

# Consultation-Liaison Psychiatry (CLP): Examination of the Psychiatric Consultations for Inpatients and from the Emergency Medicine in a University Hospital

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## ABSTRACT

**Objective:** Consultation liaison psychiatry (CLP) manages the psychiatric care of patients admitted to a general hospital for somatic reasons. Improvements in CLP ensure that the treatment process is effective.

**Methods and Methods:** In two years, 1398 patients consulted from inpatient services were included in the psychiatry service. In the study, descriptive statistical analysis showed the number of patients in inpatient services, the reasons for consulting the psychiatry clinic of these patients, the results of psychiatrist evaluations, and the quantitative and qualitative characteristics of interdepartmental psychiatric consultations.

**Results:** According to the number of inpatients, it was determined that psychiatry consultation requests were more frequent in intensive care units (5.60%), internal services (3.36%), and surgical services (1.23%). The most common consultation result was delirium (21.1%). As a result of the consultation evaluation, the diagnoses were determined as delirium, depression, and anxiety disorder, respectively; It was found that all three diagnoses were made in patients in the internal medicine service.

**Conclusion:** A lower rate of mental illness was detected in the general hospital sample compared to epidemiology studies. This situation is experienced in the process of recognizing and defining a psychiatric disorder; It may be due to features such as the primary treatment department of the patient, the nature of the patient's primary disease, and the presentation of the mental disorder.

With the study, awareness of CLP was raised, and descriptive features were emphasized.

**Keywords:** Consultation–liaison psychiatry; general hospital; psychosomatic medicine; inpatients.

## ÖZET

**Amaç:** Konsültasyon liyezon psikiyatrisi (KLP), somatik nedenlerle genel hastanelere başvuran hastaların psikiyatrik bakımını yönetir. KLP'deki iyileşmeler tedavi sürecinin efektif olmasını sağlamaktadır.

**Gereç ve Yöntem:** Çalışmaya 2 yıllık süreçte psikiyatri servisine, yataklı servislerden konsültasyon yolu ile danışılan 1398 hasta dahil edildi. Tanımlayıcı istatistiksel analizler kullanılarak aynı süreçte yataklı servislerde yatan hasta sayıları, bu hastaların psikiyatri kliniğine danışılma nedenleri, psikiyatrist değerlendirme sonuçları ve departmanlar arası psikiyatri konsültasyonlarının nicel ve nitel özellikleri gösterildi.

**Bulgular:** Yatan hasta sayısına göre; yoğun bakım servislerinde (%5,60), dahili servisler (%3,36) ve cerrahi servislere (%1,23) göre daha sık psikiyatri konsültasyon talebi olduğu tespit edildi. Çalışma sonucunda en sık psikiyatri kliniğine danışılma nedeni ajitasyon (%13,6) iken en sık konulan konsültasyon sonucu tanı ise deliryum (%21,1) oldu. Konsültasyon ile değerlendirme sonrası en sık konulan tanıları sırasıyla deliryum, depresyon ve anksiyete bozukluğu olarak tespit edildi; her üç tanın da en sık konulduğu klinik servis dahiliye servisiydi.

**Sonuç:** Çalışma sonucunda, epidemiyoloji çalışmalarına oranla, genel hastane örnekleminde daha düşük oranda ruhsal hastalık tespit edilmiştir. Psikiyatrik bozuklukları tanıma ve tanımlama sürecinde yaşanan bu durum; hastanın primer tedavi departmanı, hastanın primer hastalığının niteliği, ruhsal bozukluğun prezantasyonu gibi özelliklerden kaynaklanabilir.

KLP çalışmaları hem hastaların hem sağlık hizmet sunucularının sağlık sonuçlarını iyileştirmek için önemli bir araçtır. Bu çalışma ile örneklemdaki hastaların tanımlayıcı nitelikte özellikleri vurgulanarak KLP alanına katkı sağlanmıştır.

