

MENTAL HEALTH CARE NEEDS OF INVOLUNTARILY ADMITTED INPATIENTS

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Abstract

Aim: This study examined the association of mental health care unmet needs with involuntary shortest-stay hospitalization in routine psychiatric practice.

Method: 212 adult persons with ICD-10 mental disorders who were consecutively admitted to a 420-bed psychiatric hospital and discharged within 1-7 days were recruited. Participants were evaluated with the Camberwell Assessment of Need Scale (CANSAS-P) at discharge. Patients were grouped voluntary (VA; n=171) or involuntary (IA; n=41) admission.

Results: IA persons with psychotic, neurotic, and personality disorders had a significantly lower mean number of needs (1.4 times less) and unmet needs (1.7 times less) compared to VA persons; they reported lower individual unmet needs including accommodation, food, home, self-care, physical health, treatment, company, basic education, telephone, transport, money, and welfare benefits. Four CANSAS-P domain scores were also found significantly lower in IA than VA inpatients. However, between-group differences for 'social disability' domain scores were unrelated to an effect of age, sex, length of stay, and diagnosis; while 'information processing disability', 'emotional processing disability', and 'coping disability' domain scores were found to be related to diagnoses of inpatients.

Conclusion: These results provide support for the notion that involuntary admission of persons with psychotic, neurotic, and personality disorders is associated with lower or under-estimated perceived mental health care unmet needs compared to voluntary admission.

Key words: Involuntary admission, unmet needs, socio-demographic and clinical features

Introduction

Involuntary hospital admission is specific to psychiatry, assuming that the illness makes it difficult for patients to accept treatment^{1,2}. Involuntary psychiatric admission (IA) remains the most restrictive intervention for treatment of mentally disordered patients. IA inpatients have higher suicide rates, lower levels of social functioning, and equal levels of general psychopathology and treatment compliance; they are more likely to be readmitted compulsorily after their index hospitalisation³⁻⁵.

Assessment of mental health care needs is an essential element of psychiatric health care planning and evaluation⁶⁻⁹. The most frequently detected needs of persons with psychosis involve psychological distress, house upkeep, food, information on condition and treatment¹⁰⁻¹². Studies on the needs of acute psychiatric patients are scant¹³. Unmet needs of patients with schizophrenia and schizoaffective disorder strongly correlate with aggressive behavior¹⁴ and quality-of-life outcomes¹⁵. Personality disorder was found to be independently associated with more unmet needs among psychiatric inpatients¹⁶. There are, however, no sufficiently

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powered studies that identify unmet needs of involuntary inpatients. Assessment of needs for involuntarily admitted patients is warranted to meet the needs associated with complex and mixed disorders¹⁷.

The present study explored the the following questions:

- 1 Are there substantial differences in the number of unmet needs between IA and VA groups?
- 2 What are the between-group differences in frequency of specific unmet needs between IA and VA patients?
- 3 Are there differences between IA and VA groups in mental health care needs related to demographic and clinical factors?

The authors hypothesized that involuntary admission of persons with mental disorders would be associated with greater unmet health care needs.

Methods

Study design

The data for this study were collected at Sha'ar Menashe Mental Health Center from March 1, 2012 through February 28, 2013. Inclusion criteria: unselected voluntary and civil involuntary admissions in five acute departments; age between 18 and 66 years and duration of hospitalization no more than 7 days (according to the first order of the District Psychiatrist for IA). Involuntary admissions followed national legislation. At the time of the study most of the acute psychiatric patients were admitted to five wards: 4 closed wards (including psychogeriatric department), and one open acute ward. The present study was conducted on the shortest-stay cohort of persons that were admitted during the study period, either voluntarily or under a civil involuntary hospitalization order.

Involuntary hospitalization in Israel

In Israel involuntary psychiatric hospitalization is regulated by the Law for the Treatment of the Mentally Ill, 1991¹⁸. The legislative criteria for involuntary commitment in Israel are: (a) acute psychotic state; (b) physical danger to self or others, and (c) a causative link between the psychiatric disorder and the dangerous behavior. The District Psychiatrist is authorized to issue an involuntary hospitalization order (twice for 7 days each time) based on psychiatric examination conducted by a senior psychiatrist. During this period of time, some patients will sign-in as voluntary patients. If the patient does not sign in voluntarily, then he or she is typically discharged after 7-14 days, unless commitment criteria clearly continue to be present. In that case, a District Psychiatric Board (DPB)

hearing is scheduled to determine whether or not the legal standard is met for longer-term involuntary hospitalization. The DPB reviews all involuntary commitments, both in the civil and criminal domains. Patients hospitalized under a District Psychiatrist's Order appear before the DPB within 14 days after involuntary hospitalization and every three months thereafter¹⁹. Since 2004, all patients appearing before a DPB are entitled to receive legal representation. Its purpose is to safeguard the rights of the mentally ill facing compulsory commitment and to help them express their opinion regarding the treatment received and their desire to be discharged from involuntary hospitalization^{18 20 21}.

