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Clinicians' Attitudes Regarding Barriers to the Implementation of Psychiatric Advance Directives

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Objective: Psychiatric advance directives (PADs) may include documenting advance instructions (AIs) and/or designating health care agents (HCAs). Laws authorizing PADs have proliferated in the past decade, but there has been little research regarding perceptions of barriers to the implementation of PADs among groups of mental health professionals. *Methods*: A total of $N = 591$ mental health professionals (psychiatrists, psychologists, and social workers) completed a survey regarding their perceptions of potential barriers to the effective implementation of PADs. *Results*: Across the three professional groups barriers related to operational features of the work environment (e.g., lack of communication between staff, lack of access to the document) were reported at a higher rate than clinical barriers (e.g., inappropriate treatment requests, consumers' desire to change their mind about treatment during crises). However, psychiatrists were more likely to report clinical barriers to implementation than both psychologists and social workers. In multivariable analyses, legal defensiveness, employment in public sector mental health services, and a belief that treatment refusals will outweigh the benefits of PADs were associated with more perceived barriers, whereas age and endorsing positive perceptions of PADs were associated with fewer perceived barriers. *Conclusion*: Psychiatrists, psychologists and social workers tend to perceive significant potential barriers to PADs, related to operational aspects of these professionals' work environment as well as certain clinical features of PADs for persons with severe mental illness. Additionally, legal defensiveness and general endorsement of PADs appear to shape perceptions of barriers to the effective implementation of PADs.

KEY WORDS: barriers; mental health clinicians; psychiatric advance directives.

Psychiatric advance directives (PADs) allow competent persons, through advance instructions (AI), to declare their preferences for future mental health treatment; PADs also permit these persons to appoint a surrogate decisionmaker to act as a Health Care Power of Attorney (HCPA) in the event of an incapacitating psychiatric crisis (Appelbaum, 2004b; Swanson, Tepper, Backlar, & Swartz, 2000). PAD statutes are designed primarily for people with severe mental illnesses (SMI) who anticipate periods of decisional incapacity associated with illness relapse. PAD laws were intended to enhance patient autonomy at the very time patients are most vulnerable and in need of access to preferred care (Joshi, 2003; Keefe & Pinals, 2004; Vuckovich, 2003).

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Consumers' access to their preferred mental health treatment during crises is believed to enhance treatment adherence and therapeutic alliance. In theory, consumers' access to care is also increased by efficient communication about a patient's treatment preferences. Access to treatment history, including relevant medical disorders, emergency contact information, and side effects associated with specific medications can be provided within a PAD (Srebnik & La Fond, 1999; Swanson et al., 2000).

Although PAD legislation has passed in 21 states within the last decade, little attention has been given to emerging clinical and system-of-care policy questions. Little is known about how to implement PADs effectively, or how they will work in public systems of care. PAD legislation may be insufficient to create lasting healthcare system change as progress toward the effective implementation of PADs has not kept pace with enthusiasm over their potential (Amering, Stastny, & Hopper, 2005; Backlar, McFarland, Swanson, & Mahler, 2001).

Studies suggest that the majority of consumers with SMI would complete an AI and/or HCPA if given assistance (Backlar et al., 2001; Noble & Douglas, 2004; Srebnik, Russo, Sage, Peto, & Zick, 2003); however, only between 4 and 13% of consumers with SMI indicate having a PAD (Swanson, Swartz, Ferron, Elbogen, & Van Dorn, In-press; Swanson et al., 2003). Although consumers' are enthusiastic about the potential for autonomy and treatment preferences afforded by PADs, to date, the majority of research on PADs has examined the ethical, legal, and treatment implications of the laws (Joshi, 2003; Srebnik & La Fond, 1999; Swanson et al., 2000; Vuckovich, 2003). Research is only now able to begin evaluating outcomes associated with PADs or similar interventions (Henderson et al., 2004; Papageorgiou, King, Janmohamed, Davidson, & Dawson, 2002).

While advocates and consumers have expressed optimism regarding the potential of PADs, mental health professionals have voiced mixed opinions about these legal tools (Atkinson, Garner, & Gilmour, 2004; Swanson et al., 2003). Specifically, they argue that PADs may run into legal problems in practice (Miller, 1998). This issue was highlighted in the recent U.S. Court of Appeals decision in *Hargrave v. Vermont* (''Hargrave v. Vermont, 340 F. 3d 27,'' 2003), where a state law that allowed mental health professionals to override a person's advance refusal of psychotropic medications through a general healthcare proxy was struck down (Allen, 2004; Appelbaum, 2004b; Keefe & Pinals, 2004). Despite this use of PADs to avert treatment, currently, every jurisdiction with a specific PAD statute permits doctors to ''override'' medically inappropriate treatment (Appelbaum, 2004a). Still many clinicians appear to have negative or apprehensive attitudes regarding PADs, which may influence their implementation or effectiveness.

