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Unravelling the Mental Health Triggers in Young Men Living in Delhi's Slums

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Abstract

Youth aged 15–24 years represent nearly one-fifth (19.1%) of India's population. In urban slums, poor living conditions and socio-economic hardships contribute to rising mental health concerns. Young men in these settings face stress from poverty, overcrowding, unemployment, and crime exposure. This study assesses the prevalence and determinants of mental health among youth in Delhi's slums. A cross-sectional study was conducted in 2021–2022 among 517 males aged 15–24 years using multistage sampling. Data were collected using a semi-structured interview schedule and WHO-GHQ-12 tool, scored on a Likert scale, to screen for distress, including symptoms of depression, anxiety, social impairment, and hypochondria. Analysis involved descriptive statistics, Chi-square tests, and ordered logistic regression. The GHQ-12 demonstrated high reliability (Cronbach's alpha = 0.93). Findings revealed that over half of the youth experienced moderate (37.5%) to severe (36.0%) mental health issues. Youth aged 18–24 years were twice as likely to suffer from severe mental health problems compared to younger adolescents. Higher educational attainment, parental tobacco and alcohol use, caste, and work status emerged as significant determinants. Strengthening mental health services, raising community awareness, integrating school-based interventions, and involving parents are crucial strategies to promote resilience and improve mental well-being among slum-dwelling youth.

Keywords

Youth, Mental health, WHO-GHQ12, Slums, Delhi

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Introduction

WHO defines mental health as a "state of mental well-being that enables people to cope with the stress of life, to realize their abilities, to learn well and work well and to contribute their communities. Mental health is an integral component of health and well being and is more than the absence of mental disorder". Mental health disorders have been considered a significant global disease burden (WHO, 2018; IMHE, 2019). According to the WHO mental health report 2022, mental disorders are the leading cause of "years lived with disability" and rank second in the total global years lived with disabilities. Globally, one in seven 10-19 years olds experiences a mental disorder accounting for 15 percent of the global burden of disease in this age group (WHO, 2021).

India is the world's suicide capital with over 2.6 lakh cases of suicide in a year (WHO, 2022) and it is alarming to know that the prevalence of mental health disorders has risen steadily in particularly in India in recent years, contributing to the escalating public health concern. Statistics show that 50 percent of mental health conditions begin by age 14 and 75 percent of mental health conditions develop by age 24. Adolescence and youth is a special and influential period of life. Adolescents may be more susceptible to mental health issues as a result of physical, emotional, and social changes, such as being exposed to poverty, abuse, or violence (Akbar et all, 2024).

Recognizing the importance of mental health, Government of India (GOI) has been implementing the National Mental Health program (NMHP) since 1982 to address the huge burden of mental disorders and tackle the shortage of qualified professionals needed in the field of mental health (Director general of health services, 1982). Recently Ministry of health and family welfare, GOI also launched its National Tele Mental Health Program (component of NMHP) in Budget session 2022, Tele Mental health Assistance and Networking Across States (Tele MANAS) to provide equitable, accessible, affordable and quality mental health care through 24*7 tele-mental health services. Despite these efforts there are a number of barriers to taking care of the mental health needs of the people in India particularly adolescent and youth population which is considered as the most vulnerable group including lack of services, lack of awareness, myths, low priority to mental health etc.

Studies conducted in India and in India's different states have highlighted that the problems of mental health disorders could be more serious in street or slum adolescents as they are having unfavorable psychosocial environmental factors like low socioeconomic living conditions, educational and recreation deprivation, child labour, etc. (Jangra & Singh, 2018). A number of studies have documented the low mental health conditions of slum dwellers, which they attribute to their precarious socioeconomic circumstances and poor infrastructure of the slums (Hijol et all, 2024). Rapid urbanization and socio-economic inequalities have led to the expansion of informal settlements, where individuals face poor living conditions, financial insecurity, and social marginalization, all of which contribute to mental health challenges (Patel et al., 2018). Studies suggest that young men (15–24 years) in these environments experience heightened stress, anxiety, and depression due to unemployment, substance abuse, peer pressure, and lack of access to mental healthcare (Das et al., 2020). Research highlights that poverty and economic hardship are among the strongest predictors of psychological distress in urban slum populations (Lund et al., 2019). The constant struggle for employment and fi-

nancial stability exacerbates stress levels, leading to feelings of worthlessness and hopelessness, as reflected in studies conducted in low-income urban settings (Kumar et al., 2021). Additionally, substance abuse is a common coping mechanism among young men in slums, further aggravating mental health concerns (Rao et al., 2022). Exposure to violence, both domestic and street-related, has also been found to heighten PTSD, aggression, and emotional instability (Shidhaye & Kermode, 2018). While existing research focuses broadly on mental health in urban slums, few studies specifically explore the unique mental health triggers among young men. Most research has concentrated on women and children, overlooking the psychological distress young men face due to societal expectations, financial burdens, and limited support systems (Singh et al., 2021). This study aims to fill this gap by identifying key mental health triggers among young men in Delhi's slums, using the WHO GHQ-12 scale to assess psychological distress. This study discusses the extent of mental health among youth living in slum areas of Delhi along with the factors associated with poor mental health conditions among youth. The findings will contribute to evidence-based interventions tailored to improve mental health services in marginalized urban communities.

