LIAISON PSYCHIATRY — REFERRAL PATTERN IN A GENERAL HOSPITAL

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SYNOPSIS

A total of 550 general hospital patients were referred over a 2-year period for psychiatric assessment and management. About 40% were diagnosed as having a psychotic disorder of which about half were organic and half functional in nature. Of the latter group, schizophrenia comprised the largest category. About 37% presented with a neurotic disorder, mainly anxiety neurosis, followed by neurotic depression and hysteria. These three disorders showed transcultural influences in that, like reports from Asian countries, somatic complaints were prominent in the anxiety and depressive neuroses, and dissociative phenomena, in hysteria. The rest of the cases were personality disorders, alcoholism, psychosomatic disorders, mental retardation and normal reactions. Compared with the West, affective disorders were less common in this series.

INTRODUCTION

The need for psychiatric consultation in patients treated at general hospitals has been increasingly recognized with the establishment of general hospital psychiatric units. Although the first general hospital psychiatric unit was established as early as 1720 in UK (1) and in 1902 in USA (2), it was not until the end of the Second World War that liaison psychiatry started to expand and develop to its present status. A study of the pattern of psychiatric morbidity in general hospitals is important for the future education and training of medical personnel (3). In Singapore, no work has been published on this subject which is the object of study in this paper.

MATERIALS AND METHODS

The subjects consisted of all patients referred to the newly established University Department of Psychological Medicine attached to the Singapore General Hospital. These patients were referred for psychiatric consultation during the first 24 months from September 1979 to August 1981. There was a total of 852 cases of whom 302 were routinely referred for suicidal behaviour and 550, for psychiatric consultation and treatment. Only the latter 550 cases referred for consultation and treatment will be analysed and described. All the patients referred to the Department of Psychological Medicine were given psychiatric assessments by either one or both the authors and diagnosed according to the International Classification of Diseases 9th revision (ICD-9).

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RESULTS

The bulk of the cases came from the Departments of Medicine (90%). The majority of the interviews were conducted in English (54%), followed by Chinese dialects (29%), Mandarin (14%) and Malay (3%). The patients were fairly evenly distributed along the whole age spectrum from age 10 to 90, with the bulk at age 20-39 (45%). There were 250 males to 300 females giving a ratio of 1 male to 1.2 females. They can be divided into 4 broad diagnostic categories as shown in Table 1.

Organic Psychotic Conditions (ICD 290-294)

These are psychoses caused by or associated with underlying organic illnesses. They can be divided into four groups as shown in Table 2.

(a) Acute confusional state, whioh is defined as a short lived state characterized by clouding of consciousness, confusion, disorientation, and often illusions and hallucinations (4).
(b) Dementia which refers to a global deterioration of mental functioning in its intellectual, emotional and cognitive aspects (5).
(c) Alcholic psychoses which are organic psychotic states caused mainly by the excessive consumption of alcohol.
(d) Other psychoses of organic origin, but which do not present with clouding of consciousness or cognitive deficits.

The acute confusional states were a mixed group having a common psychiatric presentation consisting, in these cases, of clouding of consciousness characterized by drowsiness, disorientation and disturbed (fragmented) thought process. Delusions, illusions or hallucinations were uncommon and were present in 4 cases only (2 with paranoid delusions and 2 with illusions). The underlying causative illness or pathology included fever (5 cases), encephalitis, cardiac failure (4 cases each), uraemia, cerebral ischaemia, hypokalaemia (3 cases each), puerperal psychosis, atropine intoxication, epilepsy (2 cases each), anaemia, cerebral infarction, hyponatraemia and post-dialysis delirium (1 case each). There were 5 cases of uncertain aetiology.

The dementias were divided into three groups:

(a) Senile dementia Alzheimer's type (SDAT) (formerly known as senile dementia).
(b) Multi-infarct dementia (arteriosclerotic dementia).
(c) Secondary dementias caused by specific diseases.