During the study period, once admitted, each patient was evaluated by a physician and a treatment team to determine the patient's diagnosis, which was based on the ICD-10 Classification of Mental and Behavioral Disorders²². When patients were admitted several times, only the first admission was recorded. The following variables were recorded: age, gender, and marital status, education, ICD-10 diagnosis upon admission and at discharge, legal status or the type of admission according to law (voluntary or involuntary), length of present hospitalization (days), number of admissions and duration of hospitalizations for one year before the present admission, reasons for the admission and discharge.

Procedure

The Israeli Law for the Treatment of the Mentally Ill 1991¹⁸ allows for involuntary commitment under the following circumstances : (a) acute psychotic state; (b) physical danger to self or others, and (c) causative link between psychiatric disorder and dangerous behavior. The District Psychiatrist is authorized to issue an involuntary hospitalization order twice 7 days apart, based on a psychiatric examination. The District Psychiatric Board (DPB) can extend involuntary hospitalization following a hearing held within 14 days of involuntary admission and every three months thereafter¹⁹.

When patients were admitted several times, only the first admission was recorded. The following variables were recorded: age, gender, marital status, education, ICD-10 diagnosis upon admission and at discharge, legal status of admission (voluntary or involuntary), length of current hospitalization (days), number of admissions and duration of hospitalizations in the year before the current hospitalization, reasons for the admissions and discharges. The Sha'ar Menashe Internal Review Board approved the study.

Sample

Two-hundred-twelve unselected inpatients admitted during one year and discharged after seven (3.9 ± 1.9) days of hospitalization. Among them, 144 (67.9%) men, mean age 36.3 ± 11.3 years (range: 18-66), 215 individuals (58.1%) were single. Mean extent of education was 11.9 ± 3.1 years. Mean age of application for psychiatric care was 26.2 ± 6.5 years, and mean duration of disorder was 21.1 ± 10.2 years. Among 212 patients in the sample 118 (55.7%) presented with ICD-10 schizophrenia spectrum disorders (F20-F29), 25 (11.8%) personality and behavior disorders (F60-F69), 25 (11.8%) with neurotic, stress-related and somatoform disorders (F40-F48), 22 (10.4%) with mood [affective] disorders (F30-F39), 10 (4.7%) with organic mental disorders and intellectual disabilities (F00-F09; F70-F79), and 12 (5.7%) with mental disorders due to psychoactive substance use (F10-F19).

Assessments

Diagnosis was based on a face-to-face interview, medical records, and consensus between two senior psychiatrists. All participants were asked to complete the Camberwell Assessment of Need scale (patient-rated short form; CANSAS-P^{8 9 23}). The CANSAS-P assesses needs over the past month for 22 health and social items. The need rating for each item is 0; 'no need' (no problems at all in the domain), 1; 'met need' (no or moderate problems in the domain because of help received), or 2; 'unmet need' (a serious problem, regardless of help provided). Cronbach's α coefficient was 0.85.

The CANSAS-S items appear to fit four CANSAS-P domains. 'Social disability' (5 items): accommodation, food, looking after the home, physical health, information on condition and treatment. 'Information processing disability' (4 items): basic education, telephone, transportation, welfare benefits. 'Emotional processing disability' (6 items): daytime activities, psychotic symptoms, psychological distress, company, intimate relationships, and sexual expression. 'Coping disability' (5 items): self-care, safety to self, safety to others, drugs, child care²³.

Statistical analysis

This report is based on cross-sectional data concerning the legal (voluntary and involuntary) commitment of persons. Univariate comparisons between IA and VA patient groups were evaluated with the χ^2 test for equality of proportions for categorical variables and the 2-tailed t test, or the Wilcoxon signed rank test (z)

for assessing continuous variables. The analysis of variance (ANOVA) was applied in order to compare IA and VA patient groups controlling for the following variables: age, sex, length of stay, and diagnosis. Mean values with standard deviation (SD) or standard error (SE) are presented. For all analyses, the level of statistical significance was defined as α less than 0.05. All statistical analyses were performed using the Number Cruncher Statistical Systems²⁴.

