স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

National Mental Health Survey 2019

জাতীয় মানসিক স্বাস্থ্য জরিপ ২০১৯

REPORT

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স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

Minister
Ministry of Health & Family Welfare
Government of People's Republic of Bangladesh

MESSAGE

Ministry of Health & Family Welfare, Government of People's Republic of Bangladesh assigned National Institute of Mental Health, Dhaka to conduct a nationally representative survey to understand the magnitude and pattern of mental health problems, stigma towards mental illness, attitude towards mental health services and treatment seeking behavior of people with mental illness in the country. This is a large action oriented house to house community study conducted in all districts of the whole country.

The survey provided us insights into the current mental health status of Bangladesh. Findings of the study will work as evidences to develop policy and strategic action plan for mental health services in the country.

I congratulate National Institute of Mental Health (NIMH), Non-Communicable Disease Control (NCDC) of Directorate General of Health Services (DGHS) under MoH&FW, World Health Organization (WHO) and Bangladesh Bureau of Statistics for undertaking and completing this task with sincerity.

Zahid Malek

Senior Secretary
Health Services Division
Ministry of Health and Family Welfare
People's Republic of Bangladesh

MESSAGE

Mental Health, an integral part of human health, refers to a person's emotional, psychological and social well-being. Our thoughts, feelings and actions are much influenced by it. Mental health problems are usually the result of a combination of many factors, including family environment, biology, personality, spirituality, and challenging community contexts, including poverty and violence. Increasingly, the impacts of traumatic events such as childhood abuse, interpersonal violence, or natural disasters are being recognized as major causes of mental health problems. To provide comprehensive health services to the people mental health must also be ensured.

For this purpose, it is necessary to know the most recent status of the mental health in the country. In that context, 'National Mental Health Survey of Bangladesh 2019' is a timely initiative. With the funding of Non Communicable Diseases Control of DGHS and technical support of World Health Organization, National Institute of Mental Health, Dhaka conducted this robust and nationwide population-based study. A dedicated group of psychiatrists, experts, doctors and data collectors were engaged in this work. Without their tireless efforts this work would not have been possible. I hope that the findings of this survey will play an important role in policy formulation for mental health and implementation of it at national level.

Lokman Hossain Miah

Director General
Directorate General of Health Services
Government of People's Republic of Bangladesh

MESSAGE

After the first national mental health survey in 2005, this ' National Mental Health Survey of Bangladesh 2019' was a timely initiative by the Government of Bangladesh. Data and evidences collected through this survey will help strengthening and mainstreaming of mental health services in the country.

National Institute of Mental Health, Dhaka with financial support from Non Communicable Diseases Control Program of Directorate General of Health Services and technical support of WHO Bangladesh conducted survey all over Bangladesh. A large number of psychiatrists, doctors and data collectors were involved in this survey. Without their tireless effort, enthusiasm and commitment this work could have not been completed.

I thank all the individuals involved directly or indirectly with this study. I hope, findings of this study will help strengthen mental health services at all levels of Bangladesh and achieve the targets of SDGs by 2030.

Professor Dr. Abul Bashar Mohammad Khurshid Alam

Line Director
Non-Communicable Diseases Control Program
Directorate General of Health Services
Ministry of Health & Family Welfare
Government of the People's Republic of Bangladesh

MESSAGE

Comprehensive health services cannot be ensured without addressing mental health. Formulating policy, strategies and action plan needs to be based on evidences generated though researches. Achieving SDGs by 2030 requires addressing mental health, substance use, alcohol and suidde. First national mental health survey of Bangladesh was conducted tn 2005. By this time lots of changes occurred in the sociocultural arena of the country.Conducting a population based national level survey on mental health was an urgent need. In the current context "National Mental Health Survey of Bangladesh 2019" was completed by National Institute of Mental Health with the finandal support of Non-Communicable Disease Control Program of Directorate General of Health Services under Ministry of Health and Family Welfare. Prevalence of adult and child mental disorders, stigma and attitude related to mental health and mental health seeking behavior of general population of thecountry were observed in this survey.I hope,data derived from the survey will be used properly to develop evidence based mental health programs in the country. We are thankful to those who worked relentlessly to complete the survey.

Professor Md Robed Amin

World Health Organization
Bangladesh

Message from WR

DISSEMINATION OF REPORT OF NATIONAL MENTAL HEALTH SURVEY 2019

Mental health is a crucial aspect of health, and it impacts more people than we could imagine. Globally, mental health disorders affect 1 in 10 individuals, and the scenario is quite similar in Bangladesh. As part of a commitment to elaborate evidence-based policies and programmes, Bangladesh undertook its first national mental health survey in 2004. After a long gap, in 2019, the most recent and current national survey was released by the National Institute of Mental Health, with financial support from the Non-Communicable Disease Control Unit of the Directorate General of Health Services and technical support from WHO.

The survey efficiently incorporates a study based on a nationally representative sample of people of 18 years or above and a child survey for children aged 7–17 years.

According to it, mental health disorders currently affect 1 in 5 adults and about 1 in 8 children aged 7–17 years. 9 out of 10 people affected with mental disorders are not under any treatment for their condition. In addition, stigma, negative attitudes and poor health-seeking behaviour prevails in society, exacerbating the problem and requiring the prioritization of access for need-specific, culturally sensitive mental health care.

The Government of Bangladesh has worked hard to ensure access to quality and affordable care for mental health conditions. In line with the WHO's Special Initiative for Mental Health (2019-2023) and Mental Health Gap Action Programme (mhGAP), the country has formulated the Mental Health Act and National Mental Health Strategic Plan 2020–2030, which aims at improving the population's mental health conditions, reducing the stigma and treatment gap that is currently widely prevalent.

I take this opportunity to congratulate the National Institute of Mental Health and Non-Communicable Disease Control Unit of the Directorate General of Health Services for successfully conducting this survey. WHO will keep supporting the Government of Bangladesh for evidence-based public health and clinical measures to improve mental health and ultimately reach Universal Health Coverage in the country.

Dr Bardan Jung Rana
WHO Representative

জাতীয় মানসিক স্বাস্থ্য ইনস্টিটিউট
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MESSAGE

After 13 years of the first National Survey in Mental Health (2003-2005), the second National Mental Health Survey has been conducted during 2018-2019. As the first survey, this second survey was also implemented by National Institute of Mental Health with the support of Non Communicable Disease Control Division of Directorate General of Health Services, Bangladesh and in collaboration with World Health Organization and Bangladesh Bureau of Statistics.

The objective of the survey was to explore mental health situation in Bangladesh. This includes not only the estimate the prevalence of mental disorders, but also to identify stigma towards mental illness, attitude towards mental health service, current treatment gap in mental health and treatment seeking behavior of persons with mental disorders and to find out the socio-demographic and psychosocial factors associated with psychiatric disorders.

So, we have sufficient data about the mental health situation in Bangladesh. We have already prepared a Mental Health Policy and Mental Health Strategic Plan 2020-2030. Now it is time to implant these to improve the mental health situation of our country.

National Institute of Mental Health has always tried to play its role in research, education and service in the field of mental health and will continue to so.

In this publication, I am extending my gratitude to the persons involved in this survey and the persons who collaborated the survey.

