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Perceptions of hospitalization-related trauma and treatment participation among individuals with psychotic disorders

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Abstract

Objective—The purpose of this study was to assess the extent to which psychiatric hospitalizations are perceived as traumatic and associations of such experiences with treatment participation.

Methods—First-admissions (n=395) with psychotic disorders participating in the Suffolk County Mental Health Project were interviewed at 10-year follow-up. We examined associations of perceived trauma and distressing or coercive experiences over 10 years with patient characteristics and treatment participation.

Results—Sixty-nine percent of participants perceived at least one hospitalization as traumatic or extremely distressing. Perceived trauma was more common among females than males and homemakers compared with full-time workers. Trauma perception was not associated with treatment-seeking or time in treatment. However, reporting forced medication was associated with reduced time in treatment, especially for participants with schizophrenia spectrum disorders.

Conclusions—Although perceptions of trauma during psychiatric hospitalization are common, they may be unrelated to treatment participation. However, we found modest evidence of a link between coercive experiences and reduced time treatment.

There is growing evidence that experiences related to psychiatric treatment, especially those related to coercion and patient safety, are perceived as traumatic by treatment recipients (1, 2). Not surprisingly, evidence suggests that traumatic and coercive experiences during hospitalization are negatively associated with patient satisfaction with treatment. In addition, there is limited evidence that these experiences are related to willingness to engage in future treatment (3–5). We aimed to address this question by focusing on perceptions of trauma

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due to psychiatric hospitalization, specific distressing or coercive experiences during hospitalization, and their associations with treatment participation.

The aims of our study were to examine the prevalence of perceived trauma and specific distressing experiences during hospitalization, explore whether patient characteristics and specific experiences are related to perceived trauma, and assess whether perceived trauma and specific experiences are associated with treatment participation among a representative cohort of first admission patients with psychotic disorders who were followed for 10 years. We hypothesized that perceived trauma and endorsement of specific distressing experiences would be associated with lower treatment participation. Sensitivity analyses were included to assess whether the associations were influenced by paranoid ideation at the time of interview.

Methods

The sample was drawn from the 10-year follow-up of the Suffolk County Mental Health Project, a prospective cohort study of first-admission patients with psychosis hospitalized between 1989 and 1995 in Suffolk County, NY (6). The study was approved by the Committee on Research Involving Human Subjects of Stony Brook University and the institutional review boards of participating hospitals. Written informed consent, or parental consent for those under 18, was obtained from all participants. Face-to-face interviews took place at index admission, 6 months, 24 months, 48 months, and 10 years. This study analyzed data from 395 participants (67% of the 586 original cohort members alive at year 10) who completed the hospital trauma module at the 10-year assessment.

Diagnoses were based on 24-month follow-up consensus research diagnoses (7). Diagnoses were categorized into DSM-IV schizophrenia spectrum disorders, bipolar disorder with psychotic features, and other psychotic disorders.

Perceived trauma associated with psychiatric hospitalization was assessed by an interviewer-administered questionnaire. Perceived trauma was indicated by a positive response to the question: “Was (were any of) your hospitalization(s) traumatic or extremely distressing to you?” Next, in the context of being asked to describe distressing experiences that happened in the hospital, participants were asked whether they experienced: involuntary admission, being put in restraints, being put in seclusion, physical abuse by hospital staff, physical abuse by another patient, being threatened or endangered, receiving forced medication, and overcrowding. These are referred to as “specific experiences.”

Treatment participation was assessed in two ways. First, respondents were asked: “Sometimes people think they might need mental health services but don’t go. Was there ever a time in the past 6 years that you thought you might need the services of a mental health professional but didn’t go?” Positive responses indicated having forgone needed treatment during the past 6 years (the interval from the last face-to-face contact). Second, we examined time spent in treatment across the 10 years of follow-up. This was coded by the interviewer from extensive information on treatment history obtained at each follow-up. Information sources included the participant interview, medical records, and interviews with

a significant other. Time in treatment represented the percentage of time that the participant received any form of treatment. Based on the distribution of this variable, it was categorized as <75% vs. 75% or more.