Rationale for the study

Mental health is a growing concern among young men living in urban slums, where factors such as poverty, unemployment, social instability, and lack of healthcare access contribute to psychological distress. Despite the increasing burden of mental health disorders in India, research on the mental well-being of young men (15–24 years) in slum areas remains limited. This study is crucial to understanding the prevalence and patterns of psychological distress in this vulnerable group, providing insights into key factors affecting their mental health. The findings will help in developing targeted interventions and policies to improve mental health services in resource-constrained urban settings.

Methods and Materials

Study type

The proposed study is based on primary data collected from different slums of Delhi. The study adapted a cross-sectional study design using multi-stage simple random sampling procedure. This research design provides the opportunity to assess current mental health status and associated factors among youth in the study area. Given the size and heterogeneity of Delhi's slums, a single-stage random sampling method would be impractical. Multistage sampling allows for a systematic selection of slums, followed by random selection of households and individuals, ensuring better geographic and socio-economic representation. This method reduces time, cost, and logistical challenges, making it ideal for large-scale field surveys while maintaining statistical reliability and validity in mental health research. The study was conducted in the different districts of Delhi during December 2021 – June 2022 in selected slums of Delhi among male youth aged 15-24 years.

Study area

The present study has been conducted in the slum areas of Delhi. Quantitative data techniques have been used through a suitably developed research design. Quantitative data has been gathered through General Health Questionnaire (GHQ-12) scale. The primary source of information has been collected from male

youth living in different slums located in Delhi. The youth age range is 15 to 24 years old.

Sampling procedure

The sample size was estimated to be 508 applying the values. Considering a round figure, the final sample size of 520 youth was selected. In order to determine the total sample size needed for the study, the following formula was used taking a prevalence of 40.0% (a review of the literature indicated that the prevalence of conditions related to mental health ranges from 15

$$N = Z^2 * p * q * (1 - r) * DE/d^2$$

Where,
N = Required Sample Size
Z = 1.96 (for 95% Confidence Interval)
p = Prevalence, q = (1-r)
r = non-response rate = 0.1 (10%)
DE = Design Effect (1.5)
d = Margin of error (5%)

In order to select the samples, a cross-sectional survey using a multistage sampling procedure was conducted among the male youth living in slum areas of Delhi. In the first stage of sampling process, one district from each of the four regions (North, South, West and East) of the Delhi was selected on the basis of highest number of slum households.

In the second stage of sampling process, slums were selected. The list of slums with number of households were obtained from Delhi Urban Shelter Improvement Board (DUSIB) which functions under the control of Government of Delhi and aims to improve the quality of life of slum dwellers. Two slums from each district were selected. The allocation of two slums from each district were proportional to the number of households. Therefore, a total of eight slums from above mentioned four districts were selected based on probability proportional to size (PPS).

In the third stage, respondents were selected at the household level. DUSIB provides information such as name of the head of the household, household address etc. regarding the households in the slums. In order to obtain a sampling frame for the study, all the households in the selected slums were listed. The house listing contained the list of household members, sex and their age. From the house listing, the households containing the eligible respondents (males aged 15-24 years) were identified and listed separately. From the list of households with eligible respondents, the final selection of the samples (520 males) was done by using systematic random sampling. However, three households refused to participate in the survey, therefore the final sample for the study is 517.

Data Collection Tools

The present study is based on primary data, and the tools used for data collection are quantitative in nature. Semi-structured interview schedules were carried out among the study population to collect the required information for full filling the study objectives. A total of two schedules, i.e. household schedule and individual respondent schedule, were used to gather the required information for the study. The household schedule was designed to obtain the household's general socioeconomic and demographic characteristics and its members. Individual respondent schedule interrogated the socioeconomic and demographic information of the target population. The study has also used standard and validated scale named GHQ-12 to measure the magnitude of mental health among the target population.

Data Collection procedure

The pre-testing of the survey tools was carried out in the study area. The tools prepared were pre tested in order to check the validity, reliability and sequencing of the questions before collecting the main data. Before starting the final data collection, the household listing was completed in each of the selected slums of Delhi. This information was collected by using information available on Delhi Urban Shelter Improvement Board (DUSIB) website. In order to obtain a sampling frame for the study, all the households in the selected slums were listed. The house listing contained the list of household members, sex and their age. From the house listing, the households containing the eligible respondents (males aged 15-24 years) were identified and listed separately. After house listing and selection of the respondents, the primary survey was conducted. The final data collection was carried out during December 2021 – June 2022 in selected slums of Delhi.