Professor Dr. Bidhan Ranjan Roy Podder

জাতীয় মানসিক স্বাস্থ্য ইনস্টিটিউট
শের-ই-বাংলা নগর, ঢাকা।

PREFACE BY PRINCIPAL INVESTIGATOR FOR NIMH TEAM

Mental morbidity is a major public health problem in the world today. In the list of global burden of diseases major depressive disorder is going to occupy the second position which is only next to cardiovascular disease. Economic and social impact of the mental health conditions are huge. Due to negative attitude and stigma attached to mental illnesses these disorders are often hidden by the society and consequently people with mental disorders remain out of treatment and lead a poor quality of life. Mental health service facilities are limited and treatment gap is very high in Bangladesh. During the recent times prevalence, pattern, characteristics and determinants of mental disorders have been studied to certain extents in the country. But information on attitude to mental illness, prevailing stigma, existing treatment gap, health seeking behavior and care related issues are required for proper planning of services.

Mental Health Act, Bangladesh has been approved recently in the National Parliament. National Mental health Policy has been drafted and is under consideration of the Government. Development of Strategic Plan for Mental Health is in progress. Mental health, suicide and substance use are in Sustainable Development Goals (SDGs) of United Nations and Bangladesh has adopted programs to achieve the goals. Bangladesh is now global leader in the care of Autism. Neuro-Developmental Disorders (NDD) Protection Trust and Act in relation to this has been passed. Rehabilitation Act and Narcotics Control Act are in place in the country.

For further strengthening of mental health programs with evidence-based data in this field of health MOH&FW commissioned National Institute of Mental Health (NIMH), Dhaka to undertake a National Mental Health Survey (NMHS) among a nationally representative population of the country.

NIMH, Dhaka in support of NCDC of DGHS under MOH&FW undertook a collaborative initiative with WHO to collect information on mental health involving all eight divisions of the country.

A team of investigators from NIMH including mental health and public health professionals worked with technical assistance from WHO, NCDC and Bangladesh Bureau of Statistics (BBS).

Results on prevalence, attitude to mental health, stigma, treatment gap, treatment seeking behavior and related issues are presented here. Methodology described and followed will help to understand findings of the survey and guide future researchers to work in this field. This national scientific work in mental health using hand held android tablet instead of traditional paper pencil method has enhanced capacity of NIMH to take further initiative in this regard. Findings of the survey will be used by the government and concerned sections to strengthen current mental health system and develop evidence based strategic plan in the country.

The NIMH Team expresses its sincere gratitude to all individuals, sectors and people of Bangladesh for their involvement and participation in the survey.

Professor Dr Md Faruq Alam

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National Mental Health Survey of Bangladesh 2019 (NMHS of Bangladesh 2019) was undertaken by National Institute of Mental Health, Dhaka around the whole country with the active involvement of many individuals during the period of 2019. The project was funded by Non-Communicable Disease Control (NCDC) of Directorate General of Health services (DGHS) under Ministry of Health & Family Welfare (MOH&FW) of the Government of People's Republic of Bangladesh.

National Institute of Mental Health, Dhaka would like to acknowledge supports of all individuals contributing to the activities at different levels of the survey.

We express our gratitude to honorable members of NCDC of DGHS, WHO Team and BBS Team.

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We are thankful to all the honorable members of the Technical Advisory Committee and Working Group for their valuable support and guidance.

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We are thankful to honorable divisional coordinators for coordinating and supervising survey activities in their respective areas

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We are deeply indebted to Research Psychiatrists who had to go house to house for diagnosis of mental disorders.

NIMH Office Team

We are Indebted to members of office team of NIMH whose support was essential for successful completion of the survey.

Office Secretary

The survey activities could not be completed without the support of office secretary Mohammad Kamruzzaman Mukul

Computer Operator (Current Assistant Programmer)

Computer Support was provided by Anwar Hossain whose service was essential for survey activities.

Office Staffs of NIMH, Dhaka

Office Staffs of NIMH, Dhaka supported the survey activities from their respective position.

People of Bangladesh

Our sincere thanks to all people of Bangladesh who have taken all the troubles to participate in the survey.

Funding and Conflict of Interest

This survey has been funded by NCDC of DGHS under Ministry of Health & Family Welfare of the Government of People's Republic of Bangladesh. National Institute of Mental Health, Dhaka has conducted the survey as a designated institute of the Government for the purpose. The persons involved with the survey are responsible for the views expressed in this document which do not necessarily represent the views or policies of the institutions with which they are affiliated.

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Dr Md Faruq Alam

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Dr Helal Uddin Ahmed
Dr Mohammad Tariqul Alam
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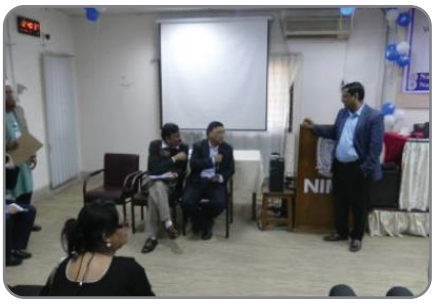
PICTORIAL PRESENTATION OF SURVEY ACTIVITIES



List of Acronyms

ADHD	- Attention Deficit Hyperactivity Disorder
ASD	- Autism Spectrum Disorder
BBS	- Bangladesh Bureau of Statistics
BSMMU	- Bangabandhu Sheikh Mujib Medical University
BD	- Bipolar Disorder
CD	- Conduct Disorder
DE	- Data Enumerator
DGHS	- Directorate General of Health Services
EAs	- Enumerator Areas
GAD	- Generalized Anxiety Disorder
GTCS	- Generalized Tonic Clonic Seizure
HHs	- Households
ID	- Intellectual Disability
MOH&FW	- Ministry of Health & Family Welfare
MDD	- Major Depressive Disorder
NCDC	- Non-Communicable Disease Control
NDDs	- Neuro-Developmental Disorders
NIMH	- National Institute of Mental Health
NMHS	- National Mental Health Survey
ODD	- Oppositional Defiant Disorder
OCD	- Obsessive Compulsive Disorder
PSU	- Primary Sampling Unit
SDGs	- Sustainable Development Goals
SRQ	- Self Reporting Questionnaire
RQC	- Reporting Questionnaire for Children
WHO	- World Health Organization

Executive Summary

Background

Mental disorders exert detrimental effects on individuals, families, communities and health services. Achieving sustainable development goals (SDGs) endorsed by the government requires proper addressing of mental health. During the recent times prevalence, pattern, characteristics and determinants of mental disorders have been studied to certain extents. But information on attitude to mental health services, prevailing stigma towards mental illness, existing treatment gap, health seeking behavior and care related issues are required for proper planning of services. National Institute of Mental Health (NIMH), Dhaka in support of NCDC of DGHS under MOH&FW undertook a collaborative initiative with WHO for National Mental Health Survey of Bangladesh. Bangladesh Bureau of Statistics (BBS), senior mental health and public health professionals of the country also provided technical supervision in the survey.

Objectives

General objective of the survey was to explore mental health situation in Bangladesh. Specific objectives were to estimate the prevalence of mental disorders in Bangladesh**;** to identify stigma towards mental illness, attitude towards mental health services, current treatment gap in mental health and treatment seeking behavior of persons with mental disorders and to find out the socio-demographic and psychosocial factors associated with psychiatric disorders.

