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TRENDS IN THE CLINICAL PRACTICE OF LIAISON PSYCHIATRY AT A TERTIARY CARE HOSPITAL IN LAHORE, PAKISTAN

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ABSTRACT

OBJECTIVE
To ascertain the trends in referrals made to the Department of Psychiatry from all other departments of Mayo Hospital, Lahore and to provide suggestions to improve the use of Liaison Psychiatry model by Physicians.

STUDY DESIGN
Descriptive cross-sectional research.

PLACE AND DURATION OF STUDY
Mayo Hospital, Lahore, Pakistan from December 2023 to June 2024 (six months).

METHOD
Convenience sampling was used for participants' selection, consisting of patients admitted to all wards at Mayo Hospital requiring Psychiatric consultation, and enrolled using a pre-designed online form. Data included participants' age and gender, number and type of consultation, reason for hospital admission, reason for referral, active complaints, past psychiatric history, mental status examination, co-morbidities, risk of self-harm or harm to others and management plan. Data analysis was performed using SPSS 27. Chi-square test of independence was performed to explore the relationship between gender and history of substance use.

RESULTS
Total 220 patients received Liaison Psychiatric services: most patients (36.4%) were admitted in General Medicine, followed by (19.5%) in General Surgery. Majority (26.8%) were adolescents and 89.1% consulted a Psychiatric service for the first time, and 53.2% were women receiving these services. History of substance use was 20 %. The commonest reason for admission was multiple comorbidities (16.4%). Majority of the patients were referred for symptoms of depression (21.8%), self-injurious or suicidal behaviour (14.5%), altered state of consciousness (14.1%), substance use disorders (14.1%), irritability or uncooperative behaviour (11.8%), and acutely disturbed behaviour (10.9%).

CONCLUSION
The trend shows that Consultation model is being used by physicians however, there is a need to educate the clinical teams about Liaison Psychiatry model to help solve difficult liaison cases.

KEYWORDS
Hospitals; Mental Health Services; Morbidity; Physicians; Referral and Consultation; Substance-Related Disorders; Suicidal Ideation.

INTRODUCTION

Philosophy has since long debated the interdependence of mind and body.[1] The bidirectional relationship between mind and body finds practical applications in Liaison Psychiatry (LP), which integrates mental and physical health. Contact or Liaison psychiatry is the specialty of Psychiatry connecting individuals' physical and emotional well-being.[2] Most contact Psychiatry administrations are based inside broad general hospital settings. Notwithstanding, contact Psychiatry administrations may likewise work with GPs and with local area community health administrations. A LP administration may likewise be known by another name, like Psychological Medicine, or general hospital Psychiatry.

LP services see people with a wide range of problems which include difficulties managing physical problems, mood issues (anxiety, depression), confusion and memory issues, problems with alcohol or substance abuse, suicidal or self-harm tendencies, and medically incomprehensible physical problems. These problems can sometimes be managed by a psychological as well as a physical approach. Psychiatrists in these services work closely with doctors in the different medical and surgical specialties. There is a low referral rate despite huge mental health co-morbidity. A review in India suggested that referral rates to Psychiatry services from other specialists are poor, suggesting a need for change in training at all levels to increase the knowledge and awareness of physicians.[3] A study conducted in a private hospital setting in Pakistan assessed the psychiatric co-morbidity among general hospital patients and their referral rate confirmed that depression outnumbered all psychiatric disorders, followed by mixed anxiety depression and somatoform disorders.[4]

The survey for LP services in large cities in Pakistan showed a rapid increase in its use, particularly by the emergency department, but the issue is lower proportion of referrals for self-harm and substance misuse while higher proportion of referrals for dissociative disorders.[5] A study conducted on patients presenting with self-harm, which were viewed by the Liaison team, determined that the majority had past psychiatric history, depressive symptoms, personality issues and past self-harm attempts.[6] One study in Karachi reviewed 995 medical records retrospectively collecting information like demographic data, referral reasons, past histories, treatments, and outcomes. The results showed equal male female prevalence, confirming most referrals from Internal Medicine, the most common reasons being behavioural issues and delirium. This study identified the need for improvement in late referrals, documentation issues, and ongoing management.[7]

In Lahore, there was a notable lack of information regarding this emerging field of Psychiatry. Therefore, our objective was to conduct an extensive research study within Mayo Hospital, Lahore. Our investigation encompassed a multifaceted analysis, including the examination of demographic patterns, referral sources, admission rationales, psychiatric consultations, presenting complaints, concurrent comorbidities, substance abuse issues, self-harm risk assessments, and management strategies. We anticipated that this comprehensive study will significantly contribute to the enhancement of our Psychiatric services and the development of future management plans, including formulating policies for standard diagnosis and prescription writing targeting relevant physicians, nurses, internee doctors and administrators. Thus, the objectives of this study are to ascertain the trends in referrals made to the Department of Psychiatry from all other departments of Mayo Hospital, Lahore, Pakistan and to provide suggestions to improve the use of liaison Psychiatry model by Physicians.

