

Full Length Research Paper

Prevalence of mental morbidity amongst prisoners

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Jails and prisons hold many people that society does not want to have around and it would be wise to keep them there, despite the fact that the legal and correctional system have failed to bring any positive changes in them. Prisoners with mental illness frequently endure violence, exploitation and extortion at the hands of other inmates and neglect and mistreatment by jail staff. To know the prevalence of mental morbidity among prisoners. The study was carried out in the district jail, Rohtak. A study sample of 150 male prisoners above sixteen was selected by random sampling technique ensuring proportionate representation to convicts as well as the non-convicts. Indian Psychiatric Interview Schedule (IPIS) was used for the purpose of screening the subjects suspected for psychiatric disorders and those who screened positive were administered Structured Clinical Interview for DSM-IV AXIS-I disorder (SCID-I) and AXIS-II disorder (SCID-II). 56% convicts belong to the age group of 30 to 50 years while 52% non-convicts were in the age group of 21 to 30 years. Prevalence of mental morbidity was 70% among convicts and 93% among non-convicts. 20% of convicts and 80% of non-convicts had AXIS-1 disorders while 24.6% of convicts and 75.4% of non-convicts had AXIS-11 disorders.

Key words: Mental morbidity, prisoners.

INTRODUCTION

A sound mind in a sound body has been recognized as a social ideal for many centuries. Health, as defined by World Health Organization, is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1978). The term 'mental disorder' as defined in the 4th edition of the standard Psychiatric Diagnostic and Statistical Manual (DSM-IV) encompasses a broad range of conditions characterized by patterns of abnormal behaviour and psychological signs and symptoms that result in dysfunctions (American Psychiatric Association, 1994). DSM-III-R and DSM-IV concepts of antisocial personality disorder emphasize behavioral disturbances while the ICD-10 (International Classification of Diseases Tenth Edition) concept of dissocial personality disorder includes personality traits as well as behavioral disturbances (World Health Organization, 1992).

Prisons basically are institutions which are supposed to perform a dual task that is housing those punished by the law as well as aiming at their rehabilitation. Overcrowding in jails is a universal phenomenon and our country is also no exception. This has a definite ill-effect on the mental health status of jail inmates. Available data suggest that psychiatric disorders are fairly common in this population. Prisoners extract an inordinate amount of time and money from the judicial system and the taxpayers, yet studies pertaining to this population have been few. The present study in the selected prison population was prompted by a relative paucity of such epidemiological studies in this country.

MATERIALS AND METHODS

The study was carried out in the district jail situated at a distance of 4 kms from Post Graduate Institute of Medical Sciences, Rohtak. A study sample of 150 male prisoners above sixteen was selected by random sampling technique ensuring proportionate representation to convicts as well as the non-convicts.

IPIS was used for the purpose of screening the subjects

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Table 1. Age distribution of prisoners.

Age in years	Convicts		Non-convicts		Total	
	N	Percentage age	N	Percentage age	N	Percentage age
<20	3	06	13	13	16	10.66
21-30	10	20	52	52	62	41.33
31-40	14	28	24	24	38	25.33
41-50	14	28	7	7	21	14.00
51-60	2	4	4	4	6	4.00
>60	7	14	-	-	7	4.66
Total	50	100	100	100	150	100.00

Mean \pm SD= 40.1 \pm 5.91, 29.2 \pm 5.01, 32.96 \pm 4.98. Standard error -0.908, -0.575. Mean age= 40.5, Z test highly significant at 95% C.I

Table 2. Distribution according to subject's age at father's death.

Age at father's death	Convicts		Non-convicts		Total	
	N	Percentage age	N	Percentage age	N	Percentage age
Not known	11	22	04	04	15	10.00
Not applicable	27	54	65	65	92	61.33
Below 15 yrs	05	10	07	07	12	8.01
Above 15 yrs	07	14	24	24	31	20.66
Total	50	100	100	100	150	100.00

$\chi^2=9.96$, DF=1, p <0.05-Highly significant.

Table 3. Prevalence of mental morbidity in prisoners.