Clinicians' legal defensiveness is another potentially important determinant of treatment decision making. Following Swanson and McCrary (1996) and McCrary et al. (in press), we define ''legal defensiveness'' broadly to refer to clinicians' general level of concern about the implications of both civil and criminal law regarding their treatment decisions for seriously ill patients. Specifically, legal defensiveness in this context refers to the aggregate of clinicians' attitudes and practices arising from, or attributed to, the perceived threat of legal sanction in response to their decisions to intervene (or not to intervene) in particular ways for incapacitated psychiatric patients.

Other attitudes relevant to implementing PADs may include the tension that clinicians may feel between the desire to exercise autonomous professional judgment and the ethical imperative to respect patients' self-determination and right to refuse treatment.

The attitudes of mental health providers toward PADs are critical to their effective use because providers have the potential to be involved in the PAD process at two important points in time: the preparation stage, when an individual with SMI creates the PAD; and the implementation stage, when a PAD is invoked during a mental health crisis. In the preparation stage, the utility of mental health providers' active involvement is still under debate (Peto, Srebnik, Zick, & Russo, 2004; Srebnik & La Fond, 1999; Varekamp, 2005); however, early evidence points to a positive relationship between consumers' interest in PADs and clinicians' support of these instruments (Srebnik et al., 2003). Clinicians' lack of support for PADs could represent a potential barrier to PAD preparation as it is believed that most consumers need some support to complete PADs (Peto et al., 2004). Clinicians' attitudes regarding the implementation of PADs are also likely to come into play when presented with a consumer's PAD during a mental health crisis, as the implementation is the clinician's responsibility and their attitudes may affect what they do (if anything) to make PADs work as designed.

Clinicians' attitudes and perceived barriers to the implementation of PADs have been examined in prior research; however, many of the studies are limited due to small sample sizes (Amering, Denk, Griengl, Sibitz, & Stastny, 1999; Backlar et al., 2001; Swanson et al., 2003; Varekamp, 2005), or research designs that do not allow for between-profession comparisons (Srebnik & Brodoff, 2003). In addition, some studies assessing clinicians' attitudes regarding PADs come from outside of the United States (Amering et al., 1999; Atkinson et al., 2004; Varekamp, 2005). Because issues related to PAD implementation involve specific legal and health system matters, the generalizability of research on clinician attitudes from other countries, while useful, is still limited by its context. These methodological gaps along with an assessment of profession-specific perceived barriers to adopting new practices would fill several voids in the extant research (Grol, 1997; Grol & Wensing, 2004; Moulding, Silagy, & Weller, 1999).

The existing research also raises a number of questions about clinicians' perceived barriers to the implementation of PADs yet to be addressed. For example, are the perceptions of barriers reported by different mental health professions overlapping or unique? Are certain barriers, such as those associated with operational features of the work environment, perceived as more significant than barriers associated with clinical features of the PAD, or visa-versa? Are perceived barriers related to certain clinician characteristics? If so, which characteristics? The purpose of this paper is to address these and other questions regarding perceived barriers to the implementation of PADs.

STUDY DESIGN AND SAMPLE CHARACTERISTICS

The study gathered attitudinal and opinion data from a sample of n=164 psychiatrists and n=234 clinical psychologists using a mailed questionnaire, and from a sample of n=193 clinical social workers by means of an online survey, for a total of N=591 mental health professionals. The study was determined to be exempt from human subjects research review by the Duke University Medical Center IRB. A random sample of psychiatrists and psychologists was selected from their state professional organization membership rosters. Due to the difficulty in identifying social workers in psychiatric practice, they were solicited by their professional organization via an online newsletter that included a link to the survey. The response rate was 32% for psychiatrists and 48% for psychologists. Post-hoc analyses showed no differences between survey responders and non-responders. The response rate for social workers could not be determined. All participants received a $50 gift certificate after completing the survey.

MEASURES

Dependent Variable

Barriers to the Implementation of PADS

Participants were asked to indicate the degree to which they thought that nine potential barriers were likely to impact the effective implementation of PADs. Specifically, participants were asked, ''Thinking about PADs, please indicate how often you feel that each of these issues would be a significant barrier to the effective implementation of PADs during a crisis situation or a hospital stay,'' (1) lack of time to review the document (e.g., too many patients to see); (2) lack of communication between staff (e.g., between emergency room and psychiatric unit; staff rotation); (3) lack of access to the PAD (e.g., consumer will not have it with them or it will not be in the chart); (4) lack of staff training or knowledge about what a PAD is, or how it should be handled; (5) the extra amount of documentation that may be needed when invoking a PAD; (6) the quality of the information in the PAD (e.g., consumer is vague about instructions); (7) the patient's desire to change his or her mind about the contents of the PAD during a crisis; (8) inappropriate treatment requests made by the patient; and (9) risk of violence from treatment refusal in a PAD. The response category for each of the above nine items was Never, Sometimes, Often and Very Often.