**Anahtar Kelimeler:** Konsültasyon–liyezon psikiyatrisi; genel hastane, psikosomatik tıp; yatan hastalar

Consultation-liaison psychiatry (CLP) is a relatively young but dynamic and developing field of psychiatry. CLP, known as psychosomatic medicine, studies the interaction of biological and psychosocial factors in all diseases' development, course, and outcome. By providing an integrative healthcare service, CLP aims at the most appropriate treatment for the needs of patients and healthcare providers (1-4).

The probability of having a mental disorder increases in people with a physical illness, and the likelihood of a physical disease increases in people with a mental illness (5, 6). Difficulties experienced in the field of CLP during the disease process lead to an unfavorable course of the disease process (7, 8). Disruptions in the CLP process cause chronic diseases, prolonged hospitalizations, increased treatment costs, and decreased quality of life for the patient (9, 10).

There are difficulties in recognizing and managing mental illness that accompany the physical illness process in general hospitals (11). It is emphasized that studies and hospital-based training in this field will contribute positively to the main goals of CLP (12). This study highlighted CLP by examining the demographic characteristics of the patients consulted by a psychiatry clinic and their distribution according to the clinics requesting consultation, the reasons for seeking consultation, and the psychiatric diagnoses.

## Materials and Methods

### *The Universe and Sample of the Study*

The study population consisted of 50528 patients hospitalized at University Hospital between 01.03.2021 and 01.03.2023, and 126712 (total, 177240) who applied to the emergency outpatient clinic. 1398 of these patients requested psychiatry consultation from the relevant clinic and these patients formed the sample of the study.

### *Data Collection and Statistical Evaluation*

After the mental health specialist evaluated the consulted patients, the patient files were analyzed retrospectively, and the study data were created. The sociodemographic characteristics of the patients included in the study, the reason for consulting psychiatry in the relevant clinic, and the diagnoses made according to the DSM-5 diagnostic criteria after the evaluation by the psychiatry specialist

were used in the study. After the reasons for consulting the psychiatry clinic were determined, they were grouped as agitation, suicide attempt or **suicidal ideation**, treatment arrangement, impairment of sleep delirium, depressive symptoms and signs, anxiety signs and symptoms, conversion signs and symptoms (psychogenic seizures, paresthesia, motor dysfunction, etc.), assessment pre-operatively, psychotic signs and symptoms, and other causes. After consulting the psychiatry clinic, the diagnoses made by the psychiatrist are delirium, depression, anxiety disorders, psychotic disorders, bipolar disorder attack period, alcohol and substance use disorders, conversion signs and symptoms, no psychiatric disorders, dementia, trauma-related mental disorders, impulsive act of self-harm, mental disorders due to organic reasons, and primary insomnia. Descriptive statistics on research data were analyzed by SPSS 21.0.

### *Inclusion and Exclusion Criteria for the Study*

All patients aged 18 years and older who were consulted to psychiatry from the clinic where they were treated were included in the study. Patients whose diagnosis was not reported in the consultation file, repetitive consultations, consultations on patients younger than 18, and patients whose psychiatric opinion was requested through Forensic Medicine were excluded from the study. Some of the descriptive statistics regarding the emergency polyclinic were not made, assuming the density of admissions to the emergency outpatient clinic, and the emergency polyclinic records were made for triage purposes.

## Results

### *Distribution of Inpatient Numbers and Consultation Requests by Departments*

The number of hospitalizations and consultation requests by departments is given in Table 1. Accordingly, while 17251 patients were hospitalized in internal clinics, consultation was requested from 581 (3.36%) of these patients. While 33277 patients were hospitalized in surgical services, psychiatric consultation was requested from 412 (1.23%) of these patients. While 3087 patients were hospitalized in intensive care units, psychiatric consultation was requested from 173 (5.6%) of them.