There were 12 cases of senile dementia (SDAT) whose mean age was 76 years, and the dementing process was fairly advanced. There were 11 cases of multi-infarct dementia. They were younger (mean age 57 years) and were associated with hypertension or cerebral deficits like hemiplegia (4 cases), cerebral infarction (3 cases), aphasia and cerebellar degeneration (1 case each). There were 14 cases of secondary dementias. The underlying diseases were neurosyphilis (4 cases), normal tension hydrocephalus (3 cases), encephalitis, chronic liver failure, systemic lupus erythematosus (2 cases each) and subdural haemorrhage (1 case). Those with neurosyphilis, encephalitis and chronic liver failure presented with frontal lobe symptoms.

There were 9 cases of alcoholic psychoses (ICD 291) — 7 delirium tremens caused by alcohol withdrawal and 2 cases of alcoholic psychosis characterized by delusions of persecutions.

The other psychoses of organic origin were associated with epilepsy, hyperthyroidism and systemic lupus erythematosus. There were 21 cases in this category and they did not present either as a confusional state or dementia but instead had features that were suggestive of a schizophrenia-like illness.

Other Psychoses (ICD 295-299)

Of 116 in this group, there were 78 cases of schizophrenia, 3 cases of affective psychoses, 24 cases of paranoid states, and 11 cases of non-specific psychosis as shown in Table 3.

The majority of the cases suffering from schizophrenia appeared to be less disturbed and aggressive when compared to a group of schizophrenia admitted to Woodbridge Hospital (6). Fifty-eight cases presented with typical symptoms of a hebephrenic schizophrenia of whom 13 had past admissions to Woodbridge Hospital. Ten cases were diagnosed as latent schizophrenia, (borderline schizophrenia) defined in the ICD-9 as a condition of eccentric behaviour giving the impression of schizophrenia though no deficits and characteristic abnormalities were present (4). Seven cases presented as catatonia and were originally admitted to the general hospital for a suspected organic neurological disorder and 3 cases as a typical schizophrenia with unusual presentations like pseudodementia, vertigo and micropsia.

There were only 3 cases of affective psychosis, all of whom were young females presenting with hypomania (1 case) and depression (2 cases). During the follow-up period two of them showed mood swings in the opposite direction ie. from depression to mania and vice versa. Of the 24 cases of paranoid states, most were transient or mild, while 4 were more chronic and severe in nature and 3 took the form of morbid jealousy not related to alcoholism.

Neurotic Disorders (ICD 290)

This is the most common single diagnostic category in this series. There was a total of 206 cases. Neurotic disorders are defined in ICD-9 as mental disorders without any demonstrable organic basis in which the patient may have considerable insight and has unimpaired reality testing, in that be usually does not confuse his morbid subjective experiences and fantasies with external realities (4). They are classified according to their principal manifestations which include excessive anxiety, depression, hysterical symptoms, obsessional symptoms, phobias, neurasthenia, hypochondriasis and depersonalization. All the cases in this survey were covered by the first 5 categories as shown in Table 4.

Anxiety Neurosis and Neurotic Depression

Although classified as two sub-categories, these two conditions often presented with many similar complaints and symptoms which sometimes made their distinction difficult. Diagnosis was based on the predominance of anxiety or depressive features, and in some cases according to their response to anti-depressant medication, as suggested by Pichot and Hassan (7). Like hysteria and phobic states, there was a predominance of females, with a ratio of 1 male to 1.9 females in the anxiety group and 1 male to 1.8 females in the depression group. Unlike hysteria, obsessive-compulsive neurosis and phobic states in which the symptoms were quite specific, the anxiety and depressive neuroses presented with multiple somatic symptoms in addition to symptoms

of anxiety and depression .Some of the cases were admitted to the hospital and investigaged for organic illnesses because of the presenting somatic complaints of headache, chest pain or discomfort, palpitations, fainting and giddiness, abdominal pain and backaches. These 2 groups comprised 86% of all the neuroses seen in general medical practice. Their main presenting symptoms are shown in Tables 5 and 6.

Patients diagnosed as anxiety neurosis presented more often with giddiness, fainting spells, palpitations, breathlessness and headaches, while patients diagnosed as neurotic depression presented more commonly with a dysphoric mood (described as depressed, sad, hopeless, and irritable mood), insomnia and abdominal pain.

Of the 23 cases of hysteria, 16 were females and 7 males. They were relatively young with a mean age of 25.5 years. The two main presentations were spirit possession or trance states (9 cases) and fainting attacks (5 cases). The others presented with conversion symptoms which included motor symptoms like hemiplegia, paraplegia, torticollis, gait disturbance and sensory symptoms like blindness (2 cases) and deafness as shown in Table 7.