Criteria for selecting subjects

Inclusion criteria

- Respondent (male) in the age group 15-24 years living in the different slum areas of Delhi.
- Respondents must be living in the slum areas for minimum of five years and above.
- Respondents who are willing to participate and give informed consent for the study.

Exclusion criteria

- Youth below 15 years and over 24 years of age and are not living in the slum areas of Delhi.
- Respondents who stayed in slums for less than five years.
- Respondents who are not willing to participate in the study

Variables used in the study

Dependent variable

"Self-reported mental health" has been taken as the dependent variable for the analysis in this study. Respondents were asked a total of 12 questions listed in the General Health Questionnaire (GHQ-12). These responses provided valuable insight into the mental health status of the respondents. Based on the GHQ-12 scores, the variable was categorized into three distinct levels for analysis: low distress, moderate distress, and severe distress.

Independent variables

The present study has used the Socio-economic and demographic variables such as age, religion, caste, education level, working status, wealth quintile, type of house, parents' age and their lifestyle behaviour including parents smoke, parents use tobacco and parents' consume alcohol. The age data was collected as a continuous variable ranging from 15 to 24. For the analysis purpose, it was classified into three broad categories 15-17 years, 18-20 years and 21-24 years. Religion was categorized as Hindu=0, Muslim=1, Sikh=2, others=3. Caste was categorized as Scheduled caste (SC), Scheduled tribe (ST), Other backward classes (OBC), and others. Information of highest completed education level was collected using five broad categories including no education=0, primary=1, secondary=2, higher secondary=3, college=4 for the analysis. Respondents' work status was categorised as Yes=0, No=1. Type of house was listed

as pucca=0, semi-pucca=1 and katcha=2. Parents age again was collected as a continuous variable and then was categorised as less than 45 years=0, 45-49 years=1, 50 and above=2 and not alive=3 for the analysis. Parents lifestyle behaviour such as smoke, tobacco use and alcohol consumption was categorised as No=0, yes=1.

Statistical analysis

This study has used bivariate analysis to obtain the information of different independent variables. Moreover, in order to find out the factors associated with mental health status, ordered logistic regression analysis has been conducted.

General health questionnaire (GHQ-12) was developed to identify psychological distress for use in general population. This measure has been extensively used to measure mental health in different cultural settings. It covers four identifiable elements of distress: depression, anxiety, social impairment and hypochondria. It is a shortened version of 60-item instrument. With this scale the study has addressed whether the respondent has experienced a particular symptom or behavior regarding psychological distress recently. Each item of the questionnaire is rated on a four-point scale. The GHQ-12 questionnaire was scored based on Likert scale. Higher score indicates a greater degree of psychological distress.

Distress levels	Scores
Low distress	0-12
Moderate distress	13-20
High level of distress	21-36

The GHQ-12 is a short, 12-item questionnaire, making it highly efficient for large-scale surveys, particularly in resource-constrained settings like urban slums. It assesses psychological distress, anxiety, depression, and social dysfunction, making it ideal for community studies where longer tools may be impractical. Unlike diagnostic tools requiring clinical expertise, GHQ-12 is self-administered, cost-effective, and culturally validated across diverse populations, including marginalized urban communities. It has been extensively used in India and other low-income settings, ensuring its reliability and relevance in assessing mental health issues among slum dwellers. While instruments like Kessler Psychological Distress Scale (K10) and Self-Reporting Questionnaire-20 (SRQ-20) cover similar aspects, GHQ-12 remains superior in terms of simplicity, validation, and ease of administration. Given the study's focus on understanding broad mental health patterns rather than diagnosing specific disorders, GHQ-12 provides a well-balanced measure of distress and social dysfunction, making it the most appropriate choice for this research.

Results

Socio-economic and demographic profile of the surveyed respondents

Table 1 represents socioeconomic and demographic characteristics of the surveyed respondents. The age distribution of the respondents indicates that a significant portion of respondents (38.3%) is under

Table 1. Socioeconomic and demographic characteristics of the surveyed respondents in the selected slums of Delhi

Characteristics	Number	Percentage (%)
Current age		
15-17 years	198	38.3
18-20 years	154	29.8
21-24 years	165	31.9
Religion		
Hindu	409	79.1
Muslim	68	13.2
Sikh	25	4.8
Others	15	2.9
Caste		
SC	173	33.5
ST	9	1.7
OBC	150	29.0
Others	185	35.8
Household economic status		
Low	173	33.5
Middle	190	36.8
High	154	29.8
Ever attended school		
Yes	501	96.9
No	16	3.1
Highest education completed		
Less than primary school	57	11.4
Primary school	72	14.4
Less than secondary school	121	24.2
Secondary school	138	**27.5**
Higher secondary school	99	**19.8**
College/University	14	2.8
Mean years of schooling		4.4
Standard deviation		1.3
Engaged in economic activity, last 12 months		
Yes	236	45.7
No	281	54.4

