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A Study of Coping Skills and Psychiatric Morbidity among Prisoners.

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ABSTRACT

Background: Majority of prison inmates live in poor living conditions. Lack of meaningful activity, endemic substance abuse, recurrent violence and sexual exploitation, loss of freedom, separation from family and friends, uncertainty about the future, and the traumas of prison life all contribute to making living in prison a stressful experience. Prison inmates usually apply inappropriate coping styles, like avoidance for solving their issues. This study was conducted at Govt. Medical College Patiala (India) to determine psychiatric morbidity and coping skills among prison inmates. **Methods:** This was a cross sectional study on 250 male prisoners where a purposive stratified sampling method was done. Screening was done by GHQ-12 and diagnosis was made using MINI and ICD-10. 36 item coping strategies Check List-Hindi was applied to assess coping strategies among the prisoners. The observations were statistically analyzed by using software Statistica 7.0 & SPSS 20. **Results:** 124 prison inmates were found to have psychiatric illness using Mini International Neuropsychiatric Interview giving a net prevalence of psychiatric morbidity to be 49.6%. Prisoners with psychiatric disorder scored more on domains of coping skills, viz., denial ($t=8.03$; $p<0.01$) and internalization ($t=6.00$; $p<0.01$); lowest scores on domain of coping skills, viz., externalization ($t=10.47$; $p<0.01$) as compared with prisoners with no psychiatric disorder. **Conclusion:** Psychiatric services need to be developed appropriately in the prison set up considering the enormous psychiatric morbidity in the inmates. The high rate of common psychiatric disorders calls for the use of improved psychiatric screening instruments, improved assessment and treatment capacities in prisons.

Keywords: Prisoners, Psychiatric Morbidity, Coping Skills.

INTRODUCTION

There has been a considerable increase in crime rate in recent decades. The crime statistics all over the globe have recorded a similar trend. Generally speaking, the upward trend in crime rate can be attributed to modernization, urbanization, industrialization, advance of science and technology and growth of civilization, and advent of materialism. Scientific know-how has proved a boon to offenders in carrying out their criminal activities with considerable ease. They have provided better opportunities for escape and avoid detection which has mitigated the risk involved in committing crimes.

The current approaches are now admitting that the criminals differ from non-criminals in certain traits of personality which develop unusual tendencies in them to commit crimes under situations in which others do not. This can be seen with an increase in crime in our society and the sudden rise in psychiatric illness among the prisoners, not only in India but also all over the world.[1]

As per recommendations of National Human Rights Commission, India; world over on an average 32% of all prisoners require psychological help and the figure increases to 60% if one includes substance abuse. Hence, there is a need for focused attention on mental health and also the need for early identification of mental illness and taking consequent steps, among prisoners.

Prison population consists of an over representation of members of the most marginalized groups in society, people with poor health and chronic untreated conditions. This population is an underserved section of the society wherein their health problems are often neglected. They carry a much greater burden of illness than other members of the society; they harbor diseases that are determined both by the environment out of which they come and by the prison in which they live.[2,3]

Prison in India are overcrowded institutions and the

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majority of them provide poor living conditions, lack of meaningful activity, endemic substance abuse, recurrent violence and sexual exploitation. Loss of freedom, separation from family and friends, uncertainty about the future, and the traumas of prison life all contribute to making living in prison a stressful experience. Psychiatric symptoms are common during first two months of imprisonment. The prevalence of mental disorders in general Indian population is found to be 8-12%. It has been estimated that the prevalence of severe mental illness in jails and prisons is three to five times higher than that in the community.[3] The frequency of the association between crime and mental disorder depends upon the sample being studied. Many studies have found a significant association between mental illness and psychopathology in various records.[4,5] According to a report of World Health Organization (2001), an estimated 450 million people worldwide suffer from mental or behavioral disorders. These disorders are especially prevalent in prison populations.

There is no dignified or safe place for many of them. Mentally ill prisoners are unwanted and neglected everywhere; prisons try to move them elsewhere, but psychiatric hospitals are reluctant to admit them and relatives often refuse to let them stay in their house. Mentally ill prisoners suffer double stigma being considered both 'mad' and 'bad'.[6]

There are two categories of mentally ill patients within the prison walls. First, the individuals who are mentally ill, even before coming to the prison. Many people with mental disorders are arrested and imprisoned for relatively minor crimes.[7] Second category is, those people who develop psychiatric problems after incarceration i.e. people without prior mental disorders developing psychiatric problems during their imprisonment.

