conducted using SPSS 13.0 and STATA 7.0. Results are organized by analyses at either the *crisis event level* ($K = 450$ events) or the *client level* ($n = 69$).

Crisis Event Level

Rates of accessing directives in various treatment settings and by various individuals were descriptively analyzed. A chi-square analysis with correction for continuity was used to determine if rates of accessing directives varied by treatment setting. Changes in the rates of accessing directives over time were examined by creating 3-month blocks (quarters) across the course of the study and correlating this variable with number of events during that quarter, the number of events in which the directive was accessed in that quarter, and the rate of access for events in that quarter.

Univariate differences between events in which directives were and were not accessed on client demographic and clinical characteristics (site, age, gender, race, primary diagnosis, Axis II diagnosis, GAF, PSS and PSAS scores, number of outpatient commitment orders, and hospitalizations), event characteristics (number of crises, quarter in which crisis occurred, setting of crisis, and who was involved in the crisis) and surrogate decision-maker status (having an surrogate decision-maker and relationship of client to the surrogate) were examined using chi-square tests with corrections for continuity for categorical characteristics or t-tests for continuous characteristics. It should be noted that individuals involved in the crises and crisis settings were not independent (e.g., inpatient attendings would access a directive only for hospitalized patients). Based on these analyses, and in order to determine the set of variables independently and significantly associated with accessing directives during a crisis event, those characteristics that were significant univariately at $P \leq .15$ were entered into a logistic regression analysis. In order to account for the dependency of events within a given client, robust clustering of errors at the client level was employed (Stata Press 2001). Characteristics were eliminated individually based on statistical non-significance and the model was refit at each step. The final model contained only characteristics significantly associated with accessing

directives during crisis events. Odds ratios and their 95% confidence intervals were presented for the significant factors.

Client Level

Two outcomes were examined at the client level: (1) having any (at least 1) crisis event in which a directive was accessed (yes/no) aggregated across crisis events for an individual and (2) number of crisis events in which directives were accessed. Univariate chi-square analyses with corrections for continuity and t-tests were used for categorical and continuous characteristics respectively to examine differences in the demographic, clinical and surrogate decision-maker status characteristics of clients who had at least one crisis event with a directive accessed compared to those who never had their directive accessed. Correlation coefficients were employed to determine the relationship between client's number of events with a directive accessed and demographic and clinical characteristics. To determine the best set of independent variables associated with having a directive accessed in any crisis event, logistic regression analyses were conducted for the variables that were significant at the $P \leq .15$ level in the univariate analyses. To better understand the results, and to calculate more meaningful odds ratios (ORs) and 95 percent confidence intervals (CIs), some variables with significant associations were recoded, and the logistic regression was recalculated. To determine the variables independently and significantly associated with the number of events in which directives were accessed Poisson regression analyses were used following the same methods (Stata Press 2001). Incremental relative risks instead of odds ratios were calculated on recoded variables if necessary.

Results

Sixty-nine participants had at least one psychiatric crisis event in which the psychiatric advance directive could have been used. There were 450 total crisis events. The 69 participants with at least one crisis event had an average of 6.5 events (SD = 7.3) and a median of 4.0. Results below are discussed first using the crisis event as the unit of analysis and then using the client as the unit of analysis.

Crisis Event Level Results

Rates of Directive Access

Of the 450 total crisis events, directives were accessed in 90 events, resulting in a 20% overall rate of accessing directives. The 69 individuals responsible for the 450 crises had an average of 1.3 (SD = 2.1) events in which directives were accessed.

Directive Access in What Treatment Settings and by Which Individuals

Rates of accessing directives differed by the setting of the crisis service as shown in Table 1. Due to the small number of crises that involved some settings, settings were grouped into the following categories: inpatient, psychiatric crisis triage units (CTUs), medical emergency rooms (ER), and "other", which included crisis phone-bank, home, and respite units. Rates of accessing directives differed significantly across settings ($\chi^2 = 18.9$, df = 3, $P < .001$). Table 1 shows that, of the 90 events in which directives were accessed, access occurred in more crisis events in psychiatric emergency services and CTUs, however, the rate of accessing the documents was greatest within "other" settings. Post hoc analyses showed that the "other" settings had significantly higher rates of accessing directives than the other three groups and inpatient settings had a significantly higher rate than psychiatric emergency services and the CTUs.

