



## MENTAL HEALTH STATUS OF ADULTS IN AN URBAN COMMUNITY OF GAYA CITY

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### ABSTRACT

**Introduction:** Mental disorders range from sub-clinical state to severe form of disorders, affecting social life and economic development of the individual, which are unrecognized, under treated and their impact on the patients, their families and society are underestimated. **Aim & Objectives:** To assess the mental health status and factors affecting it among young adults. **Material and Methods:** Community based, cross-sectional study was conducted among 603 young adults (18-35 years) residing in urban area of Gaya. General Health Questionnaire-12 (GHQ-12) was used to assess the mental health status and pre-designed, pre-tested proforma was used for collecting data to know the factors affecting it. Data was analysed using descriptive statistics and Chi-square test was used to find the association between two attributes. **Results:** Of the 603, majority 50.42% were in the age group of 24-29 years, 62.69% were males, 41.62% had completed secondary education, 39.14% were students, 55.39% were from nuclear family and 52.57% belonged to class II socio-economic status (SES). As per GHQ-12, 23.22% of young adults screened positive, indicating psychological distress, of which 97.14% had mild distress. Majority 26.53% belonging to 18-23 years age group had developed psychological distress, as compared to other age. **Conclusion:** Prevalence of psychological distress was 23.22%, with 97.14% having mild distress. Factors associated with psychological distress were age, male gender, joint families, labourers, marital status, poor educational status and low SES.

**KEYWORDS :** Mental health, Psychological distress, Urban, Young adults.

### Introduction

A sound mind in a sound body has been recognized as a social ideal for many centuries. Mental health is the balanced development of the individual's personality and emotional attitudes, which enables him to live harmoniously with his fellow-men. Mental health is not exclusively a matter of relation between persons, but also a matter of relation of the individual towards the community where lives in, the society and the social institutions, which guide his life, determine his way of living and the way he sees happiness, stability and security.<sup>1,2</sup> World Health Organization (WHO) defines Mental health as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community".<sup>3,4</sup> Burden of mental disorders has risen over last few decades and may replace infectious and communicable diseases as the leading cause for morbidity and mortality in future.<sup>5</sup> Mental health, general health and socioeconomic status are thought to be important dimensions of an individual's wellbeing, having important interactions between them, with causal links running in both directions. Poor mental health can reduce ability to earn, through its effects on education and employment, leading to poverty. Poverty in turn lead to lower educational attainment, poorer physical health and depression.<sup>6</sup> Mental health issues are more challenging among young adults because anxiety, mood or substance use disorders tend to be frequent, 75% of lifetime cases emerge by age of 24 years, most substance-misuse disorders between 19 and 21 years and mood disorders between 24 and 30 years. Because of unsatisfactory mental health care access, only 18% to 34% of young adults with high levels of symptoms of depression or anxiety seek professional help.<sup>7</sup> Urbanization has led to an added effect on mental health due to the influence of factors such as overcrowded, polluted and fast paced environment. Research shows that conditions of poverty have a direct relationship with risk of mental illness, and the increased cost of living along with poor living condition puts immense stress and strain on the mental health of the poor. Rural migrants in Urban slums are also highly vulnerable to mental illness due to the strenuous city life and difficult living conditions.<sup>8,9</sup>

Aim of the study to assess the mental health status of young adults, to determine the factors affecting their mental health status and to create awareness regarding mental health disorders through health education.

### Methodology

A community based cross-sectional study was conducted Department of Community Medicine, ANMMCH, Gaya. It encompasses an area of area 4,976 square kilometre (sq.km) and has a population of 43,91,418 (Assembly election 2020).

Anugrah Narayan Magadh Medical College and Hospital (ANMMCH), Gaya is a tertiary care hospital.

The study population consisted of all Young adults, i.e., individuals in the age group of 18-35 years,<sup>10</sup> residing in urban area, which is the field practice area attached to the Department of Community Medicine, ANMMCH, Gaya.