Identification of these nine potential PAD barriers is based on our prior work, including feedback from prior stakeholder surveys that examined factors associated with PADs (cf., Swanson et al., 2003). We also pilot-tested the survey with 10 psychiatrists and incorporated their feedback. Our intent in specifying these nine PAD barriers was to tap into two potential conceptualizations of barriers faced by mental health professionals, specifically

barriers associated with (1) operational features of the work environment and (2) barriers associated with clinical features. The first five items listed above were hypothesized to represent barriers associated with operational features. This scale demonstrated acceptable internal consistency (α=0.73) with each item loading on a single factor in a confirmatory factor analysis. The latter four items listed above were hypothesized to represent potential barriers associated with clinical features. This scale also demonstrated acceptable internal consistency (α=0.71) with each item also loading on a single factor in a confirmatory factor analysis. Thus, these nine items appear to tap into two constructs associated with potential barriers to the effective implementation of PADs. The two constructs were also highly correlated (r=0.52).

Independent Variables

Clinician Characteristics

Descriptive variables included the participants' age, gender, race, proportion of clinical practice involving persons with severe mental illness (greater than 10% vs. less than 10%), current work setting (public sector vs. other), and profession.

PAD Attitudes

Participants were asked questions about their attitudes regarding PADs. First they were asked, ''Do you approve of North Carolina's law regarding advance instruction for mental health treatment?,'' to which they responded yes or no. Participants were also asked, ''Do you approve of North's Carolina's law regarding the use of health care power of attorney (HCPA) for decisions about mental health treatment?,'' again answering either in the affirmative or negative. These two items were then combined into a single index where respondents were coded as one if they endorsed either advance instructions or HCPAs and compared to respondents disapproving of both items. Finally, participants were asked to indicate how strongly they agreed or disagreed with the following statement: ''The benefits of PADs could be outweighed by the disadvantage of patients using PADs to refuse medications.'' The original response category of strongly agree, agree, neutral, disagree, and strongly disagree was dichotomized with the latter three responses serving as the reference category.

PAD Legal Knowledge

In order to assess knowledge of PADs, respondents were asked two multiple choice questions. First, they were asked, ''*Upon being presented with an* '*advance instruction for mental health treatment*,' *the physician in North Carolina must*'' (1) Make the advance instruction part of the patient's medical record; (2) Provide treatment that is in the patient's best interest; (3) Follow the advance instruction irrespective of the patient's current mental status and decision-making capacity; (4) Sign a notarized affidavit certifying that the physician has reviewed the patient's advance instructions for treatment; (5) All of the above. The correct answer was (1). Next, respondents were asked, ''*In North Carolina*, *a Health Care Power of Attorney acting on behalf of an incapacitated psychiatric patient is required to make treatment decisions that are*'' (1) Consistent with the patient's known wishes; (2) Consistent with what the patient would want if he or she were 'of sound mind'; (3) Consistent with evidence-based psychiatric treatment; (4) In the patient's best interest; (5) Consistent with treatment that is covered in the patient's health insurance plan; (6) (1) and (2); (7) All of the above. The correct answer was (6). Respondents answering both questions correctly were coded as 2, while respondents answering only one question correctly were coded as 1; both of these groups were compared to respondents who answered both questions incorrectly.

Legal Defensiveness

The index of legal defensiveness was based on four variables. First, participants were asked, ''When you consider a decision to start or change a course of treatment for a patient with serious mental illness, how often do you worry about being sued for malpractice?'' Next, participants were asked, ''When you have legal questions about treatment of seriously mentally ill patients, how often do you consult a lawyer or risk manager?'' Participants were then asked, ''How often do you follow lawyers or risk manager's advice?'' Finally, participants were asked, regarding a hypothetical PAD treatment refusal scenario (cf., Elbogen et al., in press), how

important the possibility of a malpractice suit was in their decision-making process. Responses to the first three variables ranged from one to five (never to always), while responses for the final variable ranged from one to four (not important to among the most important). Scores for the index of legal defensiveness ranged between 2 and 18.

Analysis Methods

Descriptive analyses were used to provide information on frequencies associated with the two PAD barriers scales whereas bivariate analyses were employed to ascertain any differences between psychiatrists, psychologists, and social workers on these variables and their relationship to PAD barriers. Multivariable linear regression was used to examine independent associations between the various independent variables and the two outcomes for each of the three professional groups. Since these were three separate samples representing three distinct populations of mental health clinicians, we analyzed the data from the three groups separately. Also, we assumed that differences in professional responsibility and status between these three groups would shape quite different perceptions of PADs and barriers to implementation, such that separate analyses would be most appropriate. Finally, all analyses were conducted using Stata 8.2 (StataCorp, 2003).