Table 2 shows the number of crisis events in which particular individuals accessed a directive. Numbers add to more than 90 crises because more than one person could have accessed the directive during a given crisis event. Also, persons accessing directives are not independent of

Table 1 Advance directives accessed within crisis treatment settings

Treatment settings	Rate of accessing directives by setting out of crisis events in which directives were accessed (K = 90)		Rate of accessing directives by setting out of total crisis events *within* settings (K = 450)	
	#	%	#	%
Psychiatric emergency services and CTUs	44/90	48.9	44/281	15.7
Inpatient hospitalization	27/90	30.0	27/107	25.5
Medical emergency room	8/90	8.9	8/41	19.5
Other settings: crisis phone, home, respite	11/90	12.2	11/21	52.4

Table 2 Persons accessing advance directives

Persons	# and % of crises in which directives were accessed ($K = 90$)
Psychiatric emergency/CTU or emergency room staff	41 (45.6%)
Inpatient staff	21 (23.3%)
Surrogate decision-maker	16 (17.8%)
Case manager	16 (17.8%)
Inpatient psychiatrist	16 (17.8%)
Family	14 (15.6%)
Crisis line	10 (11.1%)
Friend	10 (11.1%)
Outpatient psychiatrist	7 (7.8%)
Involuntary commitment staff	6 (6.7%)

settings. For example, inpatient psychiatrists and staff could only access directives in inpatient settings. ER and CTU staff could not be separated for this analysis; however, analysis of settings suggests that there were more crisis events in which directives were accessed in CTUs than ERs. Table 2 shows that, of the 90 events in which directives were accessed, the most likely people to access directives were psychiatric emergency CTU/ER staff, inpatient staff and psychiatrists, surrogate decision-makers, case managers and family members.

Directive Access Over Time

Access to directives by time was analyzed by categorizing all crisis events into 3-month quarters numbered consecutively from 1 to 11 beginning when directives were introduced into the mental health system by the study. Although any given client was only followed for 2 years, client entry into the study was staggered, resulting in 11 quarters in which follow-up interviews were conducted. For each of these quarters the number and rate (number accessed/total events) of events in which directives were accessed was calculated. Correlating these variables with time (quarter) revealed that the number of events in which directives were accessed ($r = 0.22$, $P = .52$) was not significantly related to time, however the rate of events in which directives were accessed was significantly related to time ($r = 0.69$, $P = .018$). That is, over time, the system improved its ability to access directives during crisis events.

Characteristics of Crisis Events With and Without Directive Access

Table 3 contains the characteristics of the 450 crises events in terms of the client and the event itself. Crisis service

setting variables were included in Table 1. There was a trend for events in which directives were accessed to occur in the later quarters of the study. Events in which the directives were accessed were significantly more likely to have someone involved, whether it was a surrogate decision-maker, case manager, family member, friend, or outpatient provider. Directives were more likely to be accessed during events for clients with higher GAF scores, and fewer prior inpatient hospitalizations. Trends were founds in this direction for events of clients with a surrogate decision-maker, an Axis II disorder, and lower PSS scores. These 12 variables were examined in the logistic regression analyses.

The final logistic regression model results are presented in Table 4. The model shows that the odds of having a directive accessed during a crisis event significantly increase with time, for clients with better functioning on the GAF, having a surrogate decision-maker involved in the crisis, and having a friend involved in the crisis. Directives were ten times more likely to be accessed during crisis events in which a surrogate decision-maker was involved in the crisis.

Client Level Results

Any Directive Accessed

Sixty-nine participants had at least one crisis event and half of these ($n = 35$) had at least one crisis event in which their directive was accessed. Table 5 shows the univariate relationships of the study variables to clients who had at least one crisis in which a directive was accessed. Clients who had a directive accessed during a crisis event had twice as many crises (8.7) than those whose directives were never accessed (4.3) [$t = -2.56$; $P < .01$]. In addition, those who had their directive accessed were less likely to have had prior outpatient commitment orders. At trend level, participants with a substance use diagnosis and those with prior involuntary hospitalizations were less likely to have their directive accessed, while those who had a surrogate decision-maker and had an Axis II diagnosis were more likely to have their directive accessed. These six variables (number of crises, any outpatient commitment, substance use diagnosis, involuntary hospitalizations in the year prior to the study, Axis II diagnosis and having a surrogate decision-maker) were used in a logistic regression analysis to determine the best set of independent predictors to having a directive accessed.