METHOD

After sorting approval from the Institutional Review Board, King Edward Medical University (KEMU), Lahore (ref.no. 146/RC/KEMU, dated: 21/21/2023), a descriptive cross-sectional study was conducted at Mayo Hospital, an affiliated hospital of KEMU, Lahore, Pakistan. Established in 1871, Mayo Hospital has 2399 beds and is the oldest and largest hospital in the country. Convenience sampling was used to select participants, which comprised patients admitted to any ward at Mayo Hospital requiring psychiatric consultation. Following the ethical approval, the data collection spanned six months (December 2023 to June 2024).

During the six-month study period, data were collected from 220 patients using a pre-designed online proforma comprising two sections. The first section included details of the age and gender of the participants. The second section included the number and type of consultation, reason for hospital admission, reason for referral, active complaints and past psychiatric history, mental status examination, medical/surgical co-morbidities, risk of self-harm or harm to others, details of the management plan presented by the psychiatric team, and whether a formal psychiatric diagnosis was established following the consultation. This could provide multiple responses to certain questions and multiple response analysis was performed.

Informed verbal consent was obtained from each patient after explaining the study title, purpose, patient's voluntariness (including withdrawal of consent at any time), ensuring confidentiality, the details of the principal investigator were shared and the questions were read aloud to all patients regardless of their educational background to maintain consistency. Any patient who refused to give informed consent was excluded from the study. Data were collected and entered into the online proforma by on-call postgraduate residents from Psychiatry (years I-IV). Data were thoroughly checked for errors and inconsistencies by the research team. Cases referred from the ICU included patients unable to provide detailed information, thus such proformas were filled based on the accounts taken from the patient's attendants and medical files available in the admitting units. Complete anonymity of data was maintained.

Data analysis was performed using SPSS version 27. The study primarily used descriptive statistical analysis, calculating frequencies and percentages to summarise data for all categories. A chi-square test of independence was performed to explore the relationship between gender and history of substance use. Given that 15 cells (75.0%) had an expected count of less than 5 (minimum expected count= .47), the likelihood ratio was used for interpretation ($p < .001$).

RESULTS

During the six-month study period, 220 patients received Liaison Psychiatric services. The majority of patients (59 out of 220, 26.8%) were aged 18–25 years, 38 (17.3%) were aged 36–45 years, 35 (15.9%) were younger than 18 years, 34 (15.5%) were aged 26–35 years, and 28 (12.7%) were aged 46–55 years. The lowest number of calls (26 out of 220, 11.8%) were related to patients 56 years or older. Our results indicated that a relatively higher number of women (117 out of 220, 53.2 %) sought Liaison Psychiatric services. Of the 220 patients, 60 (27.3%) reported a significant past Psychiatric history, 19 (8.6%) reported a family history of Psychiatric illness, and 44 (20%) reported a history of substance abuse mostly reported polysubstance use (40%) and use of opioids (37%).

Of the 220 patients, 196 (89.1%) consulted a Psychiatric service for the first time, while the remaining 24 (10.9%) reported having been in contact with a psychiatric service before. Most patients (99.1%) received face-to-face service, while only 2 (0.9%) received tele-psychiatry service. The highest number of referrals were from the Department of General Medicine (36.4%), followed by the Department of General Surgery (19.5) and Paediatrics (10.9%). The Department of Obstetrics and Gynaecology, which has two affiliated hospitals working with Mayo Hospital Lahore, made considerably fewer consultation calls (3.6%).

The most common reason for admission stated by doctors was multiple comorbidities (16.4%). Table 1 shows the details for Psychiatric consultation.

Table 1
Reason for Psychiatric Consultation.

Reason for psychiatric consultation	n	%
Symptoms of depression	48	21.8
Self-injurious or suicidal behaviour	32	14.5
Substance use disorder	31	14.1
Altered State of Consciousness/Delirium	31	14.1
Irritability or uncooperative behaviour	26	11.8
Acutely disturbed behaviour	24	10.9
Symptoms of anxiety and related disorders	20	9.1
Symptoms of psychosis	20	9.1
Adjustment to illness	17	7.7
Sleep problems	17	7.7
Medically unexplained symptoms	14	6.4
Opinion on existing psychiatric treatment	11	5.0
Others (side effects of medications, capacity assessment, etc.)	25	11.6

The risk of harming self or harming others was present in 38.6% of patients. The majority (31.8%) of these patients were aged 18-25. Of the 32 cases that presented at risk and received pharmacological treatment, the majority (24.5%) were prescribed antipsychotics, followed by 12.7% who were given antidepressants, all the patients were provided a suicide

prevention plan. A relatively high proportion of women (57.6%) presented with a risk of self-harm or harm to others. Of the 13 patients over 65 years of age, 8 (61.5%) were women, 4 (30.8%) received psychotherapy, and 7 (53.8%) were prescribed antipsychotic medication.

