INVOLUNTARY ADMISSION IN TWO PSYCHIATRIC HOSPITALS FROM DIFFERENT CATCHMENT AREAS IN CROATIA SIX MONTHS AFTER IMPLEMENTATION OF THE LAW ON MENTAL HEALTH

Vera FOLNEGović-Šmalc
Psychiatric Hospital Vrapče, Zagreb

Tajana LIJUBIN
Police Academy, Zagreb

Suzana UZUN
Psychiatric Hospital Vrapče, Zagreb

Vesna ŠENDULA-JENGIĆ
Psychiatric Hospital Rab, Rab

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The aim of the study was to investigate involuntary admissions in two psychiatric hospitals from different catchment areas in Croatia, six months after the Law on Mental Health was passed. Medical records were surveyed in the six-month period. The sample comprised 380 men and 335 women hospitalized voluntarily, and 48 men and 125 women hospitalized involuntarily. The results showed a higher prevalence of involuntary hospitalization in the Psychiatric Hospital Rab, in comparison to the University Department of the Psychiatric Hospital Vrapče. Most patients from both hospitals had the final diagnosis of psychosis. Although there were some differences between the two hospitals regarding factors distinguishing involuntary from voluntary patients, the most consistent factor related to involuntary hospitalization was “being female”.

Requests for reprints should be sent to Vera Folnegović-Šmalc, Psihiatrijska bolnica Vrapče, Bolnička 32, 10000 Zagreb, Croatia.
INTRODUCTION

Several factors seem to be related to involuntary hospitalization. The very core of involuntary hospitalization concerns the psychiatric status of the patient, and studies revealed that involuntary admission was consistently related to having psychosis (Riecher et al., 1991; Lidz et al., 1995; Hansson et al., 1998; Sanguinetti et al., 1996; Bruxner et al., 1997). Besides this most common factor, it seems that there are also some other factors for compulsory admission, such as social and cultural influences, or factors related to the decision-making process. Demographic variables were found to distinguish between patients admitted voluntarily and those admitted in a compulsory way. Namely, involuntary hospitalization was connected with masculine gender (Riecher et al., 1991), being unmarried and young (Sanguinetti et al., 1996). The other factors related to involuntary hospitalization seem to be of the socio-cultural type, like "not owning a home" (Riecher et al., 1991), "having different ethnicity" (Sanguinetti et al., 1996; Bruxner et al., 1997; Singh et al., 1998; Davies et al., 1996). However, studies revealed that demographic and socio-cultural factors were not so unambiguously related to involuntary admission. Some studies revealed ethnicity having an independent effect on the risk of being compulsorily detained (Sanguinetti et al., 1996; Bruxner et al., 1997; Singh et al., 1998; Davies et al., 1996), which was not confirmed in the study showing that involuntary hospitalisation rates were equal regardless of ethnic differences, while it was not the case for voluntary hospitalisation (Frauer, 1995). The decision-making process about compulsory intervention was also shown to be affected by the patient’s family pressure and gender of psychiatrist in charge (Kullgren et al., 1996). Generally, it seems that the most common factor for compulsory admission is having schizophrenia, while there are also some other influences related to the social and cultural factors and other factors related to the decision-making process.

Studies revealed some cultural differences in regard to the legal aspects and law implementation (Haberfellner and Rittmannsberger, 1996; Kortmann, 1997; Weinberger et al., 1998; Kozarić Kovačić, 1998; Folnegović-Šmalc et al., 1998). Different incidence of civil compulsory admission among countries were also demonstrated. Research from United States demonstrated that 42% of patients were involuntarily committed (Lidz et al., 1995). In Finland, 12.7% patients were involuntarily hospitalized (Isohanni et al., 1991). The frequency of compulsory admissions depends also on the catchment areas of the same country (Hansson et al., 1998), ranging from 48% – 85% (Braband and Friis, 1997).

The aim of this study was to investigate involuntary admission in two psychiatric hospitals from different catchment areas in Croatia, after the Law on Mental Health was passed.
METHODS
Subjects

The sampling included all patients hospitalized in the six months period (1/1/1997 – 30/6/1997) at two psychiatric hospitals, i.e. University Department of Psychiatric Hospital Vrapče (PH-UD Vrapče) and Psychiatric Hospital Rab (PH Rab). Data were drawn from the medical records of all patients, with exclusion of the forensic patients and patients who were in this period hospitalized both voluntarily and involuntarily.

The final sample comprised 888 patients. 709 patients were hospitalized in PH Vrapče, of whom 589 voluntarily (49.1% men and 50.9 % women), and 120 patients hospitalized involuntarily (17.5% men and 82.5% women). 179 patients were hospitalized in PH Rab, of whom 126 were voluntarily admitted (72.2% men and 27.8% women) and 53 involuntarily admitted (50.9% men and 49.1% women).

