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Research / Araştırma

Psychiatric Diagnosis and Sociodemographic Characteristics of Patients Admitted to Psychiatry Clinic in a Rural Area

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ABSTRACT

Psychiatric diagnosis and sociodemographic characteristics of patients admitted to psychiatry clinic in a rural area

Objective: There is little published literature about the characteristics of patients with mental disorders in rural hospitals. The aim of this study is to determine the mental illness and the demographics of the patients who admit to the outpatient policlinic that offers psychiatric health service for the first time in a rural state hospital.

Method: The semi-structured interview consisting DSM-IV diagnostic criterias were used for the patients who admitted to the psychiatry policlinic of Kutahya Gediz State Hospital in a 6-month-period. Sociodemographic data were collected from 555 people aged over 18.

Results: Mean age of the patients was 44.7. The rate of women was 67.2% (n=373) and male was 32.8% (n=182). The most frequent DSM-IV diagnoses were mood disorders (n=249, 44%), anxiety disorders (n=179, 32.5%), psychotic disorders (n=52, 9.4%), adjustment disorders (n=26, 4.7%) and somatoform disorders (n=21, 3.8%). Twenty of people had subthreshold symptoms and could not be diagnosed. Comorbidities including diabetes mellitus, hypertension and hypothyroid were frequently observed in psychiatric patients (n=163, 29.4%). Adjustment disorders were mostly seen at younger ages. Psychiatric disorders were most common in married people.

Conclusion: The mean age of the patients were found older than previous studies. Women were more commonly admitting to the outpatient psychiatric policlinic. It's remarkable that marriage and psychiatric disorders have a strong association in the rural setting. Clinicians also should consider about comorbid somatic diseases.

Key words: Psychiatric disorders, rural area, sociodemographic features, somatic comorbidity

ÖZET

Kırsal bir bölgede psikiyatri polikliniğine başvuran olguların psikiyatrik tanı dağılımı ve sosyo-demografik özellikleri

Amaç: Ülkemizde kırsal bölgelerde bulunan hastanelere başvuran psikiyatri hastalarının özellikleri hakkında yapılmış araştırma sayısı çok azdır. Çalışmamızda, ilk kez psikiyatri polikliniği hizmeti alan kırsal bir bölgede psikiyatrik bozuklukların tanı dağılımları ve tanıların sosyo-demografik özelliklerle ilişkisini saptamak amaçlanmıştır.

Yöntem: 6 aylık bir süreçte Kütahya Gediz İlçe Devlet Hastanesi psikiyatri polikliniğine ilk başvurusu olan hastaların DSM-IV tanı ölçütlerini kapsayan yarı-yapılandırılmış görüşme ile muayeneleri yapılmış, hastaların sosyo-demografik verileri toplanmıştır. 18 yaş üstü 555 kişi değerlendirilmeye alınmıştır.

Bulgular: Polikliniğe başvuranların yaş ortalaması 44.7 olarak bulunmuştur. Başvuranların %67.2'si (n=373) kadın, %32.8'i erkektir (n=182). Başvuran hastaların 20'sine ilk başvuruda tanı konulamamış olup belirtiler eşik altı olarak değerlendirilmiştir. Kalan 535 kişide ise en sık konulan tanı duygudurum bozukluklarıdır (n=249, %44). Bundan sonra en sık görülen psikiyatrik rahatsızlıklar sırasıyla anksiyete bozuklukları (n=179, %32.5), psikotik bozukluklar (n=52, %9.4), uyum bozuklukları (n=26, %4.7) ve somatoform bozukluklardır (n=21, %3,8). Diabetes mellitus, hipertansiyon ve hipotiroid dahil komorbiditeler psikiyatrik hastalarda sıklıkla gözlendi (n=163, %29.4). Çalışmamızda cinsiyet, yaşanılan yer ile tanılar karşılaştırıldığında istatistiksel anlamlı bir farklılık saptanmamışken, uyum bozuklukları tanısının diğer gruplara göre daha erken yaşta görüldüğü gözlenmiştir. Evli kişilerde ruhsal hastalıkların daha sık görüldüğü saptanmıştır.