### Inclusion Criteria:

1. Individuals more than 18 years and less than 35 years.
2. Individuals who have been residing in the study area for more than one year.
3. Individuals willing to participate on voluntary basis after giving a written consent.

**Exclusion Criteria:** Individuals previously diagnosed with mental disorders.

Urban field practice area, attached to the Department of Community Medicine, ANMMCH, Gaya. The study was conducted for a period of one year, from January 2021 to December 2021.

### Sampling procedure

A house to house survey with systematic random sampling was done and sample size of 603.

**Study instrument:** A pre-designed and pre-tested proforma was used to collect relevant information. General Health Questionnaire-12 (GHQ-12)<sup>47</sup> was used to measure the mental health status.

The study was conducted by doing a house to house survey in selected urban field practice area for three days a week with the help of medico-social workers and anganwadi workers. The anganwadi workers helped in locating the house while the medico-social workers aided in establishing a rapport with the family of the study participants and assisted if any problems. During the study period, young adults who were willing to participate voluntarily were explained the need and importance of the study and a written informed consent was obtained and later, data was collected by interviewing them. The pre-designed and pre-tested proforma was used to collect information on sociodemographic profile, environmental and sanitary conditions of the study participants. Along with this information regarding various aspects of mental health status was collected using General Health Questionnaire-12. General physical examination and systemic examination was performed. After completion of this, based upon the assessment of proforma, health education was imparted to all the study participants to motivate them, to improve their self-confidence to cope up with day to day activities by developing positive attitude towards life. During the time of visit, if any house was found to be locked, it was revisited on the day of next visit and data was collected. If even during the second visit the house remained locked, then it was considered to be permanently locked and was excluded from the study. One eligible participant was considered in one family satisfying the inclusion criteria.

**Data analysis:** Descriptive statistics were applied and data was analyzed using proportions and percentages. Chi-square test was used to find the association between different attributes. Statistical significance was set at 0.05% level of significance ( $p < 0.05$ ). Data entry was done using Microsoft Excel and analysis was carried out with the help of Statistical Package for Social Sciences - 20.0 (SPSS Statistics - 20.0).

**Ethical clearance:** Ethical clearance was obtained from the Institutional Ethics Committee.

**Results**

A community based cross-sectional study was conducted Department of Community Medicine, ANMMCH, Gaya. A house to house survey with systematic random sampling was done and sample size of 603.

**Table 1: Age/ Sex wise distribution of Young adults.**

Age group (years)	Males		Females		Total	
	No.	Percent	No.	Percent	No.	Percent
18 - 23	116	30.69	80	35.56	196	32.50
24 - 29	190	50.26	114	50.67	304	50.42
30 - 35	72	19.05	31	13.77	103	17.08
Total	378	62.69	225	37.31	603	100

Table no. 01 shows out of 603 young adults, majority 304 (50.42%) of them belonged to 24-29 years age group, with 190 (50.26%) males and 114 (50.67%) females. Overall male predominance 378 (62.69%) was seen as compared to females, who accounted for 225 (37.31%) of the study population. Religion wise distribution of study participants showed that, majority 421 (69.82%) of young adults belonged to Hindu community, followed by 176 (29.19%) who belonged to Muslim community and only 6 (0.99%) were Christians.

**Table 2: Distribution of Young adults as per their Educational Status**

Educational Status	Males		Females		Total	
	No.	Percent	No.	Percent	No.	Percent
Primary school (class I to VII)	12	3.17	02	0.89	14	2.32
High school (class VIII to X)	73	19.31	53	23.56	126	20.90
Secondary (classes XI and XII)	173	45.77	78	34.67	251	41.62
Graduate	120	31.75	72	32.00	192	31.84
Postgraduate	0	0	20	8.88	20	3.32
Total	378	62.69	225	37.31	603	100