Methods

The survey was a two stage house to house cross sectional study. It was multi-centric (8 divisional sites), representative (64 districts), stratified (male and female, urban and rural,) random cluster sampling (randomly selected clusters / PSUs) based on population proportionate to size (PPS). This quantitative study was carried out in eight divisions of Bangladesh: Dhaka, Chattagram, Rajshahi, Khulna, Sylhet, Rangpur, Barishal and Mymensing.

A pilot study following a scientific protocol was undertaken in the urban and rural areas among people outside the study area. The **Master Protocol** was developed based on the feedback from the pilot study. Bangladesh Medical & Research Council (BMRC) approved the survey protocol. The survey was conducted among adults 18 years and above residing in Bangladesh during the period of **01 October 2018 to June 2019**. A small proportion of children 7 years to 17 years were interviewed as model child mental health survey. Estimated sample size for adults was 8928 and for children 2976. The sampling frame was the complete list of Primary Sampling Units (PSUs) / Enumeration Areas (EAs) (about 293,533) covering Bangladesh – prepared by the Bangladesh Bureau of Statistics (BBS) for the Population and Housing Census 2011. From the Frame, 496 PSUs were selected randomly maintaining all divisional and district representation. Out of 496 PSUs, 248 from rural and another 248 from urban areas of eight divisions were selected. For each division, a total of 62 PSUs were selected (31 urban and 31 rural). From each PSU 18 HHs were selected by systematic random sampling technique. Alternative HHs was assigned as a male HH and a female HH. From each of the HH one eligible adult and one eligible child respondent were selected.

Nine pretested questionnaires were used in the survey. Forty data enumerators (DEs) and twenty field supervisors were recruited. They were divided into 20 field teams, each team comprising of one field supervisor and two enumerators (one male and one female). Field supervisors, data enumerators, research psychiatrists and members of divisional teams underwent 8 days extensive training at NIMH under supervision of WHO team following the guidelines developed for the purpose.

In the first stage, data were collected in the programmed Android Tablet computers by DEs and in the second stage in paper and pen by research psychiatrists. In the second stage, all screen positive cases and every fourth screen negative case of adults were approached by research psychiatrists for diagnosis. Data from first stage of interview were transferred from Tablets through cloud to a Server and data from second stage of interview collected manually were entered by manual data entry into Server from data forms. GPRS system was used to determine the location of data collectors.

Data were processed instantly in Epi Info / SPSS software and analyzed. To ensure quality weekly and fortnightly review and problem-solving meetings were held both locally at divisional level and with WHO and NIMH teams. Final analysis of data were done after proper cleaning and editing of data. Weighting of data were done as required.

Results

Households selection, respondents and their interview

Total 8928 House Holds in 496 PSUs in 64 districts of 8 divisions in Bangladesh were approached for data collection from adult respondents. 1 PSU was missed in Chattagram Hill Tracts. Finally, interview of 7270 adult individuals from 7270 households were completed. Overall, HH response rate was 91.0% and individual response rate 99.3%.

Socio-demographic distribution

Age of the adult respondents ranged from 18 years to 99 years and the mean age was 38.2 years (CI 37.6-38.8) of the 7270 respondents 3465 (47.66%) were male, 3805 (52.34%) female, 3749 from rural area and 3521 from urban area.

Prevalence of mental disorders

Overall prevalence of mental disorders among population 18 years and above was 18.7%. Prevalence of mental disorders was highest among people 60 years and above (20.2%) followed by prevalence among people 50 to 59 years (19.4%), 30 to 39 years (16.5%), 40 to 49 years (15.0%) and 18 to 29 years (11.0%). Prevalence in women (21.5%) was higher than in men (15.7%). Prevalence in urban and rural areas was almost equal.

Prevalence of group (gross) mental disorders

Among group mental disorders Depressive Disorders (6.7%) was the commonest group of mental disorders among adults followed by Anxiety Disorders (4.7%), Somatic Symptoms and Related Disorders (2.3%), Schizophrenia Spectrum Disorders (1.0%).

Depressive Disorders Anxiety Disorders, Schizophrenia Spectrum Disorders, Neurocognitive Disorders, Obsessive Compulsive and Related Disorders, Sleep Wake Disorders and Somatic Symptoms and Related Disorders were more prevalent among female. Male preponderance of the prevalence was seen in Substance Related and Addictive Disorders, Bipolar and Related Disorders, Sexual Dysfunction and Disruptive, Impulse Control and Conduct Disorders. Somatic Symptoms and Related Disorders were more in rural respondents and Substance Related and Addictive disorders more in urban people.

Individual mental disorders

Among individual mental disorders Generalized Anxiety Disorder (3.5%) was the most prevalent one followed by Somatic Symptom Disorder (2.1%), Persistent Depressive Disorder (1.2%), Insomnia Disorder (1.0%), Depressive Disorder due to another medical condition (1.1%), Major Depressive Disorder – moderate (0.7%), Major Depressive Disorder – mild (0.5%), Obsessive Compulsive Disorder (0.6%) and Schizophrenia (0.4%). Bipolar and Related disorders were of different types and total percentage combining all was 0.5%.

Help / treatment seeking behavior

Overall, **treatment gap** in adults was 91.0% and it was more in men (92.0%) than in women (90.4%) and almost same in urban and rural area. Treatment gap was found higher for common mental disorders than it was for severe mental disorders.

Overall, **non-adherence to treatment** was 23.1% which was more in women (25.7%) than in men (17.8%) and urban and rural people had same rate of non-adherence (21.1%).

First advice for treatment of mental illness was from close relatives (72.5%) followed by self-referral (12.3%), neighbors (10.1%), physician (0.7%) and friends (0.6%).

Chamber of psychiatrists was consulted by 24.9% of patients followed by chamber of other physicians (22.0), government hospital (20.0%), private hospital (18.9%), specialized mental hospital (3.0%) and homeopathy/ unani / ayurveda practitioners (2.4%).

On average, **3.2 years** after the onset of illness were required for seeking treatment of first mental illness. Many patients consulted within 1 year of illness and some consulted even after 20 years.

Overall, **1.6 hours** were required on the way to reach mental health facility for treatment of mental illness. Many patients required less than 1 hour and some of them required even 14 hours of time.

Most commonly prescribed drugs for previous mental disorders were amitriptyline (15.2%), clonazepam (11.4%),escitalopram (7.6%), propranolol (7.6%), haloperidol (6.3%), fluphenthixol + melitracin (5.1%), quetiapine (5.1%), sertaraline (3.8%), olanzeline (3.8%) and fluphenazine (3.8%).

As first symptom-sign sleep disturbance (21.3%) was the commonest presentation of mental illness followed by feeling low down (18.7%), aggressiveness (11.8%), odd behavior (9.3%), headache (7.7%), feeling superior (4.9%), undue suspiciousness (3.6%), restlessness (3.2%), feeling irritable (2.3%), palpitation (2.0%), burning sensation all over the body (1.9%), repeated thoughts (1.6%) and decreased appetite (0.6%).

Regarding mental health status of family members majority of the respondents had more than average relationship with family members and 39.3% had very good relation. About 15.4% of the family had mental health problems and 4.1% had mental disease. History of suicide was present in HH members of 0.4% family and history of attempted suicide in HH members of 0.9% family. Smoking / tobacco use was reported among HH members of 41.2% respondents and smokeless tobacco use (jarda/ghul/ sadapata/nassi) was among 38.3% family. History of substance use (alcohol/cannabis/yaba/heroin/phensidyl etc.) was reported in HH members of 40.3% respondents.

