



STUDY OF PATIENTS REFERRED TO A GENERAL HOSPITAL PSYCHIATRY UNIT FROM INDUSTRIES

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ABSTRACT

MENTAL HEALTH PROBLEMS IN EMPLOYEES AND THEIR RELATIVES CAN LEAD TO REDUCED WORK EFFICIENCY WHICH IN TURN AFFECTS THE PRODUCTIVITY OF INDUSTRY. WE STUDIED THE CASE RECORDS OF 49 PATIENTS REFERRED FROM VARIOUS INDUSTRIAL CONCERNS ALL OVER INDIA DURING THE PERIOD 1989-1990. MAJORITY OF THEM WERE EMPLOYEES AND YOUNG MALES. MANY OF THE REFERRALS WERE TO OTHER MEDICAL SPECIALITIES AND WERE INVESTIGATED IN DETAIL IN THE CONCERNED DEPARTMENTS. FOLLOW-UP WAS POOR ESPECIALLY FOR THOSE COMING FROM STATE OUTSIDE TAMIL NADU. BASED ON THESE, ISSUES ON MANAGEMENT OF THESE PATIENTS AND THE NEED FOR AWARENESS OF MENTAL HEALTH PROBLEMS IN INDUSTRIAL AREA ARE DISCUSSED.

INTRODUCTION

W.H.O. defines health as a State of complete physical, mental and social well being and not merely an absence of disease or infirmity (W.H.O. 1948). Mental diseases is a major problem in India with a reported rate of more than 14 million people suffering from various types of mental ill health (National Mental Health Program for India progress Report 1982-1988). Therefore it is reasonable to expect a significant proportion of our industrial population also having varying degrees of psychiatric morbidity. Industrial workers and their families are constantly exposed to emotional tension, insecurity, job dissatisfaction etc., which may lead to frustration, reduced work efficiency and sickness absenteeism and may ultimately affect the productivity of industry (Park 1985).

Very few studies have been done on psychiatric morbidity among industrial workers. Ganugli (1968) studied a population of textile workers in Delhi. He found a prevalence rate of 125/1000 for psychoneurosis and 140/1000 for all type of psychiatric disorders. Another study by Ghosh et al (1970) done among 1214 workers of a textile mill in Delhi found only 0.16% were suffering from psychiatric disorder during a 66 months follow - up. Bhaskaran et al (1970) studied 200 industrial workers in Ranchi discovered a prevalence of psychiatric disorders of 370 per 1000 for migrant workers and 150

per 1000 for nonmigrant workers. Another study by Ramachandran and Somasundaram (1972) on E.S.I. population reported a prevalence of 34.4% for schizophrenia and 46.9% for neuroses. Satiga et al (1982) assessed the mental morbidity in industrial workers of Khetri Copper Complex, found a 6 months prevalence of 187 per 1000 for all mental disorders. Somasundaram (1973) studied Alcoholic industrial workers, found a prevalence rate of 45.5% for schizophrenia, 9% affective disorder, 21% alcoholism and 15% neurosis.

Comparing to the prevalence rate of mental disorder in general population, the magnitude of this problem in industrial population is quite significant (Elangar 1971, Sethi 1967, Verghese 1973, Sethi 1972). More research is needed in this area to explore into the complex aetiological relationship of mental problem in industrial population. Identifying the psychological problem in this population will help in early detection, treatment, rehabilitation and the most important, prevention of mental morbidity which have important implication in the productivity of the industry. Considering all these a study on psychiatric referrals from industrial concern was planned.

OBJECTIVES

To identify the common reasons for and pattern of referral from industries.

To study the sociodemographic profile, diagnosis and management of these patients.

METHODOLOGY

This study was conducted at the Department of Psychiatry, Christian Medical College, Vellore which receives patients from a wide catchment area. An idea about psychiatric morbidity in Vellore town was provided by Verghese et al who in 1973 found a prevalence of rate of 5.7 per 1000 for all psychiatric disorders. Though these figure will not be same for the population visiting our hospital, they provide a background for comparison.