RESULTS

Sample Description

A total of 591 participants from the three mental health provider groups (n=167; psychiatrists; n=237; psychologists; n=193 social workers) provided data on the two types of barriers to the implementation of PADs and key demographic and clinical variables. Ages ranged from 22 to 88 years, with a mean of 47.3, a median of 49, and a standard deviation of 11.6 years. The majority of the sample (56.8%) was female and white (90.0%). One-half (50.1%) of the sample worked with psychotic patients 10% of the time or more and 51.1% of the sample worked in public sector mental health settings.

The majority of participants (61.4%) expressed favorable attitudes toward either advance instruction or health care power of attorney for mental health treatment; whereas 46.0% of respondents believed that the benefits of PADs could be negated by treatment refusals. Across the three groups, with respect to the PAD knowledge questions, 38.0% gave incorrect answers to both questions; 41.9% correctly answered only one of the questions; and 20.1% correctly answered both questions. Finally, scores for the index of legal defensiveness ranged from 2 to 18, with a mean of 9.4, a median of 10, and a standard deviation of 2.9. Table 1 displays univariate statistics by profession for predictors of barriers to

Table 1. Cross-Group Profile of Sample: Means and Percents

	MDs (n = 167)		Psychologists (n = 237)		Social workers (n = 193)	
Independent variables	Mean or percent	SE	Mean or percent	SE	Mean or percent	SE
Clinician characteristics						
Age	52.75	10.51	49.17	10.13	41.77	11.62
Male	70.66%		44.74%		17.62%	
White	86.96%		94.25%		87.56%	
Work with psychotic patients ≥ 10% of time	65.22%		37.13%		53.76%	
Work in public sector	48.45%		41.35%		66.48%	
PAD attitudes						
Pro AI or HCPA	66.47%		63.56%		54.40%	
Benefits of PAD negated by Tx refusals	56.10%		44.20%		39.38%	
PAD knowledge						
None	52.69%		47.26%		13.99%	
Some	37.72%		36.29%		52.33%	
A lot	9.58%		16.46%		33.68%	
Aware of PAD law and override						
Yes	55.90%		38.22%		22.80%	
Legal defensiveness						
Index total	9.40	2.85	9.04	2.96	9.86	2.70

the implementation of PADs. For efficient presentation in this descriptive table, continuous covariates were dichotomized above the median.

Table 2 presents results from analyses of variance with Scheffé follow-up tests to examine between-group differences for the nine PAD implementation barriers. Specifically, regarding the potential ''lack of access to the document,'' 83.6% of psychologists, 81.8% of psychiatrists and 76.2% of social workers endorsed this as a potential barrier; the differences between groups were not significant. All three groups endorsed a ''lack of staff training'' at rates equal to or higher than 70% and there were no significant between-group differences. Social workers reported ''lack of communication between staff'' as a potential barrier at the highest rate (65.8%); however, there were no significant between-group differences. Psychiatrists (62.7%) were significantly more likely than both psychologists and social workers to report as a barrier ''lack of quality information'' contained in the PAD. Approximately 55% of psychiatrists reported that ''consumers desire to change their mind during a crisis'' would be problematic, while 45.9% and 48.2% of psychologists and social workers reported the same, respectively; these differences were not significant. Approximately 52% of psychiatrists reported that the ''extra documentation required'' would serve as a barrier to implementing PADs, which was significantly different from the rate at which both psychologists (35.8%) and social workers (30.6%) endorsed the same. Both psychiatrists (50.9%) and psychologists (43.7%) were more likely than social workers (31.1%) to report that ''inappropriate treatment requests'' may be a problem with PADs. Psychiatrists (48.2%) were also more likely to express concern about the ''risk of violence'' associated with treatment refusals in a PAD than either psychologists (36.4%) or social workers (32.6%). Regarding ''a lack of time to review the document,'' 35.8% of psychologists thought this would happen often or very often, compared to 43.0% for psychiatrists and 47.2% for social workers; the difference between the social workers and psychologists in the percent of respondents reporting the likelihood of this barrier was statistically significant.

Correlates of Perceived Barriers to the Implementation of PADs

Table 3 presents T-Tests of the significance of association between perceived barriers to PADs and a series of predictive factors by group. Psychiatrists who reported working in public-sector mental health services reported both types of barriers at a higher rate than did psychiatrists not working in the public sector; the same was true for psychologists and their perception of operational barriers. Next, among both psychiatrists and social workers, respondents who generally favored PADs (AI or HCPA) legislation were significantly less likely to report operational barriers than were their counterparts who disapproved of laws authorizing PADs. Finally, all respondents who believed that the benefits of PADs could be outweighed by treatment refusals endorsed barriers at a higher rate than those who did not believe this.

