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Research Article

A Study on Mental Health Morbidities with Socio-Demographic Correlates If Any, Among the Inmates at Bankura Prisons, West Bengal

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Abstract: A cross-sectional descriptive study was conducted with 119 prison inmates of Bankura district, West Bengal to determine the prevalence and socio-economic correlates of mental health problems. Self-Reported Questionnaire was used to gather the information. Results were analyzed using descriptive statistics, Chi-square test and bivariate logistic regressions. 84% of inmates were affected with mental health problems, mostly belonging to the age group of 20-29 years. Males (87%) were affected more than the females (68%). Age, marital status, low education and lower socio-economic status were found to have significant effects on mental health problems.
Keywords: Mental illness, demographic correlates, prevalence, prison inmates.

INTRODUCTION

Prisoner populations are comprised of some of the most disadvantaged and stigmatized individuals in the community. People from disadvantaged backgrounds, poor educational attainment, histories of unemployment, and indigenous populations are over-represented among prisoner populations in India [1]. International studies have found an over-representation of those with mental illness. Mental illnesses are health conditions characterized by impairment of an individual's cognitive, emotional, or behavioral functioning, and caused by social, psychological, biochemical, genetic, or other factors. Prisons are meant to make people realize of their sins, but for development of anxiety and personality disorder and sometimes result in the episodes of suicides out of prolonged depression which were usually not taken care of in a methodical and scientific way. A recent meta-analysis of sixty-two prison mental health surveys found that inmates were substantially more likely to have a psychotic illness, major depression, and a personality disorder than the general population[2].

There are few Indian studies measuring the prevalence of mental illness among prisoners. The study of the mental health among the inmates would bring realization to the policy makers towards implementation of existing laws supporting holistic and all round development emphasizing the importance of mental health. The existing medical aid at the correctional homes in India provides due care to physical health without any provision for mental health within the marginalized walls.

This study will probably open a new scope of improvement for prisons in India, which has been neglected so far, demonstrating the need of setting a Forensic Psychiatry cell and integrated offender management in every correctional home of India. The implication from this study may prove vital for the correctional homes across the country pointing towards marked changes to be brought in government policies, which might help in reduction of crime rate.

Under these backgrounds aims and objective of the study are

1. To estimates the prevalence of the psychiatric morbidity among the prison population of the Bankura"s jail
2. To study association of psychiatric morbidities with socio economic parameters .

MATERIALS & METHODS

The cross-sectional descriptive study was conducted in the prisons of Bankura district, West Bengal. The sample comprised of 119 inmates (both remand and sentenced subjects of both genders) using stratified random sampling technique.

A Self-Reported Questionnaire (SRQ 24) developed by World Health Organization to screen for psychiatric disturbances in developing countries, validated to Bengali version, was used maintaining audio-visual privacy within the correctional home premises. Socio-demographic information (age, sex, educational status, marital status and socio-economic status) was also gathered. Modified B.G. Prasad's classification for 2013 was used to assess the socio-economic strata [3]. Informed consent was taken before their participation and they were at liberty to withdraw anytime from the study.

SPSS version 19 was used for analysis of results. Descriptive statistics was used to examine the variables. Chi-Square tests and bivariate logistic regressions were used to assay the association and correlation between psychiatric morbidity and socio-demographic variables.

RESULTS

Data was collected from 119 subjects. 42% of the study population belonged to the age group of 20-29 years, followed by 30-39 years comprising 24% of the study population. 45% of the male inmates were illiterates, followed by those having primary education (40%). For females, the percentages of illiterates and those receiving primary education were 84% and 15% respectively. Majority (75% males and 52% females) were married. 41% of male inmates belong to strata III and 26% to strata II socio-economic strata. However, looking to females the figures for strata IV and strata III were 42% and 31% respectively.

Table 1: Distribution of psychiatric problems of study population according to age groups and sex.(n=100)

Age (in years)	Male with psychiatric problems	Female with psychiatric problems
	No.(%)	No.(%)
10-19	3(3)	0(0)
20-29	32(32)	1(1)
30-39	23(23)	3(3)
40-49	15(15)	2(2)
50-59	6(6)	4(4)
60-69	7(7)	3(3)
70-79	1(1)	0(0)
Total	87(87)	13(13)

Table 2: Distribution of study population according to psychiatric problems and demographic variants with association (n=119)

Demographic Factors		Psychiatric disorders		df	Chi-Square value	"p" value
		Present	Absent			
		No. (%)	No. (%)			
Sex	Male (100)	87 (87)	13 (13)	1	4.108	0.043
	Female (19)	13 (68.4)	6 (31.6)			
Education	Illiterate (61)	54 (88.5)	7 (11.5)	1	1.881	0.17
	Literate (58)	46 (79.3)	12 (20.7)			
Marital status	Married (94)	82 (87.2)	12 (12.8)	1	3.416	0.065
	Unmarried (25)	18 (72)	7 (28)			
Socio-economic status	Upper Middle (42)	28 (66.7)	14(33.3)	1	14.591	0.000
	Lower Middle (77)	72 (93.5)	5 (6.5)			