**Table 1:** Distribution of the number of inpatients and consultation requests by the departments

Department	Number of inpatients	Number of consultation requests	Percentage(%)
<b>Internal clinics</b>	17251	581	3.36
Internal medicine service	9508	317	3.33
Palliative care service	764	83	10.86
Physical medicine and rehabilitation service	897	79	8.8
Neurology service	2.229	37	1.65
Infectious disease service	776	22	2.83
Pulmonary disease service	1.764	23	1.3
Dermatology service	1.313	20	1.52
<b>Surgical clinics</b>	33277	412	1.23
General surgery service	4.854	94	1.93
Orthopedic and traumatology service	4.752	105	2.2
Neurosurgery service	1.724	83	4.81
Obstetrics and gynecology service	8.693	40	0.46
Plastic and reconstructive surgery service	447	21	4.69
Thoracic surgery service	325	22	6.76
Ophthalmology service	5.483	19	0.34
Urology service	4.086	17	0.41
Ear, nose and throat service	2.913	11	0.37
Intensive care services	3087	173	5.60

#### *Distribution According to the Reason for the Consultation Request and the Results of the Consultation*

When the reasons for requesting a consultation were examined in general, 190 (13.6%) of all patients were consulted because of agitation and 168 (12%) because of suicide attempt attempt/suicidal ideation. It was determined

that 152 (10.9%) of them were consulted for the regulation of their existing psychiatric treatment and 143 (10.2%) were consulted for impair of sleep.. When the distribution of consultation diagnoses was examined in general, 295(21.1%) were diagnosed with delirium, 283 (20.2%) were diagnosed with depression, and 222 (15.9%) were diagnosed with anxiety disorder. In contrast, no mental disorder was detected in 165 patients (Table 2).

**Table 2:** Distribution according to the reason for the consultation request and the results of the consultation

Reason for consultation request	Diagnosis considered by psychiatrist as a result of consultation	
	n	%
Agitation	190	13.6
Suicide Attempt/Suicidal ideation	168	12.0
Treatment Arrangement	152	10.9
Impairment of sleep	143	10.2
Delirium	141	10.1
Depressive Signs and Symptoms	138	9.9
Anxiety Signs and Symptoms	128	9.2
Conversion signs and symptoms	63	4.5
Preoperative Evaluation	57	4.1
Psychotic Signs and Symptoms	55	3.9
Other reasons	79	5.6
Alcohol and Substance Use Disorders	34	2.4
Bipolar disorder	25	1.8
Trauma Associated Signs and Symptoms	18	1.3

*Distribution of Patients by Clinics, Reasons for Consultation Request, and Diagnosis at the Results of Consultation*

Of the 1398 patients included in the study, 708 (50.6%) were male, and 690 (49.4%) were female. The mean age of the participants was 50.9±15.53 (minimum 18-maximum 96). When the distribution of departments requiring psychiatric consultation is evaluated, it is observed that internal departments requested 581 patients (41.6%), surgical departments requested 412 patients (29.5%), emergency medicine outpatient clinics requested 232 patients (16.6%), and intensive care services requested 173 patients (12.4%). In two years, psychiatric consultation was requested from 317 (22.7%) patients, with clinical internal diseases requiring psychiatric consultation most frequently (Table 3).

Considering the distribution of the departments according

to the most common reasons for consultation request, agitation was the most common reason for requesting consultation in internal departments, surgical departments and intensive care units. In the emergency medicine outpatient clinic, it was determined that the most common reason for requesting consultation was suicide attempt/suicidal ideation. The most common reasons for requesting psychiatric consultation in the clinics are shown in Table 3.

When the most common diagnoses made according to the desired departments were examined, delirium was the most common diagnosis in the internal departments, intensive care services and emergency medicine outpatient clinics. Depression was found to be the most common diagnosis in the surgical departments. The diagnoses made after the psychiatrist’s evaluation of the departments are shown in Table 3.