We studied all patients referred from various industrial firms all over India during the period 1989-1990 to our hospital to rule out psychiatric problems. These patients were referred either directly to the psychiatric department or from other departments. Referrals include both patients and their relatives. Both inpatients and outpatients attending psychiatric O.P.D. regardless of age and coexisting physical disorders were included. Detailed case records were available for all patients treated as either outpatients or inpatients. Data collected using specially designed proforma documenting the sociodemographic details, illness variables and follow-up from these case notes. Sociodemographic variables and clinical data pertaining to these patients were tabulated and analysed.

RESULTS

During the study period a total of 49 patients from various industrial firms attended the psychiatric outpatient department. Majority of the patients were young (< 40 yrs) with a male : female distribution 2:1. Half of the sample were employees and the remaining were their first degree relatives. A significant proportion of the employees were skilled workers (68%), 20% were unskilled workers and 12% were professionals. 50% of the patients were referred from local industries. That means from industries located in North Arcot district, in which the factory is situated. 45% were referred from outside Tamil Nadu such as Bihar, Andhra Pradesh, Karnataka etc. (Table 1).

Table 2 shows the patterns of referral. only 41% patients were referred directly to psychiatry. Rest of them were referred to various other departments of this hospital. Their primary complaints were somatic like headache, chest pain, loss of appetite insomnia etc. These patients were examined and investigated in detail and were referred to psychiatry to rule out any psychological problems. This table shows the various departments to which patients were referred by the medical officer in-charge of industry. Among the various departments a major proportion were referred directly to psychiatry. Next

common route of referral was Neurology. Rest of them were referred to Cardiology, Gynaecology, Nephrology, etc.

When the Physical status of these patients was analysed, only 16% had significant medical problems. Among psychiatric diagnoses a large proportion had neurotic disorders like neurotic depression, depressive illness, generalised anxiety disorder, psycholgia, hysteria, Writers' cramp, irritable bowel syndrome and sexual dysfunction. Pure psychosis was seen in only 35% of cases. These were schizophrenia and manic depressive psychosis. Alcohol dependence syndrome was seen in 10% of patients. 2% had no psychiatric diagnosis (Table 3).

We calculated the follow-up as the percentage of actual number of months of follow-up to the total number of months from the date of first visit upto the time of study. More than half of the patient (55%) had less than 25% of the required follow-up. 24% had more than 75% of the required follow-up. When the follow-up was analysed in relation to the location of industry, local patients had more than 50% follow-up. Follow-up of those coming from industries outside Tamil Nadu was only 21% (Table 4).

DISCUSSION

This study was aimed at evaluating the sociodemographic and clinical profiles and common reasons and pattern of referral to a general hospital psychiatry unit from various industrial concerns. Before setting out to discuss the finding the methodological limitations have to be considered. The number of patients reaching the psychiatry department over a 2 years period were few. Possible reason could be that many of the patients may have attended the hospital without a referral. Hence we can not consider this population to be truly representative of mental morbidity in industrial field. Probably our sample will be a representative of more severe subgroup of the actual population.

Our sample had a preponderance of young males which has been reported by previous studies (Kirpal Singh 1974, Ganguli 1968, Bhaskaran et al 1979, Ramachandran et al 1972). Young males are the backbones of any industry. Ganguli in 1968 had found that mental morbidity to be more in unmarried workers, which is contrary to our observations where the majority were married. The question therefore, whether material status affects the mental morbidity remains unanswered as the present study design was unsuited for this task. Most of our patients belong to the occupational class skilled workers, as welder, foreman, fitter etc. Ganguli (1968) also noticed in his study that 98% of the patients were from skilled group.

Analysis of source of referral shows that half of them were from local industrial complexes (30 km radius of Vellore) and another half from industries located outside Tamil Nadu state. The low referrals from distant places may be due to the availability of increased medical services in the primary source itself.

The pattern of referral shows that a good number were not referred directly to psychiatric department and their main complaints were somatic problems as headache, chest pain, palpitation etc. Because of this presentation they were thoroughly investigated in the concerned departments and finally referred to psychiatry department. This again shows, unnecessary wastage of medical resources and reduced productivity in the industry due to sickness absenteeism involved in prolonged investigative procedures. Possible reasons for the inappropriate referral could be either a failure in the detecting of underlying psychiatric illness as such by the referring medical officers or these patients were not acknowledging as having psychiatric problems and hence were referred to other departments. This highlights that suppose the medical officer in charge of an industrial set up, if aware psychosocial of problems, many of the referrals could have been avoided.