Other measures, details of which are available in the online appendix, included age at baseline, sex, race (non-Hispanic white/non-Hispanic black/other), social class of origin (low/medium/high), education at 10 years (high school or less vs. more than high school), work/school status during the month before first hospitalization (full-time, part-time, none, or homemaker only), marital status at 10 years (married vs. not married), whether the participant was living independently prior to first hospitalization (yes/no), baseline insurance type (none/public/private), whether the first hospitalization was involuntary according to hospital records, rehospitalization during follow-up, state hospital admission over follow-up (yes/no), illness course (full remission vs. partial or no remission), and severity of psychopathology at the 10-year follow-up (Brief Psychiatric Rating Scale [BPRS] total score) (8).

Logistic regression was used to assess the associations of patient characteristics with perceived trauma, adjusted for rehospitalization and 10-year BPRS score. We also examined the association of perceived trauma and specific experiences with treatment participation (failure to seek treatment and time in treatment), adjusting for age, sex, race, and 10-year BPRS score. Analyses were conducted using Stata 11 (9). Missing data were accounted for by listwise deletion. Sensitivity analyses assessed whether detected associations may have been influenced by paranoid ideation at the time of interview, using the 10-year BPRS “suspiciousness” item.

Results

Overall, 69% of participants reported that at least one of their hospitalizations was traumatic or extremely distressing. The most commonly-reported experiences were involuntary hospitalization (62%), being put in restraints (40%), and being forced to take medication (37%). The least commonly reported experiences were physical abuse by staff (6%) or other patients (9%). Participants who reported perceived trauma were more likely to report each of the specific experiences than those who did not (Table A3). Females were more likely than males to report perceived trauma (adjusted odds ratio [aOR]=1.97, 95% confidence interval [CI]=1.19–3.27, $p=.009$), as were homemakers compared to those fully employed (aOR=6.05, 95% CI=1.33–27.43, $p=.020$). Because no male participants were homemakers, we re-estimated this association among females only, and it remained significant (aOR=5.94, 95% CI=1.22–28.98, $p=.028$). Other characteristics were not associated with perceived trauma (see appendix).

Ninety-one participants (23%) reported foregoing needed treatment at least once during the past six years. This did not differ between those who did and did not report perceived trauma and was not associated with any of the specific experiences (data not shown).

One hundred and seventy-three participants (58%) were in treatment at least 75% of the time over follow-up. Associations of perceived trauma and specific experiences with time in

treatment are presented in Table 1. The point estimates for all associations except overcrowding were less than 1.00, indicating that those who endorsed these items were less likely to spend at least 75% of time in treatment. In the full sample, forced medication was significantly associated with reduced time in treatment (aOR=.38, 95% CI=.21-.69, p=.001). Among those with a schizophrenia spectrum diagnosis, forced medication was again associated with spending less time in treatment, and the association was stronger than that seen in the full sample (OR=.16, 95% CI=.04-.64, p=.010). Among those with bipolar disorder with psychosis and those with other psychotic disorders, no associations were significant at the $p < .05$ level. Of the associations in Table 1, only the association between forced medication and time in treatment for the whole sample was statistically significant using a Bonferroni-corrected alpha of .0056. These associations were not affected by inclusion of participant suspiciousness at 10 years.

Reduced time in treatment may result from recovery as well as disengagement with treatment. We therefore assessed whether those who did and did not report forced medication differed on three indicators of recovery: 10-year BPRS score, change from baseline to 10-year BPRS score, and 10-year remission status. No significant differences were observed.