Results of the logistic regression are presented in Table 6. Clients with three or more crisis events were between 5 and 8 times more likely to have a directive

Table 3 Characteristics of crisis events in which directives were and were not accessed (K = 450)

Characteristics	Directive accessed		Test statistics
	Yes K = 90 N (%) or M (SD)	No K = 360 N (%) or M (SD)	χ^2 (1) or t(448)
Event characteristics			
Quarter in which event occurred (1–11)	6.4 (2.4)	5.9 (2.6)	−1.92[#]
% Anyone involved	56 (62.2%)	121 (33.3%)	23.52***
Was the surrogate decision-maker involved?			
No surrogate decision-maker	43 (47.8%)	198 (55.0%)	65.63*** df = 2
Have surrogate but not involved	19 (21.1%)	148 (41.1%)	
Surrogate was involved	28 (31.1%)	14 (3.9%)	
% Case manager involved	45 (50.0%)	107 (29.7%)	12.34***
% Family member involved	21 (23.3%)	21 (5.8%)	24.03***
% Friend involved	25 (27.8%)	19 (5.3%)	38.81***
% Outpatient clinician involved	13 (14.4%)	14 (3.9%)	12.41***
Client characteristics			
Gender (Female)	46 (51.1%)	176 (48.9%)	0.07
Ethnicity (White)	76 (84.4%)	311 (86.4%)	0.09
County (King)	15 (16.7%)	67 (18.6%)	0.08
Age	43.0 (8.3)	43.0 (9.5)	−0.06
Substance use diagnosis	44 (48.9%)	184 (51.1%)	0.07
Primary diagnosis			
Major depression	18 (20.0%)	72 (20.0%)	1.43 (df = 2)
Bipolar disorders	23 (25.6%)	72 (20.0%)	
Schizophrenia	49 (54.4%)	216 (60.0%)	
Axis II diagnosis	47 (52.2%)	226 (62.8%)	2.93[#]
Developmental disability	6 (6.7%)	16 (4.4%)	0.36
# of outpatient commitments in year prior to advance directive	0.2 (0.8)	0.3 (0.8)	0.86
Any outpatient commitment in year prior to advance directive	8 (8.9%)	55 (15.3%)	1.94
GAF	31.7 (8.6)	28.6 (7.7)	−3.39***
PSS total	32.8 (12.4)	35.7 (14.9)	1.66[#]
PSAS total	20.4 (17.4)	18.6 (15.1)	−0.97
Number of crises	13.6 (10.2)	14.9 (11.3)	0.98
Surrogate decision-maker			
None	43 (47.8%)	198 (55.0%)	4.33[#]
Non-first degree relative	25 (27.8%)	107 (29.7%)	
First degree relative	22 (24.4%)	55 (15.3%)	
# of hospitalizations in year prior to advance directive	2.9 (3.0)	4.4 (4.4)	3.82***
# of involuntary hospitalizations in year prior to advance directive	0.6 (0.8)	0.7 (1.1)	0.76
Any hospitalization in year prior to advance directive	68 (75.6%)	293 (81.4%)	1.20

= P < .15; * P < .05; ** P < .01; *** P < .001

accessed than clients with only 1–2 events. In addition, participants without a substance use diagnosis were nearly four times more likely, and those without prior outpatient commitment orders were about six times more likely to have their directive accessed during a crisis.

Number of Crisis Events With Directive Accessed

Examining access as a continuous variable, bivariate correlations were calculated between the number of crisis events in which directives were accessed and study variables. The number of events in which directives were

Table 4 Logistic regression results for crisis events with directive accessed (K = 450)

	B	Robust SE	Walds test	Odds ratio	95% CI for odds ratio
Quarter	0.17	0.06	2.77**	1.18	1.05–1.33
GAF	0.04	0.02	2.09*	1.04	1.01–1.07
Friend involved	1.44	0.46	3.13**	4.23	1.71–10.44
Surrogate decision-maker involved vs. no surrogate or surrogate not involved	2.30	0.41	5.65**	10.00	4.50–22.22

* $P < .05$; ** $P < .01$

Table 5 Characteristics of individuals who did and did not have directive ever accessed (N = 69)