Morbidity	Convicts		Non-convicts		Total	
	N	Percentage age	N	Percentage age	N	Percentage age
Patients with morbidity	35	70	93	93	128	85.13
Patients without morbidity	15	30	07	07	22	14.66
Total	50	100	100	100	150	100.00

suspected for psychiatric disorders and those who screened positive were administered Structured Clinical Interview for DSM-IV AXIS-I disorder (SCID-I) and AXIS-II disorder (SCID-II). IPIS is a research instrument designed to explore the presence of 124 psychiatric symptoms and enquire about 10 items of historical information. It has standard questions with standard cross-examination. The interview lasted 10 to 15 min if no symptom was present and 30 to 45 min if any symptoms were present.

The Structured Clinical Interview for DSM-IV (SCID-IV) is a semi-structured interview for making the major DSM-IV AXIS-I and AXIS-II diagnosis. SCID-IV consists of two versions- Clinicians' version and the Research version designed for clinical and research settings respectively. The research version of the interview was used for the present study. This consists of two parts, SCID-I and SCID-II. SCID-I contains various mood, psychotic, anxiety, somatoform and substance abuse disorders in major DSM-IV AXIS-I diagnosis while SCID-II covers ten personality disorders as mentioned in the DSM-IV AXIS-II diagnosis. Due permission was sought from the competent authorities and complete confidentiality was ensured to the patients. Data was then subjected to relevant statistical analysis. The statistical tests namely Chi square test, Z test of means and Z test of proportions were applied wherever applicable.

RESULT AND OBSERVATIONS

The present study was carried out to find out the prevalence of psychiatric and personality disorders among convicts and non-convicts. Majority of the patients (56%) among convicts belong to the age group of 30 to 50 years whereas maximum patients (52%) among non-convicts were in the age group of 21 to 30 years (Table 1).

Table 2 shows the distribution of convicted and non-convicted prisoners based on the subject's age at the time of his father's death. 22% of convicts and 4% of non-convicts did not know the answer. For statistical purposes, groups 'Not known' and 'Below 15 years' were clubbed together and groups 'Not applicable' and 'Above 15 years' were clubbed together. Their differences were found to be highly significant. 70% of the convicts were diagnosed positive for mental morbidity as compared to 93% from amongst non-convicts (Table 3). 60% of convicts and 89% of non-convicts were having both AXIS-I and AXIS-II disorders while 4% of both convicts

Table 4. DSM-IV co-morbid diagnosis in prisoners.

Morbidity	Convicts		Non-convicts		Total	
	N	Percentage age	N	Percentage age	N	Percentage age
With both AXIS-I and AXIS-II morbidity	33	66	89	89	122	81.3
With AXIS-I morbidity only	0	0	0	0	0	0
With AXIS-II morbidity only	02	4	04	4	06	4
With no AXIS-I and AXIS-II morbidity	15	30	07	7	22	14.7
Total	50	100	100	100	150	100.00

Table 5. Major DSM-IV diagnosis among prisoners.

DSM-IV diagnosis	Convicts		Non-convicts		Total	
	*N	Percentage age	*N	Percentage age	*N	Percentage age
AXIS-I disorders	53	20	212	80	265	100
AXIS-II disorders	76	24.6	234	75.4	310	100
Total	129	22.4	446	77.5	575	100.00

* More than one diagnosis may apply per subject, so 'N' represents the number of diagnoses.

and non-convicts were having only AXIS-II disorders. None of the prisoners was found having only AXIS-I disorder (Table 4).

A total of 265 AXIS-I diagnoses were made during the study among 122 prisoners (20% among convicts and 80% among non-convicts). On the other hand, 310 AXIS-II disorders were found in 128 prisoners (24.6% in convicts and 75.4% in non-convicts) (Table 5).

DISCUSSION

The psychopathology of criminal behaviour has long been a subject of interest for the scientists and has been explained in terms of social disorganization, cultural conflicts and psychological determinants (Chadda, 1998). Systematic information on the prevalence and types of mental disorders in prisoners is scarce although available data suggest that psychiatric disorders are fairly common in this population (Herrman et al., 1991) Indian research in this context has been minimal.