Regarding stigma towards mental illness proportion of total absence of stigmas was as low as 1.2% to as high as 62.4% in different questions of 7 factors which means stigmas towards mental illness are strongly prevalent in Bangladesh (37.6% to 98.2%).

Overall, male had higher level of stigma than female and there was no urban rural difference in respect stigma.

Regarding attitude towards mental health services presence of positive attitude evident in the survey varied from 5.6% to 62.2% in different questions which means negative attitude to mental health services are highly prevalent in the society of the country (37.8% to 94.4%). Male showed statistically significant more negative attitude than female,. Rural people had more negative attitude than people living in the urban area. Illiterate groups of people had more negative attitude than educated people.

Model Child Mental Health Survey

Executive Summary

Results

Household and individual response

Total 2976 children were approached for interview. Finally, interview of 2270 respondents were completed and individual response rate was 95.3%. Due to missing data, information from 2163 respondents were analyzed.

Socio-demographic characteristics

Age of respondents ranged from 7 years to 17 years and the mean age was 12.0 years (CI 11.8 – 12.2). Among 2163 respondents' **girls** were 1118 (51.7%) and **boys** 1045 (48.3%). Mean age of boys was 12.1 years and girls 11.9 years.

Prevalence of mental disorders

Total prevalence of mental disorders in children was 12.6%. Prevalence across different age groups ranged from 12.4% to 12.8%.

Group (gross) mental disorders

Among total diagnosis, NDDs (5.1%) was the commonest group of diagnosis followed by Anxiety Disorders (4.7%), Disruptive, Impulse Control and Conduct Disorders (1.7%), Depressive Disorders (0.4%), Sleep Wake Disorders (0.4%), Schizophrenia spectrum disorders) (0.2%), Bipolar and related disorders) (0.1%) and Obsessive Compulsive and Related Disorders (0.1%).

Group mental disorders by sex and residence

Overall prevalence of mental disorders was higher in boys (B13.7%, G11.5%) and rural people (U 11.5%, R 12.9%). Boys had higher prevalence of NDDs (B 6.4%, G 3.9%), Disruptive, Impulse Control and Conduct Disorders (B 7.3%, G 1.1%) and Sleep Wake Disorders (B 0.5%, G 0.2%). Anxiety Disorders (B 4.0%, G 5.3%), Depressive Disorders (B 0.2%, 0.5% and Major Mental Disorders were more frequent in girls.

Individual mental disorders

Intellectual disability was the commonest mental disorder followed by Enuresis (1.6%) ADHD (1.1%), Conduct Disorder (0.9%), Social Phobia (0.7%), Specific Phobia (0.6%), ODD (0.6%), Generalized Anxiety Disorder (0.4%), Conversion Disorder (0.4%) and Language Disorder (0.4%). Rural people had higher prevalence of I.D.

Mental disorders by wealth index and residence

Overall, children with high wealth index (15.7%) had the highest prevalence of mental disorders followed by children with low wealth index (14.4%). Children with the highest wealth index (8.8%) had the lowest prevalence.

Treatment gap and non-adherence to treatment

Overall, treatment gap in child mental disorders was 94.3% and it was more among boys (B 98.4%, G 89.7%%) and almost same in urban and rural area. Overall non-adherence to treatment was 30.8% and it was more in boys (B 36.2%, 29.9%) and urban areas (U 61.5%, R 14.9%).

Presenting sign-symptoms of child mental disorders

Among first presenting sign-symptom- delayed development of milestone (21.6%) was the commonest one followed by school problem / poor academic performance (19.9%), headache (13.2%), odd behavior (8.5%), irritability (7.9%), fearfulness (4.5%), self harm (4.1%), language problem (3.5%), enuresis (3.3%), disobedience (3.3%), hyperactivity (3.3%), low mood (2.9%), sleep disturbance (2.1%), fit like attack (1.7%), bullying (1.4%), poor self-care (1.2%), suspiciousness (0.8%) and odd behavior (0.5%).

Treatment seeking behavior

Persons giving advice for treatment of mental illness in children

Overall, 77.4% of children were first advised for treatment of **last episode** of their mental illness by close relatives followed by neighbors (19.3%) and self (3.4%).

Place of taking treatment for mental illness

Homeopathy / Unani / Ayurved (30.6%) was most frequently consulted for treatment of child mental illness followed by chamber of other physicians (21.0%), chamber of psychiatrists (16.5%), private hospital (9.9%), government hospital (5.2%) and specialized hospital (3.9%).

Time taken for psychiatric consultation in the past

On average, 14.1 days were taken to take first psychiatric consultation and it was significantly longer for urban children than rural ones (U 45.7 days., R 6.3 days) and longer for girls than boys (B 9.8 days, G 17.7 days).

Time taken to reach mental health facilities

Overall, 8.1 hours were required on the way to reach mental health facility and it was more for girls than boys (B 3.5 hrs., G 12.1 hrs.).

Common medications used for child mental disorders

Common psychotropic drugs prescribed were risperidon, sodium valproate, clonazepam, fluoxetine, haloperidol, quetiapine, phenobarbitone, imipramine and procyclidine. Risperidone (23.1%) was the most commonly prescribed drug followed by Sodium Valproate (15.4%).

Information about child mental health

Overall, 20.9% of children had sleep problems and 3.2% did not have any close friend. Only 54.2% of children did not miss school and 7.5% of parents did not monitor home works of their children in last 30 days. About 4.5% of parents did not know about their child’s leisure time and 2.6% of parents did not spend time with their children in last 30 days.

Recommendations

Depending on the survey results reported in this document following recommendations are placed for development of mental health services in Bangladesh.

1. As spectrum of mental health problem is very high (prevalence 18.7 in adult and 12.6%.%in children) and treatment gap (91% in adults and 93% in children) is very wide mental health should be given higher priority in the **developmental agenda** of the government.

2. Considering the importance of huge mental health problems in all populations (children and adult) in both genders (male and female) as well as in urban and rural population urgent actions in respect of developing **policy, strategy, plan and programs** are required.

3. As spectrum of mental health problems is very high and nature of the problem is different from other NCDs **a separate office of a Director in DGHS under MOH&FW** is required for coordinating and implementing mental health activities in the country.

4. As treatment gap is very high establishment of mental health facility including facility for substance use in secondary level of health services (**a Psychiatry Unit in District Hospital**) is essential which will also help in developing referral system and reducing time for seeking treatment.

5. Establishing **Psychiatry Department in all government** and **non-government Medical Colleges** of the country to reduce treatment gap and develop referral system.

6. Implementation of mental health programs through its **integration with general health care system / Primary Health Care (PHC) System** of the country should be accelerated to provide mental health services to the doorsteps of all community people, reducing time for treatment seeking and thus reducing high treatment gap.

7. Increasing **logistic supports** and **human resources** (trained and qualified) and ensuring **psychotropic drugs** delivery at all levels of health services are urgent to reduce treatment gap.

8. As stigmas, negative attitudes and poor health seeking behavior in relation to mental health problems are strongly prevailing in the society **Mental Health Literacy Programs** and **revision of high school curriculum** are required.