Table no. 01 shows, out of 603 young adults, majority 251 (41.62%) had completed their education upto secondary level, among them 173 (45.77%) were males and 78 (34.67%) were females. 192 study participants (31.84%) were graduates, 126 (20.90%) educated upto high school level, 20 (3.32%) postgraduates and 14 (2.32%) were educated upto primary level. None of the study participants were illiterates in our study. In this study, majority 348 (57.71%) were unmarried, followed by 252 (41.79%) who were married and only 3 (0.50%) were widow/separate/divorcee. More number of males 243 (64.29%) were unmarried as compared to females 105 (46.67%). Among males, 91 (24.07%) of them consumed alcohol and 80 (21.16%) were addicted to tobacco, either smoking or in chewing form. None of the female study participants had any type of habits.

**Table 03: Distribution of young adults based on assessment of mental health status using General Health Questionnaire-12 (GHQ-12) scoring**

GHQ-12	Males		Females		Total	
	No.	Percent	No.	Percent	No.	Percent
Normal (0-12)	266	70.37	197	87.56	463	76.78
Psychological distress (13-36)	112	29.63	28	12.44	140	23.22
Total	378	100	225	100	603	100

Table no. 01 shows when General health Questionnaire-12 (GHQ-12) was administered to assess the mental health status, it was found that among 603 young adults, majority 463 (76.78%) had a GHQ-12 score between 0 and 12, indicating normal mental health status. Remaining 140 (23.22%) of study participants screened positive on GHQ-12, with a score ranging between 13 to 36, indicating Psychological distress. Among males 29.63% had psychological distress, as compared to 12.44% females having psychological distress.

**Table 04: Mean score for the 12 questions of GHQ-12 according to gender.**

GHQ-12 Questions	Mean GHQ score					
	Males (n=378)		Females (n=225)		Total (n=603)	
	Mean	SD	Mean	SD	Mean	SD
Q1	1.20	0.423	1.08	0.350	1.15	0.401
Q2	1.13	0.699	0.97	0.630	1.07	0.678
Q3	1.13	0.344	1.08	0.265	1.11	0.318
Q4	1.06	0.281	0.98	0.231	1.03	0.266
Q5	1.10	0.627	0.97	0.608	1.05	0.623
Q6	1.01	0.342	0.96	0.295	0.99	0.326
Q7	1.03	0.196	1.06	0.234	1.04	0.211
Q8	1.00	0.051	1.00	0.067	1.00	0.058
Q9	0.76	0.498	0.64	0.527	0.71	0.512
Q10	0.89	0.376	0.81	0.405	0.86	0.389
Q11	0.64	0.508	0.55	0.498	0.61	1.020
Q12	1.04	0.203	1.00	0	1.02	0.161
Total score	11.99	2.254	11.09	1.744	11.65	2.121

The mean GHQ-12 score for males was 11.99 (SD=2.254) which was lesser than the cut off score of 12, while for females, it was even lower at 11.09 (SD=1.744). The highest individual mean score, 1.15 (SD=0.401) was seen for Q1: "been able to concentrate on whatever you're doing" and the lowest individual mean score, 0.61 (SD=1.020) was seen for Q11: "been thinking of yourself as a worthless person". In this study, out of the 91 young adults who consumed alcohol, 36 (39.56%) of them developed psychological distress and among 80 young adults who were addicted to tobacco, either smoking or in chewing form, 28 (35.00%) of them developed psychological distress.

