Consultation–liaison psychiatric services in Dubai, UAE: a descriptive analysis study

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Introduction
Liaison psychiatry refers to the interface between psychiatry and general hospital patients. It involves psychiatrist's intervention in the care of medically ill patients who present with psychiatric symptoms while in a general hospital setting. It may also involve the assessment of patients who have pre-existing psychiatric illness or those who develop psychiatric symptoms because of their medical or surgical illness. It is estimated that nearly 26.5–60% of the general medical inpatients suffer psychiatric comorbidity.

Aim of the study
The aim of this study was to evaluate the pattern and the characteristics of liaison referral to the psychiatric department from other general medical and surgical departments at Al Rashid Hospital, Dubai, and its association with clinical and diagnostic factors, and to study the quality and appropriateness of information presented in the referral letters to the psychiatric department.

Patients and methods
The patients included in the study were recruited from individuals who had been consecutively assessed and treated by the liaison psychiatric team at Rashid Hospital, Dubai, UAE, during the period of 6 months from 1 November 2012 to 30 April 2013. A specially designed data sheet was developed and a pilot analysis on 20 patients was undertaken using the designed data sheet to assess the applicability of data collection and tool arrangement of items, and to estimate the time needed and the feasibility of the study. The data sheet included demographic data, data of patterns of descriptive psychopathology, either physical or mental, before presentation, a mental state examination and cognitive assessment through the Mini Mental State Scale. We identified the following parameters to evaluate the referred letters from GP and other medical or surgical specialists or consultants: the degree of urgency – reason of referral, symptom-relevant life events or stresses, family history of psychiatric disorder, medical history, psychiatric history, treatment given, physical examination and any investigations that have been performed, mental state examination and psychiatric diagnosis.

Results
The number of referrals over the indicated period was 60 patients (6 months). Suicidal behaviour was the highest among the reasons for referral. The main comorbid physical disorders included 13 (21.7%) endocrine disorders, 11 (18.3%) gastrointestinal tract disorders, 10 (16.7%) central nervous system disorders, seven (11.7%) musculoskeletal system disorders, six (10%) respiratory system disorders, five (8.3%) coronary artery diseases, five (8.3%) urogenital disorders and three (5%) sensory deprivation. The medical history was not mentioned in 46 (76.7%) of the referral letters The action taken by the psychiatrist after assessments were admission to the psychiatric ward for 21 patients (35%), outpatient appointments for 24 (40%) and discharge from psychiatric service for 15 patients (25%). Psychiatrists agreed with the GP diagnosis in 15 cases (25%), but considered the diagnosis inaccurate in 27 (45%) of these cases. Replies of the psychiatrists to the GP referrals were made only in 18 patients (30%); no reply was written in 42 (70%) cases.

Conclusion
Future research is needed to understand how liaison service can be utilized and sustained most effectively as part of general hospital care. A comprehensive consultation–liaison unit that comprises a sufficient number of multidisciplinary

mental health professionals (psychiatrist, psychologist, social worker) is vital in general hospital settings to address the unmet needs.

Keywords:
consultation–liaison, Rashid Hospital, referral letter

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Introduction

Liaison psychiatry, a term that is sometimes used interchangeably with consultation–liaison psychiatry (C–L), refers to the interface between psychiatry and general hospital patients and specialists. It involves psychiatrist's intervention in the care of medically ill patients who present with psychiatric symptoms while in a general hospital setting. It may also involve the assessment of patients who have a pre-existing psychiatric illness or those who develop psychiatric symptoms because of their medical or surgical illness (Fahy and Lawlor, 2002). It is estimated that nearly 26.5–60% of the general medical inpatients suffer psychiatric comorbidities (Hansen *et al.*, 2001).

Since 1982, the Royal College of Psychiatrists has formed its own Liaison Group that continually examines various issues in the field. The college has recommended that liaison psychiatry should be an integral part of all approved training programmes (Royal College of Psychiatrists, 1988). The organization of a consultation–liaison service in a general teaching hospital is usually targeted at three main levels, namely clinical service, training potential and research prospect (Lipowski, 1990). These three targets are interrelated, and the relative amount of time spent on each depends on the resources and the particular orientation of the psychiatrist in charge. Recently, a psychiatric consultation–liaison service was established in Rashid General Hospital in Dubai, and belongs to the adult unit of the department of psychiatry. It deals with adults and older patients. Paediatric patients will be dealt with by a child psychiatrist in a child psychiatric hospital (Al-Wasl). In rare situations, the child psychiatrist will ask for a second opinion, which happened only once in the month we conducted this report. The team consists of a part-time consultant who overlooks the service, and two part-time qualified specialist psychiatrists who assume the immediate supervisory role and establish liaison with various subspecialties. The specialist psychiatrists are responsible for attending to consultation from various clinical departments except the accident and emergency department, where referrals are dealt with by the resident on call. The resident on call will refer cases to the team for further assessment and opinion during the day time. After that, he will be supervised by the consultant on call.