Among the psychiatric diagnosis neurotic disorders ranked the highest figure which includes depressive disorders, anxiety disorders and sexual dysfunction. These results are in broad agreement with the previous Indian studies ((Ganguli 1968, Ghosh et al 1970, Bhaskaran et al 1970, Ramachandran et al 1972, Satija et al 1982, Somasundran 1976) which also found a preponderance of neurotic disorders in industrial workers. Psychoses was much less in our sample. The reason for under representation of psychoses may be multifactorial. Patients with frank psychosis may have treated at the earliest and effectively either privately or locally. Prevalence of alcoholism in our sample agrees with the prevalence rate of 14% obtained in a study Somasundaram. This reflects that alcoholism is an important health problem among industrial workers giving rise to an enormous loss to the industry.

Follow-up data shows that 3/4 of the sample did not have even 50% of the required follow-up. However patients referred from local factories had fairly good amount of follow up. Those from outside Tamil Nadu, the follow-up was significantly less. This is understandable in terms of long distance of travelling, non-availability of sick leave for attending the hospital and the most important elements of financial constraints. Another reason could be that either they have completely recovered from the illness or may be continuing the follow-up from the primary source itself. However this finding denotes that the expenditure met by the company for the treatment of these patients are not utilised effectively.

From this preliminary work it is abundantly clear that mental ill health is a significant problem among industrial workers with an over representation of neurotic disorders. However the inappropriate referrals, needless costly investigative procedures and poor follow-up demands a systematic investigation into the issues involved in this major clinical problems. In future well adjusted controlled studies should answer this clinical dilemma.

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TABLE 1
SOCIODEMOGRAPHIC PROFILE

PATIENT CHARACTERISTICS		n	%
I.	Age (in Years):		
	< 20	4	8
	21-30	15	30
	31-40	17	34
	41-50	6	12
	51-60	5	10
	> 61	2	4
II.	Sex:		
	Male	32	65
	Female	17	35
III.	Marital Status:		
	Married	38	78
	Unmarried	11	22
IV.	Occupation:		
	Professionals	3	12
	Skilled	18	68
	Unskilled	5	20
V.	Employees/Relatives :		
	Employees	26	53
	Relatives	23	47
VI.	Location of Company :		
	Local	51	
	Outside N.A. Dist.	2	4
	Outside T.N.	22	45

TABLE 2
PATTERN OF REFERRAL

<u>NAME OF DEPTT.</u>	<u>NO.</u>
PSYCHIATRY	20
MEDICINE	9
NEUROLOGY	12
CARDIOLOGY	2
O & G	2
GASTRO-ENTEROLOGY	2
PLASTIC SURGERY	1
NEPHROLOGY	1
DIRECT PSYCHIATRIC REFERRAL	- 41 %
OTHER DEPARTMENTS REFERRAL	- 59 %

TABLE 3
DIAGNOSIS

-MEDICAL DIAGNOSIS PRESENT	- 08 (16 %)
CARDIAC ARRHYTHMIA	- 01
HYPERTENSION	- 01
EPILEPSY	- 01
TUBERCULOSIS	- 01
RENAL FAILURE	- 01
GASTRIC ULCER	- 01
HYPOTHYROIDISM	- 01
BURNS	- 01
-PSYCHIATRIC DIAGNOSIS PRESENT	- 48 (98 %)
NEUROSIS	- 25
PSYCHOSIS	- 17
ALCOHOLISM	- 01
MENTAL RETARDATION	- 01

TABLE 4
FOLLOW - UP IN %

PERIOD OF FOLLOW - UP		IN %	NO. %
< 25	27	55.10	
25 - 50	0816.32		
51 - 75	02	04.10	
> 75	12	24.50	

PERIOD OF FOLLOW - UP AND LOCATION OF FACTORY

LOCATION	NO.	%
LOCAL	25	56.21
OUTSIDE N.A. DIST.	02	40.10
OUTSIDE TAMIL NADU	22	21.30

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