



Evaluation of the Characteristics of Psychiatric Consultation in a General Hospital in Tehran, Iran, Over Eight Years and Comparing the Characteristics during 2008-2017

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Abstract

Background: This study aimed to investigate the characteristics of psychiatric consultations in a general hospital.

Methods: All the patients hospitalized in Rasoul Akram Hospital from April 2011 to March 2019 who were asked for a psychiatric consultation were studied. Patients' information was obtained from the patients' records. The records of the year 2008 were also used to compare the characteristics between the years 2008 and 2017.

Results: Over an eight-year period, 0.61% of the patients received psychiatric consultations. 54% of the consulted patients were male and 46% were female. The mean age of the patients was 44.7±18.72 years. The highest requested consultations (28.4%) were from the internal department followed by the surgery department (11.8%). The highest frequency of the reasons for requesting consultation was presence of psychiatric symptoms (27.5%). The most common psychiatric diagnosis was adjustment disorder (18.4%) followed by major depressive disorder (14.2%). Comparing consultations in the year 2008 with 2017 demonstrated that 1.57% of the patients admitted in 2008 and 1.17% of the patients in 2017 received psychiatric consultations, and in both years, the number of male patients was higher than females, the highest demand for consultation was from the internal department, and the most common reason for seeking consultation was the presence of psychiatric symptoms and then depressive symptoms. In 2008, the most common diagnosis was major depressive disorder and in 2017 was substance use disorder.

Conclusion: The consultation rate was alarmingly low in this study compared to the other studies.

Keywords: Adjustment disorders, Depression, Depressive disorder, General, Hospitals, Major, Prevalence, Sub-stance-related disorders

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Introduction

Evidence exists for the high prevalence of psychiatric disorders in physically ill patients and this relationship has been investigated in various surveys (1,2). The incidence of mental disorders in general hospital inpatients was determined between 41.3% to 46.5% (3). The main reported reasons for referrals are psychological consequences of a medical illness, cognitive impairment associated with a medical illness, functional symptoms, deliberate self-harm, and substance abuse (4). Studies have reported that inattention to these comorbidities and consequently failure to a timely diagnosis of psychiatric disorders in physically ill patients, can lead to ineffective therapeutic measures that reduce the patient's quality of life and slow down the recovery of physical illness (5,6). More healthcare resources are used for hospitalized patients suffering from psychiatric comorbidities. It was determined that patients with psychopathology had longer hospitalization times, more interventions, and more hospital costs (7). In a study by Ronaldson *et al*, comorbidity of severe mental illness resulted in increased use of emergency and primary care services, longer stays in hospital, and readmission to hospital within 30 days (8).

Consultation-Liaison Psychiatry (CLP) is a subspecialty of psychiatry that offers psychiatric training and care to the other services of a general hospital to address the mental health requirements of patients in a non-psychiatric setting. CLP can contribute to better outcomes for patients with psychiatric comorbidity (9). The knowledge of non-psychiatry physicians on how to diagnose and treat psychiatric conditions improves the quality of care provided to patients (10). Studies have demonstrated that CLP declines medical complications, and the number and length of hospital stay through on-time referral for psychiatric consultations, proper management of psychiatric conditions, and facilitating access to appropriate psychiatric services after discharge (11-13). There are several differences in CLP guidelines used in countries for the delivery of CLP services (14).

Regarding the significant prevalence of psychiatric comorbidity in medical patients admitted to general hospitals and its effect on the treatment and prognosis of physical illnesses, this study aimed to evaluate the characteristics of psychiatric consultation in a general

hospital over eight years, as well as comparing the characteristics of psychiatric consultations between the years 2008 and 2017 to evaluate the differences after 10 years. It might convince specialists in other fields of study to ask for psychiatric consultation for these patients. It can also indicate the importance of the role of liaison psychiatrists in general hospitals.

Materials and Methods

This cross-sectional descriptive-analytical study included all hospitalized patients in various departments of Rasoul Akram Hospital from April 2011 to March 2019 who underwent a psychiatric consultation. Patient information was retrieved from an Excel file provided to the Department of Psychiatry by trainees under the supervision of attendants; including patients' age, gender, department and time of hospitalization, length of stay until the request for a psychiatric visit, the reason for seeking psychiatric consultation, and final diagnosis based on 'Diagnostic and Statistical Manual of Mental Disorders' criteria. 9% of the patients were excluded due to the missing data in patients' file. In addition, to compare the features of psychiatric consultation between the years 2008 and 2017, the records for the year 2008 were used as well.

