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# Sociodemographic and Clinical Characteristics of Psychiatric Inpatients Hospitalized Involuntarily and Voluntarily in a Mental Health Hospital

Bir Psikiyatri Hastanesinde İstemli ve İstem Dışı Yatışların Sosvodemoarafik ve Klinik Özellikleri

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#### **ABSTRACT**

Introduction: In this study, we aimed to investigate and compare the sociodemographic and clinical characteristics of psychiatric inpatients hospitalized involuntarily and voluntarily. To our knowledge, there is no study analyzing involuntary psychiatric hospitalization in our country.

Method: In this retrospective study, we included a total of 504 patients who were involuntarily or voluntarily hospitalized in Bolu Izzet Baysal Mental Health Hospital between 1st of May and 31st October 2010. The data were obtained from the

Result: In the 6-month period, 13.1% of 504 inpatients were hospitalized involuntarily. The number of male patients who were involuntarily hospitalized was higher than the number of female patients. Most of the patients in the involuntary hospitalized group were graduates of primary school, were not married and were not working at the time of hospitalization. Schizophrenia was the most common diagnosis in the involuntarily hospitalized psychiatric patients and these patients needed longer stay in the hospital. The next hospitalization of the involuntarily hospitalized patients was mostly involuntary.

Conclusion: Most of the involuntarily hospitalized psychiatric inpatients were male, were not working and had the diagnosis of schizophrenia. These general psychiatric risk factors were more important in involuntary hospitalization compared to voluntary hospitalization. We concluded that the high prevalence of involuntary hospitalizations deserved further studies. (Archives of Neuropsychiatry 2013; 50: 216-221)

Key words: Involuntary psychiatric hospitalization, sociodemographic features, schizophrenia, psychiatry

Conflict of interest: The authors reported no conflict of interest related to this article.

#### ÖZET

Giriş: Bu çalışmada istem dışı yatışların incelenmesi, sosyodemografik ve klinik özellikleri açısından istemli yatışlarla karşılaştırılması amaçlandı. Bildiğimiz kadarıyla henüz ülkemizde istem dışı yatışlarla ilgili yapılmış bir çalışma bulunmamaktadır.

Yöntemler: Bu çalışmaya 1 Mayıs 2010-31 Ekim 2010 tarihleri arasında Bolu İzzet Baysal Ruh Sağlığı ve Hastalıkları Hastanesinde istemli ve istem dışı yatırılan 504 hasta alınmıştır. Hastalara ait veriler tıbbi kayıt ve belgelerden elde edilmiştir.

Bulgular: Belirlenen 6 aylık sürede yatırılan 504 vakanın %13,1'i istem dışıydı. Erkek hastalar kadın hastalara göre daha sık istem dışı yatırılmıştı. İstem dışı yatırılan gruptaki kişilerin çoğunun ilköğretim mezunu, bekar, yatış döneminde çalışmayan kişilerden oluştuğu belirlendi. Ayrıca; istem dışı yatan hastalarda en sık saptanan tanının şizofreni olduğu ve istemli yatış grubuna kıyasla hastanede kalma sürelerinin biraz daha uzun olma eğiliminde olduğu (sırasıyla; yaklaşık 24 ve 28 gün) saptandı. İstem dışı yatışı olan hastaların çoğunluğunun sonraki yatış şeklinin de istem dışı olduğu tespit edildi.

Sonuç: İstem dışı yatışı yapılan hastaların çoğu erkek, çalışmayan, şizofreni tanılı hastalardı. Bu özelliklerin (erkek cinsiyet, çalışmıyor olmak ve şizofreni tanısı) psikiyatrik bozukluklarla ilgili bilinen genel risk faktörleri olduğu dikkate alındığında istem dışı yatışlarda daha da fazla önem taşıdığı düşünülebilir. İstem dışı yatışların kayda değer oranı da konuyla ilgili daha kapsamlı çalışmaların yapılması gerektiğini düşündürmektedir. (Nöropsikiyatri Arşivi 2013; 50: 216-221)

Anahtar kelimeler: İstem dışı psikiyatrik yatış, sosyodemografik özellikler, şizofreni, psikiyatri

Çıkar çatışması: Yazarlar bu makale ile ilgili olarak herhangi bir çıkar çatışması bildirmemişlerdir.

