The Socio-Demographic Co-Relates Referral Pattern and the Diagnostic Pattern of Psychiatric Illness in the Mentally Ill Prisoners Referred to A Tertiary Care Psychiatric Unit

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ABSTRACT

Introduction: The psychiatric morbidity in mentally ill prisoners is higher as compared to the general population. There are few Indian studies done on mentally ill prisoners conducted in Jails and less so in prisoners referred to psychiatric hospitals. This study was taken up to fill in this void. Aim of the research was to study the socio-demographic co-relates, referral pattern and the diagnostic pattern of psychiatric illness in the mentally ill prisoners referred to a tertiary care psychiatric unit.

Material and methods: The case file records of total 97 prisoners referred to a tertiary care psychiatric hospital for their psychological complaints between the time span of Jan 2015 to Dec 2015 were included in the study. The case file records are ideal for collecting socio demographic data, the detailed clinical and criminal history along with mental status evaluation and diagnosis. Data analyses were done by using the SPSS – 22 Version and Pearson Chi-square test.

Results: Of the total sample of 97 prisoners, 92 had genuine reason for psychological referral as they subsequently fulfilled criteria for ICD-10 Psychiatric diagnosis.43.3% of the referred cases had Substance use disorder, 37% patients had Adjustment disorders,5.2% were Mood Disorders and 4.1% had Psychosis.

Conclusion: Psychiatric morbidity is common among the prisoners. There is growing awareness about mental health issues among the prisoners and the jail authorities. Early detection and management of the mental health problems will lead to improvement in the mental health of the prisoners thus preventing the risk of reoffending.

Keywords: Psychiatric morbidity, prisoners, Liaison psychiatry, Substance abuse, Adjustment Disorders

INTRODUCTION

In the criminal justice system prisons and prisoners remain a major constituent. Since crime is on the rise in the modern world due to emergent reasons the prisons are seeing an influx of prisoners.[1,2] The prisoners are seen to be languishing in the jails in need of a quicker trial or due to their incarceration for varied periods of duration, maybe even a lifetime. Such circumstances often have a toll on the physical and mental health of the inmates leading to various adjustment and emotional problems. A recent study came out with the finding that severe mental illness is 5-10 times higher than in the general population.[3]

A systematic analysis of 62 prison mental health surveys done by Fazel S, et al suggests that prisoners were consistently more likely to suffer from a personality disorder or a primary mood disorder or psychosis when compared with general population.[4] Some of the salient findings of this study

were 65% had a personality disorder, among whom 47% had antisocial personality disorder, 10% mood disorders and 3.7% of men had psychotic illnesses. Among female prisoners 42%had a personality disorder, including 21% with antisocial personality disorder, 12% major depression, and 4.0% of women had psychosis.

The main reasons that are cited for the high prevalence of mental illness in the prisoners are the stressful conditions during execution of the punishment and the person's inherent conditions which otherwise lead them into committing a crime.[5,6]

There is a dearth of Indian studies on the psychiatric morbidity in Indian prisoners. In a study done by Ayirolimeethal A. et al substance use disorder (47.1%) was the commonest diagnosis followed by Antisocial personality disorder (19.2%), Adjustment disorder was seen in 13.7%, psychotic disorder in 6.3% and mood disorder in 4.3 %.[7] Another study by Kumar V. et al came up with the prevalence of 33% of psychiatric morbidity of which 58.8% of the prisoners had drug abuse/dependence prior to incarceration and remaining were depressive (16.1%), Anxiety disorders (8.5%) and psychosis (6.7%).6 There was hardly any study on referral pattern of prisoners to psychiatric units and the reasons for such referrals. Also frequently it was implied that prisoners often use a pretext of a psychiatry referral to escape even if briefly from their everyday mundane lifestyle. Keeping in mind all such factors the present study was conducted to assess the mentally ill prisoners that were referred to a tertiary care mental hospital.

Aim of the study was to study the socio-demographic co-relates referral pattern and the diagnostic pattern of psychiatric illness in the mentally ill prisoners referred to a tertiary care psychiatric unit.

Objectives were:
1. To study the socio-demographic correlates in the mentally ill prisoners referred to a tertiary care psychiatric unit.
2. To study the referral pattern of the mentally ill prisoners

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International Journal of Contemporary Medical Research
Volume 3 | Issue 5 | May 2016 | ICV: 50.43 | ISSN (Online): 2393-915X; (Print): 2454-7379

(MIPs) referred to a tertiary care psychiatric unit.

