

## DOES INVOLUNTARY OUTPATIENT COMMITMENT LEAD TO MORE INTENSIVE TREATMENT?

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Studies of involuntary outpatient commitment (OPC) among persons with severe mental illness have concluded that OPC is only effective in improving treatment outcomes when it is sustained for 6 months or longer and is combined with frequent outpatient services. This article explores factors that influence the delivery of outpatient services to subjects in a randomized trial of OPC and finds 2 general patterns. Outpatient visits were more frequent among all subjects with apparent clinical need, regardless of study assignment, and among subjects whose OPC was sustained beyond an initial court order. These results suggest that, in practice, sustained OPC represents a consensual agreement between clinicians and the court to more intensively address the complex needs of persons with severe and persistent mental illness.

Many states have implemented the use of involuntary outpatient commitment (OPC) with the goal of reducing high rates of relapse and other negative outcomes among persons with severe mental illness (SMI; Swartz & Monahan, 2001). OPC is a civil court procedure in which a judge orders a patient to comply with recommended treatment or risk sanctions such as being forcibly transported to treatment by law enforcement officers. Because OPC is potentially very effective but also coercive, it continues to raise interest and controversy among mental health policy makers and clinicians (Allen & Smith, 2001; Appelbaum, 2001; Gerbasi, Bonnie, & Binder, 2000; Lamb & Weinberger, 2000; Mattison, 2000; Mulvey, Geller, & Roth, 1987; Steadman et al., 2001; Stein & Diamond, 2000; Swartz & Monahan, 2001; Torrey & Zdanowicz, 2001). Although recent data indicate that extended periods of OPC can improve a range of treatment outcomes among persons with SMI (Swanson et al., 1997, 2000, 2001; Swartz et al., 1995, 1999, Swartz, Swanson, Hiday, et al., 2001; Swartz, Swanson, Wagner, Burns, &

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Hiday, 2001), much of the controversy surrounding OPC involves the putative mechanism by which it exerts its effect. Does OPC work primarily by applying pressure on the outpatient-committed individual to adhere to treatment or, rather, by applying pressure on clinicians to provide more aggressive care? Put in a different way, does OPC “commit the system to the patient?” (Monahan et al., 2001).

Recent studies in North Carolina have concluded that most benefits of OPC are apparent only when legal sanctions are applied for prolonged periods and are combined with frequent outpatient services (see Swartz, Swanson, Hiday, et al., 2001). However, the related observation that subjects under extended or prolonged OPC also receive more frequent outpatient treatment services raises questions about whether patients under OPC are provided differential access to outpatient care. If so, this suggests that at least part of OPC’s pressure is exerted on clinicians. However, findings of increased outpatient services received by OPC patients may merely reflect the need for more care, not the effect of court sanctions per se.

This study attempts to delineate one key aspect of the mechanism of action of OPC by examining whether individuals who have been subjected to OPC are more likely to receive more frequent outpatient services after accounting for differences in clinical need. If OPC exerts an independent effect on receipt of outpatient services, net of other clinical indicators of need, this will provide evidence that at least part of the effect of the court order is to stimulate more aggressive provision of care.

Despite some positive findings regarding the effectiveness of OPC, little is known about whether and how OPC exerts its effects on treatment providers. In the current study, we pose several empirical questions: For example, (a) Do patients subjected to OPC receive more frequent outpatient services and, if so, of which types? (b) Does sustained OPC significantly increase the frequency of services and, if so, is the effect independent of clinical need factors? This study addresses these questions by examining receipt of outpatient mental health services among subjects in the North Carolina experimental trial of OPC. We extend previous findings by investigating patterns of service receipt, as determined from clinical information system records, during the 1-year period of this study. We examine both the total volume of clinical services provided and the volume of services in subcategories including case management, outpatient counseling, medication management by a psychiatrist, outreach, and crisis services.