Coping Strategies Among Prisoners

Coping refers to behaviors that protect individuals from being psychologically harmed by challenging social experience, a behavior that importantly mediates the impression that societies have on their members. The protective functions of coping behavior can be implemented in three ways: by eradicating or modifying conditions which are somewhere creating the problems; by perceptually controlling the experience in a way which neutralizes its problematic character; and by keeping off concrete coping behaviors.[8]

The coping process begins when one is faced with a decision and they must make an appraisal. An appraisal occurs when a person examines the situation and decides what to do. According to Lazarus and Folkman, how well one copes during the secondary appraisal depends upon the resources that one has available to him/her.[8]

The coping skills an individual possesses allow him/her to adapt to his/her environment and to survive. The ability to adapt is particularly important for inmates who must learn to cope with an entirely new stressful environment which is fundamentally different from life outside the gates. Two widely recognized major functions of coping are: - alleviating feelings of distress (emotion-focused Coping), and altering the troubled person environment relation (problem-focused coping). Problem focused coping is aimed at changing the source of the stress, whereas emotion-focused coping is oriented toward managing the emotions that accompany the perception of stress. For inmates, however, there are not many behavioral coping strategies available, due to the strict prison environment. As a result, problem focused coping is likely to be less effective for inmates as they cannot undo the crime and solve the problem. Therefore, emotion focused coping is more effective and has a beneficial impact on psychological well-being.[9]

In prison, vulnerable inmates are readily targeted and their coping skills and options are limited. When they enter a stressful prison environment, psychological symptoms from earlier traumas, such as intrusive memories, denial, and emotional numbing returns unknowingly and start affecting their psychological health. This emotional response is thought to increase vulnerability to further violence, repeating a cycle of traumatic experience and response.[10]

There are limited studies on prevalence of psychiatric morbidity and coping skills in prisoners housed in jails. Most of the studies may be labeled as head counting in terms of socio-demographic attributes. Therefore there is need to undertake a study on psychiatric morbidity and coping skills among prisoners in order to fill this gap. Since coping strategies account for significant variance in psychological distress and psychiatric morbidity among different prisoners despite being in the same environment, the current study is planned to estimate the psychiatric morbidity and coping skills among convicted prisoners.

MATERIALS AND METHODS

Setting

It was a cross sectional study conducted at the Central Jail situated at a distance of 4 km from Government Medical College, Patiala. The sample of the study comprised of male prisoners at Central Jail, Patiala. Only those prisoners, who fulfilled the selection criteria were enrolled in the study. They were explained the nature of the study and a written informed consent was taken. Purposive stratified sampling was done while selecting the subjects from Central Jail, Patiala. The study was done with the prior permission of the Additional Director General

of Police (Prison), Punjab and was approved by institutional ethics committee.

Inclusion and Exclusion Criteria

Convicted male prisoner above 18 years of age who gave written informed consent were included in the study. Subjects with chronic severe physical illness, organic brain syndrome, undertrials and females were excluded.