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## Introduction

The procedure of hospitalization in psychiarty wards without the will and/or consent of patients is applied in the whole world and its ethical dimension is still being discussed. Considering that the 21th century is the era of freedom and democracy or is hoped to be so, the importance of human rights and patients' rights which is the extension of this in the medical area is gradually increasing and the awareness of the community including mainly healthcare workers is gradually developing. In the practice of psychiatry, one of the most debatable subjects in terms of patients' rights is involuntary hospitalization. Whatever the reason, involuntary hospitalization of an individual is an action which limits the individual's freedom and means to be an assault to his/her autonomy. However, in some conditions, hospitalization of patients with psychiatric disorders for the aim of treatment and sometimes for the benefit of the community, but always for the benefit of themselves may constitute an undeniable necessity. Psychiatry is one of the rare practice areas in which a patient is treated "by force" and probably the only area in which such applications are clearly required with a high rate, because patients usually lose the willpower on their behavior partially or fully and sometimes their thoughts and emotions deviate from the "normal" course of thier life with the impact of the disease (1,2,3).

The frequency of involuntary hospitalizations and the applications in this area vary according to the sociocultural properties of the countries in Europe. Efforts to standardize the approaches related with this subject are continuing (4). It is noted that the rates of involuntary hospitalizations show variance in European countries. It has been reported that the rate of involuntary hospitalizations among all psychiatric hospitalizations is 5% in Belgium, 12.5% in France, 4.6% in Denmark and 21.6% in Finland (5).

In a study performed in Canada in 1994 comparing voluntarily and involuntarily hospitalized patients, no difference was found between the two groups in terms of diagnosis. demographic properties, social properties and clinical properties (6). In studies performed in recent years, findings suggesting a relation between involuntary hospitalization and some sociodemographic variables have become prominent. In a study which investigated the relation between involuntary hospitalizations and sociodemographic variables, a positive correlation was found between involuntary hospitalization and unemployment, single marital status and low education level. In the same study, the relation between involuntary hospitalization and clinical variables was investigated and involuntary hospitalization was found most commonly in patients with a diagnosis of schizophrenia (7). In another study in which involuntary hospitalizations in the European countries were examined, severe and chronic psychiatric disorders including schizophrenia and other psychotic disorders constituted 30%-50% of the involuntary hospitalizations and dementia, mood disorders, substance dependence and abuse constituted the remaining part. In this study, the most important risk factor for involuntary hospitalization was found to be male gender

and this was related with the fact that dangerous behaviour is observed more frequently in men (5).

Studies have reported that involuntary hospitalizations have an impact on the way of next hospitalizations and mandatory/involuntary hospitalization is required with a higher rate compated to the patients whose first hospitalization is voluntary. In a study performed in Israel, it was found that the next hospitalization was also involuntary in 41% of the patients with an involuntary hospitalization at the first presentation (8). As mentioned before, although there are differences of application between countries related with the conditions and rules of involuntary hospitalization, the basic factors considered in all applications focus on the possibility of the patient to harm others (for the benefit of the community), necessity of treatment and/or the possibility of the patient to harm himself/herself (for the benefit of the patient) (9,10,11). In the area of involuntary hospitalization, the basic legal criterion is accepted to be "dangerousness" in Austria, Belgium, France and Germany, "dangerousness or necessity of treatment" in North European countries including Denmark and Finland and "necessity of treatment" in Spain and Sweden (5). In our country, significant gaps are present in legal arrangements related with involuntary hospitalizations because of the deficiency of the "Mental Health Law" which is one of the main problems of the mental health system (12). The Mental Health Law Draft prepared by constituting a task and work group by the Turkish Psychiatry Association presents a draft which can arrange involuntary hospitalizations by protecting patients' rights (13). According to the procedure which is established according to this draft and present acts individuals who can cause to dangerous conditions for themselves because of different psychiatric symptoms are hospitalized involuntarily in our hospital. In this application in our hospital, a form reporting the prediagnosis of the patient who has to be hospitalized involuntarily and the reason of involuntary hospitalization is filled out and signed by three psychiatrists who make this decision after the first examination and is rapidly delivered to the judge on duty. Upon this, the justified decision reporting that "the individual can be retained in the hospital without his/her own will" prepared by the court reaches our hospital in a few days.

We have noted that there is a substantially limited number of studies related with involuntary hospitalizations in the world and we could find no such study performed in our country. In our study, we aimed to determine the rates of involuntary hospitalizations in Bolu Izzet Baysal Mental Health Hospital (BIBMHH) which is a district psychiatry hospital in Turkey, to demonstrate the clinical and sociodemographic properties in involuntary hospitalizations and to compare these variables with voluntary hospitalizations. Additionally, the effect of involuntary hospitalizations on the way of next hospitalizations of the same patients was also evaluated.