## Study Design and Sample

### *Selection Criteria*

Subjects were screened sequentially from a population of involuntarily hospitalized patients who had been ordered to undergo a period of OPC upon discharge and were enrolled after providing informed consent. Eligibility criteria for the study were as follows: (a) age 18 years or older; (b) diagnosis of schizophrenia, schizoaffective disorder, other psychotic disorder, or major affective disorder; (c) duration of disorder of 1 year or more; (d) significant functional impairment in activities of daily living; (e) intensive treatment within the past 2

years; (f) resident of one of nine counties participating in the study; and (g) awaiting a period of court-ordered outpatient commitment.

### *Study Group Assignment*

By special arrangement with the court, subjects who were randomly assigned to a control group were released from OPC (No-OPC group). Subjects in the experimental group (OPC group), by law, received an initial period of OPC not longer than 90 days. Thereafter, the commitment order could be renewed for up to 180 days if a psychiatrist and the court determined that the subject continued to meet legal criteria for OPC. However, subjects in the control group (No-OPC group) received immunity from any OPC during the year of the study. All subjects were paid for their participation in research interviews and received case management and other outpatient treatment at one of four participating area mental health programs that represent nine contiguous urban and rural counties. The research protocol guaranteed that all subjects received a minimum level of case management, but the intensity of case management and the provision of other services was driven by the locally developed treatment plan and was not subject to research control. Seriously violent subjects were not included in the randomized group, but they comprised a comparison group of subjects who were required to undergo at least the initial period of OPC as ordered by the court.

### *Refusal, Attrition, and Differences in Length of Time on OPC*

Of identified eligible patients, 12% refused consent to participate. Rates of refusal did not significantly vary by sex, race, or diagnosis. Subjects over age 45 were more likely to refuse than those under 45 (14% vs. 7%). The baseline sample consisted of 264 subjects. The current study examines data on randomized subjects only and omits the nonrandomized violent group from analyses. In the current intent-to-treat analysis, all data from outpatient service records are utilized so that attrition does not occur. There was no evidence of sample bias in renewal of OPC orders, except that subjects with a baseline history of medication non-compliance were more likely to receive extended OPC (renewed court orders; 40.0% vs. 18.75%). Approximately one third of OPC subjects received more than 180 days of court-ordered treatment.

### *Data Collection*

At baseline, structured interviews were conducted with each subject and with a family member or other informant who knew the respondent well. Hospital records were reviewed for additional information regarding clinical history. Follow-up interviews were conducted every 4 months with the subject, case manager, and collateral informant. Outpatient service records and hospital admissions were recorded as well.

## Measurement

*Dependent variable: outpatient clinical services.* Estimates of outpatient clinical services were derived from the clinical information systems of participating community mental health centers. Service data were grouped into one of

several service categories: case management, outpatient counseling, psychiatrist visits (mostly for medication management), outreach, crisis, rehabilitation services, and other, a miscellaneous category. Rehabilitation services were not included in these analyses due to the low frequency of these visits. A final category that summarized total volume of outpatient services during the study year was added. For all analyses, outcome data were adjusted by removing days spent hospitalized, in residential treatment facilities, or incarcerated to reflect days actually spent in the community.

*Potential predictors of outpatient service use.* Sociodemographic variables that were examined as potential predictors of receipt of outpatient services included age, gender, race, marital status, education, income, social support, and history of homelessness. Social support was assessed using a subscale of the Duke Social Support Scale (George, Blazer, & Hughes, 1989). Homelessness was measured by subject self-report.

Clinical variables that were examined included psychiatric diagnosis, psychosocial functioning, symptoms, substance abuse, prior psychiatric hospitalizations, violence, and history of noncompliance with medication. All clinical, functional, and other interview data, subject to change over time, were collected in 4-month intervals. Hospital chart diagnoses were used to code subjects into major categories of psychotic versus mood disorder. We used the Global Assessment of Functioning Scale (GAF; Endicott, Spitzer, Fleiss, & Cohen, 1976) to assess psychosocial functioning. We used the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) to assess psychiatric symptoms. Baseline medication adherence was measured by an index combining self-report and family/collateral report. We assessed substance abuse at baseline by combining interview data from three sources: medical record review, patient interview, and family/collateral interview. Similarly, violent behavior was assessed from three data sources: Subjects were asked whether they had been picked up by police or arrested for physical assault on another person, had been in fights involving physical contact, or had threatened someone with a weapon. A composite index was constructed that measured whether at least one violent act was reported by any source (Swanson, Borum, Swartz, & Hiday, 1999). We assessed insight into illness by using the Insight and Treatment Attitudes Questionnaire (ITAQ; McEvoy et al., 1989) and assessed cognitive functioning with the Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975). (For a fuller description of study measures, see Swanson et al., 2000.)