Tools

1. Performa for Socio-Demographic, Criminological Variables and Psychiatric History: A semi-structured Performa was used to obtain information about the prisoners. It was used to gather socio-demographic, criminological, psychiatric history and related details about the subjects.
2. General Health Questionnaire-12[94] (Hindi Version): GHQ-12 is a derivative of General Health Questionnaire-60, which was developed as a valid and reliable self-administered screening measure for psychological problems in primary care and community settings. GHQ-12 is based on the Hindi translation of the 60-item General Health Questionnaire that has been standardized in India and in Indian population. The scale is a much–used measure of psychological wellbeing; it has high validity and it is not influenced by gender, age or level of education. The GHQ 12 can be scored using either a bimodal method or a Likert scoring system. As the Likert scoring system has been shown to be the optimum one to use when the aim is to assess the severity of psychological distress, it was this system chosen for this study. The Likert scoring method results in a score ranging from 0–36 and it can be broken down for interpretation into five categories. A score of 1–10 indicates 'low psychological distress'; 11–12 is 'typical'; 13–15 is 'more than typical'; 16–20 shows 'evidence of psychological distress'; scores over 20 indicate 'severe distress'
3. Mini International Neuropsychiatric Interview [95] (Appendix IV): MINI was designed as a brief structured interview for Axis I psychiatric disorders in DSM-IV and ICD-10. It is a short, structured diagnostic interview developed by an international group of psychiatrists and clinicians used to diagnose psychiatric disorders. Diagnosis was confirmed by ICD-10. The MINI has been demonstrated to have a good validity, reliability (inter rater and test-retest) and sensitivity and specificity indices. It has relatively brief administration time (15-20 min) and ease of use. In order to keep the interview as brief as possible, MINI was designed with 16 modules structured with very precise questions about psychological problems, which requires "Yes" or "No" answer. It is organized in diagnostic sections and uses branching tree logic; it has two to four screening questions per disorder. Additional symptom questions are asked only if the screen questions are positively endorsed. The composition of MINI makes it easier to use also by non-academics, in multi-center clinical trials for example in psychopharmacology, or for clinical work in a psychiatric ward.
4. Coping Strategy Checklist [96] (CSCL- Hindi, Appendix V): It is a self-administered yes/no checklist with high reliability. It lists coping strategies used by people to deal with the situations which trouble them. The checklist covers all stressors and is not disease-specific. The 36 strategies have been factored into five factors: denial, internalize, externalize, emotional outlet, and anger. A higher score indicates greater use of coping strategies. It is frequently used in Hindi translation. It was translated into Hindi with Cronbach's alpha of 0.64 in PGIMER Chandigarh. The scale has good face validity, inter-rater reliability, internal consistency and agreement between English and Hindi versions.

Statistical Analysis

The observations were statistically analyzed by using software Statistica 7.0 & SPSS 20. Frequencies, percentages and chi-squares were computed to assess the socio-demographic, criminological, psychiatric history variables and evaluated the psychiatric morbidity and co-morbidity among prisoners. Means, standard deviations and t-tests were computed to compare the difference between coping skills among prisoners with psychiatric illness and without psychiatric illness. In order to see the relationship among the coping skills, Pearson product-moment correlation was calculated. The results were presented in form of graphs and tables. P value ≤ 0.05 was considered as significant and P value ≤ 0.01 was considered as highly significant.

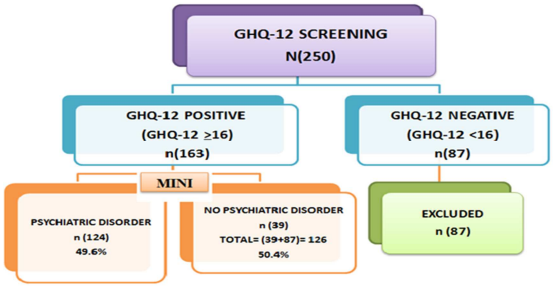
RESULTS

A Total of 250 jail inmates were enrolled in the study conducted over a period of 18 months. All the 250 (100%) prisoners were males. Majority of the prisoners were in the age group of 30-39 years (31.6%) followed by those age group of 40-49 years (23.6%), Only a minority (2.4%) were in the age group of 18-21years. Almost one third had studied till primary level 72 (28.8%) and 60 (24%) were matric.56 (22.4%) were above matriculation. Rest of the subjects was illiterates. More than half were employed 189 (75.6%) including those in government and private jobs or self employed. 61 (24.4%) were unemployed. Most of our subjects 164 (65.6%) hailed from rural areas. Nearly less than half 86 (34.4%) belonged to nuclear families. More than half 191 (76.4%) were married. 127 (50.8%) prisoners had 1 or 2 children, 58 (23.2%) had more than 2 children and the remaining 65 (26%) had no children. Only 4(1.6%) convicts had past history of

psychiatric illness with 3 (75%) receiving out-patient psychiatric treatment and only 1(25%) received in-patient treatment. Only 2(0.8%) had a family history of psychiatric illness in first degree relatives [Table 1]

Out of the 250 prisoners screened using GHQ-12, 163 (65.2%) scored 16-32 and 87 (34.8%) scored 0-15 on General Health Questionnaire-12. Those with a GHQ-12 score of 16-32 were classified as GHQ positive and were further subjected to diagnostic assessment for psychiatric morbidity using Mini International Neuropsychiatric Interview (MINI). Those with GHQ score of 0-15 were classified as GHQ negative and were not assessed subsequently on MINI. Further Coping Strategy Checklist was applied on all the selected sample (250 prisoners) [Table 2]