18 years of age. Approx thirty percent of the respondents belong to the 18-20 years age group (late adolescence or early adulthood) and thirty one percent of respondents are in the age group 21-24 years comprising young adults in their early twenties. Three-quarters (79.11%) of the respondents predominantly belong to Hindu religion, followed by Muslim religion (13.15%). Caste wise distribution of the respondents shows that thirty three percent of the respondents belonged to scheduled castes and only two percent belonged to scheduled tribes. OBC category (30%) constitutes a significant portion of the population. Household economic status was measured by household economic status index constructed using Principal Component Analysis. Results show that approx. Results show that even distribution of households across the three economic categories, middle eco-

nomic status households (36.75%) make up the largest proportion, followed by low economic status households account for thirty three percent of the households. almost everyone has attended school and only a small percentage (3.09%) has not attended. Mean years of schooling is 4.91 years indicating that the average level of schooling is relatively low. Fourteen percent of the respondents have reported to have completed their primary school education and approx. twenty eight percent of respondents have completed secondary education and only three percent have reported to be completed college or university. Fewer than half of the respondents (45.65%) reported having participated in economic activities in the past year and majority of the respondents (54.35%) have not engaged in income generating activity in the past year.

Lifestyle behaviours of the parents of the surveyed respondents

Table 2 provides information on the lifestyle behaviours including smoking, tobacco use, alcohol consumption, and frequency of alcohol use for both fathers and mothers. More than half of the fathers (56.67%) currently do not smoke cigarettes / bidis, while only five percent of mothers currently smoke cigarettes / bidis. When it comes to tobacco use, a higher percentage of fathers currently using tobacco (56.09%) in any form compared to mothers (12.77%). Approx sixty six percent of fathers consuming alcohol compared to only four percent of mothers. While nine percent of fathers drink alcohol almost every day, the majority of both fathers (76.83%) and mothers (80%) drink alcohol less than once a week.

Table 2. Lifestyle behaviours including smoking, tobacco use, alcohol consumption, and frequency of alcohol use of the parents of the surveyed respondents

Characteristics	Father		Mother	
	%	Number	%	Number
Parents currently smoke tobacco				
No	56.7	293	94.6	489
Yes	43.3	224	5.4	28
Parents currently use smokeless tobacco				
No	43.9	227	87.2	451
Yes	56.1	290	12.8	66
Parents currently drink alcohol				
No	34.0	176	96.1	497
Yes	66.0	341	3.9	20
Parents alcohol frequency				
Almost every day	9.4	32	5.0	1
About once a week	13.8	47	15.0	3
Less than once a week	76.8	262	80.0	16
Total	**100**	**517**	**100**	**517**

Self-assessed mental health experiences by youth

The table 3 shows the prevalence of self-reported mental health problems experienced by respondents in last one month preceding the survey for each of the 12

items based on General Health Questionnaire (GHQ-12). The prevalence of symptoms of mental health was described on a Likert scale (not at all, no more than usual, rather more than usual, much more than usual). The results show that 47.78 percent reported being able to concentrate on tasks the same as usual. 39.26 percent experienced no more than usual sleep loss due to worry. 59.19 percent felt the same as usual in terms of playing a useful part in things and only 5.22 percent felt much less useful than usual, though 13.35 percent felt somewhat less useful. Further, 9.48 percent felt much more strain than usual. 49.9 percent enjoyed their daily activities as usual and 7.16 percent reported decreased enjoyment. 41.97 percent did not feel unhappy or depressed however, 9.67 percent reported more frequent feelings of unhappiness or depression much more than usual. 8.70 percent felt as a worthless person much more than usual while 48.55 percent did not feel the same way. 9.48 percent felt much less happy than usual.

Table 3. Self-assessed mental health experiences by surveyed respondents in last one month preceding the survey in Delhi's Slum