9. As current family environments are not supportive for child mental health parents are required to give **more time to children** and communicate about their personal and academic life.

10. As epidemiology of mental disorders vary among special groups of population mental health should be integrated with **child, adolescent, elderly and women health programs** of the government.

11. As prevalence of NDDs (5.1%) is very high and many mental disorders are chronic disabling in nature attention needs to be focused to **Rehabilitation** of individuals with long standing disabilities and multiple areas of negative impact suffered due to mental health problems including the issues of creating service facilities at community level, protected housing and social security / unemployment benefits, coverage under health insurance, skills training, protected employment, provision of loans and microcredits and legal protection from discrimination and neglect.

12. Program designing and implementation need sensitization and **training of policy makers** and **all mental health program officers**.

13. **Government Funds** for mental health needs to be increased and streamlined with proper planning and performance based timey disbursal.

1. Introduction

Health includes mental health along with its physical, social and spiritual components. Mental disorders are highly prevalent in the society exerting detrimental effects on individuals, families, communities and health services. People suffering from psychiatric disorders having onset in childhood can prevent a young person from reaching his or her full potential by impairing normal development. Socioeconomic impact of mental illness is also very high.

A nationwide survey in 2003-2005 revealed prevalence of mental disorders among adult population in Bangladesh 16.1%.[1] Information about childhood mental disorders in the community in developing countries is scarce though children under 15 years of age constitute 40%-50% of country's population. [2] Behavioral and emotional disorders occur frequently among children. A WHO supported study by National Institute of Mental Health, Dhaka in 2009 demonstrated prevalence of mental disorders, mental retardation, epilepsy and substance abuse among population under 18 years in Bangladesh 18.05 %, 3.78%, 2% and 0.6% respectively. [3] Recent data on Neuro-Developmental Disorders (NDDs) including Intellectual Disability (ID), Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD) is still to be determined in Bangladesh.

Treatment gap of mental disorders is very high in Bangladesh. A WHO supported study by National Institute of Mental Health, Dhaka revealed that 78% of children suffering from Epilepsy in rural Bangladesh was not getting any treatment. [4] Treatment gap of mental disorders including substance use and Neuro-Developmental Disorders is also likely to be same.

Persons with mental health problems are frequently discriminated and there is both public stigma and self-stigma. Consequently, there is frequent variation in reporting and care seeking for mental morbidity in Bangladesh like other countries of the developing world. Mental health is also highly stigmatized in Bangladesh.[1]

Identification of stigmas, attitude, treatment gap, pathway of care seeking and barriers to service utilization are required to be identified.

Achieving Sustainable Development Goals (SDGs) endorsed by the government requires proper addressing of mental health. SDGs include Goal 3 which says about ensuring healthy lives and promoting well-being for all at all ages, Target 3.4 to reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promotion of mental health and well-being, Target 3.4.2 to reduce suicide mortality rate from the rate of 7.1/100,000/year in 2015 including narcotic drug abuse and harmful use of alcohol, Target 3.5.1 for coverage of treatment interventions for substance use disorders, Target 3.5.2 to reduce harmful use of alcohol among 15 years and older from current per capita consumption of 0.2 Liters pure alcohol in a calendar year.[5]

Mental disorders are now considered as major public health problems in Bangladesh and currently included under Non-Communicable Disease Control (NCDC) program of Director General of Health Services (DGHS), an executive wing of Ministry of Health & Family Welfare (MOH&FW) of Government of People's Republic of Bangladesh. Detection, prevention and treatment of mental health problems are important not only to relieve current distress but also to improve adult functioning and prevent the perpetuation of disadvantages into the next generation. Prevalence, pattern, characteristics and determinants of mental disorders have been studied in Bangladesh to certain extents.[1,6] Giving attention to other issues related to service planning is required. Effective service planning depends on accurate estimation of prevalence, treatment gap, care seeking behavior and related barriers in relation to mental morbidity in the country.

Understanding the need for good quality reliable scientific data in this field of health MOH&FW commissioned National Institute of Mental Health (NIMH), Dhaka to undertake a National Mental Health Survey (NMHS) among a nationally representative population of the country.

National Institute of Mental Health (NIMH), Dhaka in support of NCDC of DGHS undertook a collaborative survey initiative with WHO involving all eight divisions of the

country. A team of investigators from NIMH including mental health and public health professionals conducted the survey with the technical assistance of WHO, NCDC and Bangladesh Bureau of Statistics (BBS).

2. Objectives

General objective of the survey was to explore mental health situation in Bangladesh and specific objectives were

1. to estimate the prevalence of mental disorders in Bangladesh.
2. to identify stigma towards mental illness, attitude towards mental health services, current treatment gap in mental health and treatment seeking behavior of persons with mental disorders in the country.
3. to find out the socio-demographic and psychosocial factors associated with psychiatric disorders.

3. Methodology

National Institute of Mental Health (NIMH), Dhaka, a government institute carried out this multi-centric community-based study throughout the whole country. Technical advisory committee, working group, NIMH core committee and 8 separate divisional coordinators supervised and monitored the study. **A pilot study** following a scientific protocol was undertaken in the urban and rural areas among people outside the study area. Then necessary modification was made depending on the findings of the pilot study. The **Master Protocol** of the study was drafted based on the results from the pilot study and finalized after presentation before technical advisory committee and approval by the committee.

3.1. Study design

The study design for this national mental health survey was descriptive and cross sectional in nature. Sampling strategy of the study was multi-centric (8 divisional sites), representative (64 districts), stratified (male and female, urban and rural,) probability-

based sampling on the basis of Primary Sampling Unit (PSU) developed by Bangladesh Bureau of Statistics (BBS) for population census 2011. [7]

3.2. Study period

The survey was conducted during the period of **01 October 2018 to June 2019**. It included preparatory activities, protocol and research instruments development, pilot study, finalization of Master Protocol, field preparation, data collection, quality control check, data processing and analysis followed by report writing and dissemination of survey findings. Details of the activities is furnished in flow chart given at the end of methodology section. The field work took place between February to June 2019.

3.3. Study Sites

This study was carried out in eight divisions of Bangladesh: Barishal, Chattagram, Dhaka, Khulna, Rajshahi, Sylhet, Rangpur and Mymensingh. Eight divisions also covered all 64 districts of the country. A total of 496 PSUs were selected randomly and Maps of PSUs used by BBS in population census of 2011 were used for mapping of PSUs. [7]

3.4. Study Population

The target population for this survey was all adults (men and women) aged 18 years and above who were residing in Bangladesh and considered the selected households as their usual place of residence. A small proportion of children and adolescents aged 7 years to 17 years were also interviewed as a model child mental health survey. This small part of survey among children was considered as model approach for further survey in child population with national representative larger sample size in future. The term ‘model’ denoted to fact that the data from the child part of the survey would inspire policies and programs leading to model mental health care services for children in Bangladesh. A separate national survey among child population is under plan of NCDC wing of DGHS in the coming years.