The study revealed that significant numbers of prisoners were suffering from psychiatric disorders. 124 inmates were found to have psychiatric illness using Mini International Neuropsychiatric Interview giving a net prevalence of psychiatric morbidity to be 49.6% whereas 126(50.4%) were free from any psychiatric disorder [Table 3]. Mood disorders and anxiety disorders were the two most commonly diagnosed psychiatric disorders among prisoners. Among the mood disorders, Dysthymia emerged as the most common psychiatric diagnosis reported in 31.3% of the prisoners. After Dysthymia, Major Depressive Episode and Mania were the next common diagnosis present in 26 (15.95%) and 16 (9.8%) of the prisoners respectively. 4.3% of the prisoners had Suicidality. Generalized Anxiety Disorder was the most common anxiety disorder diagnosed in 25(15.33%) of the convicts. Obsessive compulsive disorder was found in 8(4.9%) of the prisoners. 3 (1.8%) prisoners had Panic disorder and PTSD, and only 1(0.6%) prisoner was suffering from Agoraphobia. 20 (12.3%) prisoners were dependent on other substances (non-alcohol)(most commonly Cannabis and Opioid followed by Benzodiazepines). 19 (11.7%) prisoners were diagnosed with current alcohol dependence. 10 (6.1%) of the convicts had current Psychotic disorders. 5(5.5%) prisoners were found to have Antisocial Personality Disorder. None of these prisoners were found to have social anxiety disorder, Agoraphobia, eating disorders (anorexia and bulimia) and PTSD. Dysthymia, Major Depression, Generalized Anxiety Disorder, Psychosis and Non-alcohol substance dependence were the top 5 current psychiatric diagnosis among convicts. 43 (26.4%) of the convicts had more than one diagnosis. Most common comorbid diagnoses were alcohol dependence and Generalized Anxiety Disorder, Depression and Suicidality, Non-alcohol substance dependence and Dysthymia, Depression and Dysthymia, non-alcohol substance dependence and Generalized Anxiety Disorder [Table 4]



Flowchart Representation of assessment of Psychiatric Morbidity among prisoners N=250

This flowchart summarizes that the final sample of 250 convicts was subjected to GHQ-12 screening. Out of 250, 163 were screened GHQ-12 positive and were further subjected to diagnostic assessment using MINI. 124 out of these 163 were found to have some psychiatric disorder on MINI whereas 39 prisoners had no psychiatric illness. Combining these 39 and 87 GHQ-12 negative, a total of 126 out of 250 convicts were free from any psychiatric disorder, whereas 124 out of 250 had psychiatric disorder yielding a net prevalence of psychiatric morbidity to be 49.6%.

Table 1: Socio-Demographic Characteristics And Psychiatric History Of Prisoners (N=250)

Variables	Frequency (N)	%Age
Gender		
Male	**250**	**100**
18-21	6	2.4
22-29	51	20.4
30-39	79	31.6
40-49	59	23.6
Above 50	55	22
Illiterate	62	24.8
Primary	72	28.8
Matriculation	60	24
Higher Secondary	42	16.8
Graduation	13	5.2
Post Graduation	1	0.4
Employed	189	75.6
Unemployed	61	24.4
Rural	164	65.6
Urban	86	34.4
Single	54	21.6
Married	191	76.4
Separated	1	0.4
Divorced	2	0.8
Widower	2	0.8
Nuclear	86	34.4
Joint	160	64
Extended	4	1.6
Nil	65	26
1-2	127	50.8
3 & Above	58	23.2
Yes	4	1.6
No	246	98.4
Previous In - Patient Treatment	1	25
Previous Out -Patient Treatment	3	75
Yes	2	0.8
No	248	99.2

Table 2. Results of GHQ-12 Screening Of Prisoners N=250

GHQ-12 Screening	Frequency (N=250)	Percentage
Positive	163	65.2%
Negative	87	34.8%

Table 3: Prevalence of psychiatric morbidity among prisoners N=250

Mini	Frequency (N)	Percentage (%)
No psychiatric disorder (Including 87 GHQ-12 Negative)	87+39=126	50.4%
Psychiatric disorder	124	49.6%
Total	250	100