## Results

For each category of services, as well as for total outpatient visits, bivariate analyses were conducted that compared levels of services received by subjects randomized to the control group ( $n = 129$ ) versus the OPC group ( $n = 135$ ). Analyses at this stage represent an intent-to-treat approach, insofar as outpatient service records were available for the entire sample over the study year, regardless of subject attrition.

Table 1 presents the mean number of monthly outpatient visits per subject adjusted for time in the community. Standard errors appear in the first row; median values and the interquartile range are displayed in the second row for each

study group. Because of substantial skewing in the treatment data, differences between groups were assessed using nonparametric Wilcoxon rank tests.

Among respondents on OPC, only psychiatrist (primarily for medication management) visits were significantly elevated relative to services reported for control subjects. Mean outpatient visits for other service categories were generally 8% to 15% higher in the OPC condition, although none of these differences was statistically significant.

We have previously reported that improved outcomes were associated with extended periods of OPC (see Swartz, Swanson, Hiday, et al., 2001). As a result, after initial comparison between No-OPC and OPC groups, we conducted a second set of bivariate analyses that compared subjects within the OPC group ( $n = 129$ ) on the basis of their OPC renewal status. Thus, the volume of outpatient services for subjects who were exposed to only an initial period of court-ordered OPC ( $n = 82$ ) was compared to the volume of services among subjects who were receiving a renewal of the initial OPC order ( $n = 47$ ). As presented in the bottom part of Table 1b, frequency of total outpatient visits, case management, and outpatient counseling visits were all significantly higher among subjects who had had their OPC order renewed during the study year. Mean rates of outpatient counseling visits and psychiatrist (medication management) visits were substantially higher among respondents who had experienced a renewal of the OPC order (44% and 41% higher, respectively), although differences were not significant.

We next assessed zero-order Spearman rank correlations between the total service use, irrespective of category of service, and a selected group of potential baseline and study-year predictors of service use. Baseline demographic variables included age, race, gender, education, and marital status. Correlations were also examined between outpatient service use and a number of baseline community risk factors, including involvement in physical fights, substance abuse, homelessness, negative life events, and criminal victimization; all risk factors reflected experiences in the 4 months prior to study participation. The final category of baseline predictors was a selected set of clinical variables, including diagnosis (psychotic vs. affective), age of onset of illness, medication noncompliance, cognitive functioning, insight into illness (assessed by the ITAQ), psychosocial functioning (assessed by the GAF), and symptomatology (assessed by the BSI). Measures of victimization, homelessness, substance abuse, physical fighting, arrests, enforcement of OPC, medication noncompliance, and psychiatric hospital admissions were assessed at 4-month intervals over the course of the study year; all but hospital admissions were coded as dichotomous (none vs. any) variables.

To summarize these comparisons, Table 2 presents Spearman correlations showing the association between total outpatient services and the study variables mentioned earlier. Outcome service data were available for all subjects in the study, but data were missing for some subjects at certain follow-up interviews. Consequently, sample size differs for some variables assessed during the study year. Because these analyses were used for exploratory purposes only, no adjustments for multiple statistical comparisons were made and significant findings for these correlations should be interpreted with caution.