3. To study the reasons for referring and diagnosis in the MIPS that are referred to the psychiatric unit.

MATERIAL AND METHODS

The study was a cross –sectional, descriptive, hospital based study in which the case file records of 97 mentally ill prisoners referred to the outpatient department of a tertiary care psychiatric hospital from the various prisons in the State were included. The approval to conduct the study was obtained from the local Institutional Ethics Committee. Permission to use the case file records of the patients was obtained from the Director of the Institute. Confidentiality was maintained throughout the course of the study. Both convicts as well as under trials brought from all the different prisons in the State formed the sample of the study. The prisons were located about 20 to 30 kms away from the hospital and the prisoners were brought daily by the prison bus. The period of study was approximately one year (Jan 2015-Dec 2015). The patient when referred for the first time was registered as a new case and file was issued in his/her name. The socio-demographic data and the patient details (clinical and criminal) were entered on the semi structured pro forma specially meant for collection of such data. All the patients were evaluated by the senior resident on duty and also reviewed by the consultant psychiatrist and diagnosis was made according to the International Classification of Diseases -10 (ICD-10) Criteria. The reason for referral was obtained from the referral note or order accompanying the patient and history from the patient. The study did not involve any specific intervention and the patients continued to receive regular treatment and care.

The inclusion criterion was

1. All mentally ill prisoners referred to the hospital during the period of study.

The exclusion criteria were

1. Subjects below 18 years and above 60 years were excluded.
2. Patients with mental retardation.

STATISTICAL ANALYSIS

The collected data was tabulated and the analysis was done using the SPSS – 22 Version. The results were expressed as number and percentages for all the qualitative variables, by using the mean and the standard deviation for quantitative variables. The Pearson Chi-square test was used for finding association between two qualitative variables with the 'p' value set to less than 0.05 to be taken as statistically significant.

RESULTS

The number of mentally ill prisoners (MIPs) referred to the tertiary care psychiatric hospital during the study period were 97 and they all formed the study sample. The socio-demographic details of the MIPs in the study group is as follows to be changed to is given in table 1. Majority of them were in the age group of 18-29 years i.e. N=53 (54.7%). The mean (±SD) age of the sample group was 31.7(±10.8) years at the time of referral. Several of the prisoners were from a

rural background N=68, (70.1%). 91.8% (N=89) were male patients and only 8.2%,(N=8) were females. More than half i.e. 60.8% (N=59), of the prisoners were unmarried at the time of study, 37.1%(N=36) were married and only 2.1% (N=2) were divorced. Regarding duration of stay in the prison, 56.7% (N=55), of the prisoners had spent below one year in prison, where as 36.1 %(N=35), patients were in prison for a period between 1-5 years. Regarding literacy status, 62 patients (63.9%) were having basic education of II to X standard, 29 patients (29.9%) were up to higher secondary educated or graduates. Based on their socioeconomic status, 65patients(67%) belonged to low SES and 32 (33%) were from middle SES background.

Table 2 shows the prevalence of Psychiatric Disorders (ICD-10) diagnoses in the referred prisoners. The most common diagnosis was that of substance use disorder N =42 (43.3%), next frequent being Adjustment Disorders N=36 (37%). There were 5 cases (5.2%)of Mood Disorders, 4 cases (4.1%) of Psychosis, 5 cases with nil psychiatric diagnosis and 5 cases belonged to other infrequent diagnostic categories (2 were Obsessive Compulsive Disorder cases, 2 had an Organic cause, and 1 was delusional disorder).

Table 3 shows the relation between the socio-demographic co-relates with the psychiatric Diagnosis that were statistically significant. Male prisoners were significantly more than females. Also regarding the duration of stay in prison a significantly large number of prisoners presented with psychiatric symptoms in early period i.e. within one year of incarceration across the various categories of diagnosis.

Table 4 depicts the reasons for referral for the mentally ill prisoners. The most commonest reason cited by the prisoners were symptoms related to substance use disorders, N=44 (45.4%) and next common reason being sleep disturbances and other somatic complaints, N=39 (40.2%). The other less common reasons were unexplained abnormal behaviour in 4 (4.1%) patients, unexplained body pains in 4 (4.1%), psychological /psychiatric evaluation by court in 2 (2.1%) patients and other reasons in 4 (4.1%).

