Clinico-psycho-social profile of patients brought under consultation-liaison psychiatry care in a large tertiary care referral hospital

Objective: The aim of this study was to access the clinico-psycho-social profile of patients brought under consultation-liaison (CL) psychiatry care in a large tertiary care referral hospital. Materials and Methods: This study included all patients who were referred for CL psychiatry from among the inpatients in the hospital and the emergency department (during off working hours of the hospital) over a period of 1 year. Data were obtained and analyzed in terms of where was the referral placed, by whom, the reason for placing the referral, the primary medical/surgical diagnosis of the patient, the presenting complaints, any past psychiatric history, the psychiatric diagnosis (as per the International Classification of Diseases, Tenth Edition), the investigations advised and their reports, the treatment advised (psychotherapeutic and psychopharmacological), the sociodemographic profile of the patients, and the follow-up details. Results: A total of 157 patients were referred to the CL unit over the study period. Out of these, 125 patients were referred among the inpatients and 32 from the emergency department of the hospital. Majority of the patients were in the age group of 25–50 years and were male. The majority of the referrals were made by general physician; most of the referrals were placed from emergency department. The most common reason for referral was for altered sensorium and behavioral abnormalities. The most common diagnosis was delirium followed by depressive episode and alcohol dependence syndrome. Conclusion: There was higher representation of delirium and alcohol-related cases in our study compared to older studies.

Keywords: Consultation-liaison psychiatry, delirium, depressive episode

Consultation-liaison (CL) psychiatry has two main arms—first being providing expert advice on a referred patient and the second of liaison. Liaison function includes the educational and facilitative function of the consulting psychiatrist. CL psychiatry developed mainly in teaching hospitals with psychiatric residency training programs. CL psychiatry serves several functions, i.e., clinical, educational, administrative, and research. However, the primary function in an acute general hospital remains clinical, i.e., to facilitate the medical treatment of the patient since that is the primary reason why the patient is in the hospital. The liaison part of CL psychiatry largely denotes its educational function. Education is for patients, their relatives, and the involved medical caregivers. The administrative functions of the CL psychiatrist often involve emergency and involuntary hospitalization. The research part of CL psychiatry has played a major role in giving rise to subspecialties such as psychonephrology, psycho-oncology, psychoimmunology, psychoendocrinology, and psycho-obstetrics and gynecology[1]

CL psychiatry is a well-established subspecialty of psychiatry, and most of the major hospitals in the country have a well-functioning general hospital psychiatry unit. The referral rates in our country (0.15%–1.54%)[2] are much lower than the rates in other countries.
lower compared to the developed countries (2.2%–12%).\textsuperscript{[3,4]} Numerous studies have shown that in the developing world the psychiatric morbidity among the primary health-care units ranges anywhere from 8% to 53%.\textsuperscript{[5,6]} Indian studies too have reflected similarly high prevalence.\textsuperscript{[7–9]} Studies have consistently reported high rates of psychiatric morbidity among medical inpatients.\textsuperscript{[10–13]} The majority of patients referred to CL psychiatry were females\textsuperscript{[9,12]} and in their middle age.\textsuperscript{[10]}

**Objective**

The objective was to study the clinico-psycho-social profile of patients brought under CL psychiatry care in a large tertiary care referral hospital.

**MATERIALS AND METHODS**

This study included all the patients who were referred for CL psychiatry from among the inpatients in the hospital and the emergency department (during off working hours of the hospital). The study period was from August 1, 2015 to August 31, 2016. The International Classification of Diseases, Tenth Edition (ICD-10) classification was used to diagnose the cases. All the relevant details such as nature and mode of referral, reason for referral, the primary medical/surgical diagnosis of the patient, the presenting complaints, any past psychiatric history, the psychiatric diagnosis (as per the ICD-10), the investigations advised and their reports, the treatment advised (psychotherapeutic and psychopharmacological), the sociodemographic profile of the patients, and the follow-up details were recorded. Descriptive analysis was statistically computed in terms of mean and standard deviation.