Other cases that were seen included personality disorders, alcoholism, psychosomatic disorders, mental retardation and normal reactions as shown in Table 8.

There were 33 cases with personality disorders admitted mainly because of situational reactions. Of these, 20 were males of whom 4 were National Servicemen and 2 were prisoners. Three had previous histories of drug abuse, 2 presented with the Ganser syndrome and one with the Manchausen syndrome. The latter patient was well known to the hospital staff. The females presented with problems of adjustment at home and at work. The psychosomatic disorders included anorexia nervosa (8 cases), asthma (2 cases) and migraine (2 cases). There were 17 cases referred for alcoholism of whom 6 were admitted for cirrhosis of the liver and 4 for gastritis. Of these 17 cases, 9 were Indians and 8 Chinese. Among the Chinese, 3 were admitted for acute alcoholic intoxication and had no past history of regular drinking. Only one of the 17 cases requested treatment for his alcoholism.

DISCUSSION

The type of illness referred for psychiatric consultation usually differs from place to place, but tends to remain unchanged over short periods of several years (8). In the West, the most common group of conditions seen by the liaison psychiatrists are the affective disorders which include all forms of depressive illness (see Table 9).

The reduced number of depressive illness in this study was due partly to the exclusion of 303 cases of parasuicides in which depression was diagnosed in 30% of the cases. However, cross cultural comparisons can be misleading as different countries and hospitals have been known to use different diagnostic criteria (12).

In this series of 550 cases, the largest group was made up of a single WHO-ICD diagnostic category — the Neurotic Disorders (38%) which almost equalled all the psychotic disorders — both organic (19%) and functional (21%). The rest, comprising more than 10 diagnostic categories, made up only 20% of the cases.

While most of the diagnostic categories presented with clinical pictures that were fairly close to standard descriptions or definitions, the sub-categories anxiety neurosis, neurotic depression and hysteria appeared to show transcultural influence. The clinical pictures of anxiety neurosis and neurotic depression often overlapped, and in this study, they frequently presented primarily with somatic symptoms which made their differentation difficult in many cases. The Chinese made up 88% of the cases and the somatization of the neuroses confirmed the observation of Tseng (1975) (13) and Cheung and Lau (1982) (14) that the Chinese reported somatic complaints that social taboo over psychiatric illness probably made the patients report physical symptoms. To the Chinese, to suffer from an illness that was caused by wind or heatiness did not detract from his character, whereas, if the cause was psychological it tended to imply that he was not able to cope with stress or problems. Kleinmann (16) found that 78% of the Hunan patients in his series felt that their psychological disorder was organic in origin in spite of the fact that they were being seen in a psychiatric clinic.

The cases of hysteria which formed 11% of the neurotic disorders presented mainly as dissociative hysteria eg. spirit possession, trance states, fainting attacks or fits. This mode of presentation was similar to the epidemic hysteria seen in factories and schools in Singapore and which affected mainly young females (17, 18). However, in New Hampsire, Shevitz (1975) (19) in his paper which reported 1000 psychiatric consultations in a general hospital, found that all the cases of hysteria presented with conversion symptoms (3% of referrals) and predominated in patients with neurological and musculoskeletal diseases. In New York, Kurasu et al (1977) (10) likewise had 3 cases of hysteria in their group, and all 3 had conversion symptoms. The difference in the presenting symptomatology of hysteria could be more apparent than real, in that dissociative hysterical reactions could have been admitted to psychiatric hospitals and not to the general hospitals. On the other hand, perhaps there is a greater tendency to develop dissociative hysteria in this part of the world in the form of epidemic hysteria (17, 18, 20) which has continued to recur since it was first reported by Tan in 1963 (21). Other than epidemic hysteria, spirit possssion of mediums in Chinese temples and trance states of Indian devotees during religious festivals like Thaipusam take place regularly. All are part of the Singapore religious scene. Only a small percentage of those with dissociative states are referred for psychiatric treatment and these are the people who develop the condition out of context of culturally accepted situations.