GPs' referral letters are one of the important channels of communication between primary care and psychiatry care, and have been emphasized as indicators of good practice (Bahrami and Evans, 2001; Martin *et al.*, 2002). Some areas in the referral letter have been identified as markers for the quality of information communicated to the specialist (Jiwa *et al.*, 2002). However, it has been noticed that GPs are very variable in their referral habits. Most studies of GP referrals have investigated the wide variation in factors influencing GP detection and referral, but little is known about the quality of GP referral letters (Burbach and Harding, 1997). The quality and quantity of GP referral letters is particularly important as they are central to the process of case allocation and management. Also, the timing and nature of the psychiatrist response is primarily determined by the GP referral letter.

This report evaluates the pattern and the characteristics of liaison referral to the services and its association with clinical and diagnostic factors, and studies the quality and appropriateness of information presented in the GP referral letters.

Patients and methods

The patients included in the study were recruited from among individuals who had been consecutively assessed and treated by the liaison psychiatric team at Rashid Hospital, Dubai, UAE, during the period of 6 months from 1 July 2012 to 31 December 2012. A specially designed data sheet was developed and a pilot analysis was undertaken on 20 assessments. The data sheet was then revised and all the assessments taken on by the service in the indicated period were recruited. The data sheet included demographic data, data on the pattern of descriptive psychopathology, either physical or mental, before presentation, a mental state examination and cognitive assessment through the Mini Mental State Scale.

Data related to the GP referral were assessed by a form detailing the needed information, which was devised by the authors and has not been validated by the pilot analysis on 20 GP letters. We identified the following

parameters to evaluate the GPs' letters: the degree of urgency – reason for referral, symptom-relevant life events or stresses, family history of psychiatric disorder, medical history, psychiatric history, treatment given, physical examination and any investigations that have been performed, a mental state examination, and psychiatric diagnosis.

Statistical analysis

Analyses were performed using the Statistical Package for Social Sciences (SPSS; IBM Corporation, USA, version 14). Descriptive statistics were used to summarize sociodemographic and clinical characteristics of the sample. The χ^2-test was used in comparing nonparametric data. All statistical tests were considered significant at P value of 0.05.

Results

The number of referrals over the indicated period was 60 patients (2/day): 30 (50%) male and 30 female (50%). Fifteen (25%) of them had a history of psychiatric disorders and 13 (21.7%) had a family history of psychiatric disorders. The mean age of the sample was 36.4 years (SD=18, range=14–87 years). Fifty percent were under the age of 30 years (30 patients). The majority of them were of UAE nationality (29, 48.3%). The rest included 25 (41.7%) Asians, three (5%) Africans and three (5%) Whites. Out of the whole sample, 28 (46.7%) were married, 26 (43.3%) were single, four (6.7%) widowed and two divorced (3.3%). Sixteen (26.7%) were students, 15 (25%) house wives, 11 unskilled workers, 11 (18.3%) unemployed, five (8.4%) office employees and two (3.3%) police officers.

Table 1 showsthe source and cause of referrals. Suicidal behaviour was the highest among the reasons for referral. Among the cases of attempted suicide, 10 tried an overdose of prescribed medications, one gas inhalation, one organophosphorus and eight tried cutting their wrists.

Table 2 shows the ICD-10 psychiatric diagnoses.

The main comorbid physical disorders included 13 (21.7%) cases of endocrine disorders, 11 (18.3%) gastrointestinal tract disorders, 10 (16.7%) central nervous system disorders, seven (11.7%) musculoskeletal system disorders, six (10%) respiratory system disorders, five (8.3%) coronary artery diseases, five (8.3%) urogenital disorders and three (5%) cases of sensory deprivation. The action taken by the psychiatrist after assessments were admission to the psychiatric ward for 21 patients (35%), outpatient appointments for 24 (40%) patients and discharge from psychiatric service for 15 patients (25%). The mean score for the mini mental state was 24.8 (SD=4.5, range=10–30).