Characteristics	Never accessed N = 34	Directive accessed in at ≥1 crisis event N = 35	Test statistics
	N (%) or M (SD)	N (%) or M (SD)	$\chi^2(1)$ or $t(67)$
Gender (Female)	14 (41.2%)	21 (60.0%)	1.75
Ethnicity (White)	27 (79.4%)	28 (80.0%)	0.00
County (King)	11 (32.4%)	7 (20.0%)	0.80
Age	40.6 (10.1)	41.6 (8.2)	−0.42
Substance use diagnosis	21 (61.8%)	14 (40.0%)	2.46[#]
Primary diagnosis			
Major depression	8 (23.5%)	11 (31.4%)	1.19 (df = 2)
Bipolar disorders	6 (17.6%)	8 (22.9%)	
Schizophrenia	20 (58.9%)	16 (45.7%)	
Any Axis II diagnosis	13 (38.2%)	21 (60.0%)	2.46[#]
Developmental disability	2 (5.9%)	3 (8.6%)	0.01
Any outpatient commitment in year prior to advance directive	11 (32.4%)	3 (8.6%)	4.65*
GAF	30.5 (7.6)	30.3 (8.1)	0.10
PSS total	31.6 (13.1)	31.1 (12.4)	0.17
PSAS total	15.5 (10.8)	18.5 (17.3)	−0.86
Number of crises			
1–2	14 (41.2%)	4 (11.4%)	8.27*
3–4	10 (29.4%)	13 (37.1%)	
5–7	4 (11.8%)	8 (22.9%)	
8+	6 (17.6%)	10 (28.6%)	
# of hospitalizations in year prior to advance directive	2.9 (3.3)	2.2 (2.4)	1.05
# of involuntary hospitalizations in year prior to advance directive	0.8 (1.4)	0.3 (0.7)	1.68[#]
Any hospitalization in year prior to advance directive	27 (49.4%)	27 (77.1%)	0.00
Surrogate decision-maker			
None	23 (67.7%)	16 (45.7%)	3.78[#]
Non-first degree relative	5 (14.7%)	11 (31.4%)	
First degree relative	6 (17.6%)	8 (22.9%)	

= $P < .15$; * $P < .05$; ** $P < .01$; *** $P < .001$

accessed was significantly positively related to the number of crisis events a participant had ($r = .60$; $P = .001$) and having a first-degree relative as a surrogate decision-maker ($r = .24$, $P < .05$). The number of events in which directives were accessed was negatively related to having any prior outpatient commitment orders ($r = −.17$, $P < .15$) at a trend level. No other bivariate correlations were statistically significant.

Poisson regression results with the three significant variables (number of crises, any outpatient commitment orders and having a surrogate decision-maker) are presented in Table 7. Clients with more crisis events had a

Table 6 Logistic regression results for individuals ever having directive accessed (N = 69)

	B	SE	Walds test	Odds ratio	95% CI for odds ratio
3–4 crises vs. 1–2 crises	1.60	.78	4.25*	4.96	1.08–22.65
5–7 crises vs. 1–2 crises	1.80	.89	4.05*	6.05	1.05–34.88
8 + crises vs. 1–2 crises	2.12	.87	5.90**	8.37	1.51–46.46
No substance use diagnosis	1.34	.59	5.16*	3.83	1.20–12.20
No outpatient commitment in year prior to advance directive	1.76	.79	5.00*	5.83	1.24–27.33

* $P < .05$; ** $P < .01$

Table 7 Poisson regression for number of events in which individuals had directive accessed (N = 69)

	B	SE	Z	RR	95% CI for RR
No outpatient commitment in year prior to advance directive	1.11	.40	2.75**	3.02	1.37–6.65
3–4 crises vs. 1–2 crises	1.05	.50	2.10*	2.85	1.07–7.57
5–7 crises vs. 1–2 crises	0.83	.55	1.50#	2.29	0.78–6.78
8+ crises vs. 1–2 crises	2.40	.48	5.00**	11.05	4.31–28.33
No surrogate decision-maker vs. non-first degree relative surrogate	0.22	.25	0.91	1.25	0.77–2.05
No surrogate decision-maker vs. first degree relative surrogate	0.76	.33	2.30*	2.14	1.12–4.11

\# = $P < .15$; * $P < .05$; ** $P < .01$; *** $P < .001$

higher relative risk of having their directives accessed, as well as those without prior outpatient commitment orders, and those with a first-degree relative as their surrogate decision-maker.

Discussion

Study results showed that psychiatric advance directives are accessed infrequently during clients' mental health crises. The documents were retrieved in only 20% of crisis events. Further, this low rate occurred in the context of staff training to routinely access directives, dissemination of the documents to outpatient records, 24-h availability of the documents, and a variety of clinician "prompts", including wallet cards and "dog tags" identifying the document and an electronic flag in medical records indicating that a directive is available. Clearly, these methods of promoting use of directives are insufficient to assure that the documents are accessed during crises.