Table 4: Prevalence of Current Psychiatric Disorders among GHQ Positive Prisoners N=163

	Disorders	Male Prisoners (n=163)	
		Frequencies (n)#	%age
	Major Depressive Episode	26	15.95%
	Dysthymia	51	31.3%
	Suicidality	7	4.3%
	Manic Episode	16	9.8%
	Hypomanic Episode	12	7.4%
	Panic Disorder	3	1.8%
	Agoraphobia	1	0.6%
	Social Phobia	0	0%
	Obsessive compulsive disorder	8	4.9%
	Posttraumatic Stress Disorder	3	1.8%
	Generalized Anxiety Disorder	25	15.33%
	Alcohol Dependence	19	11.7%
	Substance Dependence (Non-Alcohol)	20	12.3%
Psychotic Disorders	Psychotic Disorders/Mood Disorder With Psychotic Features	10	6.1%
	Anorexia Nervosa	0	0%
	Bulimia Nervosa	0	0%
Personality Disorder	Antisocial Personality Disorder	9	5.5%
Current Disorder (Single)		43	(26.4%)
Disorder With Comorbidity		74	(45.4%)
2+ Current Disorders		7	(4.3%)
No Current Disorder		39	(23.93%)

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

All Inmates react differently to the pressures of the prison environment and some may adapt successfully to such an environment while others may not. Prisoners with psychiatric disorder scores more on domains of coping skills, viz., denial (t=8.03; p<0.01) and internalization (t=6.00; p<0.01); lowest scores on domain of coping skills, viz., externalization (t=10.47; p<0.01) as compared with prisoners with no psychiatric disorder. Further, prisoners with psychiatric disorder scored more on general health questionnaire (t=19.87; p<0.01) as in comparison of prisoners with no psychiatric disorder. In addition to this, there was no significant difference between prisoners with psychiatric disorder versus prisoners without psychiatric disorder on domain of coping skill, viz., emotional outburst and anger. Thus, findings revealed that prisoners with psychiatric morbidity used maladaptive coping skill, viz., denial and internalization as compared to prisoners without psychiatric morbidity.[Table 5]

Table 5: Means, S.D.'S And T-Test Values For Psychiatric Disorder (N=124) Versus No Psychiatric Disorder (N=126) On Domains Of Coping Skills And Ghq Scores

Variables	Psychiatric disorder (N=124)		No Psychiatric disorder (N=126)			
	Mean	Sd	Mean	Sd	Se	T-Values
Denial	9.47	1.27	7.06	2.57	0.30	8.03**
Internalization	9.49	1.48	6.55	2.46	0.49	6.00**
Externalization	1.29	0.84	3.07	1.45	0.17	10.47**
Emotional Outlet	3.19	0.80	3.01	0.93	0.10	1.80
Anger	1.23	1.10	1.24	1.06	0.14	0.07
Ghq Scores	21.86	3.27	12.52	3.91	0.47	19.87**

Significant values at 0.01 level, p<0.01**

DISCUSSION

The psychopathology of criminal behavior has long been a subject of interest for the scientists and has been explained in terms of social disorganization, cultural conflicts and psychological determinants.[11] Different research findings had suggested that the prevalence of psychiatric disorders are more common among the prisoners and the distribution and prevalence of mental disorder in prisons differs considerably from the general population. A wide range of research particularly in western context, constantly shows that prisons are afflicted by the mental disorders. Research in India has not yet elaborated the causes and precursors in this area. The present study was thus, stimulated to explore this area and identify the mental health problems in prisoners in the Indian setting, especially in Punjab. Even, there is paucity of exploration in the area of coping strategies used by prisoners, especially in prison settings and how it is related with psychiatric morbidity.