Table 2. Professional Group and Perceived Barriers to the Implementation of PADs

	Group % (No. of Cases)					
	Psychiatrists	Psychologists	Social Workers	*F*	df	SS
Perceived barriers to the implementation of PADs						
Lack of access to the document	81.82 (165)	83.63 (226)	76.17 (193)	0.62	2	0.62
Lack of staff training	73.46 (162)	70.04 (227)	73.58 (193)	1.21	2	1.21
Lack of communication between staff	64.20 (162)	60.35 (227)	65.80 (193)	1.34	2	1.34
Lack of quality information in the document	62.73 (161)^{a}	53.95 (228)^{b}	48.19 (193)^{b}	4.97	2	4.97**
Consumers desire to change their mind	54.94 (162)	45.85 (229)	48.19 (193)	0.68	2	0.68
Extra documentation required	51.55 (161)^{a}	35.78 (232)^{b}	30.57 (193)^{b}	9.66	2	9.66***
Inappropriate treatment requests	50.92 (163)^{a}	43.67 (229)^{a}	31.09 (193)^{b}	6.01	2	6.01**
Risk of violence from treatment refusals	48.15 (162)^{a}	36.36 (220)^{b}	32.64 (193)^{b}	5.29	2	5.29**
Lack of time to review document	43.03 (165)^{a,b}	35.81 (229)^{b}	47.15 (193)^{a}	5.39	2	5.39*

Note. Percentages represent ''often'' and ''very often'' responses; Unique superscripts indicate significant pairwise contrasts (Scheffé follow-up test, $p < 0.05$).
Statistical significance: $^{\dagger}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

Table 3. Cross-Group Bivariate Associations with Perceived Barriers

Independent variables	MDs						Psychologists						Social workers					
	Operational Barriers (0–4)			Clinical Barriers (0–4)			Operational Barriers (0–4)			Clinical Barriers (0–4)			Operational Barriers (0–4)			Clinical Barriers (0–4)		
	Mean	SD	T-value	Mean	SD	T-value	Mean	SD	T-value	Mean	SD	T-value	Mean	SD	T-value	Mean	SD	T-value
Clinician characteristics																		
Age																		
Above median	2.74	0.60	0.29	2.58	0.60	0.61	2.55	0.58	2.19*	2.52	0.61	−0.65	2.71	0.60	1.66†	2.40	0.55	2.60**
Below median	2.65	0.54		2.64	0.60		2.72	0.54		2.47	0.57		2.85	0.56		2.61	0.55	
Gender																		
Male	2.67	0.57	−0.51	2.64	0.60	−1.00	2.56	0.60	1.82†	2.48	0.58	0.44	2.74	0.61	0.43	2.41	0.62	1.10
Female	2.72	0.55		2.54	0.58		2.70	0.53		2.51	0.59		2.79	0.58		2.53	0.55	
Race																		
White	2.67	0.53	4.15***	2.55	0.57	3.33***	2.63	0.55	0.27	2.51	0.58	−1.69†	2.79	0.57	−0.35	2.52	0.56	−0.95
Non-white	3.19	0.54		3.00	0.66		2.68	0.78		2.23	0.70		2.74	0.69		2.41	0.53	
Work with psychotic patients																		
Yes	2.85	0.54	−2.54**	2.74	0.58	−3.69***	2.70	0.50	−1.32	2.55	0.57	−1.35	2.75	0.62	1.37	2.48	0.63	0.57
No	2.62	0.61		2.39	0.58		2.60	0.60		2.44	0.59		2.87	0.53		2.53	0.50	
Work in public sector																		
Yes	2.86	0.52	−2.17*	2.75	0.54	−2.78**	2.73	0.55	−2.11*	2.51	0.53	−0.69	2.83	0.58	−1.16	2.54	0.62	−1.23
No	2.67	0.59		2.50	0.63		2.57	0.57		2.46	0.62		2.72	0.61		2.44	0.47	
PAD attitudes																		
Pro AI or HCPA																		
Yes	2.67	0.54	2.78**	2.55	0.58	1.93†	2.61	0.57	0.72	2.46	0.57	0.59	2.70	0.58	1.98*	2.47	0.59	1.05
No	2.93	0.59		2.74	0.61		2.67	0.57		2.51	0.60		2.87	0.58		2.55	0.53	
Benefits outweighed by Tx refusals																		
Yes	2.83	0.55	−1.96*	2.70	0.58	−2.06*	2.76	0.53	−2.39*	2.65	0.58	−3.31***	2.90	0.58	−2.37*	2.66	0.60	−3.13**
No	2.66	0.56		2.50	0.61		2.58	0.54		2.40	0.51		2.70	0.58		2.41	0.51	
PAD knowledge																		
Some/None	2.78	0.57	1.83†	2.63	0.60	0.90	2.64	0.58	0.54	2.50	0.61	1.43	2.86	0.58	−1.38	2.52	0.59	0.34
A lot	2.51	0.49		2.48	0.54		2.59	0.50		2.39	0.39		2.74	0.58		2.49	0.51	
Aware of PAD law and override																		
Yes	2.81	0.51	−1.12	2.67	0.59	−1.22	2.71	0.58	−1.14	2.56	0.63	−1.38	2.75	0.56	0.33	2.49	0.64	0.26
No	2.72	0.57		2.56	0.57		2.62	0.53		2.46	0.52		2.79	0.59		2.51	0.54	
Legal defensiveness																		
Above median	2.91	0.54	−2.73**	2.76	0.55	−2.47**	2.71	0.53	−1.82†	2.50	0.52	−0.42	2.74	0.59	0.84	2.48	0.54	0.62
Below median	2.67	0.56		2.53	0.61		2.58	0.59		2.47	0.63		2.81	0.58		2.53	0.58	

