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Applications to Elazığ Mental Hospital Emergency Department in 2021 years

Nulufer Kilic

Elazığ Fethi Sekin City Hospital, Department of Psychiatry, Elazığ, Türkiye

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Abstract

In the present study, the purpose was to analyze the applications made to the emergency department of a mental disease hospital in eastern Türkiye. The applications to the mental health and diseases hospital emergency department between 01.01.2021 and 01.01.2022 were examined in the study. The demographic data and psychiatric diagnoses of the patients were recorded. The data of 3712 people who applied to the emergency department of the hospital were analyzed. A total of 37.98% of these patients were hospitalized. Men constituted the majority both in all applications and in patients who were hospitalized for observation and treatment. The most frequent application to the emergency department of the hospital was the patients brought by law enforcement officers with a rate of 26.64%. In patients who were hospitalized, schizophrenia and other psychotic disorders were in first place with a rate of 30.35%, bipolar disorder and mood disorders were in second place with a rate of 29.29%, and a general psychiatric examination diagnosis was in third place with a rate of 11.91%. To know the demographic characteristics and clinical diagnoses of people who apply to psychiatric emergency departments in search of help is very important for mental health service planning and development. Larger studies with larger sample groups are needed to generalize and interpret the findings obtained in the present study.

Keywords: Psychiatric emergencies, consultation, liaison psychiatry

Introduction

Mental health emergency can be defined as the deterioration of a person's feelings, thoughts, and behaviors in one or more areas, in the form of manifestations that may pose a threat to both himself/herself and his/her surroundings [1]. Studies in the literature report that all emergency department admissions are increasing every year. Parallel to this, psychiatric emergencies are also increasing [2-5]. In a study conducted abroad, it was found that the rate of admission to the emergency department with psychiatric symptoms and diseases increased from 3.22% to 6.31% over the years [6]. This increase is associated with the non-emergency use of emergency departments for both general medical problems and mental health [5-7]. In a study conducted in our country, it was reported that the use of emergency departments by patients for simpler reasons such as prescribing a prescription also increases these numbers [5] . Also, the number of psychiatric patients admitted to the emergency department is increasing day by day [2,5,6].

The emergency departments in the field of mental health are provided in the emergency departments of state hospitals, training and research hospitals, university hospitals, and psychiatry branch hospitals in our country. The admission diagnoses and rates varied in studies conducted in the emergency departments of different institutions. In a study conducted, psychotic disorders were present with a rate of 29% in the first place and alcohol/substance use disorder was diagnosed with a rate of 25%, a major depressive disorder with a rate of 23%, and a personality disorder with a rate of 22% [8]. In a study conducted in a university hospital, suicide attempts came first. It was reported as psychomotor agitation and psychotic signs and symptoms [2]. In light of all this information and literature data, the purpose of the study was to analyze the applications made to the emergency department of a branch hospital in eastern Türkiye as a forensic case at the request of themselves or their relatives or

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Corresponding Author: Nulufer Kilic, Elazığ Fethi Sekin City Hospital, Department of Psychiatry, Elazığ, Türkiye
Email: nuluferkilic@mynet.com

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accompanied by law enforcement officers.

Material and Methods

Ethical approval

Approval for the study was obtained from the Fırat University Non-Interventional Local Ethics Committee with the 15.12.2022 date and number 2022/15-20. The study was conducted in accordance with the Declaration of Helsinki Principles, with the permission of the Chief Physician of the Elazığ Mental Health and Diseases Hospital.

Procedure

Elazığ Mental Health and Diseases Hospital emergency department system entries were examined through the hospital automation system. All applications for the last year between 01.01.2021 and 01.01.2022 were examined in the study. The demographic data of the patients such as name, surname, and age were scanned through the automation system. All the number of applications in the last year and the diagnoses of the applicants according to the DSM-5 Criteria (Diagnostic and Statistical Manual of Mental Disorders) were recorded along with the data showing how many people from these applications were hospitalized and with which psychiatric diagnosis they were hospitalized. Those without a psychiatric diagnosis, upper respiratory tract infection, injection, or examination purposes were excluded from the study.

Statistical analysis

When the findings obtained from the study were evaluated, the Statistical Package for Social Sciences version 22 program was used. Descriptive statistical methods (e.g., mean, standard deviation, frequency, rate) were used in examining sociodemographic data.