Correlations among total outpatient services and baseline study variables were generally low and nonsignificant, with the exception of marital status, psychotic diagnosis, and psychosocial functioning. Being single (living without a partner)

Table 1  
*Outpatient Service Use Under Involuntary Outpatient Commitment (OPC)*

Participant sample	Total visits	Case management
Randomized sample ( $N = 264$ ) Adjusted Rates (events/month)		
Control participants ( $n = 135$ ):		
$M$ ( $SE$ )	5.751 (0.817)	2.785 (0.528)
$Mdn$ (25% $q$ –75% $q$ ):	2.630 (0.986–7.808)	0.630 (0.086–3.993)
OPC participants ( $n = 129$ )		
$M$ ( $SE$ )	6.303 (0.895)	3.222 (0.679)
$Mdn$ (25% $q$ –75% $q$ ):	3.205 (1.479–6.900)	0.775 (0.000–3.667)
$\chi^2$ (and $p$ )		
OPC participants-only sample ( $N = 129$ ) Adjusted rates (events/month)		
Not renewed ( $n = 82$ )		
$M$ ( $SE$ )	5.263 (1.128)	2.654 (0.823)
$Mdn$ (25% $q$ –75% $q$ ):	2.712 (1.041–6.857)	0.598 (0.000–3.155)
Renewed ( $n = 47$ )		
$M$ ( $SE$ )	8.116 (1.447)	4.211 (1.187)
$Mdn$ (25% $q$ –75% $q$ ):	5.254 (2.219–10.274)	1.633 (0.353–4.500)
$\chi^2$ (and $p$ )	7.26 (.007)	3.82 (.051)

Note.  $q$  = quartile.

and having a psychotic diagnosis were significantly associated with higher volume of visits. Lower baseline functioning (greater functional impairment) was also significantly associated with higher volume of visits. Trends toward higher frequency of visits were also associated with low educational level and medication noncompliance.

Associations between subject characteristics measured during the study year and total outpatient visits indicated that services were driven at least in part by need; that is, they were associated with measures of greater clinical acuity, severity, complexity, or vulnerability. The most striking associations were between outpatient visits and psychiatric hospital readmissions during the study year. Trends toward higher visits were also associated with victimization and substance abuse. Correlations between total visits and arrests were also positive and significant. Whether assessed at baseline or during the study year, outpatient services were clearly related to indicators of need.

Next, we developed a multivariate model of total outpatient services utilization with staged stepwise regression procedures for variable selection. Data were modeled by using generalized linear models to specify a logistic link to a presumed negative binomial distribution. The latter was selected as preferable to a Poisson procedure because of overdispersion of data. The multivariate modeling involved several steps. An initial model was tested that contained a dichotomous variable representing randomization group (No-OPC vs. OPC) as well as the full set of baseline variables. Backward stepwise regression was used to eliminate nonsignificant variables. For the first stage of modeling, exclusion/inclusion criteria were set at a liberal probability level of  $p \leq .15$ . For the final model stage,



Outpatient counseling	Physician	Outreach	Crisis
0.997 (0.118) 0.583 (0.167–1.417)	0.424 (0.054) 0.167 (0.000–0.595)	0.717 (0.156) 0.083 (0.000–0.583)	0.183 (0.071) 0.000 (0.000–0.000)
1.076 (0.149) 0.583 (0.143–1.148)	1.076 (0.149) 0.406 (0.083–1.143) 10.858 (.001)	0.820 (0.185) 0.000 (0.000–0.500)	0.109 (0.048) 0.000 (0.000–0.000)
0.928 (0.163) 0.583 (0.104–1.183)	0.569 (0.067) 0.208 (0.000–0.733)	0.484 (0.165) 0.000 (0.000–0.350)	0.125 (0.074) 0.000 (0.000–0.000)
1.335 (0.294) 0.699 (0.250–1.301)	0.801 (0.118) 0.750 (0.000–1.333)	1.405 (0.408) 0.333 (0.000–1.633) 15.31 (.000)	0.080 (0.035) 0.000 (0.000–0.000)

the significance level was decreased to  $p \leq .10$ . Variables selected at the first stage were carried forward to the second stage where they were again tested for inclusion. After testing for the effect of OPC versus no OPC as randomly assigned, we developed models that examined the effect of extended OPC, that is, that used a variable denoting the renewal of the OPC order during the year. As with the bivariate analyses described earlier, this procedure was repeated on a subset of data restricted to the OPC cohort only.

