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Prevalence of Psychiatric disorders in an urban slum

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Abstract
Background: *Mental disorders are on the increase due to changing life styles.*
Materials and Methods: *A cross sectional study was conducted in which 423 people were screened with the help of a pretested questionnaire by SRQ-20. All the subjects who scored 7 and more in SRQ-20 were further evaluated using M.I.N.I. Plus (Mini International Neuropsychiatric interview plus). 101 people were observed to have CMD for the second phase.*
Result: *Prevalence of common mental disorders was 238.7/1000 population. 76.12% reported typical response within 7 in SRQ-20 scoring. 22.76% of the subjects were found to be Depressive with 15.84 % Depressive females. Alcohol related disorders were found to be 24.75% which is predominantly found in males. On the other hand drug dependence/abuse 33.66% were found in subject, 3.97% suffering from Obsessive compulsive disorder, 8.95% from Psychotic disorder, 11.88% Generalized anxiety disorder, 6.93% from Other mental disorder, 5.96 % Phobia and panic disorders in 3.97 %.*
Conclusion: *There is a need to consider wider impact of common psychological health problem in urban slum community. CMD (Common mental disorders) can be a major contributor to slum's overall burden of functional impairment.*
Keywords: *Common mental disorder, Urban slum, SRQ-20, M.I.N.I*

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I. Introduction

Epidemiological transition and media revolution consequent to urbanization, industrialization, migration and changing lifestyles along with improvements in health care, has brought to the light, new challenge of behaviour linked problems and lifestyle related problems. The social, biological and psychological strength of the past are slowly being replaced by a fragile life pattern, making them more vulnerable to mental health problems. [(1)] The prevalence of mental disorders which was reported in previous epidemiological surveys can be considered as lower estimates than accurate reflections of the true prevalence in the population. Indian population suffer from serious mental disorders and 5-10% from moderate disorders, requiring psychiatric help. [(2)] Epidemiological data reports that up to 20% of children and adolescents have a disabling mental illness, with suicide being the third leading cause of death among adolescents, and that up to 50% of all adult mental disorders have their onset in adolescence. [(3)] Depression, alcohol use disorders, schizophrenia and bipolar disorders constitute the top 10 conditions contributing to the global burden of disease among the age group of 15–44 years. [(4)]There is a need to assess the prevalence of mental disorders among the urban slum community. This study was undertaken to estimate 12-month prevalence rates of common mental health disorders (as per ICD-10 of WHO-1993) among the dwellings of urban slum and its correlates.

II. Material And Methods

Cross sectional study was carried out in an urban slum community from March 2014 - March 2015 in field practice area of urban health center under SRI AUROBINDO MEDICAL COLLEGE & P.G. INSTITUTE INDORE (M.P). The reference population selected was above age group of 16 years. Institutional Research and Ethical Committee approval of SAMC & PGI, was obtained before starting the study. Consent was taken from the head of the family and persons who were interviewed during the study. Sample size was 294, calculated considering the prevalence of urban population of 70.5/1000 [(5)]. A total of 150 houses were visited of which 4 houses were found locked and 13 persons were unavailable for interview.

Pre-tested semi structured questionnaire SRQ-20 by WHO were used for the screening of CMD. A total of 467 people were visited out of which 44 were below 16 years of the age and those not willing to participate in the study were excluded. The remaining 423 people were included for study. Head of the family was interviewed initially, followed by individuals. The core design of the study was door to door enquiry of each family as a unit and each individual member of the family separately.

The present study was done in two phases the first phase was the screening phase in which history, clinical examination, demographic profile along with SRQ-20 was administered in order to measure the presence

of mental illness of the patients. SRQ-20 consists of 20 questions with a reference period of the preceding 30 days. SRQ comprises question related to cognitive symptoms, anxiety, depression and manifestation as somatic symptoms. [6] All subjects who scored 7 and above were selected for the study as per WHO guide line (2007).

Second phase - All the subjects who scored 7 and more in SRQ-20 were further evaluated using M.I.N.I. Plus (Mini International Neuropsychiatric interview plus). 101 people were observed to have CMD for the second phase.

Results were tabulated and statistical analysis was done using Microsoft excel. The statistical evaluation included descriptive statistics, frequencies and percentages were calculated for the data

III. Result

Table 1 : Distribution of common mental disorders among screened study subjects.

SRQ-20	Male		Female		Total	
	(n=423)					
	N	%	N	%	N	%
Disorder absent	163	38.53	159	37.58	322	76.12
Distress	23	5.4	45	10.63	68	16.07
Severe distress	12	2.83	21	4.96	33	7.80
Total	198	46.81	225	53.19	423	100.00

x^2=7.93, ***p*** value = 0.019*

Table 2: Distribution of study subjects according to various common mental Disorders .

Common mental Disorders	**Male**		**Female**		**Total**	
	N(35)	%	N(66)	%	N(101)	%
Depressive	7	6.9	16	15.84	23	22.76
Panic disorder	1	0.99	3	2.97	4	3.97
Phobia	2	1.98	4	3.97	6	5.96
Obsessive compulsive disorder	1	0.99	3	2.97	4	3.97
Alcohol dependence/abuse	23	22.77	2	1.99	25	24.75
Drug dependence/abuse	22	21.78	12	11.88	34	33.66
Psychotic disorder	2	1.98	7	6.93	9	8.95
Generalized anxiety disorder	3	2.97	9	8.95	12	11.88
Other mental disorder	2	1.98	5	4.96	7	6.93

***There was more than one Psychiatric co-morbidities seen in study subjects.**

Table 3: Distribution of study subjects with common mental disorders according to use of Alcohol, tobacco, opioid, and other substance use.