Statistical significance: † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Multivariable Models

Multivariable associations were tested using linear regression procedures for each of the three professional groups. Models of perceived barriers to PADs (e.g., operational features and clinical features) for psychiatrists are displayed in Table 4. In the model assessing factors associated with operational features of the work environment and perceived barriers to the effective implementation of PADs, the respondent's race was a significant predictor; white participants were less likely to perceive these operational barriers as important. Next, respondents who favored either AIs and/or HCPAs were less likely to report operational barriers. Finally, there was a significant and positive relationship between legal defensiveness and operational barriers for the psychiatrists.

Predictors of psychiatrists' perceived clinical barriers to PADs are displayed in the second model of Table 4. In this model, respondents' race (white vs. nonwhite) was also a significant negative predictor of reporting clinical barriers. Psychiatrists treating more patients with psychotic disorder (10% or more of their caseload) also tended to report more clinical barriers to PADs. Finally, as was the case for the operational barriers, there was a significant and positive relationship between legal defensiveness and reporting clinical barriers.

Table 5 presents the same models for psychologists. Psychologists' perceived operational barriers

Table 4. Multivariable Models of Characteristics Associated with Perceived Barriers to the Implementation of PADs for Psychiatrists

	Operational barriers			Clinical barriers		
	Final model			Final model		
	β	SE	(95% CI)	β	SE	(95% CI)
Clinician characteristics						
Age	0.00	0.00	(−0.01, 0.01)	−0.01	0.00	(−0.01, 0.00)
Male	0.06	0.10	(−0.14, 0.27)	0.10	0.11	(−0.13, 0.32)
White	−0.38	0.13	(−0.63,−0.13)**	−0.32	0.14	(−0.60,−0.04)*
Work with psychotic patients ≥10% of time	0.14	0.10	(−0.06, 0.33)	0.24	0.11	(0.02, 0.46)*
Work in public sector	0.02	0.09	(−0.17, 0.20)	0.11	0.10	(−0.09, 0.32)
PAD attitudes						
Pro AI or HCPA	−0.27	0.09	(−0.45, −0.09)**	−0.16	0.10	(−0.36,0.04) †
Benefits of PAD negated by Tx refusals	0.12	0.08	(−0.04, 0.29)	0.10	0.09	(−0.08, 0.29)
PAD knowledge						
Summary						
None [reference]						
Some	−0.05	0.09	(−0.23, 0.13)	0.03	0.10	(−0.17, 0.23)
A lot	−0.23	0.14	(−0.51, 0.05)	−0.08	0.16	(−0.39, 0.24)
Legal defensiveness						
Index total	0.04	0.01	(0.01, 0.07)**	0.06	0.02	(0.02, 0.09)***
Model significance			R−sq = 0.2509			R−sq = 0.2465

Statistical significance: $^{\dagger}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

to PADs were significantly and negatively related to the respondents' age. Next, psychologists who reported working in public-sector mental health services were more likely to report operational barriers than those working in the private sector. Finally, there was a significant and positive relationship between operational barriers and believing that the benefits of PADs could be negated by treatment refusals.

Psychologists' perceived clinical barriers to the effective implementation of PADs are displayed in the second model of Table 5. In this model, only one covariate was significant; specifically, there was a significant and positive relationship between perceived clinical barriers and believing that the benefits of PADs could be negated by treatment refusals.