Results

Participants

Among 212 subjects 41 or 19.3% were admitted involuntarily, and 171 or 80.7% subjects were admitted voluntarily : 27 and 117 men among IA and VA, respectively (65.8% vs 88.4%, $\chi^2 \pm 0.10$, $df \pm 1$, $p \pm 0.75$). No significant differences between IA and VA were found regarding age (34.2 ± 11.2 vs 36.8 ± 11.3 , $p > 0.05$), marital status, education, age of onset and illness duration. IA subjects had a slightly longer duration of stay in the current hospitalization (4.7 ± 1.7 days) compared to the VA group (3.8 ± 1.9 days; $p < 0.05$). There were no significant differences between IA and VA in the primary discharge diagnosis (Table I; $\chi^2 \pm 12.4$, $df \pm 6$, $p \pm 0.054$).

Number of needs

The mean number of general needs indicated by patients themselves in the present study was 11.3 ± 6.2 (range 0 to 21); number of unmet needs was 3.8 ± 4.2 (range 0 to 17).

The number of needs identified per VA patients was 1.4 times higher than for IA patients (12.0 ± 5.6 vs 8.6 ± 6.4 , respectively; $t \pm 3.2$, $p < 0.001$). Figure 1 presents a distribution of involuntarily and voluntarily admitted persons by number of unmet needs. Thirty-one percent of IA persons and twenty-two percent of VA persons did not report their unmet health care needs (24.1% for the entire sample). Between-group differences were significant among inpatients with psychotic, neurotic, personality and behavior disorders (all p 's < 0.05 ; Fig. 2). Furthermore, the number of unmet needs was 1.7 times higher in VA compared to IA persons (4.2 ± 4.3 vs 2.5 ± 3.4 ; $z = 2.5$, $p \pm 0.011$).

Items of needs

For this sample the most frequently detected unmet needs involved psychological distress (40.6%), intimate relationships (34.0%), and sexual expression (25.6%), daytime activities (27.4%), money (25.9%),

Table I. Demographic, background, and clinical features of the sample (n = 212).

| Diagnosis at admission (ICD-10) | ICD-10 codes | Involuntary admission (n = 41) | | Voluntary admission (n = 171) | |
|--|----------------------|--------------------------------|------|-------------------------------|------|
| | | N | % | N | % |
| Mental disorders due to psychoactive substance use | F10-F19 | 3 | 7.3 | 9 | 5.3 |
| Schizophrenia, schizotypal and delusional disorders | F20-F29 ¹ | 11 | 26.8 | 73 | 42.7 |
| Acute and schizoaffective disorder | F23 and F25 | 11 | 26.8 | 23 | 13.5 |
| Mood [affective] disorders | F30-F39 | 8 | 19.5 | 14 | 8.2 |
| Neurotic, stress-related and somatoform disorders | F40-F48 | 2 | 4.9 | 23 | 13.5 |
| Disorders of adult personality and behavior | F60-F69 | 4 | 9.8 | 21 | 12.3 |
| Organic mental disorders and Intellectual disabilities | F00-F09 and F70-F79 | 2 | 4.9 | 8 | 4.7 |

1) Except F23, and F25

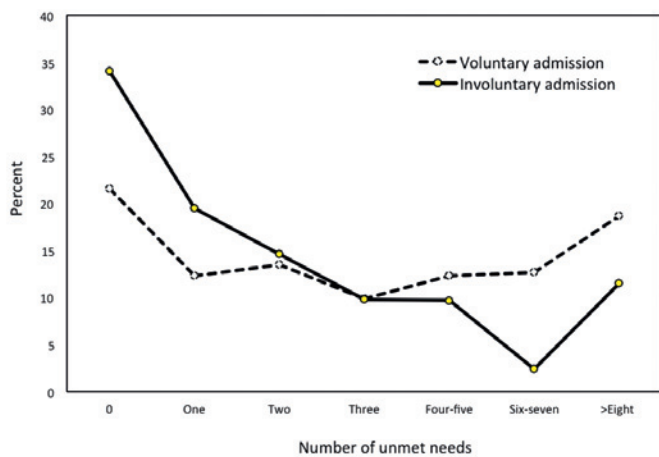


FIGURE 1. Distribution of involuntary and voluntary admitted persons by numbers of unmet needs.

physical health (25.9%), and company (25.5%) (Table II).