Results

A total of 3800 people applied to the emergency department of our hospital in the last 1 year. The data of 3712 individuals who met the inclusion criteria were included in the analyses. In the data of 3712 people examined, it was found that 1410 (37.98%) people were hospitalized. The mean age of all applicants was 35.9±11.21. The mean age of the patients who were hospitalized for treatment and observation was calculated as 32.75±13.01. In terms of gender distribution, males constituted the majority both in all applications and among the patients who were hospitalized for observation and treatment. The male/female ratio in general admissions was calculated as 2851/861 (76.81/23.19%). The male/female ratio was 1168/242 (82.84/17.16%) in the group that was hospitalized for observation and treatment.

The most common 989 (26.64%) admissions to the emergency department of our hospital consisted of people who were brought in by law enforcement and diagnosed with a general psychiatric examination. A total of 538 applicants (14.49%) were people who had sleep problems, appetite problems, or were diagnosed with general psychiatric examination for counseling purposes. Schizophrenia and other psychotic disorders took third place among 510 (13.73%) applicants. The diagnoses made in emergency department admissions are given in Table 1.

Table 1. The distribution of the diagnoses submitted to the system in all emergency department admissions

Diagnosis	n	%
General psychiatric examination brought with law enforcement	989	26.64
General psychiatric examination (self-applicant)	538	14.19
Schizophrenia and other psychotic disorders	510	13.73
Anxiety disorder	508	13.68
Bipolar disorder and mood disorder	497	13.38
Alcohol/substance use disorder	159	4.28
Major depressive disorder	135	3.63
Personality disorder	127	3.42
General medical examination	86	2.31
Adjustment disorder	66	1.77
Mental retardation	45	1.21
Conversion disorder	27	0.72
Dementia, delirium	14	0.37
Autism spectrum disorder	4	0.10
Attention deficit and hyperactivity disorder	3	0.08
Simulation	2	0.05
Applying with domestic stress, crisis	2	0.05

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The most common diagnosis was schizophrenia and other psychotic disorders with 428 (30.35%) patients among the 1410 patients who were hospitalized. In the second place, 413 people (29.29%) were diagnosed with bipolar disorder and mood disorder, followed by 168 people (11.91%) with general psychiatric examination diagnoses in the system. The applications to the emergency department by people who are given a compulsory hospitalization decision (432. Turkish Civil Law) by the Prosecutor's Office are made to the closed ward based on the decision before the diagnosis is clarified in the emergency department conditions for the physician. For this reason, the diagnosis in the emergency department is entered into the automation system as a general psychiatric examination. The diagnostic codes of patients who were hospitalized for treatment or clinical observation are given in Table 2.

Table 2. The diagnosis distribution of the patients who were hospitalized and decided to be treated

Diagnosis submitted to the system	n	%
Schizophrenia and other psychotic disorders	428	30.35
Bipolar disorder and mood disorder	413	29.29
General psychiatric examination	168	11.91
Adjustment disorder	123	8.72
Personality disorder	98	6.95
Anxiety disorder	67	4.75
Major depressive disorder	54	3.82
Mental retardation	26	1.84
Alcohol/Substance use disorder	23	1.63
Conversion disorder	10	0.70

The distribution gender of those who applied to the emergency department according to months is summarized in Figure 1. The highest number of applications was made in December with 351 patients. A total of 268 patients (196 Men/72 Women) in January, 328 patients (264 Men/64 Women) in February, 311 patients (248 Men/63 Women) in March, 264 patients (219 Men/45 Women) in April, 329 patients (230 Men/99 Women) in May, 291 patients (228 Men/63 Women) in June, 318 patients (224 Men/94 Women) in July, 319 patients (231 Men/ 88 Women) in August, 269 patients in September (214 Men/ 55 Women), 314 patients (241 Men/ 73 Women) in October, 350 patients (279 Men/71 Women) in November, and 351 (277 Men/ 74 Women) in December applied to the emergency department. In terms of gender, the month in which the male gender made the most emergency application was November, and the female gender made the most emergency application in May.