Predictors of social workers' perceived barriers to PADs are displayed in Table 6. In the operational barriers model, respondents who believed that treatment refusals could negate the benefits of PADs perceived significantly more operational barriers. With respect to clinical barriers, older social workers were less likely than their younger counterparts to perceive these barriers as problematic for implementing PADs. Finally, believing that treatment refusals could negate PADs' benefits was also a significant predictor of reporting clinical barriers.

DISCUSSION

This study examined mental health professionals' attitudes regarding two types of potential barriers to implementing PADs: (1) barriers associated with operational features of the work environment and (2) clinical concerns about PADs relating to the characteristics of persons with severe mental illness. These attitudes were examined across three professional groups: psychiatrists, psychologists, and social workers. The findings indicate noteworthy differences and similarities between the professional groups on perceived barriers to PAD implementation.

The three groups did not significantly differ in the proportion of respondents reporting four of the nine potential barriers to PADs implementation: lack of communication (60% to 65%); lack of access to the document (80%); lack of staff training (70% to 73%); and consumers' potential desire to change their minds about treatment during a crisis (48% to 54%). However, significant differences were found between groups in their attitudes about the other potential barriers: extra documentation required for PADs (63% of psychiatrists versus 48% of social workers); inappropriate treatment requests (51% of psychiatrists versus 31% of social workers); lack of time to review the document, (47% of social workers

Table 5. Multivariable Models of Characteristics Associated with Perceived Barriers to the Implementation of PADs for Psychologists

	Operational barriers			Clinical barriers		
	Final model			Final model		
	β	SE	(95% CI)	β	SE	(95% CI)
Clinician characteristics						
Age	−0.01	0.00	(−0.02,0.00)*	0.00	0.00	(−0.01, 0.00)
Male	−0.09	0.08	(−0.24, 0.06)	−0.05	0.08	(−0.21, 0.11)
White	−0.06	0.16	(−0.37, 0.26)	0.29	0.17	(−0.04, 0.62)
Work with psychotic patients ≥10% of time	−0.05	0.08	(−0.21, 0.10)	0.02	0.08	(−0.15, 0.19)
Work in public sector	0.16	0.08	(0.01, 0.32)*	0.02	0.08	(−0.14, 0.18)
PAD attitudes						
Pro AI or HCPA	−0.07	0.08	(−0.22, 0.08)	−0.07	0.08	(−0.23, 0.09)
Benefits of PAD negated by Tx refusals	0.16	0.07	(0.01, 0.31)*	0.24	0.08	(0.09, 0.40)**
PAD knowledge						
Summary						
None [reference]						
Some	0.05	0.08	(−0.11, 0.21)	−0.06	0.09	(−0.23, 0.10)
A lot	−0.12	0.11	(−0.33, 0.09)	−0.14	0.11	(−0.36, 0.08)
Legal defensiveness						
Index total	0.00	0.01	(−0.02, 0.03)	0.01	0.01	(−0.02, 0.03)
Model significance			R−sq = 0.0946			R−sq = 0.0773

Statistical significance: † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 6. Multivariable Models of Characteristics Associated with Perceived Barriers to the Implementation of PADs for Social Worker

	Operational barriers			Clinical barriers		
	Final model			Final model		
	β	SE	(95% CI)	β	SE	(95% CI)
Clinician characteristics						
Age	−0.01	0.00	(−0.02, 0.00)	−0.01	0.00	(−0.02, 0.00)*
Male	0.04	0.12	(−0.20, 0.28)	−0.04	0.12	(−0.27, 0.19)
White	0.04	0.13	(−0.23, 0.30)	0.14	0.13	(−0.11, 0.39)
Work with psychotic patients ≥10% of time	−0.16	0.10	(−0.35, 0.03) †	−0.08	0.09	(−0.27, 0.10)
Work in public sector	0.14	0.10	(−0.06, 0.34)	0.15	0.10	(−0.04, 0.34)
PAD attitudes						
Pro AI or HCPA	−0.13	0.09	(−0.31, 0.04)	−0.04	0.09	(−0.21, 0.13)
Benefits of PAD negated by Tx refusals	0.21	0.09	(0.03, 0.38)*	0.27	0.09	(0.10, 0.44)**
PAD knowledge						
Summary						
None [reference]						
Some	−0.18	0.14	(−0.45, 0.09)	−0.16	0.13	(−0.41, 0.10)
A lot	−0.01	0.14	(−0.28, 0.27)	−0.14	0.14	(−0.40, 0.13)
Legal defensiveness						
Index total	−0.01	0.02	(−0.04, 0.02)	0.01	0.02	(−0.02, 0.04)
Model significance			R−sq = 0.0961			R−sq = 0.1184

Statistical significance: † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

versus 35% of psychologists); lack of quality information in the document (63% of psychiatrists versus 48% of social workers); and risk of violence from treatment refusals (48% of psychiatrists versus 33% of social workers).