Table 3 presents data on the letters' component analysis. The medical history was not mentioned in 46 (76.7%) of the referral letters. Psychiatrists agreed

Table 1 Clinical and referral indices

Variables	*n* (%)
Source of referral	
Medical department	27 (45)
Accident and emergency	14 (23.3)
Surgery department	8 (13.3)
Obstetric and gynaecology	4 (6.7)
Other departments	7 (11.6)
Cause of referral	
Attempted suicide	20 (33.3)
History of depression	11 (17)
Aggressive behaviour	9 (15)
History of addiction	7 (11.5)
Acute confusional state	5 (8.3)
History of dementia	3 (5)
Assessment of competence	2 (3.3)
History of schizophrenia	2 (3.3)
Stress at home	1 (1.7)
Treatment at time of assessment	
Benzodiazepine	14 (23.3)
Antidepressant	13 (21.7)
Antipsychotics	13 (21.7)
Psychotherapy	5 (8.3)
Anticonvulsants	1 (1.7)
Antibiotics	1 (1.7)
Multivitamins	1 (1.7)
No treatment	12 (20)
Planned treatment by the team	
No medications	38 (5 continue on psychotherapy) (63.3)
Benzodiazepine	11 (18.3)
Antidepressants	3 (5)
Antipsychotics	2 (3.3)
Multivitamins	3 (5)
ECT	1 (1.7)
Procyclidine	1 (1.7)
Anticonvulsants	1 (1.7)

ECT, electro convulsive therapy.

Table 2 Psychiatric diagnosis (DSM–IV-TR)

Diagnosis	*n* (%)
Depressive disorder	20 (33)
Borderline personality disorder	20 (33)
Alcohol dependency	4 (6.6)
Multiple drug dependency	3 (5)
Adjustment disorder	3 (5)
Delirium	5 (8.3)
Dementia	3 (5)
Schizophrenia	2 (3.3)

Table 3 GP referral letters' component characteristics

Referral letter components	*N*=60 [*n* (%)]
Urgent request	2 (3.3)
Routine request	4 (6.7)
Not mentioned	54 (90)
Reason of referral	
Opinion	6 (10)
Admission	0 (0)
Treatment	5 (8.3)
Not mentioned	49 (81.7)
Mental state examination	
Adequate	12 (20)
Inadequate	48 (80)
Medical history	
Adequate	5 (8.3)
Inadequate	9 (15)
Not mentioned	46 (76.7)
Past psychiatric history	
Adequate	8 (13.3)
Inadequate	18 (30)
Not mentioned	34 (56.7)
Family psychiatric history	
Similar illness	2 (3.3)
Other illness	2 (3.3)
Not mentioned	56 (93.4)
Treatment given	
Appropriate	5 (8.3)
Inappropriate	4 (6.7)
No treatment given	24 (40)
Not mentioned	27 (45)
Life events and stresses	
Mentioned	9 (15)
Not mentioned	51 (85)
Psychiatric symptomatology	
Information adequate	14 (26.3)
Information inadequate	46 (73.7)
Physical examination and investigation	
Mentioned	42 (70)
Not mentioned	18 (30)
Compatibility of GP diagnosis with accurate diagnosis	
Compatible	15 (25)
Different	27 (45)
Not mentioned	18 (30)
Response of psychiatrist	
A reply was written	18 (30)
No reply was written	42 (70)

with the GP's diagnosis in 15 of them (25%), but considered the diagnosis inaccurate in 27 (45%) of these cases. All the referred patients had been seen by psychiatrists. However, replies of the psychiatrists to the GPs' referrals were made only in 18 patients (30%); no reply was written in 42 (70%) cases.

Discussion

Our findings indicate a high rate of psychiatric morbidity in patients referred for psychiatric consultation in Rashid Hospital, which led us to consider the possibility of psychopathology in nonreferred cases as well. There is a high referral rate from the medical department and a high percentage of borderline personality disorders, indicating the need for a hospital protocol for the management of personality disorders, which may improve outcomes for these patients.