**Table 3:** Distribution of patients by clinics, reasons for consultation request, and diagnosis at the results of consultation

Department	n	%	Reason for consultation	n	%	Diagnosis	n	%
Internal clinics	581	41.6	Agitation	80	13.8	Delirium	123	21.2
			Treatment Arrangement	68	11.7	Depression	113	19.4
				62	10.7	Anxiety Disorders	96	16.5
Internal medicine service	317	22.7	Agitation	44	13.9	Depression	69	21.8
			Suicide Attempt/Suicidal ideation	39	12.3	Delirium	62	9.6
			Treatment Arrangement	38	12.0	Anxiety Disorders	52	16.4
Palliative care service	83	5.9	Anxiety Signs and Symptoms	13	15.7	Delirium	18	21.7
			Agitation	12	14.5	Anxiety Disorders	18	21.7
			Delirium	9	10.8	No mental disorder	15	18.1
Physical medicine and rehabilitation service	79	5.7	Impairment of sleep	12	15.2	Delirium	19	24.1
			Treatment Arrangement	12	15.2	Depression	16	20.3
			Depressive Signs and Symptoms	10	12.7	Anxiety Disorders	12	15.2
Neurology service	37	2.6	Suicide Attempt/Suicidal ideation	6	16.2	Delirium	7	18.9
			Treatment Arrangement	5	13.5	Depression	6	16.2
			Delirium	5	13.5	No mental disorder	6	16.2
infectious disease service	22	1.6	Delirium	5	22.7	Depression	8	36.4
			Agitation	3	13.6	Delirium	6	27.3
			Impairment of sleep	3	13.6	Anxiety Disorders	3	13.6
Pulmonary disease service	23	1.6	Agitation	6	26.1	Delirium	7	30.4
			Impairment of sleep	3	13.0	Bipolar disorder	4	17.4
			Bipolar disorder attack period	3	13.0	No mental disorder	4	17.4
Dermatology service	20	1.4	Anxiety Signs and Symptoms	4	20.0	Depression	5	25.0
			Impairment of sleep	4	20.0	Anxiety Disorders	4	20.0
			Delirium	3	15.0	Delirium	4	20.0
surgical clinics	412	29.5	Agitation	50	12.8	Depression	91	23.3
			Suicide Attempt/Suicidal ideation	47	12.1	Delirium	73	18.7
			Delirium	42	10.8	Anxiety Disorders	55	14.1
General surgery service	94	6.7	Depressive Signs and Symptoms	13	13.8	Depression	21	22.3
			Delirium	12	12.8	Delirium	18	19.1
			Impairment of sleep	12	12.8	Anxiety Disorders	15	16.0

Orthopedic and traumatology service	105	7.5	Suicide Attempt/Suicidal ideation	16	15.2	Depression	28	26.7
			Agitation	14	13.3	Anxiety Disorders	17	16.2
			Treatment Arrangement	13	12.4	Delirium	13	12.4
Neurosurgery service	83	5.9	Depressive Signs and Symptoms	13	15.7	Depression	21	25.3
			Anxiety Signs and Symptoms	12	14.5	Delirium	17	20.5
			Agitation	10	12.0	Anxiety Disorders	11	13.3
Obstetrics and gynecology service	40	2.9	Suicide Attempt/Suicidal ideation	6	18.8	Depression	8	25.0
			Delirium	4	12.5	Delirium	7	21.9
			Anxiety Signs and Symptoms	4	12.5	Anxiety Disorders	3	9.4
Plastic and reconstructive surgery service	21	1.5	Agitation	4	19.0	Delirium	5	23.8
			Suicide Attempt/Suicidal ideation	4	19.0	Alcohol and Substance Use Disorders	3	14.3
			Delirium	3	14.3	Organic Reason	3	14.3
Thoracic surgery service	22	1.6	Delirium	2	20.0	No mental disorder	3	30.0
			Other reasons	2	20.0	Delirium	2	20.0
Ophthalmology service	19	1.4	Agitation	6	31.6	Delirium	7	36.8
			Delirium	3	15.8	No mental disorder	4	21.1
			Anxiety Signs and Symptoms	2	10.5		3	15.8
Urology service	17	1.2	Impairment of sleep	3	17.6	Depression	4	23.5
			Anxiety Signs and Symptoms	2	11.8	Delirium	3	17.6
			Agitation	2	11.8	Anxiety Disorders	3	17.6
Ear, nose and throat service	11	.8	Impairment of sleep	2	22.2	Anxiety Disorders	3	33.3
			Suicide Attempt/Suicidal ideation	2	22.2	Depression	2	22.2
Intensive care services	173	12.8	Agitation	22	12.7	Delirium	42	24.3
			Delirium	21	12.1	Depression	41	23.7
			Depressive Signs and Symptoms	20	11.6	Anxiety Disorders	30	17.3
Emergency medicine outpatient clinics	232	16.6	Suicide Attempt/Suicidal ideation	39	16.8	Delirium	50	21.6
			Agitation	32	13.8	Anxiety Disorders	36	15.5
			Treatment Arrangement	25	10.8	Depression	35	15.1