Inpatients hospitalized in PH-UD Vrapče the age ranged from 21 to 70 (mean age 42.3 +/- 12.37); in patients from PH Rab the age ranged from 21 to 67 mean age 42.7 +/- 12.17), the difference was not significant (t=0.37, p=0.714).

Patients were involuntarily hospitalized under section 22, and section 21, subsection 3, of the 1998 Law on Mental Health (Law on Mental Health, 1997). Psychiatric patients considered to be dangerous for themselves or for others are obliged to be hospitalised under section 22; psychiatric patients who are at the moment having no mental competence, i.e. are not capable of understanding the admission procedure, are obliged to be treated under section 21, subsection 3.

Procedure

All data were drawn from medical files of patients. Demographic data included patient’s gender, age and marital status. Marital status was defined in two categories: "having spouse" category comprised those married or having spouse; the "no spouse" category consisted of those who were either unmarried, divorced or widowed.

Clinical data included the demission diagnosis and the length of hospitalization in days. Diagnosis were made on the basis of clinical psychiatric assessment, based on the ICD -10 classification of mental disorders (APA, 1992). The group F00 – F07 consisted of organic and symptomatic mental disorders; the F10 diagnosis considered alcoholism; the group F20-F29 diagnoses comprised schizophrenia and similar psychotic disorders; the group F30-F34 consisted of mood disorders; the group F40-F48 consisted of anxiety disorders; F60-F69 consisted of personality disorders; X61 was suicidal attempt. In the case that a patient had two or more diagnoses, he/she was placed in the category of his primary diagnosis.
**Statistical Analysis**

Statistical analysis of the results included the determination of descriptive parameters and comparison of the groups with respect to the particular variables. Categorial analysis were performed by chi square test for independent samples. Comparison between groups in respect to age and the length of hospitalization was done by means of t-test, with modification for unequal variances where previous Levene’s test for equality of variances showed significant F-ratio at level \( p < 0.05 \).

**RESULTS**

Significantly more patients were hospitalized involuntarily in PH Rab, i.e. 29.6%, in comparison to 16.9% in PH-UD Vrapče (chi square = 14.66, \( df = 1 \), \( p = 0.000 \)).

In both hospitals most patients under civil commitment had final diagnosis of psychosis: 55% of involuntary patients in PH-UD Vrapče, and 73.6% in PH Rab. A larger proportion of involuntary patients with other final diagnoses than psychosis was found in PH-UD Vrapče (45% vs. 26.4% in Rab, chi square = 5.323, \( p = 0.021 \)). In PH-UD Vrapče there was a larger proportion of patients diagnosed with mood disorders and suicide attempts (Table 1).

![Table 1](image)

<table>
<thead>
<tr>
<th>Diagnoses</th>
<th>&quot;Vrapče&quot;</th>
<th>&quot;Rab&quot;</th>
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<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
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<tr>
<td>F00 – F07</td>
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<tr>
<td>F10</td>
<td>9</td>
<td>7.5</td>
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<td>F20-F29</td>
<td>66</td>
<td>55.0</td>
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<td>F30-F34</td>
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<td>F40-F48</td>
<td>4</td>
<td>3.3</td>
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<tr>
<td>X61,X70</td>
<td>11</td>
<td>9.2</td>
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</tbody>
</table>

There was no age difference between hospitals' involuntary groups, at whole samples level (\( t = 0.39 \), \( p = 0.700 \)), as well as when male (mean age PH-UD Vrapče 40.3 +/- 6.82, PH Rab 44.3 +/- 11.88, \( t = 0.93, df = 29, p = 0.361 \)) and female psychotics hospitalized involuntarily (mean age PH-UD Vrapče 38.8 +/- 8.26, PH Rab 34.3 +/- 8.74, \( t = 1.93, df = 72, p = 0.058 \)) were compared.

A difference in gender proportion between involuntary patients from two hospitals was found. At PH-UD Vrapče there were more women (17.5% men and 82.5% women), while in PH Rab men and women were about equalized (50.9% men and 49.1% women) (chi square = 20.51, \( p = 0.000 \)). However, within the involuntary psychotic group, in PH Rab there were significantly more male patients compared to PH-UD Vrapče (56.4% in Rab vs. 13.6% in Vrapče, chi square = 21.56, \( p = 0.000 \)).

