

Psychiatric Co-morbidities and Management Outcomes in Mentally Ill Prisoners

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ABSTRACT

Background: The occurrence of psychiatric disorders is more in the prisoners than in general population. Co-morbidity is seen to be an important and complex entity in clinical assessment of mental state competence (diminished mental capacity, temporary insanity and insanity) in the offenders at the time of the offence. It has a great role in determining all possible options in future treatment of violent offenders. This research article is focused on the co-morbid psychiatric diagnoses and the treatment outcomes in the mentally ill prisoners referred to the tertiary care mental health facility.

Methods: Total 100 mentally ill prisoners referred to the tertiary care psychiatric hospital during the study period (Jan 2015 - Dec 2015) was the sample size. It was a prospective study and the sampling method was of the purposive type.

Results: Besides their primary diagnosis, the referred prisoners had more than one co-morbid psychiatric diagnosis in 46% of the cases. The most frequent co-occurring conditions were learning disabilities, personality disorders, and substance use disorders. The outcomes for the psychiatric conditions were positive as patients responded well to the line of management.

Conclusion: This study was provided valuable data to understand the mental health needs and the treatment gaps in this population so as to plan adequate services to tackle these issues.

Key-words- Mentally ill prisoners, Personality disorders, Psychiatric co-morbidities, Treatment outcomes, Substance use disorders,

INTRODUCTION

Psychiatric Disorders are commonly seen in the offender population. Co-occurrence of substance use disorders with other psychiatric disorders is a frequent entity. Co-morbidity or Dual diagnosis refers to those cases in which another distinct independent clinical diagnosis occurred during the clinical course of a patient having a primary disease ^[1]. Psychiatric co-morbidity may be defined as the co-occurrence of two psychiatric disorders at any point in the same person occurring longitudinally or cross-sectionally during their life span. It does not necessarily mean that one is caused by the other. These patients form an important and challenging strata of patients associated with poorer outcomes in clinical courses, such as increased risk of relapse, re-hospitalization, life events, self harm and violence, medical co morbidity, homelessness, recidivism, family discord ^[2], economic burden and public healthcare delivery system burden ^[3,4].

Hence, such a population requires a more holistic approach when dealing with their mental health issues. Treatment for COD is more effective if the same clinician helps the individual with all his co-morbid conditions thus the individual gets one consistent, integrated idea about his treatment and outcome ^[5]. This study was taken up with this aim of determining the prevalence of dual diagnosis and the clinical outcome in the mentally ill prisoners that were referred to a tertiary care psychiatric unit.

MATERIALS AND METHODS

Source of data- All the mentally ill prisoners referred by the jail authorities to the tertiary care psychiatric unit during the study period (Jan 2015- Dec 2015) formed the sample of the study.



Method of collection of data- This was a prospective study with the sampling method used being purposive type. Total 100 sample size was taken for this study.

Inclusion criteria- All prisoners referred to the tertiary care psychiatry unit during the study period.

Exclusion criteria

1. Non consenting prisoners were excluded
2. Patients below 18yrs and above 60yrs of age

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3. Patients with chronic medical ailments like Diabetes, Hypertension, chronic heart ailments etc were not included in the study.

Written Informed consent was obtained from the individuals after explaining the purpose of the study. The assessment was done by a consultant psychiatrist. The data was entered on a case sheet record, which is ideal for collection of such data. The diagnosis was made as per ICD-10 criteria. The patients were further assessed by experienced clinical psychologist for IQ assessment and psycho-diagnostics.

Statistical Analysis- Pearson’s Chi-square test and repeated measures ANOVA was used for comparing the variables among different subgroups. All statistical methods were carried out through the SPSS for Windows (22 Version, IBM). The values were compared at 0.05 level of significance for the corresponding degree of freedom and P<0.05 was considered statistically significant.

RESULTS

A total of 100 mentally ill prisoners referred to the tertiary care psychiatric unit formed the sample of this study, in which 92 were males and 8 females taken. Most patients were in the age group of 20-39 years (N =70) with a breakup of 20-29 years, N=45 and 30-39 years, N=25. The mean standard deviation for age within the sample group was 31.8(±10.8) years. The socio demographic variables are summarized below in Table 1.

Table 1: Socio demographic variables in referred Prisoners (N=100) Variable Factors

Age (Years)		
Years	Frequency(N)	Percentage (%)
18-29	54	54.0
30-49	38	38.0
50-69	08	8.0
Residence		
Rural	70	70.0
Urban	30	30.0
Gender		
Males	92	92.0
Females	08	8.0
Marital Status		
Single	61	61.0
Married	39	39.0
Duration of stay in prison		
Below 1 year	59	59.0
1- 5 years	35	35.0
>5years	06	6.0

Education		
Illiterate	03	3.0
Primary/ Secondary	65	65.0
HSSC/ Graduation	29	29.0
Post Graduation	03	3.0

Socioeconomic status (Kuppuswamy)		
L	65	65.0
M	35	35.0

Table 2, depicts the prevalence of Major Psychiatric Disorders (ICD-10) diagnoses in the study group. Substance use Disorder was the most frequent diagnosis seen N= 45 (45%). Adjustment disorders formed the next largest group N= 36(36%). The patients in other categories were mood disorder 5%, Nil psychiatry 5%, psychosis 4%, and 5% were other uncommon diagnosis (2 cases were organic brain syndrome, 2 were OCD cases and one was delusional disorder).