### Mean Age of Diagnoses and Gender Distribution of Diagnoses

Considering the average age according to the diagnoses, the mean age of the patients diagnosed with delirium was  $71.9 \pm 13.8$ , the mean age of the patients diagnosed with depression was  $17.6 \pm 17.2$ , the mean age of the patients diagnosed with anxiety disorders was  $53.2 \pm 18.1$ , and the mean age of the patients without any psychiatric disorder was  $52.2 \pm 18.4$  (Table 4).

When the distribution of diagnoses by gender is examined, 172 (58.3%) patients diagnosed with delirium were male, 121 (42.8%) patients diagnosed with depression were male, 96 (43.2%) patients diagnosed with anxiety disorder were male. On the other hand, 80 (48.5%) of the patients who did not have psychiatric disorders as a result of the evaluation were male. (Table 4).

Table 4: Mean age of diagnoses and gender distribution of diagnoses

Diagnosis(n)	Age( $\pm$ )	Gender(Male)
Delirium (n:295)	$71.9 \pm 13.8$	172;58.3%
Depression (n:283)	$52.7 \pm 17.2$	121;42.8%
Anxiety Disorders (n:222)	$53.2 \pm 18.1$	96;43.2%
No mental disorder (n:165)	$52.2 \pm 18.4$	80;48.5%

### Discussion

The benefits CLP will provide with its effective use have encouraged researchers to deal with this field. In this study, descriptive features that can lead to improvements in the area of CLP are presented. In this context, it has been determined how the awareness and identifiability of psychiatric illness are realized in a hospital.

The main evidence-based objectives of CLP can be listed as follows: It can be summarized as raising awareness of psychiatric illness, recognizing and suspecting mental illness, ensuring the predictability of possible mental illness based on the findings before the active illness period, and achieving the goals mentioned above even in changing situations, in cooperation with non-psychiatric clinics (13). Considering the inter-departmental distribution in terms of awareness of psychiatric illness in line with CLP goals, the most frequent consultation request in our study was from intensive care clinics. Although internal and surgical branches showed different demands for consultation among themselves, it was seen that internal clinics generally demanded higher consultation. Studies in this area have determined that the reasons for requesting consultation between departments in different hospitals may differ (14, 15). The difference in psychiatric consultation demand rates between departments may be due to the difference in the treatment plan of the department and the potential interaction with psychiatric drugs, the psychological needs of the patients in the departments, the clinical experience of the physician in the department and the approach to psychiatric diseases, and the general medical condition of the patient. Awareness of consultation demand between hospitals may be due to the hospital's operating system or training attention for in-hospital CLP. Patients in intensive care units are frequently followed up with more severe health problems and receive more intensive and invasive treatments. This high stress level may cause secondary psychiatric issues such as anxiety and depression in patients. At the same time, delirium can be seen frequently in intensive care patients because of the severity of the disease and the risk group of patients. All these reasons may explain the relatively higher rate of psychiatric consultations in intensive care units. In the surgical departments, the treatment of patients is focused on surgical interventions, and surgical specialists work intensively and at a fast pace. This situation may have caused psychiatric problems to be missed and prompted less request for psychiatric consultation. Different rates of consultation requests may be associated with the severity of the disease and the length of hospital stay in services with shorter hospitalization rates, such as ophthalmology and otolaryngology services, and services with chronic and long-term hospitalizations, such as palliative services. Pre-and post-operative periods in surgical departments may affect the individual's self-expression and prepare the ground for difficulty in awareness of the mental state.