Taking all involuntary patients together, a correlation between male gender and diagnosis of alcoholism was observed.
(22.9% of male and 0.8% of female patients had alcoholism, phi=0.390, p=0.000), and between female gender and diagnosis of mood disorder (4.2% of male and 28% of female had mood disorder, phi=0.260, p=0.001). No other diagnostic groups showed relationship with gender (p>0.05).

In PH Rab involuntary patients were hospitalized significantly longer than in PH-UD Vrapče, when the whole diagnostic sample was analysed (Table 2), as well as when “psychosis” group was analysed separately (t=6.05, p=0.000) (The other diagnostic groups were not analysed separately due to the small number of patients). Longer hospitalization was observed both for male psychotics (mean days of hospitalization: PH-UD Vrapče 26.9 +/- 10.12, PH Rab 49.6 +/- 12.13; t=4.95, df=29, p=0.000), and female psychotics hospitalized involuntarily (mean days of hospitalization: PH-UD Vrapče 36.8 +/- 9.89, PH Rab 49.1 +/- 14.49; t=3.29, df=72, p=0.004).

Comparing involuntary to voluntary patients in the length of hospitalisation, at PH-UD Vrapče no differences were found (t=0.02, p=0.984), while in PH Rab involuntary patients demonstrated significantly shorter hospitalisation (t=3.67, p=0.000).

In order to compare two hospitals in the variables differentiating between voluntary and involuntary patients, categorial analyses were done separately for each hospital. In PH-UD Vrapče involuntary hospitalization was related to being female, unmarried, having no psychosis but having mood disorders and suicide attempt. In PH Rab involuntary hospitalization was related to being female (Table 3 and 4).

**p<0.01
DISCUSSION

The results showed a difference between the two hospitals in the prevalence of involuntary hospitalization. Namely in the Psychiatric Hospital Rab a significantly larger proportion of involuntary hospitalization was found (29.6%) than in the University Department of the Psychiatric Hospital Vrapče (16.9%).

The study also found somewhat different characteristics of involuntary patients in relation to different hospitals. The involuntary group from the Psychiatric Hospital Vrapče had more females in comparison to the Psychiatric Hospital Rab where sexes were about equalized. On the other hand, when “psychosis” group was analysed, in PH Rab there were significantly more involuntary hospitalized male psychotics than in PH Vrapče. There were no age differences between the two hospital groups. Although in both hospitals the majority of involuntary patients had the final diagnosis psychosis, which is in accordance with other studies (Riecher et al., 1991; Lidz et al., 1995; Hansson et al., 1998; Sanguineti et al., 1996; Bruxner et al., 1997), there was a large proportion of those with “questionable criteria”. Furthermore, the University Department of the Psychiatric Hospital Vrapče showed significantly more involuntary patients having other final diagnoses then psychosis in comparison to the Psychiatric Hospital Rab (45% vs. 26.4%). This could be related to the sample characteristics, i.e. more female patients in PH-UD Vrapče having mood disorders and suicide attempts. Namely, analysis showed that female gender was related to mood disorders while male gender was related to having alcoholism; these results are in accordance with other studies (King, 1994; Hudolin, 1991). It seems probable that involuntary hospitalisation for the reason of mood disorders was related to increased suicidal risk, since previous studies showed that the suicide rate of patients with depressive psychosis was higher than of the other psychiatric patients (Krupinski et al., 1998). In the cases where alcoholism
was diagnosed in patients obliged for involuntary admission, patients were either dangerous for themselves or for others, or had delirium tremens and were therefore not competent of making decisions about psychiatric treatment. Data from other countries also indicate that some delirium patients (10.9%) were admitted to psychiatric hospitals through civil commitment (Heinik et al., 1997).

In PH Rab a longer hospitalization of involuntary patients was observed, on average 6.8 weeks in comparison to the average of 4.4 weeks at PH-UD Vrapče. The length of hospitalisation in PH Rab was very similar to the findings of Kaliski et al. (Kaliski et al., 1990). Analysing the largest involuntary group, i.e. psychotics, the effect was shown to be present in both male and female patients. This could be related to more severe clinical cases of this disorder in PH Rab catchment area population. On the other hand, hypotheses about some other factors could be also established, since psychiatric decision about involuntary treatment is related also to some para-medical factors, like family pressure, psychiatrist's gender etc. (Kullgren et al., 1996). However, voluntary patients showed longer hospitalisation in PH Rab, on average (6.8 weeks) than in PH-UD Vrapče, on average (4.4 weeks) (data not shown), which also points to a probably larger proportion of chronic and severe clinical presentation in the catchment population of PH Rab.