Sonuç: Çalışmada başvuran hastaların yaş ortalamalarının geçmişte yapılan çalışmalara göre yüksek olduğu, çoğunlukla kadınların başvuruda bulunduğu görülmüştür. Evlilik ve ruhsal hastalıklar arasındaki anlamlı ilişki dikkat çekicidir. Psikiyatrik tanıya somatik hastalıkların sıklıkla eşlik etmesi ise klinisyenlerin dikkat etmesi gereken önemli bir konudur.

Anahtar kelimeler: Psikiyatrik bozukluklar, kırsal bölge, sosyodemografik özellikler, somatik eştanı

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INTRODUCTION

According to the statistical data of the Ministry of Health, our country have 2 psychiatrists per 100,000 people and the majority of psychiatrists are serving in the metropolitan area (1). It has difficulties to serve full-fledged hospitals in rural areas in Turkey, just as around the world.

Psychiatric disorders are important reasons for disability worldwide and also in our country (2,3). According to the World Health Organization's research, five of the ten disorders lead to disabilities worldwide are mental disorders (depression, schizophrenia, bipolar disorder, alcohol-related problems, obsessive compulsive disorder) (4).

According to Mental Health Profile Survey of Turkey, which started in 1993 and the results were reported in 1998, the rate of the people who have mental disorders are 17.2%. The Ministry of Health carried out this study with 84 medical personnel; 14509 households were interviewed and questionnaires (composite international diagnostic interview survey, general health questionnaire, short disability survey, household surveys) were administered to people. This has been one of the most important epidemiological study in the field of psychiatry in Turkey (5). In the report, the rate of admissions to the hospital for complaints about mental health was determined as 4.7%, and 39% of these people were reported to refer to the psychiatric clinic.

Rural-urban differences in mental health are still a matter of discussion. The impact of settlement on mental health and help-seeking behaviour for mental health problems are the subjects that national and international studies are interested in and there are many researches available about those issues in the literature. Many international studies have reported that urbanization causes depression, bipolar disorder, schizophrenia more frequently and also predispose mental illness based on the opinion of more stressful living conditions and lack of social support in urban life. But the researches held in our country report that similar rates for mental disorders are found in rural-urban areas but help-seeking behaviour is less in rural areas because of the stigma concerns (6-13). Low socioeconomic level in rural areas, living in poor health conditions and unable to get health care services easily for chronic physical illnesses (economic, transportation, stigma concerns) are seen as the reasons for the occurrence of mental illness more frequent (14). In recent researches, it is claimed that people with psychiatric disorders in rural areas refrain to admit psychiatric clinics because of stigmatization and also patients self-medicate with alcohol and/or substance, so that alcohol/subtance use disorders are seen more in rural areas (15-17). National studies were mostly done in the urban centers so that we have limited information about mental illness in rural areas (18-20). Difficulties encountered in carrying psychiatric services to rural areas are also issues which need to be considered in our country.

Epidemiological studies are needed for the development of more effective programs to have adequate mental health services. Many studies in the past have shown the relationship between socio-demographic features with mental disorders (21-26). Epidemiological studies are also important to determine prevalence of mental disorders, the relationship between sociodemographic characteristics, causes of illness, attitudes towards patients' getting psychiatric services, the relationship between symptoms of illness and cultural elements, identification of risk groups and the relationship between physical illness and mental illness. Such studies will form the basis for the formation of effective mental health policies.

In our study, we aimed to evaluate the relationship between psychiatric diagnosis of the patients and sociodemographic features such as gender, age, marital status, comorbid medical illnesses in the district-village settlement in Gediz district of Kutahya where the people have got psychiatric health services for the first time.

METHOD

Gediz is a district of Kutahya with population of 20113 in county center, and 31178 in villages (27). This study was conducted in the Gediz State Hospital psychiatry clinic between January 2012 and June 2012. The study included the patients who admitted to the

psychiatry clinic for the first time. Patients under age 18 or sent by the judicial institutions were not included.

Because Gediz and nearby provinces had no child psychiatrist, our psychiatry clinic provided service for the children also. Total number of initial admissions were 631 in a-six-month period. Among these 76 were under the age of 18. 18, which were evaluated in the present study. Forensic patients were excluded.

Age, sex, marital status, comorbid physical illness, and settlement (village, town center) of the patients were evaluated. Diagnosis of mental illness were examined with semi-structured interview technique in accompaniment of DSM-IV criterias. Twenty people with subthreshold symptoms were undiagnosed in the first application.