Recognition of mental illness and interdepartmental collaboration is another goal of CLP. The importance of harmony between physicians regarding psychiatric terminology was also emphasized by the World Health Organization (16). The reasons for the consultation, the examinations to be made over the evaluations, and the harmony between the physicians are suggestive about this issue. In this study, although there may be differences within the departments, it was determined that agitation was the most common reason for requesting consultation in internal, surgical, and intensive care services. The most common reason for requesting consultation in the emergency clinic was suicide attempt or suicidal ideation. In a study conducted in Turkey in this area, the most common reason for requesting consultation was depression, while the most frequently requested department was surgical clinics. In another study, it was seen that the most frequent consultation was on the state of agitation, and the most commonly requested consultation was internal clinics (17, 18). In a hospital in Italy, during the 20 years, the most frequent consultation request was due to depression, followed by agitation. In another study, delirium was the most frequent consultation request, followed by depression. (19, 20). Among the reasons for the consultation request, the difference between departments may be related to the differences in the severity of the diseases of the patients, the different medical conditions and needs, and the different educational experiences and attitudes of the physicians in the relevant specialties about psychiatric disorders. The fact that agitation was the most common reason for requesting consultation in our study may be because the physicians quickly noticed the agitated patient because of his restless and inappropriate behaviors.

## Conclusion

Studies in the field of CLP emphasize the difficulties in detecting mental comorbidity and its unfavorable effects. Our study's results indicate differences in diagnostic terminology between psychiatry and non-psychiatry departments, and non-psychiatry departments have difficulty detecting psychiatric diagnoses. In general, low psychiatric consultation requests and differences between departments indicate the need for more cooperation, coordination, and information in CLP. Considering the potential of the efficient use of CLP, improvements in this area will contribute to more holistic and effective clinical practices.

Conducting prospective studies in the future may ensure that the process is followed more systematically and comprehensively and that the data collection process is more accurate and complete. In addition, multicentre studies including larger patient groups from different geographical regions may increase the generalisability of the results.

### Limitations and Strengths

The limitation of this study may be the lack of information in some patient files. Incomplete or unclear information about the psychiatric diagnosis or the reasons for the consultation may have affected the accuracy of the data analysis. In addition, the fact that the data included in the study were obtained from a single hospital limits the generalisability of the results. On the other hand, the fact that the data were obtained using a retrospective method may make it difficult to document the results in a complete and consistent manner.

The strengths of this study include its detailed examination of the most common symptoms of psychiatric disorders and the difficulties experienced by non-psychiatric clinics in defining mental disorders. In addition, these findings, which were retrospective and analysed data from a relatively large number of patients, emphasise the need for cooperation, coordination and information sharing within the CLP.

### Declarations

#### Funding

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#### Conflicts of interest

The authors declare that they have no conflict of interest.

#### Ethics Committee Approval

This study was approved by Tokat Gaziosmanpaşa University Clinical Research Ethics Committee, with decision number 83116987-794.

#### Peer-review

Externally peer-reviewed.

### Author Contributions

Research idea: SA,AES,İG

Design of the study: SA,İG

Acquisition of data for the study: SA,AES

Analysis of data for the study: SA,AES,İG

Interpretation of data for the study: SA,AES,İG

Drafting the manuscript: SA,AES,İG

Revising it critically for important intellectual content: SA,İG

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