In the present study, most of the convicts (56%) belong to the age group of 21 to 40 years. Overall distribution of age in the study group also suggests that convicts (mean age 40.1 ± 5.9 years) belonged to relatively older age group in comparison to non-convicts (mean age 29.2 ± 5.01 years). This age difference has been significant (Table 1). Earlier studies also suggest that the mean age for the under trials usually lies between 20 to 30 years (Brooke et al., 1996; Birmingham et al., 1996). This difference can be best accounted for by the long process of legal trials in India, so it is natural that the under-trials will grow by few years till their cases get settled. The difference between two groups in age at father's death was also analyzed and found to be statistically highly

significant. Sethi et al. (1971) and Singh et al. (1976) also reported similar findings.

Prevalence of mental morbidity was found to be 70% in convicts and 93% in non-convicts. Comparable results were also found in studies by Anderson et al. (1999) and Phillip et al. (2001). A study published in 2006 by the Justice Department's Bureau of Justice Statistics (BJS) revealed that 64% of local jail inmates were having a mental health problem (Bureau of Justice Statistics, 2006). The higher prevalence of mental disorders in non-convicts was due to substance abuse disorders and personality disorders. Almost similar findings came out of a recent study conducted on 5000 inmates of Central Prison in Karachi (Pakistan), wherein 73% were found to be suffering from psychiatric morbidities (Wasif, 2005).

The future implications of the study include carrying out longitudinal, prospective studies on the subject in the Indian context to look how the presence of one disorder pre-disposes or leads to another psychiatric disorder.

REFERENCES

- American Psychiatric Association (1994). Diagnostic and Statistical Manual of Mental Disorder, 4th Edition. Washington, D.C: American Psychiatric Association.
- Anderson HS, Sestoft D, Lilleback T, Mortensen EL, Kramp P (1999). Psychopathy and psychopathological profile in prisoners on remand. *Acta Psychiatr. Scand*, 99: 33-9.
- Birmingham L, Mason D, Grubin D (1996). Prevalence of mental disorders in remand prisoners: Consecutive case study. *BMJ*; 313(7017): 1521-4.
- Brooke D, Taylor C, Gunn J, Maiden A (1996). A point prevalence of mental disorders in unconvicted male prisoners in England and Wales. *BMJ*, 313(7017): 1524-7.
- Bureau of Justice Statistics (2006). Study finds more than half of all prison and jail inmates have mental health problems. Washington: Department of Justice; (updated 2006 September 6; cited March 14). Available from: 2008 <http://www.ojp.usdoj.gov/bjs>.

- Chadda RK, Amarjeet (1998). Clinical Profile of Patients attending a prison psychiatric clinic. *Ind. J. Psychiatry*; 40(3): 260-5.
- Herrman H, McGorry P, Mills J, Singh B (1991). Hidden severe psychiatric morbidity in sentenced inmates: An Australian study. *Am. J. Psychiatry*, 148(2): 236-9.
- Phillip MJB, Alexander IFS, Tannis ML, Nigel F, Fiona M (2001). Prevalence of psychiatric disorders in New Zealand prisons: A national study. *Aust. NZ J. Psychiatry*, 35: 166-73.
- Sethi BB, Gupta SC, Sinha PK, Gupta OP (1971). Pattern of crime, alcoholism and parental deprivation. *Ind. J. Psychiatry*, 13: 275-9.
- Singh G, Verma HC (1976). Murders in Punjab: A psycho-social study. *Ind. J. Psychiatry.*, 18: 243-51.
- Wasif Ali S (2005). Mental health in a captive society. *The South Asian*; August 19 (cited March 14). Available from: 2008 <http://www.the-south-asian.org/archives/2005/mental-health-in-a-captive-soc.-html>.
- WHO (1978). *Health for all*, Sr. No. 1.
- World Health Organization (1992). *The ICD 10 Classification of Mental and Behavioural Disorders*. Geneva: World Health Organization.