When the distribution according to months of patients who were admitted to the emergency department and subsequently hospitalized was evaluated. The highest number of hospitalizations was in November with 150 hospitalizations. A total of 97 patients in January (76 Men/21 Women), 80 patients in February (66 Men/ 14 Women), 117 patients in March (104 Men/13 Women), 91 patients in April (75 Men/16 Women), 117 patients (99 Men/18 Women) in May, 126 patients (105 Men/21 Women) in June, 142 patients (118 Men/24 Women) in July, 112 patients (96 Men/ 16 Women) in August, 114 patients in September (95 Men/19 Women), 125 patients (104 Men/21 Women) in October, 150 patients (118 Men/32 Women) in November, and 139 patients (112 Men/27 Women) in December were hospitalized and treated in the emergency department. Figure 2 shows the number of hospitalizations. November, July, December, and June were the months when the male gender was hospitalized the most, and November, December, and July were the months when the female gender was the most hospitalized.

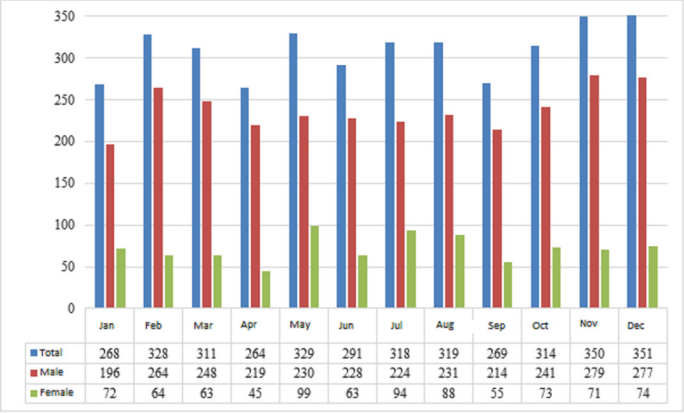

Figure 1. The number of applications to the emergency department according to months

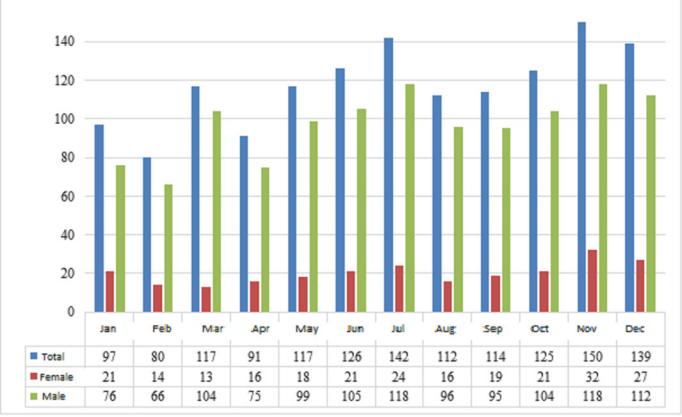

Figure 2. The distribution of the hospitalization data from the emergency department according to months

The diagnostic distribution of the patients admitted from the emergency department according to months is given in Figure 3 and Table 3. In bipolar and mood disorder diagnosis, a total of 28 patients were hospitalized in January, 17 patients in February, 29 patients in March, 25 patients in April, 38 patients in May, 45 patients in June, 40 patients in July, 24 patients in August, 33 patients in September, 46 patients were in October, 50 patients in November, and 38 patients in December. In the diagnosis of

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schizophrenia and other psychotic disorders, 32 patients were hospitalized in January, 27 patients in February, 33 patients in March, 30 patients in April, 34 patients in May, 36 patients in June, 42 patients in July, 35 patients in August, 35 patients in September, 40 patients in October, 38 patients in November, and 46 patients in December. Also, in major depressive disorder diagnosis, a total of 5 patients were hospitalized in January, 5 patients in February, 3 patients in March, no patients in April, 3 patients in May, 3 patients in June, 4 patients in July, 4 patients in August, 1 patient in September, 6 patients in October, 10 patients in November, and 10 patients in December.