Ethical considerations

The current study was approved by the ethics committee of Iran University of Medical Sciences. The code number of the ethics committee approval letter is: IR.IUMS.FMD.REC.1398.523. The study was performed according to Helsinki's principles of ethics.

Statistical analysis

SPSS 20 (IBM Corp., Armonk, New York, USA) was used to analyze the data. The results of qualitative data are reported as a percentage, and frequency and quantitative data as mean±SD. The independent sample t-test was utilized to compare two means and the ANOVA test was used to compare more than two means. In case of abnormal data distribution, non-parametric tests have been used. A p value<0.01 was considered significant.

Results

Characteristics of Psychiatric Consultation from

April 2011 to March 2019.

From April 2011 to March 2019, out of 294368 admitted patients, 1809 received psychiatric consultations (0.61%). Among the consulted patients, 54% were male and 46% were female. The mean age of the patients was 44.07 ± 18.72 years, which was 44.86 ± 18.76 years for males and 43.17 ± 18.64 years for females. There was no significant difference in mean age between males and females ($p=0.07$).

The average waiting time for a consultation was 1.39 ± 1.31 days. The minimum waiting time was less than one day and the maximum waiting time was 14 days. The highest consultation requests were in September (198 consultations) and the lowest number of consultations was in April (87 consultations). The highest number of consultation requests was from the internal medicine department (28.4%) and the lowest number of consultation requests was from the asthma and allergy department (0.1%) (Table 1).

In analyzing the reasons for requesting a consultation, the greatest frequency (27.5%) was the presence of psychiatric symptoms. After that, suicide attempts (15%) and depression (10.6%) were the most common reasons (Table 2).

The results of the study showed that the most common psychiatric diagnosis was adjustment disorder with a frequency of 18.4%. Other common diagnoses were major depressive disorder (14.2%), cognitive impairment (13.9%), and substance use disorders (13.8%). Further psychiatric diagnoses presented in this study are listed in table 3.

Comparison of the Characteristics of Psychiatric Consultations in 2008 and 2017

The results demonstrated that of 27,724 patients admitted in 2008, 435 (1.57%) received psychiatric consultations; and in 2017, 426 psychiatric visits were requested for 36380 hospitalized patients (1.17%). It is observed that in both years the number of male patients was more than females. The waiting time for consultation was 1.43 ± 1.06 days in 2008 and 1.54 ± 1.21 days in 2017, without any significant difference ($p=0.66$).

In both years, the highest demand was from the internal department, with the frequency of 42.5% and 21.8% for the years 2008 and 2017, respectively. The comparison of the frequency of the requested

Table 1. The number of consultation requests concerning the department

Departments	Number	Percentage
Internal medicine	514	28.4
Surgery	214	11.8
Pain	152	8.4
CCU, PCCU and Cardiology	109	6
Neurology	102	5.6
Hematology	71	3.9
Nephrology	71	3.9
Orthopedics	49	2.7
Pediatrics	46	2.5
ICU	42	2.3
Obstetrics and Gynecology	40	2.2
Ophthalmology	38	2.1
Neurosurgery	37	2.0
ENT	36	2.0
Dermatology	28	1.5
Infectious	25	1.4
SICU	18	1.0
MICU	12	0.7
PICU	11	0.6
NICU	7	0.4
Emergency	7	0.4
Transplant	6	0.3
Poisoning	6	0.3
Asthma and allergy	1	0.1
Missing	162	9
Total	1809	

CCU: Critical Care Unit, ICU: Intensive Care Unit, NICU: Neonatal Intensive Care Unit, PICU: Pediatric Intensive Care Unit, SICU: Surgical Intensive Care Unit, PCCU: Progressive Cardiac Care Unit, MICU: Medical Intensive Care Unit.

consultations revealed a statistically significant difference in these two years in some departments ($p<0.001$, $\chi^2=121.31$, $df=21$). The number of consultations in ICU, MICU, PCCU, PICU, infectious disease, pediatrics, and surgery services has increased in 2017 compared to 2008. Moreover, in CCU, orthopedics, dermatology, obstetrics, nephrology, and internal medicine departments, the frequency of requested consultations was higher in 2008 (Table 4). The results showed that presence of psychiatric symptoms and then depressive symptoms were the