**Discussion**

The present study was a community based cross-sectional study. The study population consisted of young adults aged 18-35 years, residing in urban field practice area, of Urban Health Training Centre (UHTC), attached to the Department of Community Medicine, ANMMCH, Gaya In our study, a total of 603 young adults were enrolled. The mean age of male study participants was 26.09 ± 4.474 years and female was 25.31 ± 4.030 years. Overall male predominance 378 (62.69%) was seen as compared to females, which accounted for 225 (37.31%) of the study population. Similar findings were seen in a study done in Himachal Pradesh, where majority 53.3% of study participants were males with mean age 21.43 ± 1.5 years and 46.7% were females with mean age 20.79 ± 1.25 years.11 Another community based study done in North Goa, showed similar findings with our study, with the mean age of study participants 33.2 ± 8.44 years.12 Similar findings were also seen in a study done in New Delhi, where 59.9% of study participants being males as compared to 40.9% females showing male predominance.13 In our study, majority 421 (69.82%) of study participants belonged to Hindu community, followed by 176 (29.19%) from Muslim community and only 6 (0.99%) were Christians. In a similar multicentric study done in six Indian states, majority 84.35% of study participants were Hindus, as compared to 10% Muslims and 5.65% from other religions.14 In a study done in urban slums of Delhi, among control group, majority 57.8% of study participants were Hindus, followed by 42.2% Muslims, which was similar to our study findings.15 In present study, majority 251 (41.62%) had completed their education upto secondary level, 192 (31.84%) were graduates, 126 (20.90%) were educated upto high school level, 20 (3.32%) were postgraduates, 14 (2.32%) were educated upto primary level and none of the study participants were illiterates. In another study done in Mangalore, majority 64.6% were educated upto secondary level (class XI and XII), which is similar to our findings as this study was also done in urban setting.16

In a multicentric study done in six Indian states, including both urban and rural areas, majority 40.65% of study participants were educated upto high school level.14 This shows that our study participants were

more educated as they are residing in urban areas, where they have better access to secondary education. In our study when GHQ-12 was administered to assess the mental health status, it was found that among 603 young adults, 140 (23.22%) screened positive on GHQ-12, with scores between 13 and 36, indicating Psychological distress. In a study done in an urban slum in Chennai city, it was noted that the prevalence of psychiatric morbidity among 18-30 years age group was 16.1%, which is less compared to that of our study.<sup>17</sup> In a similar study done in an urban community of Western Nigeria, the prevalence of psychological distress as per GHQ-12, among 20-39 years age group, was found to be 18.1%.<sup>18</sup> Compared to other studies psychological distress was more among our study participants, because majority of the participants were college going students pursuing basic and higher education, leading to continuous stress and strain because of their academic activities and pressure of their fulfillment on time. In contrast to another study done among medical students in New Delhi, the prevalence of psychological distress was found to be 39.7%.<sup>13</sup> This could be attributed to the fact that medical students are under continuous pressure because of academics as well as patient care. In our study, the mean GHQ-12 score for males was 11.99 (SD=2.254) which was lesser than the cut off score of 12. The mean GHQ-12 score of females was 11.65 (SD=2.121), which was slightly lower than that of males. The highest individual mean score, 1.15 (SD=0.401) was seen for Q1: "been able to concentrate on whatever you're doing" and the lowest individual mean score, 0.61 (SD=1.020) was seen for Q11: "been thinking of yourself as a worthless person". Similar findings were also seen in a study done in Himachal Pradesh, where the mean GHQ-12 score for males was 11.81, while for females, it was 9.35. The highest individual mean score, 1.13 was seen for Q1: "been able to concentrate on whatever you're doing" and Q7: "been able to enjoy your normal day-to-day activities". The lowest individual mean score, 0.43 was seen for Q11: "been thinking of yourself as a worthless person".<sup>11</sup> Same findings were also seen in a study done among college students in Malaysia, where the mental health assessment using GHQ-12 showed that males obtained a higher mean GHQ-12 score as compared to females.<sup>19</sup>

### Conclusion

The prevalence of psychological distress among young adults using GHQ-12 was 23.22%, among whom 97.14% had mild distress. Male gender, age between 18-23 years, belonging to joint family, marital status, poor educational status and low socioeconomic status were identified as the risk factors for developing psychological distress. To conclude majority of predisposing factors of psychological distress can be prevented by creating awareness and health education.

**Conflict of Interest:** None

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