**RESULTS**

A total of 157 patients were referred to the CL unit over the study period. Out of these, 125 patients were referred among the inpatients and 32 from the emergency department of the hospital. Out of the total 26,105 patients admitted in the hospital in the study period, 125, i.e., 0.47% of patients were referred for psychiatric consultation. Among the 10,296 patients in the emergency department (during off working hours of the hospital), 32, i.e., 0.31% of patients were referred for psychiatric consultation. Majority of the patients were in the age group of 25–50 years (47.13%), followed by above 50 years (41.40%). Only 18 (11.64%) were below the age of 25 years; 81 patients, i.e., 51.59% were males and 76 patients (48.4%) were females. Among the study population, 17 (10.82%) were illiterate, 95 (60.50%) were educated up to standard XII, and 45 (28.66%) were graduates and above.

**Specialty-wise referrals**

The majority of the calls were made by general physicians (75 patients, i.e., 47.77%), followed by surgeons (28 patients, i.e., 17.83%), gynecologists/obstetricians (14 patients, i.e., 8.91%), neurologists (13 patients, i.e., 8.28%), orthopedicians (eight patients, i.e., 05.09%), etc. [Table 1].

**Location-wise referrals**

The majority of calls were placed from emergency department (32 patients, i.e., 20.38%), followed by male medical ward (36 patients, i.e., 22.92%), female medical ward (28 patients, i.e., 17.83%), male surgical ward (12 patients, i.e., 7.64%), intensive care unit (12 patients, i.e., 7.64%), maternity ward (12 patients, i.e., 7.64%), burns ward (seven patients, i.e., 4.45%), etc. [Table 2].

**Reason for referral**

The most common reason for referral was for cases of altered sensorium and behavioral abnormalities (21.65%), followed by alcohol-related cases (18.47%), cases with...
depressive features (16.56%) [Table 3], which is not in consonance with earlier studies where the most common reasons for referrals were depressive disorders, substance use disorders, and bipolar affective disorders.[13,14]

**Past history of psychiatric illness**
Among our study sample, 28.66% of the cases had a history of past psychiatric illness or treatment.

**Final psychiatric diagnosis**
The most common diagnosis was delirium (34 patients, i.e., 21.65%), followed by depressive episode (18 patients, i.e., 11.64%) and alcohol dependence syndrome (14 patients, i.e., 8.91%). No psychiatric diagnosis was found in 14 patients, i.e., 8.91%. Alcohol withdrawal state with seizures/delirium tremens (13 patients, i.e., 8.28%), adjustment disorder (12 patients, i.e., 7.64%), dissociative disorder (ten patients, i.e., 6.36%), etc., were the other cases [Table 4].

**DISCUSSION**

The referral rate among the hospitalized patients was 0.47% and among the emergency outpatient department (OPD) patients was 0.31%. Our referral rates were lower compared to the referral rates reported (0.5%–2.8%) from some British studies,[15,16] American studies (2.2%–12%),[17,18] and some Indian studies (0.65%).[19] One important reason for low referral rates compared to other studies could be that our hospital run a fully functional psychiatry inpatient and OPD services and the way the study was designed, only referrals from other inpatient departments and the emergency department (during off working hours of the hospital) were included. H. Leigh and J. Streltzer (eds.), Handbook of Consultation-Liaison Psychiatry, 11 DOI 10.1007/978-3-319-11005-9_2, © Hoyle Leigh & Jon Streltzer 2015. Majority of our patients were in the age group of 25–50 years (47.13%) which is consistent with some previous Indian studies.[10,14] Most of the referrals were made by the general physicians (47.77%) which is comparable to previous Indian studies (45%–73.5%).[19,20] The second largest referrals were made by the general surgeons (17.83%). If orthopedics and surgical superspecialties (reconstructive, urosurgical, maxillofacial, etc) are included, the referral goes up to 26.11%. These rates are comparable to previous Indian studies (14%–28%).[19,20] The rates of referral from neurosciences disciplines (8.28%) are close to Indian figures –6.7%,[21] but lesser than the Western figures –26.2%.[17] Referral from pediatrics department was 0.63% which was much lower than previous studies (2.3%–4%).[19,20] Delirium and alcohol-related cases formed the major chunk of referrals which is a finding contrary to various previous studies.[13,14] Depressive episode was the second most common diagnosis (11.64%) which was lower than what was reported in other studies.[19,20] Dissociative disorder was diagnosed in 6.36% patients.