Table 3 presents first-stage multivariate models that regress total outpatient visits on baseline subject characteristics and corroborates the bivariate relationship between lower psychosocial functioning status and increased outpatient visits. The rate of visits significantly increased with low levels of baseline psychosocial functioning (reflected in the GAF score), low insight into illness (reflected in the ITAQ), elevated symptomatology (measured by the BSI), and a history of medication noncompliance. These relationships with low insight, symptomatology, and noncompliance were not apparent in the correlation analyses (see Table 2), probably as a result of suppressor effects. Subjects who were randomly assigned to OPC versus no-OPC groups did not significantly differ in total outpatient visit frequency during the study year.

In the second stage of multivariate analysis that incorporated variables from the study year (Model 2), baseline medication noncompliance was no longer significantly associated with total services, whereas measures of baseline psychosocial functioning, insight into illness, and symptomatology continued to be significant. Among study-year variables, psychiatric hospital readmissions were

Table 2

*Association Between Study Characteristics and Service Use:  
Spearman Correlation Coefficients*

Predictor	Total services	
	rho	p
Baseline predictors ( <i>n</i> = 264)		
Age	−0.009	
Male	0.049	
African-American	−0.065	
Married/cohabiting	−0.149	.015
Education	−0.103	
Social support	−0.101	
Fighting	0.060	
Substance abuse	−0.029	
Homeless	0.032	
Victimization	0.020	
Cognitive functioning	−0.081	
Insight into illness (ITAQ)	−0.082	
Medication noncompliance	0.104	
Negative life events	−0.013	
Psychotic diagnosis	0.125	.043
Age of onset	−0.024	
Psychosocial functioning	−0.155	.012
Symptomatology	0.078	
Study year predictors		
Victimization ( <i>n</i> = 219)	0.125	
Arrests ( <i>n</i> = 236)	0.154	.018
Psychiatric Admissions ( <i>n</i> = 264)	0.243	.000
Fighting ( <i>n</i> = 216)	0.099	
Homelessness ( <i>n</i> = 220)	−0.005	
OPC enforcement ( <i>n</i> = 209)	0.095	
Substance abuse ( <i>n</i> = 216)	0.119	
Medication noncompliance ( <i>n</i> = 237)	0.059	

*Note.* ITAQ = Insight and Treatment Attitudes Questionnaire; OPC = involuntary outpatient commitment.

associated with higher rates of outpatient visits. Random assignment to the OPC versus the no-OPC group remained nonsignificant.

Repeating these multivariate analyses within the subset of subjects who received OPC yielded somewhat similar results. In this model, those who were married (or living as married) utilized outpatient services with lower frequency. Higher frequency of service use was found among subjects with lower psychosocial functioning (GAF) and among subjects with substance abuse problems (Model 3). After study-year variables were incorporated into Model 4, these variables remained significant and being of African American descent became significant; in addition, significant study-year variables that were associated with increased levels of services included medication noncompliance and psychiatric hospital readmissions. Subjects whose OPC was renewed used outpatient services with significantly more frequency during the year (Model 4).

A final bivariate analysis assessed the range or diversity of outpatient services





received by subjects (see Table 4). As is apparent in Table 4, the probability of receiving four or more of types of outpatient service was higher for clients whose outpatient commitment status was renewed, compared with subjects who were released from OPC or whose court orders were not renewed.

### Discussion

This article explores factors that influence the delivery of outpatient services to clients served by one of four community mental health centers in central North Carolina over the course of a 1-year study of involuntary OPC. Of the many factors examined, two general patterns emerged: Outpatients visits were more frequent among subjects with apparent clinical need and among subjects whose outpatient commitment was renewed and who thus received sustained periods of OPC.

Among randomized respondents with any exposure to OPC regardless of duration, only psychiatrist (medication management) visits were significantly more frequent relative to services reported for control subjects. Within the OPC group, frequency of total outpatient visits, case management, and outpatient counseling visits was significantly higher among subjects who had had their OPC order renewed during the study year. The impact of clinical need factors on receipt of services was evident at the outset of the study and continued throughout the year. Bivariate analyses showed that single marital status, low psychosocial functioning, and a diagnosis of a psychotic disorder were associated with higher levels of total outpatient visits. During the study year, the occurrence of arrests and psychiatric hospital readmission were also associated with increased visits.