Statistical Analysis

SPSS 17.0 software was used for statistical evaluations. Sociodemographic data were analyzed with descriptive statistics. The relationship between categorical variables were assessed with chi-square test (cross tables), the mean age in the diagnosis were assessed with ANOVA and significance between the mean age was assessed by Tukey's test in Multiple Comparisons table. Mann-Whitney test for binary variables and Kruskal-Wallis test for multiple variables were used in non-parametric tests of non-homogeneous distribution groups. Differences were considered significant when statistical value was $p<0.05$.

RESULTS

The number of patients admitted to the psychiatry clinic of Kütahya Gediz State Hospital for the first time was 631 between January 2012 to June 2012. Of these patients 76 were under 18 years old. Mean age of all was 40.9±18.8, while the mean age of over 18-year-old group were 44.7±16.5. Assessments have been made for over 18 years old. People under 18 year of age were not included in the study (Table 1).

In 555 patients over 18 years old, 67.2% (n=373) were female and 32% (n=182) were male. The mean age for women were 43.6±16.3 and 47.1±16.6 for men.

Table 1: Mean age of diagnostic groups

Diagnosis	Mean age	Standard Deviation
Mood Disorders	43.7	15.4
Anxiety Disorders	47.3	17.0
Psychotic Disorders	50.9	16.7
Somatoform Disorders	41.1	10.9
Adjustment Disorders	36.3	15.0

78.9% of admissions (n=438) were married, 12.4% (n=69) single, 8.6% (n=48) were divorced or widow. 47.9% of patients (n=266) were stated in the village, and 52.1% (n=289) stated in the town center.

Twenty of the applicants who had subthreshold symptoms were not diagnosed according to DSM-IV diagnostic criteria on their first admission (n=249, 44%). Mood disorders were the most common diagnosis among remaining 535 people (n=249, 44%). After that the most common psychiatric disorders are respectively; anxiety disorders (n=179, 32.5%), psychotic disorder (n=52, 9.4%), adjustment disorder (n=26, 4.7%) and somatoform disorders (n=21, 3.8%). Major depressive disorder was most frequent diagnosis in mood disorders (n=223, 40.2%), while generalized anxiety disorder was the most common diagnosis in anxiety disorders (n=82, 14.8%). The most common psychotic disorder was schizophrenia (n= 36, 6.5%) and somatization disorder (n=18, 3.2%) in somatoform disorders.

When compared to the mean age of diagnosis in our study it's observed that the youngest diagnostic group was 36.3±15.0 mean age with adjustment disorders. Patients with the highest mean age were in psychotic disorder group and determined to be 50.9±16.7 years. Mean age was found to be 43.7±15.4 in mood disorders, 47.3±17.0 in anxiety disorders, and 41.1±10.9 in somatoform disorders. The differences between the mean age of diagnosis groups were found to be statistically significant ($\chi^2=4.449$, $p<0.01$).

The mean age of patients diagnosed with a mood disorder among people admitted to the clinic were found to be younger in compare to psychotic disorders. However the difference was not statistically significant. Patients diagnosed with adjustment disorder were observed at younger ages compared to anxiety disorders and psychotic disorders, differences were

Table 2: Sociodemographic characteristics of the patients in terms of diagnostic groups

Diagnosis		Gender		Settlement		Marital Status		
		Female	Male	Village	District center	Married	Single	Divorced/ Widow
Mood Disorders	n	160	87	114	133	200	28	19
	%	64.8	35.2	46.2	53.8	81.0	11.3	7.7
Anxiety Disorders	n	129	51	83	97	149	15	16
	%	71.7	28.3	46.1	53.9	82.8	8.3	8.9
Psychotic Disorders	n	34	18	33	19	30	13	9
	%	65.4	34.6	63.5	36.5	57.7	25.0	17.3
Somatoform Disorders	n	17	4	11	10	18	2	1
	%	81.0	19.0	52.4	47.6	85.0	9.5	4.8
Adjustment Disorders	n	18	8	12	14	22	4	0
	%	69.2	30.8	46.2	53.8	84.6	15.4	0.0
Other Diagnoses	n	6	7	5	8	9	2	2
	%	46.2	53.8	38.5	61.5	69.2	15.4	15.4

statistically significant (95% CI=1.25-20.68, p<0.01, 95% CI=3.42-25.66, p=0.003 respectively). Among male patients 49.7% (n=87) were diagnosed with a mood disorder, 29.1% (n=51) with anxiety disorders and 10.3% (n=18) with psychotic disorders. Forty four percent (n=160) of female patients were diagnosed with mood disorders, 35.4% (n=129) anxiety disorder and 9.3% (n=34) had psychotic disorders. A statistically significant difference was not found between men and women in terms of diagnosis (χ^2=6.837, p=0.233).