84% of the population was found to be suffering from mental illness, majority belonging to the age group of 20-29 years, followed by 30-39 years [Table 1]. Mental health problems accounted for 87% of males as compared to 68% in females, establishing a statistically significant association between the sex of the individuals and the mental illness (p=0.043) [Table 3]. Among the inmates with mental illness, 82% were married. However, the association between marital status and mental health problems was not statistically significant (p=0.065) [Table 3]. Among all the inmates who were illiterates, psychiatric disorders were seen in 88.5%, whereas the figure was 79.3% among the literates (primary, secondary education or college going). Again the association between the level of education and the mental illness was not significant in our study (p=0.17) [Table 2]. Coming to the socio-economic status, when we classify them as upper middle (Strata I & II) and lower middle (Strata III, IV & V), psychiatric disorders were seen in 66.7% of the

upper middle class. However, the prevalence of these disorders in the lower middle class outclass that of the upper middle by taking the figures as high as 93.5%, thus making the association between the socio-economic status and the psychiatric disorders to be strongly statistically significant (p=0.000) [Table 2]. Taking all the demographic factors into consideration, it is seen that on logistic regression analysis factors like sex, socio-economic status and age have significant effect on presence of mental health problems and can correctly predict in 85.7% cases of disorders [Table 3, 4].

Table 3: Logistic regression of demographic factors and psychiatric problems

Demographic Factors	df	Significance	Exp (B)	95% C.L. for Exp (B)	
				Lower	Upper
Sex	1	0.002	20.628	2.983	142.655
Socio-economic status	1	0.003	0.094	0.020	0.454
Age	1	0.015	0.060	0.006	0.576
Constant	1	0.010	15.627		

Table-4: Model Summary

-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
70.658	0.248	0.424

DISCUSSION

Mental health of the inmates has always been a neglected area and there has been a very few studies pertaining to this field of interest. In our present study, 84% of the inmates were seen to be potential psychiatric cases, with both males and females contributing to this morbid scenario with figures 87% and 68% respectively. The same results were also reflected in a nation-wide study at Norway by Friestad and Kielsberg [4]. According to them almost 76% of the prison inmates were suffering from mental health problems, with childhood stressors, general welfare deficiencies and illicit drug usage being the greatest threats to the deteriorating mental health. Also, in a study by Julio Arboleda-Florez, a systematic review of 62 surveys in 12 countries involving 22,790 inmates found that, among males, 26% were violent offenders, 3.7% had psychotic illnesses, 10% suffered from major depression and 65% had a personality disorder, of which 47% antisocial and, among females, 4% had a psychotic illness, 12% had major depression and 42% had a personality disorder, of which 21% antisocial [5]. Of all suffering from potential psychiatric problems, 82% were married in our study, though the association between the marital status and psychiatric problems was not statistically significant. In a study from Zambia, it is reflected that 61.8% of the mentally ill inmates were married, followed by inmates who were never married (26.3%), widowed (7.9%) and separated/divorced (3.9%) [6]. This difference in results may be due to the early age of marriage in our country, especially the rural population. In this pilot study a slightly higher rate of psychiatric disorders is seen among the inmates who were illiterates (88.5%) as compared to the literates (79.3%). In a similar study by Zahra and Afshin in Iran, it is also seen that the prisoners with low level of education (elementary school) (49.5 %) had higher suicidal thought than the prisoners with higher levels of education [7]. When socio-economic status comes to the scenario, psychiatric disorders were seen to affect the inmates of lower middle class much more than those who belonged to the upper middle class. The same results were also reflected in the study by Goyal and Singh in India, where 73.6% of the persons with psychiatric disorders belonged to the lower middle class, and hence supporting the other studies all around the world pinning the demographic factors as one of the major causes behind the psychiatric disorders in the inmates [8].

CONCLUSION

The burden of mental illness is a worldwide problem. Studies have shown that mental illness is more common among the prison population, than the community [9-10]. This present study was initiated with the aim to determine the prevalence and socio-demographic correlates for the psychiatric problems in the prison inmates. This is a cross-sectional descriptive study involving 119 inmates. Majority of the population affected belonged to the age group of 20-29 years, with males showing higher rates as compared to females. Marital status, lower levels of education and poor socio-economic status accounted for the major demographic factors affecting mental health. Further observations from our study, pinpoints the fact that socio-economic status should be considered in designing interventions to curtail the prevalence of mental illness. This pilot study will probably show a new ray of improvement for prisons in India, necessitating the setting of Forensic Psychiatry cells and integrated offender management in every correctional home of India.

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