Table 2. The Frequency and percentage of the reasons for seeking consultation

Reasons	Frequency	Frequency percentage
Presence of psychiatric symptoms	498	27.5
Suicide	272	15.0
Depression	191	10.6
Aggression	109	6.0
Medication adjustment	98	5.4
Addiction and substance abuse	84	4.6
Unexplained physical symptoms	59	3.3
Addiction and substance abuse	84	4.6
Disorientation and delirium	35	2.9
Withdrawal symptoms of substances	28	1.5
Surgical consent	24	1.3
Lack of cooperation	24	1.3
History of psychiatric disorder	23	1.3
Other	22	1.2

Table 3. Frequency and percentage of main psychiatric diagnoses

Psychiatric diagnosis	Frequency	Frequency percentage
Adjustment disorder	333	18.4
Major depressive disorder	258	14.3
Cognitive impairment	252	13.9
Substance use disorder	250	13.8
Missing	131	7.3
Personality disorder	102	5.6
Psychotic disorder	102	5.6
Anxiety disorder	97	5.4
Unspecified depressive disorder	75	4.1
Other	70	3.9
Bipolar disorder	52	2.9
Functional neurological symptom disorder	40	2.2
Mood disorder	25	1.4
Somatization	22	1.2
Total	1809	

most common reason for seeking consultation in both years. The prevalence of psychiatric symptoms in the years 2008 and 2017 was 39.3 and 44.6% and the prevalence of depression was 24.4 and 16.7%,

respectively. There was also a significant difference in frequency of the reasons for requesting consultation between 2008 and 2017 (Table 5). The findings revealed that in 2008, the most

Table 4. Comparison of the frequency of consultations requested in different departments in 2008 and 2017

Departments	2008	2017	p-value
Internal medicine	185(42.5)	93(21.8)	p<0.001
Neurology	42(9.7)	63(14.8)	
Surgery	37(8.5)	56(13.1)	
Nephrology	30(6.9)	17(4)	
CCU	27(6.2)	14(3.3)	
Orthopedics	21(4.8)	12(2.8)	
ENT	16(3.7)	17(4)	
Dermatology	16(3.7)	9(2.1)	
Obstetrics and gynecology	16(3.7)	8(1.9)	
SICU	15(3.4)	13(3.1)	
PCCU	7(1.6)	18(4.2)	
Pediatrics	6(1.4)	32(7.5)	
Neurosurgery	5(1.1)	7(1.6)	
Ophthalmology	4(0.90)	20(4.7)	
ICU	2(0.5)	14(3.3)	
MICU	2(0.5)	9(2.1)	
Emergency	2(0.5)	0(0)	
Infectious	1(0.2)	12(2.8)	
NICU	0(0)	2(0.5)	
Transplant	0(0)	2(0.5)	
Asthma and allergy	0(0)	1(0.2)	
Total	435	426	

CCU: Critical Care Unit, ICU: Intensive Care Unit, NICU: Neonatal Intensive Care Unit, PICU: Pediatric Intensive Care Unit, SICU: Surgical Intensive Care Unit, PCCU: Progressive Cardiac Care Unit, MICU: Medical Intensive Care Unit.

Table 5. Comparing the frequency and percentage of the reasons for requesting psychiatric consultation in 2008 and 2017

Reasons	2008	2017	p-value
Psychiatric symptoms	171(39.3)	190(44.6)	p<0.001
Depression	106(24.4)	71(16.7)	
Disorientation and delirium	29(6.6)	2(0.5)	
Other	29(6.7)	7(1.6)	
Substance abuse and addiction	26(6.0)	28(6.6)	
Aggression	16(3.7)	21(4.9)	
Suicide	15(3.4)	18(4.2)	
Medication adjustment	12(2.8)	35(8.2)	
Surgical consent	11(2.5)	4(0.9)	
Unexplained physical symptoms	9(2.1)	28(6.6)	
Side effects of drugs	5(1.1)	0(0)	
Lack of cooperation	3(0.7)	6(1.4)	
History of psychiatric disorder	2(0.5)	10(2.3)	
Withdrawal symptoms of substances	1(0.2)	6(1.4)	
Other	29(6.7)	7(1.6)	
Total	435	426	

Table 6. Comparing the frequency and percentage of main diagnoses in 2008 and 2017