DISCUSSION

It is now increasingly recognised that the prevalence of psychiatric morbidity in the prisoners is quite high as compared to the general population.[8] The major limitation of our study is that it was a hospital based study so the true prevalence of psychiatric morbidity for the entire prison population in the State cannot be commented upon. There are several reasons for the high prevalence of mental illness in the prisoners. The presence of a pre-existing psychiatric illness prior to incarceration, the frequent delays in trial process, the living conditions in the jail, problems in reaching out to psychiatric services due to varied reasons are some of the situations because of which mental health needs of the prisoners are not fulfilled.[9]

In our study of the 97 prisoners included, 92 among them had an ICD-10 psychiatric diagnosis and only 5 patients were with nil psychiatric diagnosis. It is apparent that the patients and the referring authorities are well informed about mental illness and their symptoms resulting in early referral for these patients. The reason for this could be the im-

International Journal of Contemporary Medical Research
ISSN (Online): 2393-915X; (Print): 2454-7379 | ICV: 50.43 | Volume 3 | Issue 5 | May 2016

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provement in the prison health care services in our State, the liaison services that are regularly provided by our hospital to these prisons twice in a month, appointment of a regular trained nurse in jail for patient monitoring and easily accessible tertiary psychiatric hospital for further needs.[10]

The most frequent diagnosis made in our study group was that of Substance use disorder as 43.3%. This finding is sim-

ilar to other Indian studies by 7, Kumar et al 6, and outside India by Bird SM et al[11], Birmingham et al[12], Steadman et al[13], and Brooke et al. 5

The next frequent diagnosis was that of Adjustment disorder (37.0%) which is lower than study by Fido AA et al[14] and high as compared to an Indian study by Ayirolimeethal et al[7] showing a prevalence of 13.7%. Mood disorders and Psychotic disorders were less frequent diagnosis in our study sample which is in keeping with other Indian[15] and Foreign studies.[5,16]

An important finding of our study in relation to the socio-demographic profile was that most of our patients were young males, unmarried, from low socioeconomic background[17], less in formal education, frequently in use of alcohol and other substances of abuse. This is in keeping with study done by Bergio Baxter Andreoli et al[18] and others.[19,20] A significant finding was the relation between the duration of stay in prison and the psychiatric diagnosis in the referred patients. A shorter duration of less than one year was significantly associated with mental illness. The reason for this could be that the most frequent diagnosis in our sample was substance use disorder and Adjustment disorder.[7] These conditions will obviously distress patient into an early psychiatric consultation. The most common reason cited for the referral to a psychiatric hospital was substance related problems in 45.5% of the cases. The other common reason for which prisoners were referred was sleep disturbances and other vague somatic complaints in 40.2 % of the cases. There was unexplained abnormal behaviour as a presenting complaint in 4.1% of the referrals, vague pains like headache, body ache in 4.1% and 2.1% of the cases patients were referred for psychological testing directly. Also there were 2 cases that were referred for continuation of prior prescribed psychiatric medications and two cases of reported self harm. It is a well known fact

Variable Factors		
Years	Frequency (N)	Percentage (%)
1. Age (Years)		
18-29	53	54.7
30-49	38	39.2
50-69	06	6.2
2. Residence		
Rural	68	70.1
Urban	29	29.9
3. Gender		
Males	89	91.8
Females	08	8.2
4. Marital Status		
Single	59	60.8
Married	36	37.1
Others	02	2.1
5. Duration of stay in prison		
Below 1 year	55	56.7
1- 5 years	35	36.1
7 years	07	7.2
6. Education		
Illiterate	03	3.1
Primary/ Secondary	62	63.9
HSSC/ Graduation	29	29.9
Post Graduation	03	3.1
7. Socioeconomic status (Kuppuswamy)		
L	65	67
M	32	33

Table-1: Socio demographic variables in referred Prisoners (N=97)

	Frequency (N)	Percentage (%)
1. Substance use disorders	42	43.3
2. Adjustment Disorders	36	37.0
3. Mood Disorders	05	5.2
4. Psychosis	04	4.1
5. NIL Psychiatry	05	5.2
6. Others	05	5.2

Table-2: Prevalence of Psychiatric Disorders (ICD-10) Diagnosis in referred prisoners

	Substance use disorders		Adjustment Disorders		Mood Disorders		Psychosis		Others		NIL Psychiatry		P value
	No	%	No	%	No	%	No	%	No	%	No	%	
Duration stay													
<1	31	73.8	14	38.9	2	40	4	100	4	80	0	0.0	χ^2 =27.7 df=10 p=0.002
1-5	9	21.4	20	55.6	2	40	0	0.0	1	20	3	60	
5+	2	4.8	2	2.6	1	20	0	0.0	0	0.0	2	40	
Gender													
M	42	100	32	88.9	3	60	4	100	3	60	5	0.0	χ^2 =18.3 df=5 p=0.003
F	0	0.0	4	11.1	2	40	0	0.0	2	40	0	100	
Total	42	100	36	100	5	100	4	100	5	100	5	100	
significant<0.05													

Table-3: Selected Socio-Demographic correlates of Diagnosis

	Frequency (N)	Percentage (%)
1. Sleep Disturbances/Other somatic complaint	39	40.2
2. substance related problems	44	45.4
3. Unexplained abnormal behavior	04	4.1
4. Psychological / Psychiatry Evaluation	02	2.1
5. Others (certified previous treatment, self harm, mood)	04	4.1
6. Unexplained pains (headache/ chest pain)	04	4.1

Table-4: Reasons for Referral of Mentally Ill Prisoners

that mental health issues are often ignored and emphasis is given to the physical model of illness. Therefore it requires an extra effort on the part of the referring (jail) authorities and the patients to recognise the symptoms so as to obtain a psychiatric consultation. There are hardly any studies from India or otherwise which have studied the psychiatry referral pattern arising from the prison population. The present study was an attempt to fill in this void.