SN	GHQ-12 scale items	Better than usual	Same as usual	Less than Usual	Much less than usual	Total
1	Been able to concentrate	23.79	47.78	18.18	10.25	517
		Not at all	**No more than usual**	**Rather more than usual**	**Much more than usual**	**Total**
2	Lost much sleep over worry	35.59	39.26	15.67	9.48	517
		More so than usual	**Same as usual**	**Less useful than usual**	**Much less useful**	**Total**
3	Playing a useful part in things	22.24	59.19	13.35	5.22	517
4	Capable of making decisions about things	23.21	50.1	17.41	9.28	517
		Not at all	**No more than usual**	**Rather more than usual**	**Much more than usual**	**Total**
5	Constantly under strain	39.46	32.3	18.76	9.48	517
6	Couldn't overcome difficulties	41.2	33.27	17.29	7.74	517
		More so than usual	**Same as usual**	**Less useful than usual**	**Much less useful**	**Total**
7	Enjoy normal day-to-day activities	23.98	49.9	18.96	7.16	517
8	Face up to your problems	25.34	49.32	15.86	9.48	517
		Not at all	**No more than usual**	**Rather more than usual**	**Much more than usual**	**Total**
9	Feeling unhappy or depressed	41.97	33.08	15.28	9.67	517
10	Losing confidence in oneself	46.62	32.11	15.67	5.61	517
11	Thinking of oneself as a worthless person	48.55	25.15	17.6	8.70	517
		More so than usual	**Same as usual**	**Less useful than usual**	**Much less useful**	**Total**
12	Feeling reasonably happy	26.5	49.9	14.12	9.48	517

Mean, standard deviation (SD) and correlation between items in GHQ-12

The Table 4 displays the correlation matrix of WHO-GHQ12 scale items with inter-item reliability. The correlation matrix shows the statistical measure of association between the WHO-GHQ12 scale items. Item 1 shows a high correlation with the item 2 (sleep loss) and item 11 (Feeling worthless). This result shows that sleep problems are closely linked to cognitive function and emotional distress, indicating that interventions targeting sleep hygiene may improve overall mental health. Item 11 (Feeling worthless) shows the highest correlations with other items, such as Item 2 (0.64), Item 5 (0.66), and Item 9 (0.68), implying strong associations between feelings of worthlessness and other mental health struggles like sleep loss, strain, and depression. This indicates that feelings of worthlessness are central to the mental health issues in this population and may act as a key indicator of broader psychological distress. Item 6 (Difficulty overcoming problems) has relatively lower correlations with item 1 (0.39) suggesting that problem-solving difficulties may be a less direct but still important factor in mental distress among the stud population. The means present the average score for each item. The mean WHO-GHQ12 score ranges from 1.80 to 2.15 where item 1 "concentration level" (2.15) has the highest mean indicating that participants tended to score higher on this item and suggests that cognitive impairment due to stress and anxiety is a major issue among the study population. Lower Mean Scores for Items Related to Emotional Well-being (Item 10, Mean = 1.80; Item 11, Mean = 1.86) suggest that while these issues strongly correlate with other symptoms, they might be less frequently reported compared to cognitive difficulties. This might indicate underreporting due to stigma or a cultural tendency to internalize distress rather than express it.

Table 4. Mean, standard deviation (SD) and correlation between items in GHQ-12

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12
Item 1	1											
Item 2	0.61	1										
Item 3	0.53	0.54	1									
Item 4	0.50	0.54	0.51	1								
Item 5	0.50	0.60	0.52	0.54	1							
Item 6	0.39	0.39	0.40	0.42	0.42	1						
Item 7	0.50	0.51	0.54	0.53	0.56	0.52	1					
Item 8	0.52	0.47	0.56	0.55	0.54	0.44	0.62	1				
Item 9	0.54	0.58	0.51	0.51	0.63	0.45	0.58	0.60	1			
Item 10	0.41	0.49	0.47	0.43	0.53	0.36	0.49	0.43	0.55	1		
Item 11	0.61	0.64	0.57	0.55	0.66	0.49	0.62	0.61	0.68	0.57	1	
Item 12	0.55	0.52	0.52	0.50	0.52	0.38	0.53	0.53	0.50	0.43	0.62	1
Mean	2.15	1.99	2.02	2.13	1.98	1.92	2.09	2.09	1.93	1.80	1.86	2.07
SD	0.90	0.95	0.75	0.87	0.98	0.95	0.84	0.89	0.98	0.90	1.00	0.88

Internal consistency of GHQ-12 scale

The table 5 provides an item scale analysis of the WHO-GHQ12 scale questionnaire administered to respondents in Delhi's slums, showing Item-test correlation and Cronbach's alpha for each item. This was employed in this study to assess the internal consistency of the WHO-GHQ-12 questionnaire for the young males residing in Delhi's slums. The test scale's overall Cronbach's alpha is 0.93, suggesting excellent reliability. This suggests that the GHQ-12 is a reliable tool for assessing mental health in this population, as the items work well together to measure psychological distress. For each group, the allowable internal consistency is represented by the alpha value. The internal consistency of each scale item remains almost constant at 0.92, meaning that the overall scale is highly reliable and that removing any of these items would not significantly affect the reliability. The mean correlation was 0.43 with the range of item scale correlation being 0.63-0.85. Item 11 in the WHO-GHQ12 scale, "Been thinking of yourself as a worthless person", had the highest value (0.85) and item 6, "Felt you couldn't overcome your difficulties", had the lowest (0.63) value of correlation coefficient.