## Method

BIBMHH is a district hospital with 100 beds offering service to the provinces of Bolu, Ankara, Düzce, Karabük, Zonguldak,

Kırıkkale and Bartın which was put into service in 2006. In our hospital, inpatients and outpatients are given psychiatric service with 9 permanent psychiatrists, 4 psychologists, 1 social worker, 32 nurses and 14 health officers.

In this study, a retrospective analysis of the medical records of the patients who were hospitalized between 05.01.2010 and 10.31.2010 for 6 months and discharged after treatment in BIBMHH was made. The data required for the study were collected by using the clinical records of the patients who were hospitalized in BIBMHH between these dates and who were discharged. The necessary approval was obtained from the administration of the hospital and related ethics and investigation committee for examination of patient records. The clinical records used in the study were collected by extracting hospitalization files of all patients and outpatient files, if present and the data on the files and the data on the computer were compared to find out if any discrepancy was present. The diagnoses of the patients were made by psychiatrists according to the DSM-IV-TR (American Psychiatry Association, 2000) criteria by psychiatric interview. The reasons for involuntary hospitalization were grouped by examining the documents which were prepared by the specialist team composed of three psychiatrists when the decision of hospitalization was made and which were sent to the court on duty for approval of hospitalization.

The data belonging to all 512 patients who were hospitalized for 6 months and discharged afterwards were included in the study. The data of 8 patients who were diascharged from the hospital in a period shorter than 3 days were excluded from the study. Thus, statistical analysis was performed with the data of the remaining 504 patients. Among the patients with recurrent hospitalizations, the ones with a single involuntary hospitalization were included in the involuntary hospitalization group so that the data belonging to the same patient were not reanalysed. Age, gender, marital status, education level, employment status, diagnosis and type of disease, hospitalization period, number of hospitalizations and additional psychiatric or medical diagnosis were examined as clinical variables. When evaluating the diagnoses of the patients, psychotic mood disorders (psychotic mania, depression or mixed attacks) were included in the "bipolar disorder" group.

#### **Statistical Analysis**

The data were expressed as arithmetic mean, standard deviation or frequency and percent rates. Chi-square test or Fischer's exact test was used for categorical variables, student's t-test was used for numerical variables. A p value of <0.05 was considered statistically significant. The data were evaluated using SPSS 17.0.

#### Results

In the study, the data of 504 patients who were hospitalized and treated in BIBMHH between 05.01.2010 and 10.31.2010 were examined. In a period of 6 months, 438 (86.9%) of 504 patients were hospitalized voluntarily and 66 (13.1%) were hospitalized involuntarily.

It was found that gender showed statistically significant difference in involuntary hospitalizations compared to voluntary hospitalizations and men were found to be hospitalized involuntarily with a higher rate (p=0.023). It was also found that there was a difference between genders in the psychotic disorder and bipolar disorder group with involuntary hospitalizations and men were found to be hospitalized involuntarily with a higher rate (p=0.031). In the involuntary hospitalization group, the rate of unemployment at the time of hospitalization was statistically significantly higher (p=0.015) (Table 1).

The patients who were diagnosed with chronic psychotic disorder (schizophrenia, schizoaffective disorder and hallucinative disorder) constituted 72.8 of involuntary hospitalizations and the patients who were diagnosed with bipolar disorder constituted 25.8%. The hospitalization periods of the patients who were hospitalized voluntarily and involuntarily was found to be 24 days and 28 days, respectively (p=0.056). The psychotic disorder and bipolar disorder groups with involuntary hospitalizations were compared in terms of gender; it was found that men were hospitalized involuntarily with a higher rate also in these disease groups, but the difference was not statistically significant (Table 2).

During the 6-month period included in the study, the number of patients with recurrent hospitalization was found to be 112. Among these patients, 7 of 9 patients whose first hospitalization was involuntary were hospitalized involuntarily and 3 of 103 patients whose first hospitalization was voluntary were hospitalized involuntarily. This difference was statistically significant (p<0.01) (Table 3).

It was found that the most common justification in the evaluation performed by the psychiatrist who made the decision of involuntary hospitalization was reported to be self-dangerousness or dangerousness for the people around and/or non-compliance with treatment (Table 4). The findings specified as reasons which would cause the patient to harm himself/herself or the people around by psychiatrists included aimless and disorganized behaviour (84.8%), delusions (78.8%) and hallucinations (48.4%). The justification of "non-compliance with the treatment program arranged for his/her disease and /or possibility of treatment only by hospitalization" reported to the court by the specialist physician team composed of three psychiatrists to retain the patient in the hospital without his/her own will when the decision of involuntary hospitalization was made was found in 87.8% of the patients (Table 4).