3.5. Sample size estimation

For adults:

The sample size was calculated considering prevalence of mental disorders, relative precision rate and feasibility of the survey. Considering prevalence of mental disorders in Bangladesh 16.1% (1) 208 people, as standard practice, are required for each group for effective analysis. The groups in this case were 5 age groups and 2 sex categories (total 5.2=10). To calculate the final sample size, the design effect and non-response rate at the household (HH) and individual level were considered. Considering the findings of Demographic Health Survey [8] and previous BBS survey [9] the person non-response rate caries around 10% and household non-coverage rate is around 10%. So, in the proposed survey, overall, 20% non-response rate and design effect of 2 were considered. As a result, the final adjusted sample size was 8928 adults. Only one respondent per household was selected. The survey included 496 Primary Sampling Units (PSUs) (248 each from rural and urban area) as updated by Bangladesh Bureau of Statistics (BBS) for Global Adult Tobacco Survey (GATS) 2017. [10] In the survey, 18 households in each PSU were recruited.

Sample size calculation for adults:

Step 1:	**Initial calculation:**									
	n=	3.8416	* (	0.16 / 0.05	* (1-	0.16 / 0.05	))	=	**208**
Step 2:	**Multiplying by the design effect:**									
	n=	208	*	2.0				=	**415**
Step 3:	**Multiplying by the number of age-sex groups:**									
	n=	415	*	10				=	**4151**

Step 4. Multiplying by 2 to have urban-rural estimate:

n= 4151 * 2 = **8303**

Step 5: **Adjusted for expected response rate to get final sample size:**

n= 8303 / 0.93 = **8928**

Final sample size = 8928

Allocated Sample size to 496 PSUs: 496 * 18 = **8928**

For each of male and female respondents there were five age bands. So 5x2=10 strata were identified.

This study is the first of its kind in Bangladesh to include a nationally representative sample to provide evidence for policies and programs leading to models of health service**.** The sample size calculated here for adult population is nationally representative. The sample design of 2003–2005 mental health survey conducted by NIMH and WHO (1) was the first of its kind in Bangladesh. The present survey is based on the prevalence estimates of the 2003–2005 one. In addition, the sample size calculation was rigorous and used procedures followed in other multi-partner global surveys like Global Adult Tobacco Survey (GATS) [10] and STEP wise approach to surveillance system (STEPS) [11] which were previously done in Bangladesh but after the 2003–2005 Survey.

For Children:

Sample size calculation for children (sub sample)

Initial calculation:

$$n = \frac{3.8416 * (0.18 * (1 - 0.18))}{0.05 * 0.05} = 227$$

Multiplying by the design effect:

n= 227 * 2 = 454

Multiplying by the number of Age and Sex groups:

n= 454 * 4 = 1816

Adjusted for expected response rate to get final sample size:

n= 1816 / 0.91 = 1996

Final sample size = 2000

Allocated sample size to 496 PSUs: 496 * 6 = 2976

3.6. Sampling methods

Forming Primary Sampling Units (PSUs)

- As mentioned previously, the PSUs were EAs defined during 2011 Census of BBS.7 These EAs (PSUs) were defined through a special zonal operation which further divided the erstwhile mauzas (rural) and mahallas (urban) (used as PSUs) into EAs with about 100-220 households with an average of 113 households. There are 293,533 EAs: 228,340 rural and 65,193in urban. In the recent past, 496 PSUs were updated to conduct Global Adult Tobacco Survey (GATS) in 2017 [10] and those were considered for a fresh sampling in this survey as a national level representation of eight divisions.

- Out of 496 Primary Sampling Units (PSUs), 248 were selected from rural and 248 from urban areas of eight divisions. For each division, a total of 62 PSUs were selected (31 urban and 31 rural).

First and second stages of sampling - Selecting PSUs and HHs

Since a two-stage sampling was conducted the number of primary sampling units (EAs) and the number of second stage units (HHs) in an EA to be selected had to be determined by exploring the intra class correlation (ICC) and the design effect of the study.

$$\mathrm{deff} = 1 + (\mathrm{m} - 1)\mathrm{ICC}$$

An optimization between maximum geographic representation (i.e. higher number of PSUs) and maximum utilization of resources and manpower (by taking more HHs in selected PSUs) was done. For the purpose, different values of m were checked on a trial and error basis to see which gave the best combination of number of HH and number of PSUs satisfying the above relationship.

Finally, equal number of PSUs were selected for both rural (31) and urban stratum (31) in each division (62). The rural and urban PSUs (EAs) were arranged by population size in terms of household numbers for both urban and rural stratum in each division.

Thirty one PSUs (EAs) were selected independently in each stratum (rural and urban) in each division by probability proportional to size (PPS) sampling. The list of selected PSUs were prepared before the fieldwork.

Also a total of 18 households were selected from each PSU. In all selected PSUs (EAs), the complete household listing was again carried out by BBS in 2017.These lists of the households formed the sampling frame for the selection of households.

A **sketch map** made by BBS that delineates the PSU geographic boundaries for each PSU was used. The **list of selected HHs** was prepared before the fieldwork. From each PSU, 18 households were selected with **systematic random sampling technique**. Alternative HHs was assigned as a male HH and a female HH. One person per household (HH) was selected randomly by handheld android tablet.

Third stage of sampling - Selecting individuals within screened households (HHs)

As per 2011 Population and Housing Census, the average number of persons 18 years and older per household was about 2.97 (Urban-3.8, rural-2.8). One individual was randomly selected from each household. The18 selected households in a PSU were divided into two groups as i) households for interview of a male member and ii) households for interview of a female member. In this way equal number of men and women adults (men 9 + women 9) from urban and rural areas were included in the study. This selection was done by the Android based Tablet computer program after entry of the list of eligible HH members during interview.

3.7 Weighting procedure

Sample weights procedure followed in survey were similar to procedures followed in other multi-parter global surveys like: Global Adult Tobacco Survey (GATS) (10) and STEP wise approach to surveillance system (STEPS) (11). Overall, two procedures were followed – for the population projection and weight calculation. Probability calculations were done for each stage of the selection of the sample and used for weight calculations.

3.8 Sample selection criteria

Inclusion criteria

- All men and women aged 18 years and above who were residing in Bangladesh during the data collection period.
- For model child survey adolescents between 7 to 17 years of age residing in Bangladesh during the study period.
- Those who were Bangladeshi citizens by birth.
- Persons or their guardian giving informed written consent for the interview
- Non-institutionalized general population was included in the survey.
- In general, the target population of the study included individuals residing in all geographical areas of the country. Nearly all members of the target population were sampled from their primary place of residence. Some individuals had been living at some location other than their “primary” home at the time the

interviewer visits a household, for example college students staying in dormitories, families staying at their vacation homes, and laborers temporarily living at a farm during the gravest season. These individuals were sampled from the place they considered to be their primary place of residence.

- If a household (HH) was visited and the interviewer learned some residents considered the dwelling unit to be their primary place of residence; however, they were currently not staying in the HH, then these individuals were still be included in the roster for the HH.

3.9 Exclusion criteria

- Adults who were visiting Bangladesh (e.g. tourists)
- Adults who indicated that their primary place of residence was a military base or group quarters (e.g. a dormitory)
- Adults who were institutionalized including people residing in mess, hospitals, prisons, nursing homes and other such institutions.
- If a household was visited and the interviewer learned some people currently staying at the dwelling unit considered the dwelling unit to be a vacation home and not their primary residence, then these individuals were not included in the roster for the household.
- Severely ill adults were excluded from the survey

3.10 Sample frame

For the survey, the sample frame was developed on the basis of the population census of Bangladesh conducted by BBS in 2011 [7] which is the latest census in the country and provided the measures of size of household.