Figure 3 shows significantly decreased frequency of 12 specific unmet needs in IA admitted persons compared to the VA group: accommodation, food, home, self-care, physical health, treatment, company, basic education, telephone, transport, money, and welfare benefits.

Domains of needs

As expected, mean CANSAS-P domain scores were lower in the IA group, than in the VA group, in particular, the social disability ($z = 3.4, p < 0.001$), information processing disability ($p = 0.002$), emotional

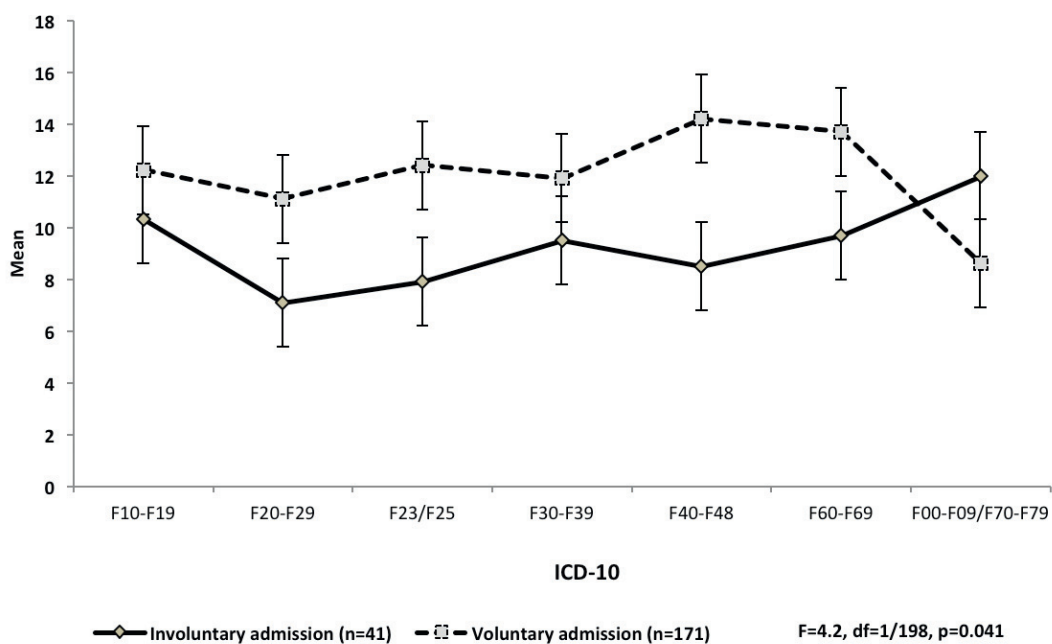
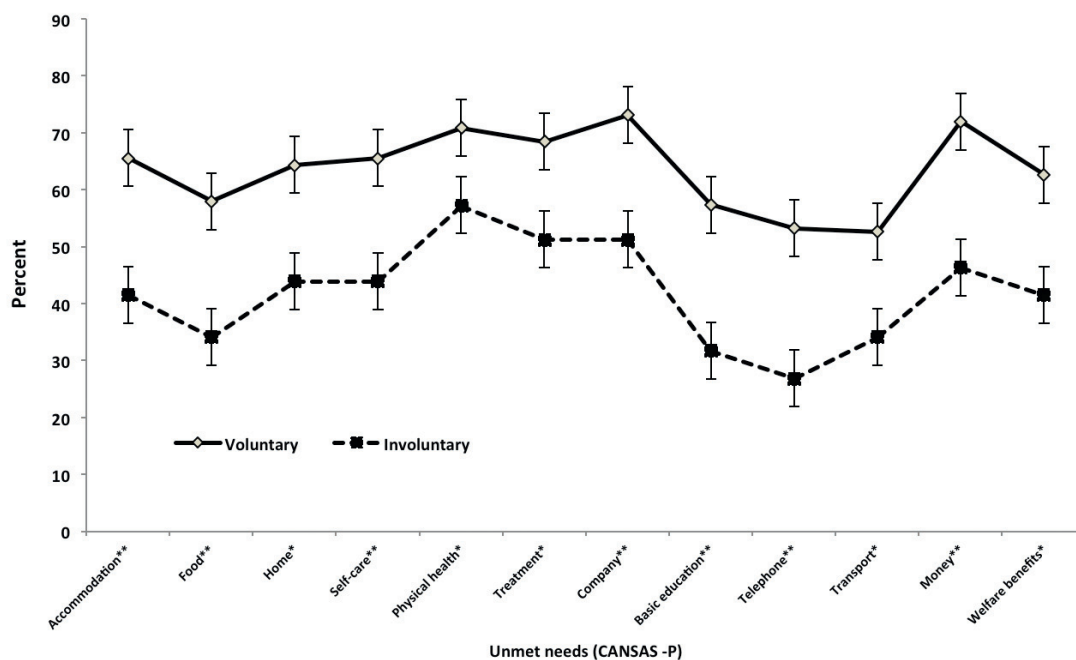


FIGURE 2. Mean number needs by diagnosis, legal involuntary and voluntary admission.