The present study also revealed widespread area of the prevalence of co-morbidity of psychiatric disorders among prisoners. Co-morbidity is the presence of one or more additional disorders (or diseases) co-occurring with a primary disease. The additional disorder may also be a behavioral or mental disorder. Currently, mental health problems are conceptualized as patterns of behavior or thought that are associated with significant disability, distress, loss of individual freedom, or adverse events and which arise from dysfunction within the individual.[12] These problems can encompass a wide range of behaviors including substance use, mood disturbances, anxiety, and disturbances in thought and perception. Within psychiatry, comorbidity is commonly used to refer to the overlap of two or more psychiatric disorders.[13,14]

The present study has also explored as to how prisoners cope with stress of imprisonment. Coping strategies refer to the efforts made to "master, reduce or tolerate the demands created by stress". In the present study, results of t-tests revealed that prisoners who have better general health use adaptive coping strategies as compared to prisoners with poor health status. The reasons might be that the male prisoner who already try to use some adaptive coping strategies such as externalization and emotional outlet, have a better health status as compared to prisoners who can't express their emotions properly, and their denial to cope up with the situation. There are studies which support relation of general health and coping strategies among prisoners. Inmates who had received long sentences and had already served a lengthy time in prison, experienced less stress. Since prison inmates have higher levels of stress, anxiety and suicide than the general population, it is important for institutions to aid the coping of inmates. It has been found that inmates who are new to prison, but anticipate serving long sentences in prison, experience the most stress.[15]

The results also revealed a significant difference between the uses of coping strategies among prisoners with psychiatric disorder and without psychiatric disorder. It is a fact that the prison environment is highly stressful and often predisposes the prisoners to develop mental disorders. Many a time, the psychiatric problems of prisoners go undetected and untreated.

Conditions in jails often test or demand effective coping skills and this may lead to adjustment disorders. High rate of suicide was also reported among the prisoners.[16-18] Individuals with antisocial personality problems have an increased chance of conflict with the criminal justice system. Substance abuse, on several occasions leads to increased risk of violent behavior. Considerable evidences indicate a high rate of substance related disorders among the prisoners Imprisonment can have powerful effects on health, especially if it instills stigma. It is important to teach the coping strategies to the prisoners in order to cope well with the prison environment, to preserve their health. There are very few researches that show the relationship between coping strategies among psychiatric ill prisoners and among non-psychiatric ill prisoners.

The current study also revealed that in the different aspect of coping strategies, i.e. prior employment status, the employed prisoners tend to have a better way to cope with the situation and can restore their health in much better ways as compared to unemployed prisoners. The reasons could be that, employed prisoners felt their future to be secure after released from jail. The unemployed prisoners felt that they didn't have future after imprisonment, as to how they would earn money after imprisonment.

Findings obtained from the correlations show that the male prisoners are more likely to use denial and internalization coping that is significantly related with poor general health of prisoner. When privacy and adequate personal space are denied to inmates, they become particularly stressed. When they enter a stressful prison environment, psychological symptoms from earlier traumas, such as intrusive memories, denial, and emotional numbing, return. This emotional response is thought to increase vulnerability to further violence, repeating a cycle of traumatic experience and response.

Coping role seems to play among youths in prison. Those who engage in more activity reported that they found it easier to cope with the boredom and isolation of being confined to prison.[19] Thus, these findings strongly demonstrated that 'inactivity can compound difficulties in coping'. This may have important implications for young people who are remanded in custody.

The findings of the present study have certain limitations. The participants were recruited from a single prison of the country and only male convicts were taken for this study. Female convicts should be taken in the study sample so that gender difference on psychiatric morbidity and coping strategy can also be assessed and these finding can suggest the role of gender differences on socio-demographical variables and criminological variables. The study include MINI' which although has several important strengths, including its validity, relatively brief administration time, acceptability to participants, ease of use and use in other prison search, but it does not examine AXIS II disorders except Antisocial Personality Disorder and therefore underestimate the extent of psychiatric morbidity in relation to other personality disorders. Further, we had no access to detailed previous psychiatric records or collateral informants. The study does not include the family environment variables such as family conflicts, family attitude towards prisoner, responsibilities, detailed marital history, satisfaction with relationship with family, etc. Due to the cross sectional nature of

study, we could not evaluate the long term course and outcome of the illness in prisoners.

CONCLUSION

Prison inmates are far more neglected population as far as their mental health is concerned. Our study revealed widespread area of the prevalence of psychiatric morbidity disorders among prisoners. The health care community should ,by all means focus on mental health issues among this neglected society and establish specially designated programes in all jails in the country. Future studies should be planned and carried out in a longitudinal design in order to examine the natural course of illness and to study the changes in psychiatric morbidity in these prisoners over a period of time after psychopharmacological or psychological interventions.

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