In all diagnostic groups, the number of married people were higher than single ones but psychotic disorders. The number of single people were higher in psychotic disordes. In our study, it was observed that mental disorders were more common in married people than single people (single, widow, divorced) and the difference were significantly higher (χ^2=18.380, p=0.03).

Among patients living in the village 44.2% (n=114) were diagnosed with mood disorders, 32.2% (n=83) with anxiety disorders, 12.8% (n=33) with psychotic disorder. 47.3% of the patients living in the town center (n=133) were diagnosed with mood disorders, 34.5% (n=97) with anxiety disorders, 6.8% (n=19) with psychotic disorders. Somatoform disorders account for about 4.7% of the patients from the village constitutes, 3.6% from the town center (Table 2). When diagnostic groups were evaluated according to the place they inhabit, there was no statistically significant difference (χ^2=6243, p=0.283).

Somatic diseases were found in 29.4% of patients (n=163). The most common comorbid somatic disease was hypertension (HT) (n=90, 16%), second most common was diabetes mellitus (DM) (n=57, 4.9%) and 5.4% (n=30) of patients admitted two diseases together as comorbidity. The third most common comorbidity was determined as hypothyroidism (n=20, 3.6%). 13.6% of the patients with mood disorder had (n = 34) HT, 8% (n=20) DM and 4.4% (n=11) hypothyroidism as somatic comorbidity. Among the patients with anxiety disorder 23.4% (n=42) were diagnosed with HT, 12.8% (n=23) with diabetes mellitus, 3.9% (n=7) with hypothyroidism. In psychotic disorder group 15.3% (n=8) of the patient were diagnosed with HT, 5% (n=3) with DM and 3.8% (n=2) with hypothyroidism.

DISCUSSION

Gediz district is 90 km away from Kutahya city center and residents of Gediz had been facing problems in accessing mental health care until mental health services by psychiatrists were given for the first time recently. Providing mental health services for the first time in a district area makes findings of our study valuable.

The number of women admitted to the psychiatry clinic were about 2 times more than males. Differences in the frequency of admissions between male and female were especially striking among patients living in

the village. In the literature, there are many researches that claimed women refer to the health services more frequently than males (28,29). It is found in our study that women admitted to psychiatry clinic more frequently than men in all diagnosis groups. Health center admission for women increases with the onset of menstrual period. Women frequently refer to the hospitals for birth control or pregnancy follow-up which bring along to be more familiar to health care systems than men. Especially in rural areas, lack of business life, less social participation and easy access to the health centers seem to make women see health centers as a part of social life. Men tend to see their psychiatric complaints as the results of their financial situation, frustrations and daily stress, therefore they may not need for psychiatric help (29-31).

In our study, mean age was higher than findings of other similiar researches held in city centers (31,32). Education or job opportunities and socioeconomic viability of the city are known to increase the migration of young population to urban centers (33). The data from TUIK show that migration is prevalent in the 15-29 age group mostly (6.9% to 9.1%) (34). Small number of young people, conversely greater number of old people living in the rural were thought to cause the high mean age.

The most common diagnoses were mood disorders, anxiety disorders and psychotic disorders. Studies indicated that the most common psychiatric illness group is somatic disorders after mood disorders and anxiety disorders in rural (35,36). Differently than expected, psyhotic disorders were the most common disorders after mood and anxiety disorders in our study. Due to living with their families in rural areas because of their functional decline and problems to access to psychiatric services in the preceding period were interpreted as the reasons for higher number of psychotic disorder diagnosis. The first applications of the psychosis patients were often in acute exacerbation and this situation supports the interpretation that they had problems in accessing the treatment of patients in the past.