A chi-square test of independence was conducted to examine the relationship between gender and the history of substance use. The results revealed a statistically significant association, χ^2 (9, N = 220) = 63.51, p < .001. This indicates that gender significantly influences the type and prevalence of substance use.

The observed counts for male and female patients deviated from the expected counts across multiple categories. For example, opioid use was notably higher in male patients (9 patients) compared to female patients (1 patient). Similarly, polysubstance use was also more prevalent among male patients (17) than female counterparts (no reported patients). However, dependence on prescribed medications was more prevalent among female patients (2 cases) as compared to male patients (0 cases). Still, a majority of female patients (113 cases) had no significant substance use history compared to 63 male patients (Table 2).

Table 2
History of Substance Use and Gender Crosstabulation (n=220).

History of substance use	Gender		Total (n)
	Male	Female	
Insignificant	63	113	176
Opioid use	9	1	10
Cigarette smoking	6	0	6
Cannabis use	2	0	2
Benzodiazepine use	1	0	1
Alcohol use	1	0	1
Stimulants use	1	0	1
Polysubstance use	17	0	17
Prescribed medications	0	2	2
Unknown/other	3	1	4
Total	**103**	**117**	**220**

Note: The table shows the difference between the observed counts of male and female patients across several categories.

A formal psychiatric diagnosis was established for 101 (45.9%) patients. Of the 220 patients, 93 (42.3%) were offered follow-up in the Psychiatric OPD, 92 (41.8%) were given pharmacological treatment with psychoactive drugs (mostly antipsychotics), 82 (37.3%) were provided psychotherapy sessions during their ward stay, and 9 (4.1%) were admitted to the Psychiatry ward (Figure 1 and 2).

Figure 1
Summary of Psychiatric Management.

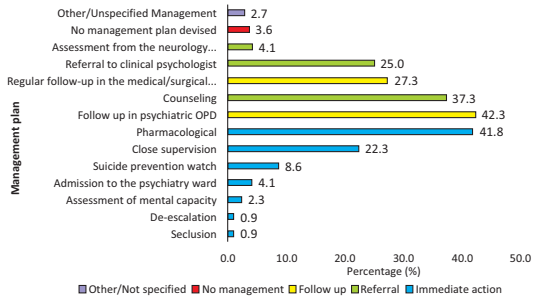
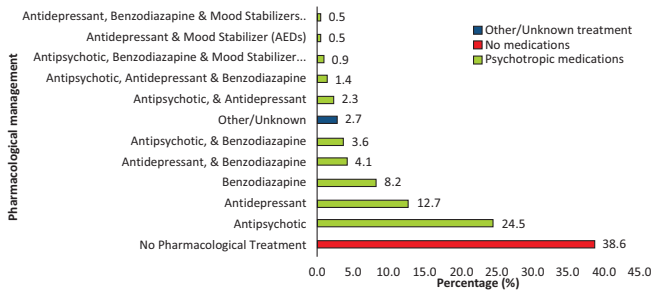


Figure 2
Summary of the Pharmacological Treatment.



DISCUSSION

To design an effective healthcare system, it is imperative to understand the population whose needs it serves and establish structures and processes within it. The data presented in this study clearly describe the mental health issues patients encounter and the life stages during which they are most vulnerable to seeking help. This insight provides an opportunity for our mental health services to proactively equip themselves to address patients' demands more effectively.

The majority (27%) of the referrals were related to patients aged 18-25 years. This is in line with the National Survey on Drug Use and Health (2021) which reported that young adults aged 18-25 years had the highest prevalence (33.7%) of any mental health disorders.8 Approximately 16% of the total patients were under 18 years of age. This age group was referred for active complaints of low or irritable mood, lack of sleep, or agitated, odd, persecutory, or hallucinatory behaviour. Most of these patients (24.5%) were managed with antipsychotic drugs, about 4.1% were prescribed a combination of antidepressants and benzodiazepines, and about 8.2% were prescribed benzodiazepines alone.