Table 5. Item scale analysis of WHO GHQ-12 questionnaire of respondents in Delhi slum

SN	Items	Item-test correlation	Cronbach's alpha
1	Been able to concentrate	0.74	0.92
2	Lost much sleep over worry	0.77	0.92
3	Playing a useful part in things	0.73	0.92
4	Capable of making decisions about things	0.73	0.92
5	Constantly under strain	0.78	0.92
6	Couldn't overcome your difficulties	0.63	0.93
7	Enjoy normal day-to-day activities	0.77	0.92
8	Face up to your problems	0.76	0.92
9	Feeling unhappy or depressed	0.80	0.92
10	Losing confidence in oneself	0.69	0.93
11	Thinking of oneself as a worthless person	0.85	0.92
12	Feeling reasonably happy	0.73	0.92
	Test scale	**0.43**	**0.93**

Mental Health status among youth in Delhi's slums

The Figure 1 depicts the mental health status of the surveyed respondents from Delhi's slums based on levels of distress (Low, moderate and severe). Results shows that 26.5 percent of the respondents reported experiencing low mental health distress. While majority of respondents (37.5%) fell into the moderate mental health distress category. However, a significant portion of the respondents (36%) reported experiencing severe distress.

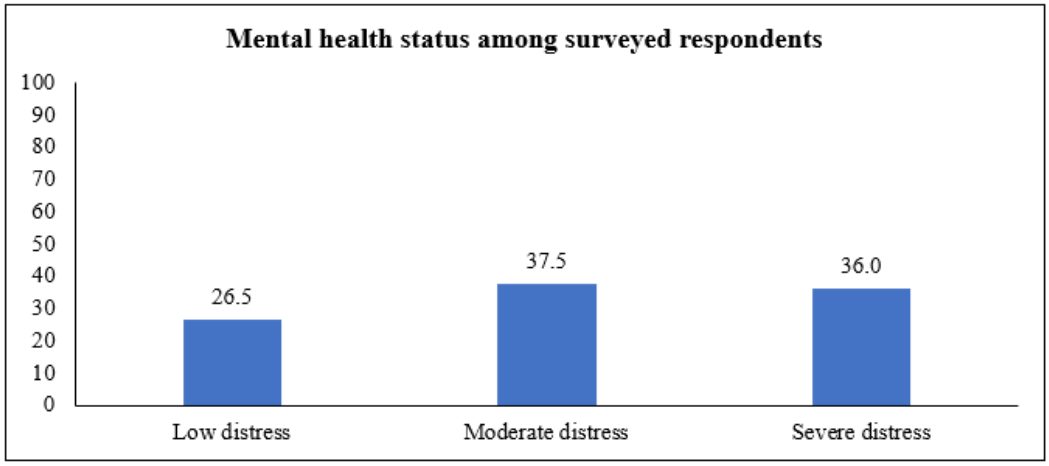

Figure 1. Mental Health status among surveyed respondents in Delhi's slums

Prevalence of mental health problems among youth by background characteristics

The Table 6 presents the prevalence of mental health problems by socio-economic and demographic characteristics among respondents in Delhi's slums. The data is categorized into three levels of psychological distress: low distress, moderate distress, and severe distress. The results show that respondents from 21-24 years age group report the highest prevalence moderate (38.89%) and severe mental health distress (38.38%). As age increases, there is an increase in moderate and severe mental health distress among the respondents, with 33.12 percent facing severe distress among 15-17 years old and 35.76 percent among 18-20 years old. Muslim respondents show a higher proportion of low distress (33.82%) and pprox.. 47 percent severe mental health distress has been reported among Sikh respondents. Respondents from SC community report highest levels of moderate and severe distress, with 37.57 percent in the severe category. Respondents with no education report the highest proportion of low mental health distress (50%) and the lowest proportion of severe mental health distress (12.50%), while those with a secondary education report the highest percentage of severe distress (41.70%). Similarly, respondents from middle-income households report the highest percentage of severe mental health distress (40.53%). The results showed that respondents who are working report slightly higher levels of severe mental health distress (36.02%). Respondents living in pucca houses report the highest percentage of severe mental health distress (40.12%). Respondents whose parents smoke tobacco and consume alcohol report slightly higher levels of severe mental health distress with 37.65 percent and 36.52 percent respectively.

Factors affecting mental health among youth

This Table 7 presents the results of an ordered logistic regression analysis (in the form of odds ratios) on self-reported mental health distress by various background characteristics among respondents in Delhi's slums. Mental health distress is being categorized as normal distress, moderate distress and severe distress. Respondents aged 18-20 years and 21-24 years have more than twice the odds of having severe mental health problems versus combined moderate and normal mental health problems than respondents of 15-17 years age group given the other variables were held constant in the model.