## **Discussion**

In this study, we aimed to determine the rates of involuntary hospitalizations in BIBMHH, to demonstrate the clinical and sociodemographic properties in involuntary hospitalizations and to compare these variables with voluntary hospitalizations. Additionally, the effect of involuntary hospitalizations on the way of next hospitalizations of the same patients was also evaluated. In our study, the rate

of involuntary hospitalization was found to be 13.1%. In a 13-year-follow-up study performed in Denmark in patients with a diagnosis of schizophrenia which investigated the way of hospitalization after first presentation, the rate of

involuntary hospitalization was found to be 12% (14). In America, 29% of 217 patients presented to the emergency department in a period of one year were found to be brought involuntarily. In this study, the diagnosis of psychotic disorder

Table 1. Sociodemographic properties of the patients hospitalized voluntarily and involuntarily				
Variable	Voluntary hospitalization	Involuntary hospitalization	Analysis	
Variable	n (%)	n (%)	χ2 sd p	
Gender				
Male	254 (58.0)	48 (72.7)	5.186 1 0.023	
Female	184 (42.0)	18 (27.3)		
Education level				
Illiterate	31 (7.1)	4 (6.1)	1.949 3 0.583	
Primary school	297 (67.8)	41(62.1)		
High school	91 (20.8)	16 (24.2)		
University	19 (4.3)	5 (7.6)		
Marital status			2.731 2 2.731	
Single	167 (38.2)	32 (48.5)		
Married	216 (49.4)	26 (39.4)		
Wodow/divorced	54 (12.4)	8 (12.1)		
Employment				
Employed	154 (35.3)	22 (33.8)		
Unemployed	116 (26.6)	27 (41.5)	5.873 1 0.015	
Retired	41( 9.4)	3 (4.6)		
Housewife	117(26.8)	11(16.9)		
Student	8 (1.8)	2 (3.1)		
	(χ±ss)	(X±SS)	t sd p	
Age	39.6±13.4	39.9±12.6	429 502 0.896	

Table 2. Clinical properties of the patients hospitalized voluntarily and involuntarily				
Variable	Voluntary hospitalization	Involuntary hospitalization	Analysis	
Variable	n (%)	n (%)	χ2 sd p	
Diagnosis				
Psychotic disorders	190 (43.4)	48 (72.7)	20.2 1 <0.001	
Bipolar disorder	89 (20.3)	13 (25.8)	0.014 1 >0.05	
Major Depression	81 (18.5)	-		
Anxiety disorders	27 (6.2)	-		
Disorders related with substance use	32 (7.3)	1(1.5)		
Personality disorders	8 (1.8)	-		
Other	11(2,5)	-		
Psychiatric co-diagnosis				
Yes	79 (18)	10 (15,2)	0.328 1 0.567	
No	359 (82)	56 (848)		
Hospitalization period	(X±ss)	(X±ss)	t sd p	
Psychotic disorder	28.1±15.1	30.8±10.4	-1.212 236 0.228	
Bipolar mood disorder	24.3±13.8	26.4±13.9	-0.522 100 0.602	
Total	23.9±16.8	28.1±12.1	-1.915 502 0.056	

in involuntary presentations was found to be related with the severity of the picture at first clinical presentation and having social security (15). The rates of involuntary hospitalization ranges between 3.2% and 21.6% in European countries (5).

In our study, it was found that gender showed difference in involuntary hospitalization compared to voluntary hospitalizations and men were found to be hospitalized involuntarily with a higher rate. Unemployment at the time of hospitalization was found with a higher rate in the involuntary group. In a study which investigated the effect of race and gender in involuntary hospitalizations, it was found that men were hospitalized involuntarily with a higher rate compared to women which was similar to our findings (16).