Thus, by and large, the OPC order per se, unless it was renewed, exerted little effect on total outpatient services received. It is not entirely clear why subjects on OPC, regardless of renewal of the order, received more frequent psychiatrist visits compared with noncommitted subjects as demonstrated in Table 1. One plausible explanation is that outpatient programs may have consistently focused their efforts on optimizing pharmacologic regimens and reducing medication noncompliance among OPC subjects throughout the study year, even if these subjects were not under an OPC order during the entire study year. Thus, there may have been a "medication management effect" that followed initial assignment to the OPC group and persisted even after the OPC order was allowed to lapse. Other categories of services may have been driven more by the subject's specific need factors. In addition, because the psychiatrist is the final arbiter of the decision to

Table 4

*Percentage of Subjects by Types of Outpatient Services  
Under Outpatient Commitment*

Subject	Types of services provided	
	3 service types or less	4 or more service types
Control subjects (No OPC)	64.40%	35.60%
OPC: No renewal	72.00%	28.10%
OPC: Renewal	51.10%	48.90%

*Note.*  $\chi^2 (2) = 5.68, p = .058$ .

provide OPC, closer physician monitoring was likely seen as appropriate under the experiment, although this was not a study requirement.

Consistent with previous reports from this study that have demonstrated a relationship between extended OPC and the receipt of more frequent services (see Swanson, Swartz, Borum, et al., 2000), we conducted a second analysis of the service data restricted to OPC subjects, compared those whose OPC was renewed to those whose OPC was not renewed. Among subjects who experienced extended OPC, the frequency of clinical services increased significantly relative to subjects whose outpatient commitment was limited to the initial order. An analysis of the range of clinical services provided found that subjects whose court order was renewed were more likely than nonrenewed subjects to have received four or more different types of services. That is, OPC renewal was not only associated with a higher absolute number of clinical visits, but also with a greater range or diversity of services.

Multivariate analysis reinforced these findings. When OPC and no-OPC cohorts were compared, baseline indicators of need, including low psychosocial functioning, low insight into illness, medication noncompliance, and increased symptomatology, predicted significantly higher frequency of service utilization during the study year. Services were used less frequently by African American subjects and those who were married or cohabiting. Marital status and its attendant social support may have indicated lower need for services or served as a proxy measure of higher overall functioning. Lower receipt of services by African Americans may reflect bias in services offered or, alternatively, less acceptability of the services offered to these subjects. Of potential study-year indicators of need for services, only the occurrence of psychiatric hospital readmission was associated with greater average frequency of service use. Although greater clinical need was associated with more service use, assignment to the OPC group per se was not, which suggests that brief (nonextended) periods of court-ordered treatment did not influence providers to provide more intensive services beyond those dictated by other clinical need factors.

Further multivariate analyses that contrasted services utilization among renewed and nonrenewed OPC subjects revealed similar findings for the effects of race, marital status, and psychosocial functioning, as well as other study-year markers of need. However, in these analyses, renewed OPC was significantly associated with greater frequency of clinical services, which suggests that whose court orders were renewed became a particular focus of clinical attention, regardless of other clinical need factors. This suggests that the court order does exert an effect on services received, independent of measured indicators of need. However, the court orders over the course of time should not be viewed as the unilateral directives of judges, but rather as a consensual agreement to prioritize care for subjects under renewed OPC. Hence, in actual practice, OPC renewal and other clinical need factors cannot be viewed as independent factors.

As should be clear, this effectiveness trial deviated in several ways from a strict randomized controlled trial. It was impossible to experimentally control renewals of OPC and to blind providers and the court to the experimental condition. As a result, OPC duration varied as clinicians and the court applied the legal criteria for renewal of OPC orders. This could have lead to a biased conclusion about the relationship between OPC renewal and treatment intensity.