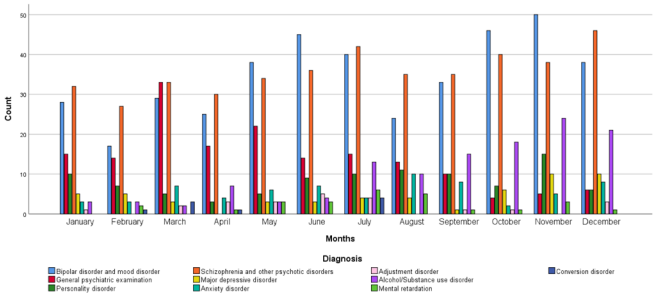

Figure 3. Diagnosis distribution of hospitalized patients according to months

Table 3. Diagnosis distribution of hospitalized patients according to months

Diagnosis	January	February	March	April	May	June	July	August	September	October	November	December
Schizophrenia and other psychotic disorders	32	27	33	30	34	36	42	35	35	40	38	46
Bipolar disorder and mood disorder	28	17	29	25	38	45	40	24	33	46	50	38
General psychiatric examination	15	14	33	17	22	14	15	13	10	4	5	6
Adjustment disorder	1	0	2	3	3	5	4	0	1	1	0	3
Personality disorder	10	7	5	3	5	9	10	11	10	7	15	6
Anxiety disorder	3	3	7	4	6	7	4	10	8	2	5	8
Major depressive disorder	5	5	3	0	3	3	4	4	1	6	10	10
Mental retardation	0	2	0	1	3	3	6	5	1	1	3	1
Alcohol/Substance use disorder	3	3	2	7	3	4	13	10	15	18	24	21
Conversion disorder	0	1	3	1	0	0	5	0	0	0	0	0

Discussion

In the present study, the emergency department applications were evaluated in a psychiatric branch hospital in eastern Türkiye. It was seen in the results obtained that the emergency department applications resulted in hospitalization with a rate of 37.98%, and the majority of all applications were male. It was also found that the most frequent application was made with law enforcement officers as a forensic case.

In the results of the study, it was shown that 37.98% of all applications were decided to be hospitalized and treated. Similar to the present study, this rate was found to be 31.5% in the study conducted at Bakırköy Mental Health and Diseases Hospital. The compilation of data for the last month in this study may explain the low rate [9]. In another study conducted abroad, 16.7% of the patient's hospitalization was decided at the patient's own request at a rate of 16.7% and without the patient's request at a rate of 4.6% [10]. This rate was found to be 36% in a study conducted in a state hospital emergency department in our country. In this study, a result similar to the present study was obtained and the data from the last year were reviewed [8].

In previous studies conducted on psychiatric emergencies, mood disorders and psychotic disorders come first as the most common reason for admission [8-14]. The change in the rates in previous studies was associated with many factors such as the hospital where the study was conducted, the time interval in which the data were analyzed, and the proper keeping of records. In a study conducted abroad, it was reported that the most common diagnosis in emergency psychiatry departments was alcohol and substance use at 26.3% followed by psychotic disorders with a rate of 15.5%, a manic episode with a rate of 11.8%, and major depressive disorder with a rate of 10.9% [11]. In a study conducted in the United States of America (USA), mood disorders were found to be the most common reason for admission to the emergency psychiatry department with a rate of 66%, and psychotic disorders were the second most common reason with a rate of 25%. A total of 408 patient data were analyzed in this study [12]. In a recent study, neurotic and stress-related disorders were found to be the most common reason for admission to the psychiatry emergency department with a rate of 27.3% [10]. In another study conducted in a limited time such as one month, the most common reason for admission was found to be mood disorders (i.e., major depressive disorder, bipolar disorder) with a rate of 36%. It was shown that there is a similar rate in hospitalized patients. The applications made with law enforcement officers were not recorded in this study. In addition, in this study were found psychotic disorders with a rate of 22%, and conversion disorder with a rate of 10.8% [9]. In the present study, although the most common reason among all applications was forensic cases brought by law enforcement

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officers, the most common diagnosis was psychotic disorders in hospitalized patients. It was shown that 30.35% of all patients who were hospitalized had psychotic disorders and 29.29% had mood disorders. These rates obtained in the present study were consistent with both the literature and general clinical information.