Table II. Frequency of the CANSAS items in the sample of 212 admitted persons.

| Variables | No need | | Met need | | Unmet need | |
|--|---------|------|----------|------|------------|-------------|
| | n | % | n | % | n | % |
| Accommodation | 83 | 39.2 | 96 | 45.3 | 33 | 15.6 |
| Food | 99 | 46.7 | 102 | 48.1 | 11 | 5.2 |
| Looking after the home | 84 | 39.6 | 93 | 43.9 | 35 | 16.5 |
| Self-Care | 82 | 38.7 | 106 | 50.0 | 24 | 11.3 |
| Daytime activities | 66 | 31.1 | 88 | 41.5 | 58 | 27.4 |
| Physical Health | 70 | 33.0 | 87 | 41.0 | 55 | 25.9 |
| Psychotic symptoms | 108 | 50.9 | 63 | 29.7 | 41 | 19.3 |
| Information on condition and treatment | 74 | 34.9 | 121 | 57.1 | 17 | 8.0 |
| Psychological distress | 54 | 25.5 | 72 | 34.0 | 86 | 40.6 |
| Safety to self | 117 | 55.2 | 47 | 22.2 | 48 | 22.6 |
| Safety to others | 173 | 81.6 | 30 | 14.2 | 9 | 4.2 |
| Alcohol | 159 | 75.0 | 22 | 10.4 | 31 | 14.6 |
| Drugs | 169 | 79.7 | 21 | 9.9 | 22 | 10.4 |
| Company | 66 | 31.1 | 92 | 43.4 | 54 | 25.5 |
| Intimate relationships | 89 | 42.0 | 51 | 24.1 | 72 | 34.0 |
| Sexual Expression | 100 | 47.4 | 57 | 27.0 | 54 | 25.6 |
| Child Care | 145 | 68.4 | 48 | 22.6 | 19 | 9.0 |
| Basic Education | 101 | 47.6 | 87 | 41.0 | 24 | 11.3 |
| Telephone | 110 | 51.9 | 96 | 45.3 | 6 | 2.8 |
| Transport | 108 | 50.9 | 83 | 39.2 | 21 | 9.9 |
| Money | 70 | 33.0 | 87 | 41.0 | 55 | 25.9 |
| Benefits | 88 | 41.5 | 82 | 38.7 | 42 | 19.8 |

**FIGURE 3.** Frequency of the specific unmet needs: voluntary vs involuntary admission.

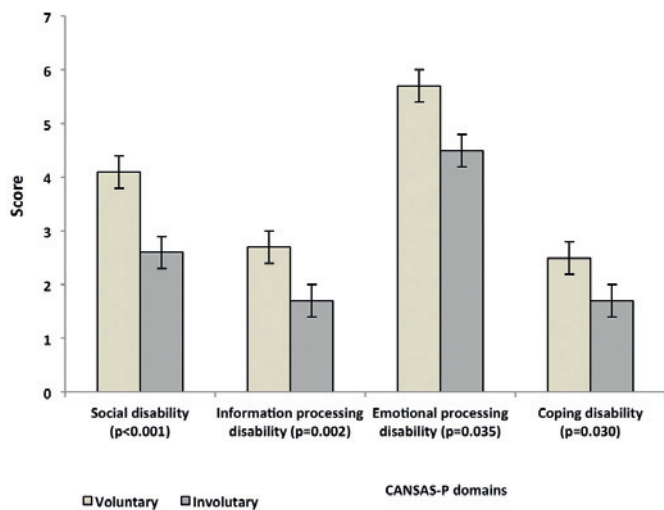


FIGURE 4.

Mean CANSAS-P domain scores: voluntary vs involuntary admission.

processing disability ($t \pm 2.1$, $p = 0.035$), and coping disability ($z = 2.2$, $p = 0.030$) (Fig. 4).