This would be particularly problematic if higher risk subjects were less likely to have their court orders renewed. In fact, the legal criteria for OPC work in the opposite direction because these criteria require a finding that a subject's mental status impairs his or her ability to comply voluntarily with treatment. We have also reported elsewhere that respondents who had been least compliant with medications at the outset of the study were significantly more likely to have their OPC renewed after the initial court order expired (Swanson et al., 2000). This suggests that more, and not less, challenging subjects were selected for OPC renewal. It is possible, nonetheless, that other unknown, unmeasured factors could have lead to selection of more tractable subjects into the long-term OPC group.

As a second deviation from a strict randomized controlled design, treatment intensity was allowed to vary naturalistically. Some subjects received more frequent outpatient services for a variety of reasons not controlled by random assignment. It is thus possible that some unspecified selection factors contributed indirectly to the decision to renew the OPC order. Hence, these results utilizing data not subject to randomization should be interpreted cautiously.

These observations suggest that OPC played a complex role in increasing services, even within the constraints of a randomized trial. Clearly, extended OPC was associated with patients receiving more intensive treatment—but what accounts for this phenomenon? Our measure of service intensity merely indicates how frequently encounters occurred between two sets of actors: patients and clinicians. In the context of OPC, these encounters may have been driven by patients' behavior, insofar as patients felt obliged to comply with treatment under the court order. However, these treatment encounters may also have been driven by clinicians' behavior, insofar as clinicians may have felt obligated by OPC orders (i.e., to act more aggressively to engage OPC-ordered patients in treatment) or to use OPC orders to warn patients of the consequences of treatment noncompliance. It is likely that both of these mechanisms operated simultaneously.

The interpretation of these findings is made even more complex by the fact that the clinicians were, in many cases, the same clinicians who were involved in deciding whether or not to initiate renewal of OPC orders. A clinician's decision to recommend renewal of an OPC order typically signaled the clinician's judgment that the patient's degree of impairment warranted continuation of a more intensive regimen of treatment and services than the patient would likely receive without extended OPC. However, this judgment may have been premised, to a greater or lesser degree, on the clinician's own observation of the "patient's problem with compliance" or, alternatively, the clinician's perception of the "mental health system's problem" in delivering appropriate follow-up services to particular sorts of patients—perhaps those who need intensive treatment-most but are least able to access it on their own.

Consistent with the legal rationale for OPC, a clinician may believe that renewal is warranted because the patient lacks insight or ability to comply voluntarily with recommended treatment—without which the patient is deemed likely to deteriorate to the point of dangerousness. However, the same decision (to recommend renewal of OPC) might be based on a quite different rationale as-well: The clinician may believe that a court order will provide a necessary "stimulus" to the mental health service system to selectively provide more intensive follow-up to a given patient. The clinician may believe that an OPC

order will provide a useful "tool" for leveraging additional services for the patient, while at the same time leveraging better compliance behavior from the patient.

In addition to a formal court order for a patient to comply with treatment, OPC renewal may thus represent an informal mandate for the mental health system to provide intensified services to a patient in need of, and likely to benefit from, sustained services over time. Nonrenewal may follow for subjects who are not seen as likely to benefit from such an extended intervention given available treatment resources. In our study, a combined clinical and judicial judgment about the potential need for, and benefit of, sustained OPC tended to select the most persistently impaired subjects; however, other unmeasured need factors may have been operative.

When the process of selection for OPC renewal occurred, outcomes improved, as we have reported elsewhere (Swartz, Swanson, Hiday, et al., 2001; Swartz, Swanson, Wagner, et al., 2001). Subjects whose court orders were renewed received a benefit both in terms of service intensity and measurable outcomes of treatment.

In sum, receipt of outpatient clinical services was influenced by two interrelated factors: clinical need and extended OPC orders. These results reinforce findings from previous studies that OPC can improve outcomes if sustained over time and if linked to a range of relatively intensive services. It also suggests that, in practice, sustained OPC represents a consensual agreement between clinicians and the court to more intensively address the complex needs of persons with severe and persistent mental illness.

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