Earlier studies that have tried to identify factors leading to a psychiatric referral among patients in medical wards have pointed towards noncompliance and disturbed behaviour as being important (Maguire *et al.*, 1974). Our results support the issue of behaviour problems as the most common reason for referral either from medical wards or the accident and emergency department. Sociodemographic characteristics of our sample are similar to those in other worldwide and Arabic reports (Kurosawa *et al.*, 1993; Loke, 1996; Mahgoub, 1998; Alhamad *et al.*, 2004). However, there have been inconsistent findings regarding the male to female ratio, where the number of female patients was twice the number of male patients in the Arabic studies (Abu-Hijlah, 1987; Alhamad *et al.*, 2004), whereas it was equal in our study. The most common characteristics of the referred patients were married, Emirati national, below the age of 30 years, students or house wives, and referred from the medical department. Excess referral from the department of medicine may reflect the higher number of beds available for medical wards and the interrelationship of medical subspecialties, particularly neurology, with psychiatry. This is consistent with previous findings (Abu-Hijlah, 1987; Mahgoub, 1998; Alhamad *et al.*, 2004). Reasons for referral showed a high rate of aggressive behaviour, drug use problems and suicidal behaviour. This could reflect the change in the Arabic, Islamic culture, where suicide is clearly forbidden, but suicidal behaviour is not clear. This is also consistent with other recent publications from worldwide, supporting the globalization of psychiatric presentations (Mastrogianni and Bhugra, 2003).

We found the most common psychiatric diagnosis in this group to be depressive disorders (*n*=20, 33.3%). These findings are broadly in keeping with those of previous studies (Lyne *et al.*, 2009).

Most of the patients in this study (91.7%) were treated only pharmacologically, although cognitive behaviour therapy has been shown to be effective in the treatment of depressive and anxiety disorders (Goldberg, 1992). The infrequent use of such techniques might suggest the limited availability of this resource or the lack

of appropriate training and knowledge among psychiatrists. According to WHO, at least 24% of the patients suffer some sort of mental disorder, the most common being anxiety and depression (WHO report, 2000). However, they seem to go undetected and untreated in 50–75% of the cases (Spitzer *et al.*, 1999). In a study in Abu-Dhabi, UAE, about 60% of the GPs could not identify the discriminating features between depression and anorexia. Authors concluded that GPs lack important information required for the diagnosis of anxiety and depression (Saeed and McCall, 2006). In our study, the psychiatrists agreed with the GPs diagnosis in 25% of the cases, which is less than in other studies in the West (two-third) (Burbach and Harding, 1997), but consistent with the studies of Saeed and McCall (2006). A possible explanation for this is that about 50% of the GPs working in UAE come from other Arab countries (North Africa and Middle East) and the other 50% from the Indian subcontinent (India, Pakistan and Bangladesh) (Ministry of Planning, UAE, 2000). This complex set up of different languages, cultures and health beliefs complicates the provision of care, which is the interface between patients and the health system (Saeed and McCall, 2006).

The finding that 70% of GPs' referrals had no replies from psychiatrists should be treated with high concern. One of the possibilities to explain this is the number of psychiatrists is still far below that needed to meet with the mental health needs. In addition, the lack of secretarial support in the outpatient psychiatric clinic will make administrative work, such as writing letters, add to the burden of clinical work and lack of time.

Furthermore, 90% of the letters did not mention the urgency of the referrals, which is inconsistent with previous findings (nearly one-fifth) (Creed *et al.*, 1990). This could have important implications in the level of response of psychiatrists to the GPs' request and the need of the patient. GPs who fail to make such an item clear present the psychiatric team with a dilemma as to whether nonindication represents a nonurgent referral (Burbach and Harding, 1997). Medical history and prescribed medication were not written in 67.7 and 45% of the referrals, respectively. Compared to other studies medication was written in 62% of the referrals (Pullen and Yellowlees, 1985) which is inconsistent with our study while 34% in (Burbach and Harding, 1997), which is consistent with our results. However, mentioning the medical problem was nearly consistent with a later study (29%). These variations between different studies could be due to the different settings of primary care services in different parts of the world.

The study of Okasha and Karam (1998) of the Arab World showed a consensus about the need for public mental health education, increasing the number of psychiatrists, upgrading the training and education of mental health professionals, the development of preventive and curative community mental healthcare services and the development of a mental health act.

Given the prevalence and the impact of unrecognized and untreated psychiatric disorders in patients presenting in medical practice, the institution of a comprehensive consultation–liaison unit that comprises a sufficient number of multidisciplinary mental health professionals (psychiatrist, psychologist, social worker) is vital in the general hospital setting to address the unmet needs.

Further research is needed to understand how liaison services can be utilized and sustained most effectively as part of the general hospital care. Our study has some limitations. The sample population was small; therefore, our results may not be representative of the entire country. Finally, the form used to evaluate GP letters did not include valid research tools.

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Conflicts of interest

There are no conflicts of interest.

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