In a 5-year follow-up study performed in Croaita which investigated the sociodemographic and clinical properties of patients who were hospitalized involuntarily, the rate of involuntary hospitalization was found to be 2% which was lower than the rate we found in our study. In the same study, it was found that most of these patients were graduates of primary school, lived alone, were single/widowed/divorced and unemployed at the time of hospitalization which was similar to our results. In addition, the most common diagnosis was found to be schizophrenia (17). In a study performed in Israel which investigated involuntary hospitalizations between 1991 and 2000, the typical profile of involuntary hospitalization was found to be "male, single individuals aged 18-24 years and above 65 years with

**Table 3.** Next hospitalization ways in the patients with recurrent hospitalizations

recurrent nospitalizations			
	Recurrent hospitalization	Analysis	
	Voluntary	Involuntary	
First hospitalization			
Voluntary (n=103)	100 (97.1)	3 (2.9)	Fisher's exact test=<0.01
Involuntary (n=9)	2 (22.2)	7 (77.8)	

**Table 4.** Psychiatric findings determined by the physician who realized involuntary hospitalization as the reason of the possibility of the patient to harm himself/herself or the people around

Findings	n (%)
Hallucinations	32 (48.4)
Delusions	52 (78.8)
Aimless and disorganized behaviour	56 (84.8)
Confusion	30 (45.4)
Suicide attempt and/or thoughts	24 (36.4)
Non-compliance with the treatment program arranged for his/her disease and/or possibility of treatment only by hospitalization	58 (87.8)

\*Since more than one finding is present in each patient, the total is higher than 100%

an education period shorter than 8 years" and the most common diagnoses were found to be schizophrenia and hallucinative disorders (18).

In our study, it was found that patients with a diagnosis of psychosis constituted 72.8% of the involuntary hospitalizations, longer hospitalizations times were required in involuntary hospitalizations compared to voluntary hospitalizations and dangerousness (for himself/herself or for others) and/or nessecity for treatment was determined by the physician who made the evaluation in involuntary hospitalizations. In a 10-year follow-up study performed in Israel which investigated rehospitalization in psychiatric patients whose first hospitalizations were involuntary, patients with involuntary hospitalizations were hospitalized more frequently and for a longer period compared to patients with voluntary hospitalizations. In the same study, it was found that patients with a diagnosis of schizophrenia were mostly hospitalized involuntarily and patients with a diagnosis of mood disorder were mostly hospitalized voluntarily (19). In a study performed in Germany which investigated involuntary hospitalization in 2000, the most common diagnoses were reported to be schizophrenia and substance dependence (20). The high risk of involuntary hospitalization in the psychotic patient group may be related with a higher tendency to dangerous behaviour and weakness of insight and willpower. It is known that the disease-related cognitive loss especially in IQ and verbal memory is more severe in schizophrenia compared to mood disorders (21). Since the state of self-dangerousness and dangerousness for other people because of "aimless and disorganized behaviour" which is the most common finding in our study has priority compared to delusions and hallucinations, the issue if there is a relation between involuntary hospitalization and cognitive state as well as positive findings including disorganized behaviour arising from psychosis deserves to be investigated.

In our study, 7 (78%) of 9 patients whose first hospitalization was involuntary during the 6-month period were hospitalized involuntarily again. In the study performed in Israel, the rate of involuntary hospitalization in the next hospitalization was found to be 41% in patients with an involuntary hospitalization and 13% in patients whose first hospitalization was voluntary (8). In a one-year follow-up study performed in England, it was found that 15% of the patients who were hospitalized involuntarily were rehospitalized involuntarily (3).

When hospitalization periods were examined, it was found that there was no difference in hospitalization periods between voluntary and involuntary hospitalizations in a 2-year follow-up study performed in Sweden (22). In another study which compared various clinical properties of schizophrenia patients with voluntary and involuntary presentations in the psychiatry unit of the same hospital, it was found that patients who were hospitalized involuntarily required partially relatively longer hospitalization periods (23). In our study, the hospitalization period tended to be slightly longer in involuntary hospitalizations, though the difference was not

statistically significant (p=0.056). While the hospitalization period in voluntary hospitalizations was approximately 24 days (sd:±16.8), it was found to be approximately 28 days in involuntary hospitalizations (sd:±12.,).

As a result of our study, it was found that the profile of involuntary hospitalization in our clinic which is found in a district mental health hospital mostly showed similar properties with previous studies performed abroad and the rate of 13% was found to be notable. When the properties of the patients hospitalized involuntarily were examined, it can be thought that the known general risk factors for psychiatric hospitalizations and disorders (male gender, single marital status, unemployment) are more important in terms of involuntary hospitalization. It can be stated that "non-compliance with treatment" is the predominant determinative factor in this group in terms of our hospital and the possibility of involuntary hospitalization is high in subsequent hospitalizations in the same patients.

In current practice, the basic point in all decisions of involuntary hospitalizations made by 9 psychiatrists working in our hospital is observed to be "the possibility of harming himself/herself and others" similar to the other countries. Considering the high rate, the necessity of large-scale comprehensive prospective follow-up studies including more detailed assessments and the importance of effectuation of the "Mental Health Law" in our country should be emphasized.

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