Problems regarding clinicians accessing directives when needed are not unique to the psychiatric form of the document. Indeed, research on health care advance directives has shown similarly low rates of accessing the documents even with training and system prompts to their use (Danis et al. 1991). This study does, however, provide some direction about the circumstances under which psychiatric advance directives are more likely to be used during crises. The strongest predictor of having a directive accessed was having someone, particularly a surrogate decision-maker,

involved in the crisis. Directives were ten times more likely to be accessed during crisis events in which a surrogate decision-maker was involved in the crisis. It could be that individuals appointed as surrogate decision-makers by a directive feel a strong responsibility to advocate for use of the document.

The results also show that more directives were accessed in psychiatric emergency settings, though the rate of accessing the documents was greatest in more informal settings such as homes, respite facilities, or crisis phone lines. It is possible that the slower pace and individualized contact within these informal settings contributes to the opportunity to access directives.

Directives were more likely to be accessed in later quarters of the study, suggesting that over time, the treatment system and people involved became more accustomed to directives. Similarly, directives were over five times more likely to be accessed for people who had repeated crises, again suggesting that directive use increases as clients and clinicians become familiar with the crisis circumstances that trigger accessing directives. It should be noted that the finding that some participants had repeated crises was not surprising given that study sample was selected on the basis of prior frequent psychiatric crises.

People without a substance use diagnosis were four times more likely to have a directive accessed, and people without prior outpatient commitment orders were six times more likely to have a directive accessed. Those with fewer prior hospitalizations, and higher functioning were also more likely to have directives accessed. Taken together,

directives are more likely to be accessed for people with higher functioning and those who are less challenging to engage in outpatient treatment (as indicated by outpatient commitment orders). It may be that these individuals are more amenable to involving themselves in treatment decision-making in general, including advocating for use of directives.

There are several study limitations. First, our study employed a relatively small sample size in relation to the total number of statistical tests, therefore our results should be considered preliminary. Further research with larger samples should be conducted before relying on conclusions from this work. That said, nearly all of the findings were significant at the $P < .01$ level. Based on this .01 probability of a type 1 error for any given comparison, the experiment-wise probability that one or more of the significance tests resulted in a type 1 error was .26 for the patient level study and .20 for the crisis level study. One must also understand that the crisis event level analysis was constrained by the fact that crisis events are not fully independent as some participants contributed multiple crisis events to the analyses. This problem was mitigated by our use of analyses specifically designed to cluster errors. Finally, the sample may not be fully representative of all frequent users of psychiatric hospitalization and emergency services. Specifically, the sample pool was selected on the basis of being enrolled for ongoing outpatient services, and within that pool, those who participated in the study were also less likely to have had prior outpatient commitment orders, another indicator of engagement in services (Srebnik et al. 2003). Overall, the study sample was likely to be more amenable to treatment that an unselected group of individuals who frequently use psychiatric hospitals and emergency services.

While the rate of accessing directives during crises was low, study findings suggest some steps that could lead to more consistent use of the documents. First, the data suggest that accessing directives increases over time of their use in a treatment system. As such, creation of more directives is needed to increase clinician and system familiarity with them. A place to start would be to facilitate development of directives for individuals who are more frequent users of hospital and crisis services, for whom the directives could have the most impact on treatment. Second, as having a surrogate decision-maker involved in the crisis was the strongest predictor of having a directive accessed, clients completing directives should be encouraged to appoint surrogate decision-makers. If a client does not have a relative or friend to play this role, a peer advocate could be considered. The data suggest that filling this role may be particularly important for individuals less engaged in treatment and those less able to advocate for themselves.

One reason the advocacy of surrogate decision-makers for using directives is so important is due to the chasm in communication between typical public mental health outpatient and inpatient treatment systems. Directives provide a tenuous bridge over that chasm, informing continuity of care. But directives will inform care only if they are used. The modest rate found for accessing directives, particularly in formal emergency and inpatient treatment settings, occurred despite the study taking place within a relatively tightly organized treatment system that included a county-wide crisis unit (in which directives were held), mobile crisis teams, and electronic patient registries. Directives may be accessed even less frequently in more loosely organized treatment systems. Clearly, much more work is needed to truly integrate outpatient and inpatient treatment, and to use client preferences, such as are articulated in directives, to guide treatment. As Danis (1994) notes, both individual advocates for use of directives and institutional commitment to them are needed to increase the likelihood that directives are used.

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