The organic brain syndrome comprised 18.9% and the functional psychoses 21.1% of the total number of cases. This proportion was higher than those reported in western countries (8, 9, 10, 11, 19) especially for the functional psychosis. This could be due to the different pattern of referral. On the other hand, the percentages referred for alcoholism (3.1%) was only slightly lower than the figure of 4-5% in their series despite the fact that alcoholism is not a serious problem in Singapore compared to the west. There were no cases, in this series, who were referred for drug dependency and this was due to the fact that, in Singapore, this condition is treated almost exclusively in the drug rehabilitation centres, and not in hospitals.

In conclusion, from the referral pattern that emerged it can be seen that the need for psychiatric help was

recognized by doctors in other disciplines, not only for patients with psychotic disorders, but also for those with neurotic and other conditions.

REFERENCES

1. Hunter PA, MacAlpine I: Three hundred years of psychiatry. Oxford, 1963.
2. Sweeney GH: Pioneering general hospital psychiatry. Psychiatr Q 1962; 36: 209-68.
3. Lipowski ZJ, Wolston EJ: Liaison psychiatry: referral pattern and their stability over time. Am J Psychiatry 1981; 138: 1608-11.
4. Mental Disorders: Glossary and guide to their classification in accordance with the Nineth Revision of the International Classification of Disease. WHO. Geneva, 1978.
5. Slater E, Roth M: Clinical Psychiatry. 3rd ed. Bailliere, Tindall & Cassell, London. 1969.
6. Tsoi WF, Chen AJ: New admissions to Woodbridge Hospital 1975 with special reference to schizophrenia. Singapore Med J 1979; 8: 275-9.
7. Pichot P, Hassan J: Masked depression and depressive equivalents — problems of definition and diagnosis — in Masked Depression. Berne: Huber, 1974.
8. Lipowski ZJ, Wolston EJ: Liaison psychiatry: referral patterns and their stability over time. Am J Psychiatry 1981; 138: 1608-11.
9. West ND, Bastani JB. The pattern of psychiatric referrals in a teaching hospital. Nebr Med J 1973; 15: 438-40.
10. Karasu TB, Plutchik R, Steinmuller RI et al: Patterns of psychiatric consultation in a general hospital. Hospital Community Psychiatry 1977; 28: 291-94.
11. Fava GA, Pavan L: Consultation psychiatry in an Italy general hospital: a report on 500 referrals. Gen Hosp Psychiatry 1980; 2: 35-40.
12. Cooper JE, Kendell RE, Curland BJ, Sharpe L, Copeland JRM and Simon R: Psychiatry Diagnosis in New York and London. Maudsley Monograph No. 20. London: Oxford University Press.
13 Tseng WS: The nature of somatic complaints among psychiatric patients: the Chinese case. Compr Psychiatry 1975, 16: 237-45.
14. Cheung FM, Lau BWK: Situational variations of help-seeking behaviour among Chinese patients. Compr Psychiatry 1982; 23: 252-262.
15. Kung NYT, Lau BWK. Chung JTC: Masked depression in general practice in Hong Kong. Singapore Med J 1982; 23: 220-25.
16. Kleinman: Neurasthenia and depression: a study of somatization and culture in China: to appear in Culture, Medicine and Psychiatry.
17. Chew PK. Phoon WH, Mae-Lim HA. Epidemic hysteria among some factory workers in Singapore. Singapore Med J 1976; 17: 10-5.
18. Kok LP: Epidemic hysteria (a psychiatric investigation). Singapore Med J 1975; 16: 35-8.
19. Shevitz SA. Silberfarb PM, Lipowski ZJ. Psychiatric consultations in a general hospital: a report on 1000 referrals. Dis Nerv Syst 1976: 37: 295-300.
20 Teoh HI: Epidemic hysteria in Malaysia. Proc 7th Malaysia-Singapore Congress of Medicine 1972: 7: 73-8.
21. Tan ES: Epidemic hysteria. Med J Malaya 1963; 18: 72-6.