Our findings also showed a relatively high proportion of women admitted to medical wards seeking Psychiatric services. Most women reported somatic symptoms which were not associated with any physical cause. This is consistent with findings of previously conducted local and Western studies.[9,10] Increased psychological burden among women has been attributed to societal attitudes and norms, cultural practices (Karo Kari, exchange marriages, dowry, etc.), and religious and ethnic conflicts.[11]

However, the Department of Obstetrics and Gynaecology made relatively few consultation calls (3.65%) suggesting that this trend of reduced referral calls related to perinatal mental health should be investigated. One hypothesis suggested by authors is that either physicians downplay the importance of maternal mental health or are unaware of when to involve a psychiatrist. Another hypothesis is the reluctance of consent from the patient.[12]

The majority of inpatients, 21.8%, referred to Psychiatric services had symptoms of depressive disorder. An important highlight of our research is that self-injurious/suicidal behaviour (14.5%) and substance use disorders (14.1%) were frequent and challenging presentations. The most common means of self-injurious/suicidal behaviours were wheat pill poisoning and laceration. The majority (31.8%) of patients who self-harmed or harmed others were aged 18–25 years. A relatively high proportion of women (57.6%) presented with a risk of self-harm or harm to others. This is because women reported significantly more psychological distress and significantly less sensation-seeking and positive urgency than men.[13] Opioids and cannabis were the most frequently reported substances of use. Prompt referrals by physicians and early assessment by the LP team can help in preparing an effective safety plan.

During these six months, only one call was received regarding the ethical concept of end-of-life counselling. A significantly higher number of patients (89.1%) consulted the Psychiatric service for the first time proving that LP represents the initial and perhaps only opportunity for desensitisation, screening, providing management, and establishing follow-up contact with patients experiencing potentially acute or chronic psychiatric conditions. There can be three explanations for this outcome: (a) In many patients, mental health issues remain unnoticed because the primary focus is on physical illness,[14] (b) LP requires effort from the physician to get a Psychiatric consultation for the patient, therefore, successful identification and management of a Psychiatric disorder depends on both the initiative of physicians and the response time of the LP team, and (c) mental health services are less utilised because of psychosocial barriers particularly stigma associated with psychiatric disorders.[15]

It is noteworthy that 42% of patients were recommended follow-up in the outpatient department (OPD) with medication, while another 38% were not prescribed medicines and were solely offered psychological support and sessions during ward stay. From a public health perspective, it proves that LP has the potential to help reduce the burden of mental health problems by reducing the excessive and unnecessary prescription of psychotropic medications in both developed and developing countries.

Referrals of medically ill patients to Mayo Hospital for psychiatric services illustrate that the consultation model is being used in our part of the world, which aims to provide mental health care through a Psychiatry consultation team, called upon by doctors to provide services in individual cases. The patient remains the main focus of the provided services. However, other approaches and models need to be included, for example, the Liaison model, which focuses to train physicians and clinical teams to deal with patients with psychiatric problems. The hybrid model has a psychiatrist as part of a multidisciplinary team. Other models include the autonomous model in which psychiatry and other specialties operate independently. In the bridge model, psychiatrists provide teaching to primary care physicians.[16]

It is recommended that postgraduate trainees, house officers, physicians, surgeons, and nurses need to be psycho-educated through workshops and small group discussions about the importance of liaison services based on the liaison model, especially in departments that have fewer consultation calls. There is also an immediate need to digitise records and conduct regular audits aimed at establishing a protocol for promptly attending and responding to contact calls.

Strengths and Limitations

Data were collected in real-time and comprehensively, and additionally cross-checked by various team members for errors and inconsistencies. However, a limitation of our study was that data were collected from only one hospital over a limited period. The data were not available in digitised form, which could lead to errors. The calls were handwritten and did not follow a set pattern. A cross-sectional research design does not allow tracking of changes or trends over time. Convenience sampling was chosen, which is prone to selection bias and limits the generalisability of the results. This study provides a preliminary descriptive overview, which could be expanded upon with future research utilising statistical methods. It is recommended that researchers interested in collecting data related to Liaison Psychiatry in the future should use structured tools such as CGI and FORM-LP to evaluate the service, and in particular, the impact on patient care.

CONCLUSION

Only consultation model is being used by physicians in our settings. However, there is a need to educate and train the clinical teams about the Liaison Psychiatry model to help solve various ethical dilemmas and difficult cases related to liaison.

CONFLICT OF INTEREST

Authors declared no conflict of interest.

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DISCLOSURE

None

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Sr. #	Author(s) Name	Author(s) Affiliation	Contribution
1.	Dr Irum Aamer	KEMU/ Mayo Hospital	Conception of idea, interpretation of results, revision of drafts
2.	Dr Zainab Pervaiz	KEMU/ Mayo Hospital	Formation of questionnaire, analysis of data and drafting of article
3.	Laiba Qayyum	Mayo Hospital	Data Analysis, interpretation of results
4.	Dr Muhammad Noman Tariq	KEMU/ Mayo Hospital	Data collection, drafting of the article.