Administratively, Bangladesh is divided into 8 divisions. Each division is further sub-divided into progressively smaller units: districts (zilas), sub-districts (upazilas), unions, wards, and villages.

The sampling frame for the survey was the complete list of Primary Sampling Units (PSUs) i.e. Enumeration Areas (EAs) (about 293,533) covering the whole country prepared by the BBS for the 2011 Population and Housing Census of the People's

Republic of Bangladesh. [7] A PSU is a geographic area covering 100 to 220 households with an average of 113 households. The sampling frame contains information about the PSU location, type of residence (urban or rural), and the estimated number of residential households. A sketch map that delineates the PSU geographic boundaries was available for each PSU. The population coverage rate of this Census 2011 was around 95.85% of the total population. [7]

A special zonal operation was carried out by BBS before 2011 census in 2010 whereby both the urban and rural areas were subdivided with updating of mauza and mahallas maps with demarcation of PSU boundaries comprising of 100 to 120 (average) houses. Thus based on 2011 census, the sampling frame for the survey was about 293,533 PSUs for both rural and urban areas. The urban stratum included urban and city corporation area. In Bangladesh, 23.3% of the households are in urban areas; 8.2% are in city corporations, and 15.1% are in other than city corporations. [7]

So, all the PSUs in the 2011 census were mapped out. Thus the sampling frame for NMH survey 2019 in Bangladesh comprised of 293,533 PSUs: 65,193 urban and 228,340 rural PSUs (Table 1)

Households in this survey was defined according to BBS as “A dwelling in which persons either related or unrelated living together and taking food from the same kitchen”.

3.11 Sample design features

The sample for National Mental Health Survey 2019 was multi-stage stratified sample. From the frame, 496 PSUs were selected randomly maintaining all divisional and district representation. Out of 496 PSUs, 248 from rural and another 248 from urban areas of eight divisions were selected. For each division, a total of 62 PSUs were selected (31 urban and 31 rural).

The HH list of each PSU was the sampling frame for the selection of households in the second stage of sampling. In the second stage of selection, a fixed number of 18 households were systematically selected from each sampled PSU with an equal

probability using a fractional interval technique (systematic random sampling technique). Alternative HHs was assigned as a male HH and a female HH.
Finally, one individual was randomly chosen from all the eligible males/females in a participating household using the android application. No replacements and no changes of the pre-selected households were allowed at the implementing stage to prevent bias.

In the child part of the survey, selected HHs of all the 496 PSUs (18 HH for each PSU) were considered. The child part of the questionnaire included eligible child (7–17 years old). If more than one eligible child were found, the program selected one child from the eligible ones. It needs to be mentioned that the child interview from the HHs followed gender assignment of that HH, i.e. a male enumerator interviewed a male adult and/ or a male child and vice versa for a female enumerator. Since the data collection for child population in this survey was based on the same sampling frame, it was more efficient to collect data at the same time. So to save time and other resources this was planned. From each of the HH one eligible adult and one eligible child respondent was interviewed.

3.12 Instruments used in the survey

a. **Socio-demographic and Related questionnaire**: Adopted and pretested socio-demographic questionnaire was used in this survey.

b. **Questionnaire for general information on mental health of household (family) members**: Pretested questionnaire developed by researchers.

c. **Screening questionnaires for mental disorders:**
   - **Self Reporting Questionnaire (SRQ) for adults [12] :** SRQ is a screening instrument for adult and elderly mental disorders, was developed by WHO for use in primary care setting in developing countries, which was well validated and widely used in many studies. It is applicable for both health care facilities as well as residents in communities. SRQ consists of 24 questions, 20 of them are related to non-psychotic disorders and the remaining 04 to screen psychotic ones. Questions in SRQ only ask for “yes” or’ no’ answers. The respondent is considered to be a potential

psychiatric case if the 'yes' answer for the first 20 questions reaches or exceeds a fixed value the cut-off point or if at least one 'yes' answer given for the last four questions. SRQ has been selected as a case finding instrument because it was developed for developing countries and has been validated in several developing countries including neighboring India. SRQ was pretested, adapted and used in National Survey on Mental Health in Bangladesh and national survey on prevalence of substance use and its risk factors in Bangladesh.

- **RQC (Reporting Questionnaire for Children) for child and adolescent mental disorders [13] :** The pre-tested Bengali version of RQC was applied for screening of probable case and probable non-case in children 7 years to 17 years of age. It consists of 10 questions. It was developed by WHO and has been validated in several developing and developed countries. SRQ questionnaire was pretested, adapted and used in National Survey on mental health in 2005. [1] RQC was also used in community survey on child mental disorders in 2009 and national survey on prevalence of substance use and its risk factors in Bangladesh.

d. Diagnostic instruments: The **Diagnostic and Statistical Manual 5 (DSM 5)** [14] : Mental disorders were diagnosed following DSM 5 criteria for respective diagnosis. DSM 5 has been designed by American Psychiatric Association for diagnosis of mental disorders and substance use/abuse. It has wide international acceptance and has been used in many international studies for diagnoses of mental disorders including substance use.

e. Days Stigma Toward Mental Illness [15] Scale: To measure stigma toward mental Illness **Day's Stigma Toward Mental Illness** scale was used in this survey. Day's Mental Illness Stigma Scale was developed independently by Emer Day as part of her doctoral dissertation at the University of Kansas. Guided by theory on stigma, a Likert-type scale was developed to measure 7 factors of stigma / attitude toward people with mental illness: interpersonal

anxiety, relationship disruption, poor hygiene, visibility, treatability, professional efficacy and recovery.

f. **Inventory of Attitudes toward Seeking Mental Health Services (IASMHS)** [16] was used for assessing attitude of people toward mental health services of general people. IASMHS is a 24 item scale designed to assess the attitudinal factors that influence the seeking of mental health services. The 24-Item scale explains in terms of three correlated factors :i. Psychological Openness: The degree to which an individual is open to acknowledging the presence of psychological problem and to seek professional care for such a problem, ii. Help-Seeking Propensity: One's willingness and perceived ability to seek help for psychological problems, and iii. Indifference to stigma: How concerned an individual would feel that significant others were to discover that they were receiving psychological care. This questionnaire was modified and validated including five more questions in the cultural background of Bangladesh and thus giving rise to 29 item questionnaire. Validity and reliability of the questionnaire was found to be high.

g. **WHO Encounter Form: Pathway of care** [17] was used for people diagnosed with mental disorders by research psychiatrists. Modified translated and pretested version of the form was used to gather information about the paths which people with mental disorders follow in the course of their search for treatment help starting from first contact of help up to the stage of getting specialized mental health services. Looking for treatment seeking behavior of the persons with mental disorder is the prime objective of the instrument.

h. **Modified version of Global School Health Questionnaire** [18] **prepared by expert team**

Development and adaptation of questionnaires

Questionnaires were translated and back translated into Bangla and then English. Draft Questionnaires in Bengali were then pre-tested in an urban and a rural population outside of original study sites. Thus they were adapted and also validated as required. Then questionnaires were finalized for use in the field.

3.13 Piloting and development of Master Protocol

A pilot study was conducted among population in two different PSUs from urban and rural areas which were out of actual study sites. Necessary modifications were made based on feedback from the pretest and Master Protocol was developed.