Table 1

MAIN DIAGNOSTIC CATEGORIES

ICD No.	Diagnostic Groups	Male	Female	Total	%
290-294	Organic psychotic conditions	62	42	104	18.9
295-299	Other psychoses	50	66	116	21.1
300	Neurotic disorders	76	130	206	37.4
301-319	Others	62	62	124	22.6
	Total	**250**	**300**	**550**	**100.0**

Table 2

ORGANIC PSYCHOTIC CONDITIONS (ICD 290-294)

Diagnostic Group	Male	Female	Total	Per cent
Acute confusional state	19	18	37	35.6
Dementia	21	16	37	35.6
Alcoholic psychosis	9	0	9	8.7
Psychosis associate with				
Epilepsy	12	3	15	14.4
Systemic lupus	1	3	4	3.8
Hyperthyroidism	0	2	2	1.9
Total	**62**	**42**	**104**	**100.0**

Table 3

OTHER PSYCHOSES (ICD 295-299)

Diagnosis	Male	Female	Total	Per cent
Schizophrenia	30	48	78	67.2
Affective psychosis	0	3	3	2.6
Paranoid states	13	11	24	20.7
Others	7	4	11	9.5
Total	**50**	**66**	**116**	**100.0**

Table 4

NEUROTIC DISORDERS (ICD 300)

Diagnosis	Male	Female	Total	Per cent
Anxiety neurosis	34	60	100	48.5
Neurotic depression	30	47	77	37.4
Hysteria	7	16	23	11.2
Obsessive-compulsive neurosis	3	1	4	1.9
Phobic state	0	2	2	1.0
Total	**74**	**126**	**206**	**100.0**

Table 5

PRESENTING SYMPTOMS OF ANXIETY NEUROSIS (ICD 300.0)

	Male	Female	Total
Pain:			
headache	4	5	9
chest pain	5	3	8
abdominal pain	0	5	5
back and neck pain	1	3	4
Pain	10	16	26
Giddiness	3	16	19
Fainting	4	7	11
Palpitations	4	6	10
Breathlessness	2	7	9
Anxiety, fear	3	7	9
Insomnia	3	4	7
Vomiting or diarrhoea	0	3	3
Others	5	1	6
Total	**34**	**66**	**100**

Table 6

PRESENTING SYMPTOMS OF NEUROTIC DEPRESSION (ICD 300.4)

	Male	Female	Total
Pain:			
Abdominal pain	4	4	8
Chest pain	3	4	7
Headache	1	1	2
Back and neck pain	1	1	2
Pain	9	10	19
Depression, sadness	11	18	29
Insomnia	4	6	10
Breathlessness	2	5	7
Giddiness	1	3	4
Vomiting or diarrhoea	1	2	3
Others	2	3	5
Total	30	47	77

Table 7

HYSTERIA (ICD 300.0)

Presentation	Male	Female	Total
Spirit possession or trance states	3	6	9
Fainting attacks	0	5	5
Dissociation hysteria	3	11	14
Motor symptoms	3	3	6
Blindness	1	1	2
Deafness	0	1	1
Conversion hysteria	4	5	9
Total	**7**	**16**	**23**

Table 8

OTHERS

Diagnosis	Male	Female	Total	Per cent
Personality disorders	20	13	33	26.6
Alcoholism	14	3	17	13.7
Psychosomatic disorders	1	11	12	9.7
Mental retardation	10	15	25	20.2
Normal reaction	17	20	37	29.8
Total	**62**	**62**	**124**	**100.0**

Table 9

PATTERNS OF REFERRALS IN LIAISON PSYCHIATRY

City Country Author	Hanover USA Lipowski Wolston (8)	Nebraska USA West, Bastani (9)	New York USA Karasu et al (10)	Bologna Italy Fava, Pavan (11)	Singapore
Diagnosis	**N=1000** %	**N=1039** %	**N=151** %	**N=500** %	**N=550** %
Organic psychosis	13.9	2	20.5	1.6	18.9
Functional psychosis	1.7	3	12.6	3.2	21.1
Neurosis	6.6	19	9.3	19.8	23.5
Depression	42.7	52	21.2	37.0	14.0
Personality disorders	—	11	9.3	—	6.0
Alcoholism	4.3	—	4.6	4.6	3.1
Drug dependence	—	—	6.6	13.8	—
Psychosomatic disorders	0.7	13	—	6.0	2.2
Others	30.1	—	15.9	14.0	11.2
Total	**100.0**	**100**	**100.0**	**100.0**	**100.0**