### Table 3: Reason for referral wise distribution of patients

| Reason for referral                                      | Number of cases | %AGE  |
|----------------------------------------------------------|-----------------|-------|
| Altered sensorium, restlessness & behaviour abnormality  | 34              | 21.65 |
| History of alcohol, addictions, withdrawal features      | 29              | 18.47 |
| Patients with depressive features                        | 26              | 16.56 |
| Acute onset of irrelevant talk, behavioural abnormality, aggression without in past h/o psychiatric illness | 13              | 8.28  |
| Patient with anxiety symptoms                            | 11              | 7.0   |
| Patient apparently having neurological symptoms           | 10              | 6.37  |
| Suicidal attempt by different means                      | 9               | 5.73  |
| Patient with past h/o psychiatric illness/treatment, currently no psychological symptoms. | 6               | 3.82  |
| Patients with medically unexplained physical symptoms    | 4               | 2.55  |
| Abnormal behaviour in post-partum period                 | 1               | 0.63  |
| Non-specific or unclear reason/ no reason for referral   | 14              | 8.91  |

### Table 4: Final psychiatric diagnosis of all referred patients

| Diagnosis                                                                 | Total cases | % Age |
|--------------------------------------------------------------------------|-------------|-------|
| Delirium                                                                  | 34          | 21.65 |
| Depressive Episde                                                        | 18          | 11.64 |
| Alcohol dependence Syndrome                                              | 14          | 8.91  |
| NAD                                                                      | 14          | 8.91  |
| Alcohol dependence Syndrome with Alcohol Withdrawal state with Seizures/Delirium Tremens | 13          | 8.28  |
| Adjustment Disorder                                                       | 12          | 7.64  |
| Dissociative Disorder                                                     | 10          | 6.36  |
| BPAD                                                                     | 7           | 4.45  |
| Dementia                                                                  | 6           | 3.82  |
| Mixed anxiety & depressive Disorder                                        | 6           | 3.82  |
| Panic Disorder                                                            | 5           | 3.18  |
| Schizophrenia                                                            | 3           | 1.91  |
| Grief Reaction                                                            | 3           | 1.91  |
| Behavioural management                                                    | 3           | 1.91  |
| Acute and Transient Psychotic Disorder                                    | 2           | 1.27  |
| Alcohol dependence Syndrome with Alcohol Induced Psychotic Disorder      | 1           | 0.63  |
| Schizoaffective Disorder                                                  | 1           | 0.63  |
| Mental Retardation                                                        | 1           | 0.63  |
| Other Mental Disorders due to Brain Damage & Dysfunction and to physical diseases | 1         | 0.63  |
| Post Partum Psychosis                                                     | 1           | 0.63  |
| Antisocial Personality, Substance Use, Conduct Disorder                  | 1           | 0.63  |
| Huntington's chorea                                                        | 1           | 0.63  |
of the cases which was lower than what has been reported in earlier studies.\textsuperscript{[14,19]} Schizophrenia was diagnosed in 1.91% of cases and bipolar affective disorder was diagnosed in 4.45% of the cases. These findings were in contrast to earlier studies where they represented much higher proportion of the cases.\textsuperscript{[19]} Intentional self-harm formed only 5.73% of the cases. The figures are much lesser than that of Western studies (43%–59%)\textsuperscript{[4,17]} and also Indian studies.\textsuperscript{[14]} No psychiatric diagnosis could be established in 8.91% of the cases. It is much lower than that reported in other studies\textsuperscript{[14,18]} which may reflect growing awareness and understanding of psychiatric ailments among other specialties.

**Limitations**

Our study was a cross-sectional descriptive study which comes with it an inherent set of limitations. In addition, it was of relatively short duration, and being a hospital-based study, it would be unfair to try and generalize out findings in the community.

**CONCLUSION**

This study has revealed higher representation of delirium and alcohol-related cases compared to older studies which have higher representation such as depressive disorders, schizophrenia, and bipolar affective disorders. Also compared to earlier studies, the referral rates for intentional self-harm and dissociative disorders were much lesser. These may be reflective of changing patterns of psychiatric referrals. The referral rates were lower than brought out in various previous studies much may partly due to the nature of the study design.

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**Conflicts of interest**

There are no conflicts of interest.

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