The present observational study has some limitations which need to be acknowledged. The data used in the study has been obtained from a case file record of the referred patients and hence only the recorded information could be accessed. It was a cross sectional, hospital based study with all its inherent shortcomings. The study overall was a genuine attempt to understand the mental health issues of the prisoners.

CONCLUSION

This study suggests that psychiatric morbidity is highly prevalent in the prisoners. Patients and the authorities are prompt in seeking the mental health services. Training the prison staff in recognizing the symptoms of mental illness and awareness of mental health issues in prisoners are essential to improving the mental health of the prison inmates. Future research should be directed towards qualitative assessment of the outcomes of the mental health care services provided to the prisoners and their satisfaction with such services.

REFERENCES

1. Walmsley R. World prison population list 10th Edition 2013. http://www.prison studies.org /sites/default/files/resources/downloads/wppl10.pdf accessed on 20/02/2016.
2. India 60-Prison Population (2006)/Statistics. Prison population in India, 2006. Available from; http:// india60.com/states/prisoners. Last accessed on 20/02/2016.
3. Falissard B, Loze JY, Gasquet I, Duburc A, de Beaurepaire C, Fagnani F, Rouillon F. Prevalence of mental disorders in French prisons for men. BMC Psychiatry. 2006;6:333.
4. Fazel S, Danesh J. Serious mental disorders in 23000 prisoners; a systematic review of 62 Surveys. Lancet. 2002;359:545-50.
5. Brooke D, Taylor C, Gunn J, Maden A. Point prevalence of mental disorder in unconvicted male prisoners in England and Wales. BMJ. 1996;313:1524-7.
6. Kumar V. Daria U. Psychiatric morbidity in prisoners. Indian Journal Of Psychiatry. 2013,55;366-70.
7. Ayirolimeethal A. Ragesh G, Ramanujam JM, George B. Psychiatric morbidity among prisoners. Indian J Psychiatry. 2014;56:150-3.
8. Math SB, Chandrashekhar CR, Bhugra D. Psychiatric epidemiology in India. Indian j Med Res. 2007:126:183-92.
9. Gunn J. Maden A. Swinton M. Treatment needs of prisoners with psychiatric disorders BMJ. 1991;303:338-41.
10. Bowden P. Men remanded into custody for medical reports: the selection for treatment. British Journal of Psychiatry. 1978;133:320-31.
11. Bird SM. Changes in male suicides in Scottish prisons: A 10-year study. Br J Psychiatry. 2008;192:446-9.
12. Birmingham L, Mason D, Grubin D. Prevalence of mental Disorders in remand prisoners: Consecutive case study BMJ. 1996;313:1521-4.
13. Steadman HJ, Fabisiak S, Dvoskin J, Holohean EJ Jr. A survey of mental disability among state prison inmates. Hosp Community Psychiatry. 1987;38:1086-90.
14. Fido AA, Razile MA Mizra L, el –Islam MF. Psychiatric disorders in prisoners referred for assessment: a preliminary study. Can J Psychiatry. 1992;37:100-3.
15. Goyal SK, Singh P, Gargi PD, Goyal S, Garg A. Psychiatric morbidity in prisoners. Indian J Psychiatry. 2011;53:253-7.
16. Assadi SM, Norozian M, Pakravannejad M, Yahyazadeh O, Aghayan S, Shariat SV et al. Psychiatric morbidity among sentenced prisoners: Prevalence studies in Iran. Br J Psychiatry. 2006;188:159-64.
17. Singh G, Verma HC. Murder in Punjab: A psychosocial study. Indian Journal Psychiatry. 1976:18:243-51.
18. Bergio Baxter Andreoli, Mario Mendes; Prevalence of Mental Disorders among Prisoners in the State of San Paulo Brazil. PLOS One. 2014;9:e88836.
19. Bushnell JA, Bakker LW. Substance use disorders among men in prison: A New Zealand study. Aust N Z Journal Psychiatry. 1997;31:577-81.
20. Kouri EM, Pope HG, Jr, Powell KF, Olivia PS, Campbell C. Drug use history and criminal behaviour among 133 incarcerated men. Am J Drug Alcohol Abuse. 1997;23:413-19.