Overall, significant differences between professions were most often found with respect to perceived clinical barriers; similarities were more often found in clinicians' views of operational barriers to PADs in the work environment. Most of significant group differences were found between social workers and psychiatrists. Psychiatrists, for the most part, were more likely to view every barrier as a potential problem for PAD implementation. In contrast, social

workers were inclined to report only that the lack of time to review documents would present a problem for PAD implementation. However, across all groups, the operational barriers were endorsed at higher rates than were the clinical barriers.

The elevated rating of operational barriers has also been found in prior research. Specifically, Backlar and colleagues (2001) found that most mental health providers were pleased with the manner in which participants completed PADs (e.g., participants took time, made informed decisions, etc); however, the same providers reported concerns regarding the lack of standards and procedures in place for accessing or sharing information related to PADs. The diminished importance of perceived clinical barriers in comparison to perceived operational barriers found in this paper may be a reflection of providers growing recognition that completed PADs are unlikely to be used to refuse all medications or hospitalizations (Srebnik & Brodoff, 2003), but instead are likely to be feasible, useful and in agreement with community standards of care (Srebnik et al., 2005).

Potential reasons for these similarities and differences between groups were then examined with multivariable analyses. In these analyses, there was a positive and significant association between working with psychotic patients more than 10% of the time and perceived clinical barriers to the implementation of PADs for psychiatrists. This suggests that psychiatrists with a larger caseload of psychotic patients are particularly concerned about the capacity of their patients to affect clinically viable PADs. There was also a positive and significant association between legal defensiveness and both the operational and clinical barriers for psychiatrists—suggesting that risk-averse psychiatrists have considerable skepticism about the feasibility and utility of PADs. For both the psychologists and social workers, the operational and clinical barriers were positively and significantly associated with the belief that treatment refusals could negate the benefits of PADs.

In addition to our conceptualizations of operational and clinical barriers to the implementation of PADs, there may well be a more general category of barriers that encompass an overall negative attitude or skepticism regarding PADs in general. Prior research indicates that these generally negative attitudes are most present in psychiatrists, who are more likely to report that PADs are not needed, that psychiatric care does not need to change in order to give patients more control over their treatment, and that the current levels of responsibility taken by patients for their care is adequate (Atkinson et al., 2004). However, in these data psychiatrists were just as likely, and in some cases, more likely than either of the two other groups to approve of the use of advance instruction or health care agents for mental health treatment (Elbogen et al., In-press). The incongruence between this and other research from these data (cf., Elbogen et al., In-press) and Atkinson and colleagues' recent research deserves continued attention. Specifically, are psychiatrists less accepting of novel treatment approaches, particularly ones aimed at increasing patient involvement and improving autonomy? Or with increased training, familiarity with PAD laws and documents, which could reduce legal defensiveness while improving communication are psychiatrists similar to other provider groups in their general support of PADs? If it is more the former than the latter, then PADs face a difficult up-hill battle as psychiatrists most often direct the type of treatment that persons with SMI receive. However, assuming that it is more of the latter, then we second Srebnik and Brodoff's (2003) call for training designed to address specific provider concerns presented in this and other articles. These and other relevant questions should continue to be explored in future research.

Study Limitations

This study has several limitations. First, these cross-sectional data cannot demonstrate causal connections between variables; rather, they show statistical associations, which may be consistent with a given causal formulation. Next, the social work sample involved some self- selection, favoring those who responded most promptly to an e-mail invitation to complete the online survey. However, there is no reason to suspect that this procedure produced a biased sample with respect to PAD attitudes. Further, our multivariate analyses controlled for a number of clinician characteristics, including age, experience with SMI patients, work setting, race, and gender. Finally, given that the multivariable models only explained a small portion of overall variance, more work is needed in defining what clinician characteristics are important in shaping their perceptions of barriers to implementation. In part these results may reflect the fact that PADs are new to many professionals we surveyed and their experiences and attitudes may be still in a formative stage.

In sum, mental health professionals' perceptions of barriers to PAD implementation vary significantly by professional group. Differences found in the psychiatrists' responses as compared to the other two professional groups likely reflect the fact that psychiatrists would have more direct involvement and responsibility in implementing PADs' instructions and procedures during a patient's incapacitating crisis. It is likely that potential challenges related to vague language, inappropriate treatment requests, and violence risk from psychotic patients resonate more with psychiatrists' role in treatment decisions and concerns regarding liability. This relationship is further highlighted by the significant and positive relationship between legal defensiveness and perceived barriers. Psychiatrists appear to differ from both psychologists and social workers in the number of barriers reported and the extent to which these barriers are viewed as problematic for PAD implementation. These findings should be replicated in future research once PADs have gained wider acceptance and routine use in mental health service systems.

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