Diagnosis	2008	2017	p-value
Major depressive disorder	138(31.7)	63(14.8)	p<0.001
Cognitive impairment	52(12)	38(8.9)	
Anxiety disorder	42(9.7)	30(7)	
Substance use disorder	40(9.2)	76(17.8)	
Adjustment disorder	27(6.2)	18(4.2)	
Psychotic disorder	22(5.1)	24(5.6)	
Personality disorder	20(4.6)	17(4)	
Unspecified depressive disorder	18(4.1)	22(5.2)	
Mood disorder	7(1.6)	7(1.6)	
Functional neurological symptom disorder	7(1.6)	7(1.6)	
Bipolar disorder	2(0.5)	5(1.2)	
Somatization	0(0)	7(1.6)	
Other	60(13.8)	39(9.2)	
Total	435	426	

common diagnosis was major depressive disorder with a frequency of 31.7% followed by cognitive impairment (12%), anxiety disorder (9.7%), and substance use disorders (9.2%). In 2017, the most common diagnosis was substance use disorders (17.8%) followed by major depressive disorder (14.8%). Additional diagnoses and their frequency are set out in table 6. There is a significant difference in diagnoses by comparing both years.

Discussion

The current study was carried out to evaluate the demographic and clinical variables of inpatients in a general hospital.

In this study, the rate of psychiatric consultation over eight years was 0.61%, although low, but compatible with some other studies. The frequency of referral rate in some other studies in Iran were 1.19, 0.9 and 2.54% (2,15,16). In a study in India, the referral rate was 0.42% which was even lower than the present study (17). According to a review study published in 2020, the rate of consultation requests varied considerably between 0.8 and 22.6% (18). Regarding the high prevalence of psychiatric disorders in physically ill patients, the results of this study showed that the referral rate is low and alarming. The absence

of a mental status assessment as a part of the general medical examination may explain this conclusion. Another likely reason is patients' under-reporting of psychiatric symptoms due to lack of awareness, reluctance and negative attitude and the stigma of mental illnesses. In a study at the same university on the attitude of medical specialty trainees toward providing health care services for patients with mental illness, the mean stigma score was almost higher compared to previous studies (19). As evaluating the need for consultation is based on the clinical judgment of the physician, another explanation may be the unfamiliarity of other specialists with psychiatric symptoms or considering these symptoms as part of normal reaction to physical illness, or their preference for postponing the psychiatric problems management to the post-hospitalization period.

The lowest number of consultations in this study occurred in April. The New Year's holidays in Iran take place in April, which may explain the decline in consultation requests during the month.

In this study, 54% of the consulted patients were male and 46% were female. Similarly, in Mudgal *et al's* study, 56.4% of the consultations were requested for men and 43.6% for women (20). In contrast, in Arbabi, Hosseini and Elyasi studies, female patients

had more consultation requests compared to male patients (2,15,21). The mean age of the patients was 44.7 ± 18.72 years. In addition, the highest frequency was in the 20-29 age group, a young productive age group. There was no significant difference in mean age among men and women. In two other studies, the mean age was similar to the current study (39.8 and 43.5) (2,16). In the Elyasi study, most consultations were carried out in the age group 20-29 as well (21). Differences may be due to differences in gender ratios and the mean age of patients admitted in various studies.

Most consultation requests came from the internal department (28.4%), followed by the surgery department (11.8%). In Yassini *et al*'s study, 44% of the patients were from internal service, just like the present study (22). In a review on 22 studies, it was reported that the main demands were from internal and surgical wards that were in line with this study (18). A wide variety of diseases, a high patient population, and the plenty of subspecialties in the internal medicine unit can be an explanation for this outcome. In this study, another likely reason is that in this hospital, the internal ward is the closest one to the psychiatry ward.

In the study of the reasons for the consultation, the findings of this study indicated that the presence of psychiatric symptoms (27.5%) was the most common reason. Following that, suicide attempts (15%) and depression (10.6%) were the most frequent ones. In Beyraghi's study, the most frequent reasons of referral were current psychiatric symptom (55%), presence of psychiatric history (15%), and aggression (10%) (23). In Elyasi's study, the most common reason for seeking consultation was the psychological assessment (26.8%) (21). In Mudgal's study, abnormal behavior (26.2%) was the primary reason for referrals and suicide attempts (24.4%), as the current study, ranks second (20). In another Indian study, the most common reason for referral was medically unexplained somatic complaints (23.1%), followed closely by anxiety (21%) and abnormal behavior (13.1%) (17). In Chakravarty *et al*'s study, deliberate self-harm was the main reason for asking psychiatric consultation (24). In Germany, assumed depressive symptoms, suicidal ideations and difficult behavior were the predominant reasons for CLP referrals (25).