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

S. No		Frequency (N)	Percentage (%)
1	Substance use disorders	45	45.0
2	Adjustment Disorders	36	36.0
3	Mood Disorders	05	5.0
4	Psychosis	04	4.0
5	NIL Psychiatry	05	5.0
6	Others	05	5.0

Table 3 described the co-morbidities present along with the primary diagnosis. The most frequent co-morbid condition seen in this group of patients was below average intellectual functioning. 29% of the inmates were having borderline IQ (slow learners) and 9% were with mild mental retardation. Another 31% of this group had personality disorders (cluster B personality). 25% of the cases had substance use disorder as co-morbidity and 2% had seizure disorder. Some of the inmates had more than two co-morbid conditions. Among the total sample group, 54% of the cases did not have any psychiatric co-morbidity.

Table 3: Co-morbid conditions in referred prisoners

Diagnosis	Frequency
Learning Disability:	
1. Slow learners	29
2. Mental retardation	09
Personality Disorders	31
Substance Use Disorder	25
Seizure disorder	02

Table 4 shows the outcomes of the psychiatric referral. 59% of the patients received medications for the treatment of their psychiatric condition. 27% of the cases were severe enough to warrant admission for their management. Only 5% of cases were treated with psychotherapy alone as a treatment modality. And another 6% were treated simultaneously with medications and psychotherapy. All patients followed up regularly till resolution of their symptoms.

Table 4: Management strategies in referred prisoners

	Frequency	Percent	Cumulative Percent
Admit and Medication	27	27	27
Both (Med +Psy)	6	6	33
Medications only	59	59	92
Psychotherapy	5	5	97
Nil	3	3	100

DISCUSSION

There is enough evidence to prove that the prevalence of psychiatric disorders is far more in prisoners than in the general population [6,7]. The common reasons cited for the increase are the harsh prison conditions causing acute stress [8], the current increased tendency to criminalize severely mentally ill persons [9], frequent delays in trial process and paucity in mental health services for the incarcerated [10]. In our study, sample 95% were seen to have met an ICD-10 diagnosis of psychiatric illness and only 5% were with nil psychiatric diagnosis, the reason being early detection and referral of these cases for treatment. The State prisons are regularly provided with mental health services on-site with prison clinics, regular trained psychiatric nursing services for patient monitoring in prison and tertiary care psychiatric services for emergency needs [11].

The commonest diagnosis in this study group was substance use disorder 45%, which is in keeping with other studies in India by Kumar *et al.* [12] and Birmingham *et al.* [13], and Steadman *et al.* [14] abroad. Adjustment Disorders (36%) formed the next largest group, were higher than seen in the studies done by Ayirolimeethal *et al.* [15] and Fido *et al.* [16]. Psychosis and depression were infrequent diagnosis in the present study. This was in keeping with other Indian [17] and Western studies [10,18]. Regarding Co-occurring psychiatric disordersm our study sample (46%) was seen to have more than one psychiatric diagnosis at the time of assessment. The most frequent co-morbid condition encountered was of borderline IQ (Slow Learner) in 29% and mild mental retardation in 9%. Personality Disorders were seen in 31% cases, Co-morbid substance use disorder was diagnosed in 25% of the cases and 2% had seizure disorder. Studies by Baillargeon *et al.* [19]; James and Glaze [20]; and Grant *et al.* [21] were also referred to the exceedingly high prevalence of co-morbid substance use disorders and mental illness in prisoners. Among the studied sample, 54% of cases did not exhibit any diagnosable co-morbidity. The outcome of psychiatric referrals was generally very encouraging. 27% of our patients were severe enough to need inpatient care. Most patients (59%) were managed by medications alone. Another 6% of the cases were treated with both psychotherapy and medications. 5% of the referrals were managed with psychological interventions alone and 3% cases did not need any sort of intervention. Service integration that is combination of medication and other multidisciplinary team intervention has shown to be more effective for specific population to get better outcomes [22].

Limitations and implications for further research- The study was conducted in a hospital setting therefore does not represent actual prevalence in prison population. It was a cross-sectional hospital based study with all its limitations. However the study was taken up with a sincere concern to understand the mental health needs of the prisoners. Future studies will be aimed at overcoming these limitations by actually working with the prison population at the place of confinement. Long term follow up for the outcomes would lead to better insights into their conditions.

CONCLUSIONS

This study demonstrated that there was a high prevalence of mental illness and co-morbidities prevailing in prisoners. Since early interventions have a very good outcome the prison authorities need to encourage early detection and treatment. Having staff that were trained for this purpose is recommended. When a person is taken into custody, he should be assessed for mental health illness and co-morbidities. Understanding to what extent these co-morbidities can lead to increased risk of recidivism is important for criminal justice and psychological health fields. Such information will serve to develop targeted interventions to reduce mental health issues in prisoners.

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