Discussion

More than two-thirds of participants with psychotic disorders had at least one hospitalization that they found to be traumatic or extremely distressing. This perception was associated with participant sex and employment status but not other characteristics analyzed in this report. We did not find associations between perceived trauma and two measures of treatment participation. However, self-reported forced medication was significantly associated with less time spent in treatment over the ten-year period.

Perceived trauma was more common among females than males. While this finding is novel in the context of psychiatric hospitalization, it is consistent with sex differences in the risk of PTSD following a traumatic event and with gender differences in trauma and PTSD exposures in this cohort (10). Trauma perception also differed by employment status. This may be related to the role of social support in trauma response and is consistent with evidence that social support is associated with both employment status and traumatic stress among women (11).

Perceived trauma was not associated with foregoing needed treatment or time in treatment in our study. It may be that while the majority of patients have experienced trauma during psychiatric hospitalization, these experiences do not outweigh the benefits of treatment.

Although our study design did not allow for temporal ordering between specific experiences and treatment participation, the association we found between forced medication and time in treatment may indicate that coercive experiences may be associated with reduced treatment participation. Our findings mirror the mixed results of previous studies, in that forced medication was the only coercive event significantly associated with treatment participation in the full sample (4, 5, 12, 13). This association appeared to differ by diagnostic group in

that it was strongest among those with schizophrenia and weaker among those with bipolar psychosis and other psychotic disorders. We did not find evidence that those who reported forced medication experienced greater recovery than those who did not, which reduces the plausibility of recovery as an explanation for the association between forced medication and time in treatment. However, we cannot rule out that poor insight into need for care affects both treatment participation and the probability of being forced to take medication (14).

Although this study was based on a relatively large and representative sample of first-admission patients recruited from a variety of facilities, the study's limitations should be considered when interpreting the results. As mentioned above, the temporal ordering of specific experiences and trauma with treatment participation could not be established, preventing us from being able to infer causal relationships. Second, assessment of trauma and specific experiences relied on self-report, which may have been subject to recall bias or influenced by the participant's mental state. We were able to consider the latter in sensitivity analyses and adjustment for 10-year BPRS score. While we cannot measure recall bias, our findings are in line with other reports (2). Third, there was attrition over the 10-year follow-up, and 84% of the 10 year participant cohort completed the hospital trauma module. Fourth, although we controlled for illness severity and stratified on diagnosis type, reasons for foregoing or spending less time in treatment were unknown. Fifth, the trauma questionnaire and measures of treatment participation were developed for this study. Finally, because our sample is from one catchment area, the results may not generalize to other populations.

In the context of these limitations, this study extends findings from previous studies suggesting that over two-thirds (69% in this study) of patients with psychotic disorders perceive their hospitalizations as traumatic. While trauma perception was not associated with treatment participation, reporting forced medication was associated with reduced time in treatment. This association varied by diagnostic group. Future studies would benefit from including larger samples with specific diagnoses in order to explore these differences further.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

1. Cohen LJ. Psychiatric hospitalization as an experience of trauma. *Archives of Psychiatric Nursing*. 1994; 8:78–81. [PubMed: 8042870]

