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A Multidisciplinary Analysis of Adults Referred for Psychiatric Consultation in the Emergency Department: Clinical Insights from a Period of Over One Year on Demographic Characteristics and Outcomes

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Abstract

Objective: Emergency departments (EDs) frequently encounter patients experiencing mental health (MH) crises, which significantly affect healthcare systems. This study analyzed the demographic characteristics and outcomes of adults referred for psychiatric consultation in an ED for more than one year.

Materials and Methods: Ethical approval was secured, and data were collected from patients aged 18 years and older who presented to Ankara Mamak State Hospital's ED between November 2021 and December 2023. Data collected included demographics, psychiatric history, active suicidal ideation, medical treatment, and patient disposition. Patient outcomes, including ED discharge, hospitalization in Ankara Mamak State Hospital, referral to a psychiatric clinic, and intensive care unit (ICU) admission, were compared with descriptive data to assess the influence of patient characteristics.

Results: Of the 57 patients (66.7% female) included in this study, majority of the visits occurred between 08:00 and 16:00. Thirteen patients exhibited active suicidal ideation, with depressive disorders being the most prevalent diagnosis (n=30). Notably, patients without prior psychiatric diagnoses were more likely to be discharged (p=0.038), whereas those who attempted suicide shortly before admission had higher hospitalization rates (p=0.001).

Conclusion: This study identified relevant demographic and clinical factors that may influence psychiatric consultations in the ED. The significant presence of suicidal ideation prior to visits underscores the urgent need for timely intervention. Integrating psychiatric services within emergency care is vital for optimizing patient outcomes and ensuring that individuals with MH crises receive appropriate management. Future research should focus on developing standardized protocols for psychiatric consultations to enhance the quality of care in ED settings.

Keywords: Emergency department, psychiatric, emergency medicine, consultation, suicide

Introduction

According to recent research data, a significant proportion of emergency department (ED) visits are related to mental health (MH) problems and suicide [1,2]. Moreover, the most important underlying risk factor for suicide cases is an MH problem [2]. Psychiatric disorders account for 4%-26% of all ED presentations, contributing substantially to the overall burden [1,3]. Patients presenting with psychiatric crises in the ED often require specialized assessment and management to address their unique needs and concerns [4-6]. Evaluating these patients can pose significant challenges, as assessment may be complicated by the necessity to investigate numerous domains, such as underlying medical conditions, prior psychiatric disorders, substance abuse,

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and psychosocial factors [5,7]. In recent years, the demand for psychiatric services in EDs has increased globally. MH-related visits to the EDs pose unique challenges for healthcare providers because of the complexity of psychiatric conditions and the urgency of these presentations. As a result, the need for psychiatric consultation in the ED has become increasingly crucial in ensuring appropriate evaluation, management, and disposition of patients with psychiatric emergencies [8,9]. Furthermore, the prevalence of psychiatric consultations in the ED has been steadily increasing over the years, underscoring the importance of integrating MH services within emergency care settings [3,10]. For ED clinicians, establishing close relationships with psychiatric consultants and reaching the consultant easily and quickly increases the frequency of psychiatric consultations [11]. The initial identification of psychiatric conditions before formal diagnosis contributes to the high number of such consultations. In fact, suicide cases in EDs are the most frequent reason for psychiatric consultations in many data sources [11]. Despite the recognized significance of psychiatric consultations in the ED, there remains variability in the implementation and delivery of these services across healthcare institutions. Factors such as staffing shortages, limited resources, and lack of standardized protocols can pose challenges to the timely and effective provision of psychiatric care in ED settings [12,13]. However, research suggests that the involvement of psychiatric consultation services can lead to improved patient outcomes, including reduced hospital admissions, decreased lengths of stay, and enhanced linkage to outpatient MH services [12,13]. Given the increasing demand for psychiatric services in the ED and the potential impact of psychiatric consultations on patient care and outcomes, there is a growing need for comprehensive studies that examine the characteristics and outcomes of patients referred for psychiatric consultation in this setting. This retrospective study aimed to address this gap by analyzing the demographic characteristics, clinical presentations, and treatment outcomes of patients referred for psychiatric consultation in the ED of a center in Ankara, in Türkiye. By elucidating the role and significance of psychiatric consultations in the context of emergency care, this study sought to contribute valuable insights into optimizing the management of psychiatric emergencies in ED settings.

Materials and Methods

Ethics Approval, Study Permits, Data Collection Design, and Recorded Data

Ethical approval for this study was obtained from the local Gazi University rectorship ethics committee (approval number: 08, date: 10.05.2023). Following this approval, patient data were reviewed retrospectively under data protection regulations from the hospital's electronic patient data system. All data were recorded electronically by the researchers without the inclusion of patient-identifying information. This study was conducted in accordance with the Declaration of Helsinki.