At the University Department of the Psychiatric Hospital Vrapče, factors distinguishing involuntary from voluntary patients were being female, unmarried, having no psychosis but having mood disorders or suicide attempt, while in the Psychiatric Hospital Rab involuntary hospitalization was related to being female and receiving shorter hospitalisation. It seems that factors differentiating between voluntary and involuntary groups depend upon the hospitals' sample characteristics/catchment area population. However, "being female" was most consistently related to involuntary hospitalization. This unexpected result implicating that females are of higher risk for involuntary hospitalization than males, is contrary to the studies showing that being male was one of the factors related to involuntary hospitalization (Riecher et al., 1991). This finding could be related rather to highlighting cultural sensitivity for psychiatric disturbances in females, probably associated with the lower decision threshold for involuntary hospitalization in females, than to gender differences in the clinical picture of severe psychiatric disorders in our country.

At the University Department of the Psychiatric Hospital Vrapče there were no differences in the length of hospitalisation between involuntary and voluntary patients. On the other hand, in the Psychiatric Hospital Rab involuntary patients
were shorter hospitalised than voluntary patients, going alone with the study showing the association between involuntary status and shorter hospitalisation (Nicholson, 1988).

The result showing that "having psychosis" was not related to involuntary hospitalization in neither hospital is contradictory to the other findings (Riecher et al., 1991). The fact that both hospitals are designed for severe psychiatric cases and therefore the proportion of other psychiatric disorders other than psychosis is minor in both samples, could have influenced this finding. Therefore, it would be necessary to investigate factors distinguishing involuntary from voluntary patients at other psychiatric departments having different psychiatric population, before any conclusion is to be made.

In conclusion, the results showed some differences between two psychiatric hospitals from different catchment areas: in prevalence of involuntary hospitalisation; some characteristics of involuntary patients; and factors distinguishing involuntary from voluntary group. Differences could be related to different psychiatric facilities, characteristics of catchment area population, but also to the differences in Law implementation.

Data limitations are considered to be a relatively small number of patients, especially within other diagnostic groups than psychosis and sample selection, i.e. not all hospitals and departments were analysed. Also, the study design does not allow us to distinguish between two main factors influencing the results: differences between psychiatric hospitals (university vs. nonuniversity hospital) and differences in catchment area population. However, the paper presents the first results six months after the Law on Mental Health was passed which could provide the starting point for better understanding the factors related to involuntary hospitalisation in our country and possible differences existing in these factors in different hospitals from different catchment areas. This could lead to better dealing with practical as well as ethical and legal issues.

REFERENCES


Prisilne hospitalizacije u dvije psihijatrijske bolnice iz različitih prihvatnih područja u Hrvatskoj, šest mjeseci nakon uvođenja zakona o zaštiti osoba s duševnim smetnjama

Vera FOLNEGOVIĆ-ŠMALC
Psihijatrijska bolnica Vrapče, Zagreb

Tajana LJUBIN
Polička akademija, Zagreb

Suzana UZUN
Psihijatrijska bolnica Vrapče, Zagreb

Vesna ŠENDULA-JENGIĆ
Psihijatrijska bolnica Rab

Cilj ovog rada je istražiti prisilne prijame u dvije psihijatrijske bolnice iz različitih prihvatnih područja u Hrvatskoj, šest mjeseci poslije donošenja Zakona o zaštiti osoba s duševnim smetnjama. Analizirana je medicinska dokumentacija za razdoblja od šest mjeseci. Uzorak je obuhvaćao 380 muškaraca i 335 žena, hospitaliziranih dobrovoljno, te 48 muškaraca i 125 žena, hospitaliziranih prisilno. Rezultati su pokazali da je učestalost prisilnih hospitalizacija viša u Psihijatrijskoj bolnici Rab nego li na Kliničkom odjelu Psihijatrijske bolnice Vrapče. Većina pacijenata u obje bolnice imala je otpusnu dijagnozu psihoza. Iako su se bolnice ponežto razlikovale u čimbenicima koji diferenciraju dobrovoljno od nedobrovoljno hospitaliziranih bolesnika, najstalniji čimbenik po vezan s nedobrovoljnom hospitalizacijom bio je ženski spol bolesnika.
Fälle von Zwangseinweisungen in zwei verschiedenen psychiatrischen Krankenhäusern in Kroatien sechs Monate nach Verabschiedung des Gesetzes zum Schutz von seelisch gestörten Personen

Vera FOLNEGOVIĆ-ŠMALC
Psychiatrisches Krankenhaus Vrapče, Zagreb
Tajana LJUBIN
Polizeiakademie, Zagreb
Sузана UZUN
Psychiatrisches Krankenhaus Vrapče, Zagreb
Vesna ŠENDULA-JENGIĆ
Psychiatrisches Krankenhaus, Rab