2. Frueh BC, Knapp RG, Cusack KJ, et al. Special section on seclusion and restraint: patients' reports of traumatic or harmful experiences within the psychiatric setting. *Psychiatric Services*. 2005; 56:1123. [PubMed: 16148328]
3. Grubaugh AL, Frueh BC, Zinzow HM, et al. Patients' perceptions of care and safety within psychiatric settings. *Psychological Services*. 2007; 4:193–201.
4. O'Donoghue B, Lyne J, Hill M, et al. Physical coercion, perceived pressures and procedural justice in the involuntary admission and future engagement with mental health services. *European Psychiatry*. 2011; 26:208–214. [PubMed: 20538433]
5. Swartz MS, Swanson JW, Hannon MJ. Does fear of coercion keep people away from mental health treatment? Evidence from a survey of persons with schizophrenia and mental health professionals. *Behavioral sciences & the law*. 2003; 21:459–472. [PubMed: 12898502]
6. Bromet EJ, Schwartz JE, Fennig S, et al. The epidemiology of psychosis: The Suffolk County mental health project. *Schizophrenia bulletin*. 1992; 18:243. [PubMed: 1621071]
7. Schwartz JE, Fennig S, Tanenberg-Karant M, et al. Congruence of diagnoses 2 years after a first-admission diagnosis of psychosis. *Archives of General Psychiatry*. 2000; 57:593. [PubMed: 10839338]
8. Woerner MG, Mannuzza S, Kane JM. Anchoring the BPRS: an aid to improved reliability. *Psychopharmacology bulletin*. 1988; 24:112–117. [PubMed: 3387514]
9. StataCorp. *Stata Statistical Software: Release 11*. Nov.2009
10. Neria Y, Bromet EJ, Sievers S, et al. Trauma exposure and posttraumatic stress disorder in psychosis: Findings from a first-admission cohort. *Journal of consulting and clinical psychology*. 2002; 70:246. [PubMed: 11860051]
11. Thompson MP, Kaslow NJ, Kingree J, et al. Partner violence, social support, and distress among inner-city African American women. *American Journal of Community Psychology*. 2000; 28:127–143. [PubMed: 10824277]
12. Steinert T, Pfiffner C, Jaeger S, et al. Impact of involuntary hospitalisation of patients with schizophrenic and schizoaffective disorders on medication adherence and rehospitalisation: A two-year follow-up. *International clinical psychopharmacology*. 2011; 26:e151.
13. Bindman J, Reid Y, Szmukler G, et al. Perceived coercion at admission to psychiatric hospital and engagement with follow-up. *Social psychiatry and psychiatric epidemiology*. 2005; 40:160–166. [PubMed: 15685408]
14. McEvoy JP, Applebaum PS, Apperson LJ, et al. Why must some schizophrenic patients be involuntarily committed? The role of insight. *Comprehensive psychiatry*. 1989; 30:13–17. [PubMed: 2564330]

Associations^a of perceived trauma and specific hospitalization-related experiences with spending 75% or more time in treatment over 10 years, overall and by diagnostic subgroup

Table 1

	Full sample			Schizophrenia spectrum disorder			Bipolar disorder with psychosis			Other psychotic disorders		
	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
Perceived trauma	.79	.44-1.45	.451	.22	.05-1.08	.062	.92	.30-2.87	.887	1.10	.34-3.62	.873
Hospitalized against will	.90	.50-1.59	.709	.21	.04-1.12	.068	.52	.17-1.61	.256	1.20	.37-3.88	.762
Restraints	.58	.32-1.02	.061	.82	.25-2.72	.750	.37	.12-1.09	.070	.44	.12-1.64	.221
Seclusion	.69	.34-1.40	.302	.24	.06-1.00	.051	.49	.13-1.86	.291	2.92	.44-19.29	.265
Abuse by staff	.40	.12-1.34	.139	.24	.03-2.07	.193	.54	.04-6.94	.639	.53	.04-7.65	.644
Abuse by patients	.59	.22-1.58	.297	.47	.09-2.51	.379	.71	.10-5.08	.733	.66	.09-5.06	.690
Threatened/endangered	.71	.36-1.40	.326	.90	.23-3.50	.880	.27	.07-1.08	.065	1.36	.34-5.36	.663
Forced medication	.38	.21-.69	.001 ^b	.16	.04-.64	.010	.34	.11-1.01	.053	.45	.11-1.74	.245
Overcrowding	1.98	.89-4.44	.096	3.46	.52-22.81	.198	.62	.15-2.57	.514	13.66	.83-225.37	.068

^aModels are controlled for age, sex, race, and BPRS score. For bipolar subgroup, race is controlled by restricting to non-blacks due to sparse data.

^bp < Bonferroni-corrected alpha: .05/9 = .0056