Data were collected for all patients aged 18 years and older who presented to the ED of Ankara Mamak State Hospital, which sees approximately 200,000 patients annually, between November 2021 and December 2023, and for whom a psychiatric consultation was requested by the attending clinician. The majority of these patients are patients in the green zone who present for outpatient care and can be discharged with a prescription. The recorded data included age, gender, time of visit, presence of active suicidal ideation or prior suicide attempts, history of psychiatric diagnoses, psychiatric diagnoses made in the ED, medical treatments administered, whether physical restraint or sedation was used, alcohol consumption (with biochemical analysis or physical examination), substance influence, self-harming or violent behavior, and the patient's final disposition. Patients with incomplete or missing data were excluded from the study.

Outcome Measures and Comparisons

Patient outcome measures were categorized into four parameters: discharge from the ED without further intervention, hospitalization at Ankara Mamak State Hospital, referral to another hospital's psychiatric clinic, and admission to intensive care unit (ICU). These outcome parameters were then compared with the descriptive data to assess the potential influence of the recorded characteristics.

Statistical Analysis

Data analysis was performed using SPSS version 25 (IBM Corp., Armonk, NY, USA). Descriptive statistics for patient demographics were reported as frequencies (n) and percentages (%). The Shapiro-Wilk test was used to assess data normality. Because the data did not follow a normal distribution, non-parametric tests were employed. Categorical variables were analyzed using the chi-square test and Fisher's exact test. The Mann-Whitney U test was used for comparisons between two independent groups, and the Kruskal-Wallis test was employed for comparisons between multiple independent groups, with post-hoc analysis conducted using the Mann-Whitney U test. Spearman's correlation test was used to evaluate the relationships between numerical variables. A p-value 0.05 was considered statistically significant.

Results

Descriptive Results

A total of 57 patients with complete data were included in the study, of whom 38 were women. Patient visits were more frequent between 08:00 and 16:00 compared to other 8-hour periods. Thirteen patients exhibited active suicidal ideation. Although not statistically significant, anxiety disorders and depressive disorders were the most common past psychiatric

diagnoses (n=7 and n=6, respectively). The most prevalent diagnosis in the ED was depressive disorders (n=30). Only a small number of patients received medical treatment in the ED (n=10), and only 7 patients were restrained with ligatures. Nearly half of the patients had received prior psychiatric treatment (n=26), while the other half had not (n=31). The number of patients under the influence of alcohol was greater than that of patients not affected (n=31 vs. n=26), whereas fewer patients were under the influence of drugs (n=12). More than half of the patients had attempted suicide shortly before admission (n=31). More patients were discharged from the ED than those admitted for further treatment (n=23) (Table 1).

Findings from the Comparative Analysis

There was no significant relationship between patient outcomes-whether discharged from the ED, hospitalized at Ankara Mamak State Hospital, referred to another hospital's psychiatric clinic, or admitted to an ICU-and variable such as age, gender, presence of active suicidal ideation, psychiatric diagnosis made in the ED, current alcohol use, substance influence, or prior psychiatric treatment ($p>0.05$ for each comparison) (Table 2). However, patients without previous psychiatric diagnosis were more likely to be discharged from the ED ($p=0.038$). The post-hoc analysis revealed that this difference was due to the higher number of patients diagnosed with bipolar disorder being referred to other hospitals' psychiatric clinics ($p=0.009$; $z=-2.602$). Similarly, those who did not receive medical treatment in the ED were discharged more frequently ($p=0.003$). The rate of hospitalization at Ankara Mamak State Hospital was higher among patients who had attempted suicide immediately before their ED visit ($p=0.001$) (Table 2).

Discussion

This study provides a comprehensive analysis of the demographic and clinical characteristics of patients referred for psychiatric consultation in an ED, along with an in-depth evaluation of these factors in relation to clinical outcomes. By comparing descriptive data with patient outcomes, such as discharge, hospitalization, referral, and ICU admission, this study sheds light on the potential impact of various factors, including prior psychiatric diagnoses, suicidal ideation, and medical treatments administered in the ED.

