Original Research Article

Prevalence of depression, anxiety and stress among jail inmates

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ABSTRACT

Background: There are about 1387 prisons in the country with an authorized accommodation of 356,561; however, the total number of jail inmates is 418536 indicating severe overcrowding in prisons. Prison population is an underserved section of the society. Often their health problems are neglected. They carry a much greater burden of illness than other members of the society; they harbour diseases that are determined both by the environment out of which they come and by the prison in which they live. Therefore, present study was conducted with the aim of studying the mental health status of persons from a section of our society, who were condemned by law and are behind the high walls.
Methods: A cross sectional study was carried out on 400 convicted inmates in district jail, Rohtak, Haryana over the period of one and half years. Data was collected by interview method using DASS-21 scale and analysed by SPSS 20.0 and Chi square test was applied for results.
Results: The prevalence of depression came out to be 18.5%, anxiety came out to be 8% and stress was found to be prevalent in 8% of the convicted inmates confined in jail which was much higher in comparison to general population.
Conclusions: As the prevalence of depression, stress and anxiety was found much higher in convicts than the general population, there should be a timely screening, diagnosis and appropriate intervention to combat the mental health problems.

Keywords: Anxiety, Depression, Stress, Prison

INTRODUCTION

Prison population from health point of view is an underserved section of the society. Health problems of jail inmates are often neglected and they carry different burden of illnesses than other members of the society. They harbour diseases that are determined both by the environment out of which they come and by the prison in which they live.[1] There are numerous procedural and basic inadequacies in the Indian prison system that directly influences the psychological wellness of the detainees. Factors such as loneliness, lack of basic amenities, and social cut off, prison environment are likely to contribute towards mental disorders in prisoners. Prisons over the globe including Indian prisons are overcrowded and overburdened, 1387 prisons in India house 418,536 inmates indicating severe overcrowding in prisons.[2] Prison is not a place where someone would like to live. Prisoners are kept in prisons for rehabilitation as a part of their punishment. In prisons it is the responsibility of the state for their basic needs and medical care. As the prisoners have to come back in the society to be a part of it so their health, behavioral problems need to be monitored and taken care of so that they do not reoccur in the society.[3]

Present cross-sectional study on convicted jail inmates was conducted with the aim of studying the mental health status of prisoners in district Jail Sunariya Rohtak in one of north Indian state from September 2016 to April 2018.

METHODS

A cross-sectional study was conducted on convicted jail inmates of district Jail, Rohtak, Haryana over a period of one and half years following the commencement of the study i.e. September 2016 to April 2018.

Sample size: Taking the prevalence to be 33% sample size came out to be 392 using formula 4PQ/L taking relative error to be 15%.[2,4]

Inclusion criteria

- All the convicted male inmates.
- Those who gave consent.

Sample selection: Out of total 1247 inmates confined in jail 651 were convicted. Random number table method was used to select study participants.

Data collection and statistical analysis: Data was collected using DASS 21 schedule by interview technique. Collected data was entered in MS Excel and coded appropriately and analysed by SPSS 20.0 version. Data was presented as percentages. Pearson chi square test was used to evaluate differences between groups for categorical variables.

RESULTS

400 convicts were interviewed by the investigator using the DASS-21 questionnaire with the written permission of director general of prisons, Haryana. Informed consent was taken from the convicts. Almost half of the participants were educated up to senior secondary level. Only 13.5% of participants were addicted to some sort of addiction before being convicted. The total prevalence of depression was found to be 18.5% whereas 7.3% of study participants told that they feel stressed at times.

Table 1: Age-wise distribution of study participants.

Age group (years)	Number	Percentages
18-30	177	44.25
31-45	114	28.50
46-60	93	23.25
>60	16	4.0
Total	400	100

Average age of study participants was 32 years and 51.75% were in age group 31 to 60years.6.5% belonged to rural background as depicted in Table 2.

Among convicts 254 (63.5%) were ruralites and 146 (36.5%) urbanites. Illiteracy among convicts was 22% (88), 93 (23.25%) were under matric, 181 (45.25%) had passed higher secondary and just 38 (9.4) were graduate or above. Two third of the convicts i.e. 253 (63.3%) were married and 147 (36.7%) were unmarried. More than half the convicts belonged to lower middle and upper middle economic class i.e. 40% and 35.5% respectively, 12.8% belonged to lower class and 11.7% belonged to upper class as per B.G. Prasad scale.

Table 2: Sociodemographic characteristics of the participants.