'Presence of psychiatric symptoms' is vague and is not a helpful and accurate reason. It may be a sign of poor acquaintance with psychiatric symptomatology among other specialists. This can demonstrate the importance of multidisciplinary interaction and education of medical practitioners.

Results from this study revealed that the most common psychiatric diagnosis in consulted patients was adjustment disorder (18.4%). This may demonstrate poor adaptation of patients with their illnesses. This disorder can lead to harmful problems such as suicide attempts or poor medical adherence that interfere with patient management (26). In one review study, mood and substance use disorders were the primary diagnostic reports, and the Arbabi and Yassini studies matched this finding (2,18,22). Compatibly, in this study, the major depressive disorder was a common diagnosis, ranked second. In a similar study previously conducted at the same hospital, major depressive disorder (27.7%), delirium (11.8%) and substance dependency (10.2%) were the most common psychiatric diagnoses (27). This shift can be attributed to an increased emphasis on the impact of stress on the mental state.

In comparing 2008 and 2017, the referral rate was small and close for both years. This may indicate a need for more active interaction with other departments in order to improve the referral rate. It was also observed that in both years, the number of male patients was more than female, the highest demand for consultation was from the internal department, the most common reason for seeking consultation was the presence of psychiatric symptoms and then depressive symptoms, and the difference in waiting time for consultation was not statistically significant. In 2008, the most common diagnosis was major depressive disorder and then cognitive impairment and in 2017, the most common diagnoses were substance use disorders and then major depressive disorder. Investigations have shown that drug use has increased in recent years, which may explain the result (28).

Limitations

The study's limitations include the lack of standard data gathering, lack of validated tools, and the failure to consider confounding factors such as educational interventions by psychiatrists, as well as

its cross-sectional nature and being conducted only in one hospital.

Recommendations

We propose investigating factors which can enhance attention to psychiatric problems and increase the referral rate. Interventions like encouraging multidisciplinary interaction for patient management and sensitizing and improving the attitude of other specialists towards psychiatric conditions can be conducted and studying the efficacy of these interventions is recommended.

Conclusion

Considering the high prevalence of psychiatric comorbidity in medically ill patients and its role in managing and outcome of the patients, the consultation rate was alarmingly low in this study

compared to other studies.

Consultation liaison psychiatry is the gateway between psychiatry and other medical specialties. In biopsychosocial theory, physical disorders have psychological and social components. The collaborative approach may reduce the pressure on the patient and hospital stay, and improve the patients' quality of life.

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Conflict of Interest

There are no conflicts of interest to declare.

References

1. Porcellana M, Bassetti R, Panariello A, Percudani M. Consultation-liaison psychiatry for outpatients in a great metropolitan hospital. *Psychology* 2019;9(1):1-5.
2. Arbabi M, Laghayeepoor R, Golestan B, Mahdanian A, Nejatiasafa A, Tavakkoli A, et al. Diagnoses, requests, and timing of 503 psychiatric consultations in two general hospitals. *Acta Med Iran* 2012;50(1):53-60.
3. Rothenhausler HB. [Mental disorders in general hospital patients.] *Psychiatr Danub* 2006;18(3-4):183-92.
4. Leigh H, Streltzer J. *Handbook of consultation-liaison psychiatry*. 2007th ed. Springer; 2007. 434 p.
5. Fulop G, Strain JJ, Fahs MC, Schmeidler J, Snyder S. A prospective study of the impact of psychiatric comorbidity on length of hospital stays of elderly medical-surgical inpatients. *Psychosomatics* 1998;39(3):273-80.
6. Fard K, Ehssanmanesh M. Psychiatric diagnoses among inpatient psychiatric consultations in a general hospital. *Iran J Psychiatry Clin Psychol* 2005;11(1):6-14.
7. Levenson JL, Hamer RM, Rossiter LF. Relation of psychopathology in general medical inpatients to use and cost of services. *Am J Psychiatry* 1990;147(11):1498-503.
8. Ronaldson A, Elton L, Jayakumar S, Jieman A, Halvorsrud K, Bhui K. Severe mental illness and health service utilization for non-psychiatric medical disorders: a systematic review and meta-analysis. *PLoS Med* 2020;17(9): e1003284.
9. Lipowski ZJ. Current trends in consultation-liaison psychiatry. *Can J Psychiatry* 1983;28(5):329-38.
10. González M, Calderón J, Olguín P, Flores J, Ramírez S. In the general hospital: a doctors' perception survey. *Eur J Psychiatry* 2006;20(4):224-30.
11. de Jonge P, Latour CH, Huyse FJ. Implementing psychiatric interventions on a medical ward: effects on patients' quality of life and length of hospital stay. *Psychosom Med* 2003;65(6):997-1002.
12. Desan PH, Zimbrea PC, Weinstein AJ, Bozzo JE, Sledge WH. Proactive psychiatric consultation services