In a previous study conducted in the USA, the most common diagnosis in the emergency psychiatry department was alcohol/substance use disorder with a rate of 26.3% [11]. This rate was reported as 2.5% in a study conducted in a state hospital in a city with a branch hospital in our country [14]. Similarly, in another study that was conducted in the emergency department of a mental health hospital, the rate was found to be 2.3% for substance use disorder and 0.8% for alcohol use disorder [9]. Our results were similar to these results. The rate of diagnosis of alcohol/substance use disorder in general emergency department admissions was found to be 4.28%. Patients diagnosed with alcohol/substance use disorder are treated in AMATEM (Alcohol and Substance Treatment Center) clinics in our country. Admission decisions to these clinics are also carried out by the physician who is in charge of the clinic and generally through an appointment system. The applications to emergency departments of patients with withdrawal or intoxication symptoms are mostly to education and research clinics or state hospitals rather than branch hospitals. For all these reasons, there was no diagnosis of alcohol/substance use disorder among the patients who were hospitalized in our results.

The male/female ratio was in favor of males in the last analysis of the gender distribution in the present study. The ratio of males was found to be considerably higher than females in both hospitalization and general admissions. In the literature, it was shown that the rate of women is generally higher in studies conducted in this area.

In a study that was conducted at Bakırköy Mental Health Hospital, gender distribution was determined as 54% female and 46% male and was associated with the diagnoses of the patients and the fear of stigmatization by men [9]. In another study, 58.81% of female and 41.19% of male gender was determined in general psychiatric emergencies. In this study, when the gender distribution according to the diagnoses was examined, suicide attempts, anxiety disorder, and depressive disorder were common in women, and psychomotor agitation and psychotic symptoms and signs were common in men [10]. In another study conducted in our country, only the gender distribution for suicide attempts was examined and a rate was obtained in favor of women [15]. This excess diagnosis in favor of the male obtained in the present study was consistent with the psychotic symptoms and findings. Also, it is compatible with the fact that patients are mostly brought by law enforcement.

In a thesis study that included the number of psychiatric admissions to the emergency department in Edirne in 2014, the highest number of psychiatric admissions was in September and December, and the lowest was in July and October [16]. In the present study, the highest number of emergency department admissions was in November and the lowest was in February.

The effects of seasonal changes on psychiatric diseases are already known. Bipolar Disorder, which is one of the mood disorders, progresses with manic/hypomanic and depressive episodes. Studies associated manic episodes with spring and summer months [17]. Some studies reported that there is no seasonal variation in the rates of admission for mania [18]. There are few studies on the seasonal characteristics of mixed episodes. In a study that was conducted in Rize, it was shown that there is an increase in hospitalizations for mixed episodes, especially in winter [19]. As a result of a retrospective study conducted with patients with Bipolar Disorder hospitalized in Adıyaman, it was found that the highest number of hospitalizations was in November for both male and female genders, in other words, in autumn [20]. The findings of the present study are consistent with this study, and the highest number of hospitalizations from the emergency department with the diagnosis of bipolar disorder occurred in November.

In a previous study examining seasonal variation in schizophrenia, it was found that hospitalization rates increase with increasing temperature, especially in summer [21,22], but some studies do not support this [23,24]. According to the findings in the present study, the month with the highest number of patients hospitalized in the emergency department with the diagnosis of schizophrenia and other psychotic disorders was December, followed by July.

Depressive disorders, especially those with seasonal characteristics, are triggered in autumn and winter [25]. Our findings support the literature findings. The highest number of hospitalizations for a major depressive disorder were in November and December.

Limitations of study

Some limitations of the study should be considered and evaluated. The first of the limitations was that the study had a retrospective design. Failure to bring suicide attempts to the emergency department of the hospital caused these attempts to not be examined. Finally, scanning a certain time interval can be interpreted as a limitation. These aspects limit the interpretation and generalization of our results. For the findings obtained to gain importance, it is necessary to conduct larger studies with larger sample groups.

Conclusion

As a result, it was seen that the male gender was dominant and psychotic disorder was the most common diagnosis in emergency admissions to a psychiatric branch hospital in the eastern part of the country. It was determined that the patients brought by law enforcement officers were also quite common in general applications. In light of the findings of the present study, it was concluded that psychiatric emergency departments provide a very important service in terms of hospitalization of

patients and initiation of treatment. It is considered that knowing the demographic characteristics and clinical diagnoses of people who seek help in psychiatry and apply to psychiatric emergency departments is very important for mental health service planning and development. To generalize the findings obtained from this point of view, there is a need for larger sample groups and large prospective studies in different hospitals.

Conflict of Interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical Approval

Approval for the study was obtained from the Fırat University Non-Interventional Local Ethics Committee with the 15.12.2022 date and number 2022/15-20.

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