Nobody was diagnosed with alcohol or substance use disorders in our study. It is considirable that alcohol has sold only at a single point of town center. Disapproval of alcohol-taking behavior due to cultural and religious characteristics of the region and concern of stigmatization in a small populated residential area might be the obstacles to access alcohol or substance and also people with alcohol/substance disorders might not be getting help because of concerning about stigmatization. It is also considered that people with alcohol/substance problems may refer to psychiatric services outside the town, may be in city hospitals again because of concerns about stigmatization. There are many reports telling that alcohol/substance use disorder are seen more frequently in urban areas beside there are arguments that it is more than that detected in rural areas because of all those concerns and not getting help from district hospitals (15-17).

Admissions to our psychiatry clinic were mostly from district center. Transportation problems to psychiatry clinic can lead a reduction in the number of admissions from the villages. No significant difference was found between admissions from village or district center in terms of diagnostic groups. District center people and village people live in a intertwined way that represents the overall rural and lack of comparison with the distribution of mental illness in the city center is a limitation of our study.

In review of literatur, it is seen than national and international studies on psychiatric disorders in urban and rural area can be in conflict with each other (37-39). There are studies in literature indicating that diagnosis of depression and psychotic disorders in both men and women are more due to rapid urbanization (7,40). A national study reports that psychotic disorders are seen more frequently in rural areas but there has been no significant difference in the study. Another national study report states that people especially in rural areas have sufficient knowledge of the treatment of schizophrenia but, because of the fear of stigmatization they are hesitant to get psychiatric help (12,13) . It is also reported that bipolar disorder is more frequent in urban areas, and psychotic symptoms are more common in bipolar disorders with people living in urban (41). A study reports that depression is more common in rural areas (42). Living in poor health conditions, rural inaccessibility to primary health care,

difficulties in dealing with chronic somatic diseases and inaccessibility to psychiatric services (economic, transportation, stigma concerns) are thought to be the reasons for the findings. It is reported in some studies that suicide is more frequent in rural areas and especially firearms suicides are significantly more common (43,44). Being born in village or at least 15 years living in village have been identified with a high prevalence of social phobia in a national study (45). In some studies, it was reported that conversion disorder symptoms are more common with people from rural areas and from lower socio-cultural levels (46,47) and again in a national survey, it is found that somatoform disorders are significantly more often in rural (18).

Marriage rate in the region is high. TUIK statistics showing that rate of marriage over 15 years old of households in the city centers changes between 60% and 65%, it is observed that this rate is over 70% in rural areas (48). Lack of educational opportunities for the youth and conservative, cultural and moral structure of the region are the reasons for marriage at an early age. In the literature, the low marriage rates in psychotic disorders were reported in many studies (32,49). Although the lowest marriage rates were found in psychotic disorder diagnostic group in our study, the difference is not as significant as the other national studies done in the past (18,32). Strong extended family ties, supports of families, relatives and neighbours of patients with psychotic disorders about marriage formation and about maintenance of marriage might be the reasons for higher rates of marriage in rural. Psychiatric disorders seen in married people more frequently is remarkable, this finding of our study contradicts the findings of the other researches in the literature. High marriage rates and low divorced/widow rates in rural should be taken into account anyway (50). The belief that marriage is good for patients with mental illness and marriages performed for patient care can be considered as the causes of this excess.

It's remarkable that psychiatric disorders are commonly accompanied by somatic diseases. Many studies were found in the literature showing that especially HT and DM often accompany psychiatric disorders (51,52). About 1 out of 3 people diagnosed with psychiatric disorders have somatic diseases. In particular, psychiatric disorders and HT association is remarkable. Diagnosis of anxiety disorder more frequently in patients with HT is consistent with studies that identified a significant relationship between hypertension and anxiety disorder in the past (53,54). In our study, hypothyroidism is another one of the most common comorbidity. In many studies it was shown that hypothyroidism makes predisposition to mental illness (55,56). Psychatric disorders occur in patients with somatic diseases frequently (57,58). Chronic physical illness can trigger mental illness and difficulties of life due to physical problems might play major role in the formation of mental illness.

Lack of assessment of psychiatric comorbidity, small number of outpatient admissions, and evaluation in a short period were other limiting factors for our study.

This study was conducted in a rural area with small population. In our country, there are many psychiatric epidemiological researches studied in hospitals of city centers, just a few researches were studied in rural areas. Importance of our study comes from conducting it in an area that psychiatric services started for the first time and giving information about people admitted to psychiatry services in rural. It should be considered that field studies are important to determine the possible risk factors for psychiatric disorders.

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