In this study, the majority of patients were women, which is in contrast to some studies suggesting a higher prevalence of males in similar populations [4,14,15]. This discrepancy can be attributed to our limited sample size. Additionally, sociodemographic factors and cultural beliefs, which were not part of our study, may influence the gender distribution within this patient group. These descriptive data were not included in this retrospective analysis. In a dataset where such factors are accessible, more accurate commentary on gender differences can be made. The findings indicate that the majority of ED visits occurred during the one-third of the day between 08:00 and 16:00. Additionally, our data revealed that the rate of suicide attempts was notably high immediately prior to these visits. This suggests that individuals may plan their visits during specific hours. Stańdo et al. [16] recently researched and published findings on the most frequent searches for the terms "depression" and "suicide" were most frequently searched online. Their results indicated that searches peaks in the late evening and night hours. The findings of this study suggest that suicidal thoughts could intensify during the late evening and throughout the night; however, due to the small sample size and single-center nature of the study, we cannot present this information too assertively. Further research is essential to draw definitive conclusions regarding the impact of hospital visits. Despite the detection of numerous suicide cases, the evaluation in the ED revealed a lower prevalence of active suicidal thoughts. This finding suggests that individuals who present to the ED following a suicide attempt do so out of regret or fear of death. However, due to the study design, patients could not be interviewed to ascertain whether they experienced regret or fear. In this context, valuable insights can be gained through a prospective dataset or by re-establishing patient communication.

The results revealed no significant relationship between clinical outcomes and patient characteristics like age, gender, active suicidal ideation, psychiatric diagnoses made in the ED, alcohol or substance use, or prior psychiatric treatment. However, a notable finding was that patients without a previous psychiatric diagnosis were more likely to be discharged, suggesting that patients with a psychiatric history may require more intensive management or referral to specialized psychiatric services. Additionally, the post-hoc analysis highlighted that patients with bipolar disorder were significantly more likely to be referred to other hospitals for psychiatric care. This finding reflects the circumstances at our institution, where there is no dedicated psychiatric unit, which may have resulted in a higher referral rate for certain diagnoses [4,11]. Furthermore, patients who did not receive medical treatment in the ED were discharged more frequently, which could imply that non-pharmacological interventions or the absence of acute medical needs played a role in their quicker discharge. This finding is consistent with research suggesting that timely psychiatric evaluation and noninvasive management in the ED can facilitate early discharge [12]. On the other hand, patients who had attempted suicide just before admission were more likely to be hospitalized, reflecting the need for close monitoring and intervention in these high-risk cases, which corroborates findings from similar studies that highlight the importance of hospitalization in managing patients with suicidal behavior [3, 10]. These findings emphasize the complexity of psychiatric consultations in emergency settings. They highlighted that

Table 1. Demographic and descriptive characteristics of adults undergoing psychiatric consultation in the emergency department		
		n (%)
Age, years (median, minimum-maximum)		27 (16-97)
Gender	Male	19 (33.3%)
	Female	38 (66.7%)
Time of visiting ED in day	00:00-08:00	10 (17.5%)
	08:00-16:00	29 (50.9%)
	16:00-00:00	18 (31.6%)
Already active suicidal ideation in ED visit	Yes	13 (22.8%)
	None	44 (77.2%)
Past psychiatric diagnosis	Psychotic disorders	3 (5.3%)
	Depressive disorders	6 (10.5%)
	Bipolar affective disorder	4 (7%)
	Anxiety disorders	10 (17.6%)
	Alcohol use disorders	2 (3.5%)
	Other	2 (3.5%)
	None	30 (52.6%)
Psychiatric diagnosis in ED	Psychotic disorders	5 (8.8%)
	Depressive disorders	30 (52.6%)
	Bipolar affective disorder	3 (5.3%)
	Anxiety disorders	14 (24.5%)
	Alcohol use disorders	4 (7%)
	Other	1 (1.8%)
Medical psychiatric treatment in ED	Haloperidol with biperiden	5 (8.8%)
	Any other antipsychotic	1 (1.8%)
	Benzodiazepines	4 (7%)
	None	47 (82.5%)
Fix the patient by bonding ED	Yes	7 (12.3)
	None	50 (87.7%)
Any prior psychiatric medical treatment	Yes	26 (45.6%)
	None	31 (54.4%)
Alcohol use prior to ED visit	Yes	31(54.4%)
	None	26 (45.6%)
Being under the influence of drugs in ED	Yes	12 (21.1%)
	None	45 (78.9%)
Suicide attempt just before ED visit	Yes	31 (54.4%)
	None	26 (45.6%)
Outcome of ED visit	Discharge from ED	23 (40.4%)
	Hospitalization in Ankara Mamak State Hospital	19 (33.3%)
	Transfer to another hospital's psychiatric clinic	14 (24.6%)
	Hospitalization in any ICU	1 (1.8%)