When IA and VA patient groups were compared with ANOVA controlling for age, sex, and length of stay, between-group differences in the mean number of needs, and all CANSAS-P domain scores remained significant (all $p' < 0.05$). Controlling for the ICD-10 diagnosis (as a second factor) ANOVA showed loss of between-group differences for information processing disability ($p = 0.071$), emotional processing disability ($p = 0.085$), and coping disability ($p = 0.064$), but not for social disability ($p = 0.027$), or the mean number of needs ($p = 0.041$).

Discussion

The assumption was that involuntary admission would be associated with greater unmet health care needs.

The first research question addressed differences between IA and VA inpatients in the number and frequency of specific unmet needs. This study revealed that the mean number of unmet needs was 3.8 ± 4.2 that replicated data from previous publications^{10 12 25 26}. Patients followed by community-based mental health services revealed a similar number of clinical and social needs, while inpatients (with the exception of acute patients) revealed more social needs²⁷. Rates of the mean number of needs (1.4 times less) and unmet needs (1.7 times less) were significantly lower among IA persons with psychotic, neurotic, and personality disorders compared to a matched VA sample.

The second research question addressed differences in frequency of specific individual unmet needs between IA and VA groups. Descriptive findings suggest that the highest proportion (25% to 40%) of unmet needs were psychological distress, intimate relationships, and sexual expression, daytime activities, money, physical health, and company, that is consistent with previous studies^{12 15 16 28}. IA persons reported lower unmet needs regarding accommodations, food, home, self-care, physical health, treatment, company, basic education, telephone, transport, money, and welfare benefits compared to VA persons.

The third research question addressed the effects of demographic and clinical factors on differences between IA and VA groups in the domains of mental health care needs. ANOVA was performed with the following covariate variables (age, sex, length of stay, and diagnosis). Although scores of domain needs were significantly lower in IA than in VA inpatients, between-group differences for 'information processing disability', 'emotional processing disability', and 'coping disability' domain scores were associated with diagnoses of inpatients, while 'social disability' domain scores were unrelated to demographic and clinical covariates.

Contrary to our expectations, involuntary admission was associated with lower unmet health care needs than VA subjects. The most plausible explanation might be related to the fact that IA patients do not have unmet needs in many of the areas of medical care; or that they were under-estimated by IA persons. Both of these assumptions are tenable.

One explanation for this finding might be self-report methodology for investigating mental health needs in psychiatric inpatients. A perceived unmet need is not equivalent to an objectively assessed unmet need. Perceived unmet need for treatment strongly correlated with level of distress and impairment in role functioning. Similar correlations have been found in prior research²⁹. Significant differences in the perceptions of voluntarily re-admitted inpatients who met ICD-10 criteria for schizophrenia and schizoaffective disorders and staff occurred in 6 of the 22 needs, with patients rating the needs for "information on condition and treatment" and "benefits," higher, and the staff member rating the patients' needs for "intimate relationships"; "safety for others," "self-care" and "daytime activities", higher. Analogical differences occurred between the patients and their relatives in the same need areas³⁰.

An additional explanation for this finding might be re-

lated to lack of insight. A majority of persons suffering from mental illness show limited insight into their illness, their symptoms as part of an illness, treatment and health care needs. Involuntarily committed patients were significantly less likely than voluntarily admitted patients to acknowledge that they were psychiatrically ill and in need of treatment^{33,31} and that could result in worrying about relationships, living situation, health and finances³².

Multiple studies have shown correlations between poor medication adherence and lack of insight across diagnostic groupings³³⁻³⁴. Former IA patients continue to be more sensitive to subjective or real coercion in their treatment and more vulnerable to medication non-adherence; they felt coerced more frequently in several treatment aspects at follow-up assessments³⁵.

Limitations: This study deals with a 'truncated' sample, the shortest-stay cohort of persons that was dis-

charged after 7 days in hospital. Second, the sample size of IA group of inpatients was relatively small. Third, use of self-report methodology for investigating mental health needs in severely ill psychiatric patients. However, this is the first report on differences in perceived mental health care needs between IA and VA persons. Given that unmet needs may be underestimated, it can be concluded that unmet needs are important targets for the treatment of IA patients.

Acknowledgments: We are grateful to the staff members of the five acute departments of Sha'ar Menashe Mental Health Center who cooperated with us in this study.

Conflicts of Interest: The authors declare that they have no conflicts of interest.

Funding Source: The authors declare that there was no funding source.

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