Table 6. Percent distribution of mental health problems by socio-economic and demographic characteristics among surveyed respondents in Delhi's slum

Background characteristics	Low distress	Moderate distress	Severe distress	Total
Current age		p value = 0.053		
15-17 years	22.73	35.15	33.12	198
18-20 years	28.57	38.31	35.76	154
21-24 years	29.09	38.89	38.38	165
Religion		p value = 0.439		
Hindu	25.92	37.16	36.92	409
Muslim	33.82	36.76	29.41	68
Sikh	16.00	52.00	46.67	25
Others	26.67	26.67	32.00	15
Caste		p value = 0.052		
SC	20.23	42.20	37.57	173
ST	66.67	11.11	22.22	9
OBC	30.00	34.67	35.68	150
Others	27.57	36.76	35.33	185
Highest education completed		p value = 0.086		
No education	50.00	37.50	12.50	16
Primary	27.13	39.53	33.33	129
Secondary	22.39	35.91	41.70	259
Higher Secondary	31.31	40.40	28.28	99
College	35.71	28.57	35.71	14
Household economic status		p value = 0.049		
Low	26.59	38.73	34.68	173
Middle	28.42	31.05	40.53	190
High	24.03	44.16	31.82	154
Respondent Work status		p value = 0.063		
Yes	30.93	33.05	36.02	236
No	22.78	41.28	35.94	281
Media exposure		p value = 0.396		
No	14.29	47.62	38.10	21
Yes	27.02	37.10	35.89	496
Type of house		p value = 0.087		
Pucca	24.78	35.10	40.12	339
Semi-pucca	30.77	42.66	26.57	143
Katcha	25.71	40.00	34.29	35
Parents age		p value = 0.103		
Less than 45	25.00	36.76	38.24	68
45-50 years	29.08	41.33	29.59	196
50 and above	20.90	36.72	42.37	177
Not alive	34.21	30.26	35.53	76
Parents smoke tobacco		p value = 0.477		
No	25.56	40.00	34.44	270
Yes	27.53	34.82	37.65	247
Parents use smokeless tobacco		p value = 0.232		
No	29.67	39.01	31.32	182
Yes	24.78	36.72	38.51	335
Parents drink alcohol		p value = 0.098		
No	29.07	36.05	34.88	172
Yes	25.22	38.26	36.52	345

The odds of severe mental distress is higher among Sikh respondents compared to Hindu respondents. Respondents with primary education (2.42 times), secondary education (4.26 times), and higher secondary education (2.47 times) have significantly higher odds of severe mental health distress versus combined moderate and normal mental health problems compared to those with no education. Further, respondents who are not working are 34 percent less likely to have severe mental health distress compared to their counterparts. Parental tobacco use is associated with higher odds of severe mental health distress (OR:1.61). Similarly, respondents with parents consuming alcohol have 1.1 times higher odds of having severe mental

health problems versus combined moderate and normal mental health problems than their counterparts.

Table 7. Results of ordered logistic regression analysis of self-reported mental health by background characteristics showing odds ratio among respondents in Delhi Slums.

Background characteristics	Confidence interval (95%)		
	Odds ratio	Lower	Higher
Current Age			
15-17 years	Ref		
18-20 years	2.40*	1.97	5.95
21-24 years	2.27*	1.93	5.50
Religion			
Hindu	Ref		
Muslim	0.77	0.44	1.37
Sikh	1.20*	1.14	2.55
Others	1.11	1.05	3.28
Caste			
SC	Ref		
ST	0.17**	0.04	0.75
OBC	1.19*	0.57	1.44
Others	0.85	0.57	1.26
Highest education completed			
No education	Ref		
Primary	2.42**	1.03	8.20
Secondary	4.26***	1.55	11.71
Higher Secondary	2.47*	0.88	6.97
College	2.91	0.58	10.03
Household economic status			
Low	Ref		
Middle	1.34	0.63	1.40
High	0.82	0.54	1.24
Respondent Work status			
Yes	Ref		
No	0.66*	0.78	1.73
Media exposure			
No	Ref		
Yes	0.68	0.30	1.54
Type of house			
Pucca	Ref		
Semi-pucca	0.68**	0.47	0.99
Katcha	0.82	0.43	1.60
Parents age			
Less than 45	Ref		
45-50 years	0.67	0.24	1.83
50 and above	1.21	0.43	3.45
Not alive	1.42	0.42	4.83
Parents smoke tobacco			
No	Ref		
Yes	1.08	0.76	1.52
Parents use smokeless tobacco			
No	Ref		
Yes	1.61*	0.92	2.85
Parents drink alcohol			
No	Ref		
Yes	1.10*	0.75	1.61