Substance use	Male		Female		Total	
	N (35)	%	N(66)	%	N(101)	%
Alcohol	23	22.77	2	1.98	25	24.75
Tobacco	16	8.92	12	11.88	28	27.81
Opioid	3	2.97	0	00	3	2.97
Other substance's	3	2.97	0	00	3	2.97
No substance use	8	7.92	51	50.49	58	57.44

***There is one or more substance use seen in subject.**

The table 1 shows 76.12% reported typical response within 7 in SRQ-20 scoring. Common mental disorder was found in 16.07% with SRQ-20 scoring between7-13. Severe distress was found in 7.80 % of the population with SRQ-20 score >14. Among psychological distress group females scored higher with 10.63%. In the severe distress group again females scored higher with4.96 %.this is statically significant.

A total of 101 subjects were found to have CMD after screening the population and its prevalence is 238.77 per thousand. The prevalence of male is 176. 76 and female is 293.33 per thousand.

Table 2 describes the distribution of various disorders in the population under study. 22.76% of the subjects were found to be Depressive with 15.84 % Depressive females. Alcohol related disorders were found to be 24.75% which is predominantly found in males. Drug dependence/abuse was found in 33.66% subject. 3.97% of the people were found to suffering from Obsessive compulsive disorder, 8.95% were found to be suffering from Psychotic disorder. 11.88% people were found to be suffering from Generalized anxiety disorder, 6.93% were found to be suffering from Other mental disorder, 5.96 % were found to be suffering from Phobia and panic disorders in 3.97 % of the people.

Table 3 describes the alcohol, tobacco, opioid and other substance use among people with common mental disorders. 22.77% among males abused alcohol and 1.98% among females. Among people with common

mental disorder 27.81 % abuse of tobacco and nicotine was recorded. 2.97% male subjects were using other substance and 2.97 % male was using opioid.

IV. Discussion

Prevalence of CMDs in slums is found at a higher rates as compared to population-based surveys from non-slum communities in India, even when our data were compared with that of other study disaggregated by age and gender to allow for more precise comparisons. The other population based study was done in Mumbai, and the results was similar to that of our study.(Jain & Aras,[8] 2007, Ramnath Subbaraman,2012[9])These findings suggest that slums may suffer from a higher burden of CMDs than non-slum communities indicating role of various co morbid factors in its causation.

Prevalence of people found to be suffering from CMD was 24% by T. S. Sathyanarayana Rao et al 2011[4], Ganguli H.C. et al. [3]2000 in Bangalore Pooled data from 15 selected studies with the prevalence of 73.0/1000, Another study by Premarajan *et al*.[11] in 1993 reported a prevalence of 9.94% (99.4/1000). A trend of continuous increase in the prevalence of psychiatric disorders with time can be noted by the above and our study findings.

Various disorders

The distribution of various disorders in the population under study has showed 22.76% of the people were found to be suffering from Depression with 15.84 % of Depressives among females. Alcohol related disorders were found to be 24.75% which is predominantly found in males. 3.97% of the people were found to suffering from Obsessive compulsive disorder, 8.95% were found to be suffering from Psychotic disorder.11.88% people were found to be suffering from Generalized anxiety disorder, 6.93% were found to be suffering from Other mental disorder, 5.96 % were found to be suffering from Phobia, panic disorders in 3.97 % of the people which is similar to other study done at urban slum of Mumbai by Ramnath Subbaraman et al, in year 2012[10], and T. S. Sathyanarayana Rao study in south India population in 2011[4], Their study showed 18.50 % depressive disorder, alcohol dependence disorders 49.50%, Generalized anxiety disorder 4.50%. Similar finding was seen in Dube KC. 1970[16], Sethi B B in 1980[14].

Alcohol related Disorders

Twenty three men were found to be consuming alcohol (22.77 %) and 2 women (24.74 %). Other Studies reported a prevalence of 13 per thousand but in west Bengal Nandi et al gave a figure of 0.94/1000 . Dube and Handa from Agra reported 22.8 /1000[16]. Thacore et al 1972 from Lucknow reported 18.55/1000[17].There were more number of cases among those who are illiterates, those occupied in unskilled jobs like daily wage laborers and those who were married and who are at home which is similar to study by T. S. Sathyanarayana Rao and Ramnath Subbaraman et al, 2012.

10. Smoking

Twenty eigth people were found to be tobacco user (27.81%), 12 cases were identified among women (11.88%) and (15.54%) among men. Other studies by T. S. Sathyanarayana Rao, Ramnath Subbaraman et al, 2012 and Goswami A et al in 2005 have also reported a higher prevalence of smoking in men than in women.

V. Conclusion:

Our study conclude that there is a need to consider wider impact of common psychological health problem that urban slum community is facing today which is largely a neglected part of today's modern society. CMD can be a major contributor to slum's overall burden of functional impairment. Almost one third of total population dwelling in urban slum community suffered from CMD which is evidence of psychological health problem. We found that the impact of socio-demographic variable have been directly attributing to the causation of CMD. We also found that CMD was commonly affecting the middle age group (25-55), low socio-economic status, female gender, uneducated, unemployed, co-morbid medical condition, substance abuse, unmarried, widow and persons with poor marital harmony were the major sufferer's. As on today these urban slum community is facing major health problem both mental and physical , based on the prevalence of CMD, we conclude that their mental health requires attention, which is an essential part of individual's health.

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