ED: Emergency department, ICU: Intensive care unit

managing patients in such situations requires a detailed and careful approach. The multifaceted nature of patient management further complicates the process. The literature supports the notion that patients presenting with psychiatric emergencies benefit from early and structured psychiatric consultation, which can lead to more appropriate dispositions, whether discharge, hospitalization, or referral [8]. Moreover, the increasing prevalence of psychiatric consultations indicates

Table 2. Results of comparative analyses of patients' descriptive characteristics and clinical outcomes

		Discharge from ED	Hospitalization in Ankara Mamak State Hospital	Transfer to another hospital's psychiatric clinic	Hospitalization in any ICU	p
		n	n	n	n	
Age, (median, minimum-maximum); years						0.716
Gender	Male	6	6	7	0	0.428
Time of visiting in day	00:00-08:00	4	4	2	0	0.767
	08:00-16:00	10	8	10	1	
	16:00-00:00	9	7	2	0	
Active suicidal idea already in ED visit	Yes	3	4	5	1	0.117
Past psychiatric diagnose	Psychotic disorders	0	0	3	0	**0.038**
	Depressive disorders	2	2	2	0	
	Bipolar affective disorder	0	1	3	0	
	Anxiety disorders	4	5	1	0	
	Alcohol use disorder	1	0	1	0	
	Other	2	0	0	0	
	None	14	11	4	1	
Psychiatric diagnose in ED	Psychotic disorders	1	1	3	0	0.290
	Depressive disorders	11	14	4	1	
	Bipolar affective disorder	0	0	3	0	
	Anxiety disorders	8	4	2	0	
	Alcohol use disorder	2	0	2	0	
	Other	1	0	0	0	
	None	0	0	0	0	
Medical psychiatric treatment in ED	Haloperidol with biperiden	1	0	4	0	**0.003**
	Any other antipsychotic	0	0	1	0	
	Benzodiazepines	0	2	2	0	
	None	22	17	7	1	
Fix the patient by bonding in ED	Yes	2	0	5	0	**0.018**
Any prior psychiatric medical treatment	Yes	8	9	9	0	0.278
Alcohol use prior to ED admission	Yes	11	9	11	0	0.159
Being in effect of drug in ED	Yes	2	7	3	0	0.162
Suicidal action just before admission to ED	Yes	6	17	7	1	**0.001**

ED: Emergency department, ICU: Intensive care unit

the necessity of integrating MH services within emergency care environments to address the growing demand and improve patient outcomes [9].

This study has several limitations. Although the study covered a long period of time, the number of patients was limited, and it was a single-center study, which restricts the generalizability of the results. Additionally, important quality data, such as the response times to the psychiatric consultations, were not available. As a result, predictions could not be made in this area. The retrospective nature of data collection limits the ability to gather additional patient information. The data being sourced from a single hospital may overlook differences that could arise in various geographical regions or healthcare settings. Furthermore, psychosocial factors such as socioeconomic status, cultural beliefs, and family structure were not assessed, although they could influence how patients present to the ED and their treatment outcomes. The study also did not evaluate whether patients adhered to their treatment plans or continued

care after discharge, which could have prevented insights into the long-term effectiveness of emergency interventions. In the future, more reliable results could be obtained through multicenter, prospective studies with access to larger datasets. Additionally, a more comprehensive examination of psychiatric patients' emergency visits and long-term treatment outcomes would provide valuable insights into the effectiveness of interventions beyond the ED setting.

Conclusion

This study underscores the critical demographic and clinical factors influencing outcomes among adults referred for psychiatric consultation in the ED. The high prevalence of depressive disorders and significant presence of active suicidal ideation prior to admission highlight the urgent need for timely and effective psychiatric interventions. Our findings revealed that patients without prior psychiatric diagnoses were more likely to be discharged from the ED, suggesting the necessity for tailored management strategies for those with established psychiatric histories. The study also emphasizes the importance of integrating psychiatric services within emergency care to enhance the management of MH crises. Future research should focus on developing standardized protocols for psychiatric consultations in EDs, as well as exploring long-term outcomes for patients undergoing emergency visits. By addressing these areas, we can improve the quality of care for individuals experiencing MH emergencies and reduce treatment delivery variability.

Ethics

Ethics Committee Approval: Ethical approval for this study was obtained from the local Gazi University rectorship ethics committee (approval number: 08, date: 10.05.2023).

Informed Consent: Retrospective study.

Footnotes

Authorship Contributions

Surgical and Medical Practices: M.G., S.Z., Concept: M.G., S.Z., Design: M.G., S.Z., Data Collection or Processing: M.G., S.Z., Analysis or Interpretation: M.G., S.Z., Literature Search: M.G., S.Z., Writing: M.G., S.Z.

Conflict of Interest: No conflict of interest was declared by the authors.

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