*Note: Ref= Reference category; * p<0.05, ** p<0.01, *** p<0.001*

Discussion

The analysis of mental health among youth aged 15–24 years residing in Delhi's slums reveals a significant burden of mental health challenges. Using the General Health Questionnaire (GHQ-12), this chapter highlights the prevalence of mental health distress and its association with various socio-economic and demographic factors. The GHQ-12 responses indicate a high prevalence of mental health difficulties. Many respondents reported struggling with concentration, sleep dis-

turbances, and feelings of strain, unhappiness, and low confidence. Notably, 41.97% of the youth reported feeling unhappy or depressed recently, while 24.95% admitted to experiencing feelings of worthlessness or losing confidence in themselves. These patterns underline the multifaceted nature of mental health challenges in this population. While 26.5 percent of the surveyed youth reported low distress, 37.5 percent experienced moderate distress, and 36 percent faced severe distress. Over one-third of the respondents suffer from severe mental health challenges, emphasizing the critical need for interventions. The reliability of the findings is confirmed with a Cronbach's alpha consistently exceeding 0.92.

The prevalence of distress varied significantly across socio-economic and demographic factors. The results show that respondents from 21-24 years age group report the highest prevalence moderate (38.89%) and severe mental health distress (38.38%). Age emerged as a crucial determinant, as age increases, there is an increase in moderate and severe mental health distress among the respondents, with 33.12 percent facing severe distress among 15-17 years old and 35.76 percent among 18-20 years old. This could be due to increasing responsibilities, financial instability, and job-related stress as individuals transition into adulthood. Religion also played a role and caste differences were notable, with Scheduled Tribe respondents reporting significantly lower severe distress levels, while Scheduled Caste youth exhibited highest levels of severe distress.

Economic status appeared to influence mental health, as youth from middle-income households reported higher levels of severe mental health distress compared to those from low- or high-income households. Educational attainment also emerged as a significant factor; those with secondary education were particularly vulnerable, with the highest levels of severe distress. This suggests that specific education stages may exacerbate stress due to academic pressure or transitions to adulthood. Unemployed youth reported higher levels of moderate distress, possibly reflecting financial insecurity and lack of purpose. While respondents who are working report slightly higher levels of severe mental health distress (36.02%). Parental behaviors, such as tobacco and alcohol use, were also linked to higher distress levels among youth, indicating the influence of family environments on mental health.

The ordered logistic regression analysis shed further light on the predictors of mental health outcomes. Older youth (18–24 years) were significantly more likely to experience severe mental health distress than those aged 15–17 years. Educational attainment, particularly secondary education, greatly increased the odds of distress, suggesting that this critical stage of academic and personal development may be particularly stressful. Parental substance use, particularly tobacco and alcohol consumption, was associated with higher odds of distress, highlighting the role of family dynamics in shaping mental health outcomes.

Conclusion

This study provides critical insights into the mental health triggers among young men in Delhi's slums, highlighting the prevalence of severe distress, the role of socio-economic determinants, and the impact of family environments on psychological well-being. The findings underscore the urgent need for mental health interventions targeting this vulnerable group. Given that over one-third of respondents experience severe mental distress, policy interventions must focus on strengthening

community-based mental health services, promoting counselling and peer support programs, and increasing mental health awareness. Special attention should be given to youth in secondary education, those from disadvantaged castes, and individuals from households with parental substance use. Mental health policies must also address socio-economic inequalities by promoting employment opportunities, skill development programs, and financial support schemes for young men in slum areas. This research contributes to the limited body of knowledge on male youth mental health in urban slums, offering evidence-based insights that can inform policy frameworks and intervention strategies.

However, the study is not without limitations. Being a cross-sectional survey, which captures data from respondents at a single point in time. While this allows for a snapshot of current status of mental health in the youth population living in slums, it cannot establish causal relationships between socio-economic factors and outcome variable. Additionally, the focus on youth aged 15–24 may also exclude other vulnerable age groups that could have different mental health profiles. The study predominantly focuses on male youth, with less attention paid to gender-based differences in poor mental health thereby this study may overlook the experiences and challenges faced by young women in the same communities. While the study includes youth from different slums in Delhi, the findings may not be fully representative of all youth in urban slums across India, as the socio-economic conditions, community structures and cultural factors in other cities or regions may differ, limiting the generalizability of the findings. The reliance on self-reported data for mental health poses a risk of biases, such as social desirability bias, where respondents may underreport negative behaviors or experiences such as mental health issues. Additionally, recall bias could occur if respondents are unable to accurately remember past behaviors or experiences

Overall, this study reaffirms that mental health in urban slums is a multifaceted issue that requires an integrated approach combining healthcare accessibility, social support, education, and economic empowerment. Future studies should explore longitudinal designs and qualitative approaches to gain a deeper understanding of mental health trajectories and coping mechanisms among slum youth.

Conflict of Interest

No conflict of interest

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