- reduce length of stay for admissions to an inpatient medical team. *Psychosomatics* 2011;52(6):513-20.
13. Kishi Y, Meller WH, Kathol RG, Swigart SE. Factors affecting the relationship between the timing of psychiatric consultation and general hospital length of stay. *Psychosomatics* 2004;45(6):470-6.
14. Grassi L, Mitchell AJ, Otani M, Caruso R, Nanni MG, Hachizuka M, et al. Consultation-liaison psychiatry in the general hospital: the experience of UK, Italy, and Japan. *Curr Psychiatry Rep* 2015;17(6):44.
15. Hosseini SH, Mortazavi M. [Frequency of referral rate and psychiatric diagnoses in Sari Imam Khomeini hospital during 2008 and 2009.] *J Mazandaran University Med Sci* 2011;20(80):63-8. Persian.
16. Semnani Y., Mostofian M. Evaluation of psychiatric consultation requests in Imam Hosain general hospital. *Daneshvar Med* 2007;14(68):37-42. Persian.
17. Keertish N, Sathyanarayana MT, Kumar BG, Singh N, Udagave K. Pattern of psychiatric referrals in a tertiary care teaching hospital in southern India. *J Clin Diagn Res* 2013;7(8):1689-91.
18. Hosseini SH, Elyasi F, Moradi S, Rezapour M. Psychiatric consultations in general hospitals: A scoping review. *Iran J Psychiatry Behav Sci* 2020;14(2).
19. Movahedi S, Shariat SV, Shalbafan M. Attitude of Iranian medical specialty trainees toward providing health care services to patients with mental disorders. *Front Psychiatry* 2022;13:961538.
20. Mudgal V, Rastogi P, Niranjan V, Razdan R. Pattern, clinical and demographic profile of inpatient psychiatry referrals in a tertiary care teaching hospital: a descriptive study. *Gen Psychiatr* 2020;33(4):e100177.
21. Elyasi F, Azizi M, Sabourian Joubari S, Mirani SH. Psychiatric disorders comorbidity in two general medical hospitals in Iran between 2014-2015. *Iran J Psychiatr Behav Sci* 2018;12(4).
22. Yassini SM, Yassini S, Kholasezadeh G. Evaluation of psychiatric consultations in Yazd Shahid Sadughi general hospital. *Proced-Soc Behav Sci* 2011;30:1561-4.
23. Beyraghi N, Shams J, Mohajer M, Bahreynian Aam. [Psychiatric consultation in Taleghani Hospital in 2002.] *Pajouhesh Dar Pezeshki*. 2004;28(2). Persian.
24. Chakravarty S, Nandi S, Bhandari SS, Das S. A study on the patterns of psychiatric referrals in a tertiary care hospital in the north-eastern part of India. *J Evol Med Dent Sci* 2020;9(31):2217-22.
25. Fißler M, Quante A. Psychiatric liaison consultations of patients without psychiatric illness in a general hospital in Germany: a retrospective analysis. *Wien Med Wochenschr* 2015;165(21-22):436-44.
26. Ene S. The role of consultation-liaison psychiatry in the general hospital. *J Med Life* 2008;1(4):429-31.
27. Jolfaee AG, Esfahani MN. Trends of Psychiatric Consultation in Rasoul Akram Hospital. *Iran J Psychiatr Clin Psychology* 2012;18(1):68.
28. Mohammadinia A, Jalilian J, Shayeste Y. Characteristics of patients hospitalized with drug and substance abuse in Gorgan, Iran, 2008–2015. *Iran J Emerg Care* 2017;1(1):69-76.