Sociodemographic characteristics	Frequency (%)
Residential status	
Urban	146 (36.5)
Rural	254 (63.5)
Total	400 (100)
Marital status	
Married	253 (63.3)
Unmarried	147 (36.7)
Education status	
Illiterate	88 (22.0)
Under metric	93 (23.25)
Higher secondary	181 (45.25)
Graduate and above	38 (9.4)
Socio-economic class	
Lower class	51 (12.75)
Lower middle	160 (40)
Upper middle	142 (35.50)
Upper	47 (11.8)

Table 3: Prevalence of mental disorders among prisoners.

Type of mental disorder	Yes (%)	No (%)	Total (%)
Depression	74 (18.5)	326(81.5)	400(100)
Anxiety	32 (8.0)	368(92.0)	400(100)
Stress	29 (7.25)	371(92.75)	400(100)

DISCUSSION

The prevalence of depression among jail convicts at Sunairya jail was 18.5% which is was almost same as reported in studies conducted by Kumar et al (18.5%), Goyal et al (16.2%), Bilal et al (19.5%) and Simpson et al (20.6%) in Rajasthan, Punjab, Peshawar and New Zealand respectively.[5-7] However Assadi et al in year 2003 reported a higher prevalence (29%) in Iran and Nwaopara et al from Nigeria in 2015 reported much higher prevalence among jail inmates (37%).[8,9] This difference in prevalence could be due to higher prevalence of psychiatric disorders in general population, differences in social, geographical backgrounds and jail environment. The prevalence of current psychiatric

disorders in Iran was 17% which was quite high as compared to Indian prevalence of 10.6% according to NMHS 2015-16.

The prevalence of anxiety in present study was 8%. The result was in coherence with studies conducted by Goyal et al (8.5%) in Punjab and Assadi et al (7.7%) and Mortazavi et al[10] (5.8%) in Iran respectively.[5,8] However, studies conducted by Norwegian correctional service and the Norwegian directorate of health survey (2011, Norway) reported much higher prevalence (41%) of anxiety among jail inmates.[11] Shirazi et al (Iran) also reported the prevalence of 35.3% which was higher as compared to our results.[12] The difference in prevalence may be due to differences in social and geographical backgrounds of the jail inmates and jail environment, different study designs and tool used to assess the disorder. The prevalence of Stress among jail inmates in present study is 7.3%. Similar results were reported by Goyal et al in Punjab and Kumar et al in Rajasthan.[4,5] The prevalence of stress in both the studies was 6.7%.The prevalence of depression. Anxiety and stress is almost similar in the studies reviewed, this indicates that the environmental factors both external as well as internal are similar for prisoners in Indian states hence there is need to improve prison environments so as to reduce the burden of mental disorders among prisoners.

Prevalence of depressive disorders among general population in India is 2.7% for current experience and 5.3 % for lifetime experience, depression prevalence is more among females as compared to males (2.3%).[3] Prevalence among urban metro residents was higher as compared to their rural counterparts. Phobic anxiety disorder and stress related disorders is also much less among general population than prison inmates. Results of the present study indicate much higher prevalence of mental disorders among jail convicts. Reasons for high prevalence among Jail convicts could be due to their loneliness, social cut-off, lack of amenities and freedom in jails and apprehensions about their future, family and children.

CONCLUSION

Prisoners health needs must be considered as a priority and there is need to screen substance use, mental illnesses among prisoners. As the prevalence of depression, stress and anxiety among jail convicts was found much higher in convicts than the general population, high rate of mental health problems exists in prisons. Identifying mental health needs and ensuring proper care for the mentally ill prisoners can be difficult. Many reasons including the prison settings, social background differences and system issues must be considered while dealing with the mental health problems of prisoners. Proper diagnosis and timely intervention of these problems including substance related disorders may help in the reduction of occurrence or repetition of some offences hence there is need for a sound screening

strategy to combat the mental health problems. Routine medical camps may be organized in co-ordination with jail administration to diagnose mental illnesses among prisoners at an early stage. Counselling sessions may be organised in jail premises for the prisoners so that they can benefit and come out of their mental problem.

Recommendations

In the present study the prevalence of depression, anxiety and stress in jail inmates came out to be much higher in comparison to general population. As these inmates after they are released will again become the part of society, so their rehabilitation and mental wellbeing should be taken care of, so following recommendations are made:

- Medical officer must be appointed in the jail, so that proper medical care can be provided to the inmates and counselling sessions may be organized in jail for inmates. Regular visits of the psychologists should be ensured for counselling of inmates.
- Yoga, meditation and recreational camps may be organized in jail. This can be done with utilization of services of Ayush department.
- As many inmates in jail were illiterate/less educated hence it is recommended that they can be made literate so that in later stages of their life they can be brought to the main stream. Steps may be taken to educate the jail inmates and motivate inmates who want to do higher studies.
- Conjugal visits at regular intervals should be allowed in the jail so that inmates can spend time with their spouse and plan child birth and fulfil sexual desire which may help reducing mental stress and other mental health problems.

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