3.14 Manpower Management

There were 20 field teams, each team comprising of one field supervisor, two enumerators (one male and one female). On an average each team collect 14 data (7 male and 7 female) per day. Therefore within 2 days they completed 18 HHs in each PSU and got 1 day extra for recall visit and travel day. Data Enumerator (DE) had to do at least two re-call visit and after that with the permission of team supervisor they provided final code. Overall, it took 114 working days excluding inter-district travel day and weekend.

Each field supervisor had supervisory role for each field team. They personally supervised the field activities as per schedule.

3.15 Recruitment of Field Supervisor

Twenty field supervisors having at least graduate degree and prior experience in conducting community survey on mental health were recruited through advertisement in National News Papers followed by interview by Investigators in NIMH. One supervisor worked in one field team and supervised the data enumerators and give required assistance to them. They also had continuous communication with the Investigators.

3.16 Recruitment of Enumerator

Forty (40) data enumerators were recruited for data collection. Each enumerator having minimum graduation level education were recruited through advertisement in National News Papers followed by interview by Investigators in NIMH. Two (2) enumerators were employed in one field team. All the recruited enumerators were employed in 20 teams and they collected data from eight divisions.

3.17 Training of Field Teams

Field supervisors, data enumerators and research psychiatrists underwent extensive training at NIMH on Protocol, questionnaire, field procedure manual, interview technique, supervision of field activities, privacy, confidentiality and quality data and others. Total **40** data collectors and 20 field supervisors included both male and female. Persons having experience in field research in mental health were given preference during recruitment. Members of divisional team were also trained on data collection, monitoring and diagnostic procedure in the survey **for 8 days** in NIMH, Dhaka. Guidelines for field supervisors and data enumerators were developed and training was conducted following the guidelines. Training was also given to the research psychiatrists regarding diagnosis of mental disorders following DSM 5 criteria of diagnosis. The training was participatory and different methods including class room sessions, observation and demonstration of interviews and training in the community (both supervised and independent) and hands-on training in data collection on Tablets were used. After eight days **rigorous training** Data Collectors in the field undertook door to door interview

3.18 Data collection procedure

A **two stage** study design was adopted for the survey.

In **the first stage**, data were collected in programmed Android Tablet computers by data collectors and in ***the second stage*** in paper and pencil by psychiatrists. GPRS system was used to determine the location of data collectors in the field. Data were transferred from Tablets through CLoud to a Server and by manual data entry into Server from data forms.

Stage 1: Selection of samples, collecting socio-demographic information and information on households, households assets, mental health status of family members, stigma and attitudes related to mental health, child mental health related information and screening mental disorders.

a. Selecting Households

In all selected PSUs, the complete household listing was carried out by BBS. These lists of the households formed the sampling frame for the selection of

households. From each PSU, 18 households were selected systematically with interval sampling.

b. Selecting individuals within households

One individual was randomly selected from each household. The 18 selected HHs in a PSU were divided into two groups as 1) male HHs for interview of a male member and 2) female HHs for interview of a female member. All the sampled HH from each PSU were listed sequentially, and alternate HH was assigned as female or male HH, with the first household in the list assigned as female household.

c. Selection of male/ female respondents

In a selected household a list of all the males/ females members aged 18 years and above formed the sampling frame for the selection of male/female respondents. From the total number of male/female members in a household, one member was selected at random for the interview using the android tab at the time of survey.

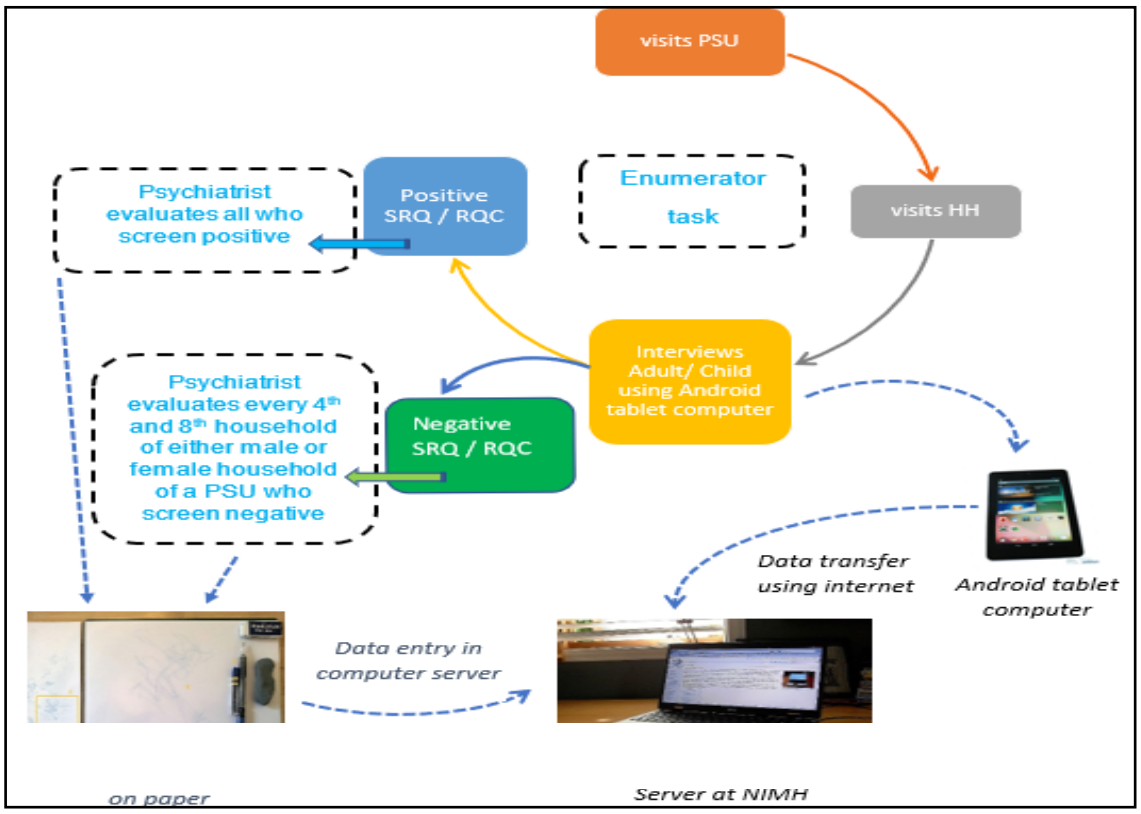
d. After selecting individual, DEs collected basic socio-demographic information and information on households, households assets, mental health status of family members, stigma and attitudes related to mental disorders and child mental health related information from children.

e. **Screening mental disorders**

In this stage, DEs used SRQ for initial screening of adult mental disorders. Additionally DEs used RQC questionnaire for screening children's mental disorders among the selected sub-sample group (selected PSUs) of population.

Figure 1:

Flow diagram showing data collection by enumerators and psychiatrists and data transfer mechanism.



Stage 2: Diagnosis of mental disorders, cross-checking of the negative cases and collecting information on treatment seeking behavior.

a. Confirming diagnosis of mental disorders

In the second stage of interview by research psychiatrists all respondents were classified on the basis of answers / scores in the screening questionnaires. Positive answers in SRQ with a cut off score 6 for the first 20 questions and one positive answer for last 4 questions and one positive answer in RQC were considered as positive. In this stage of study systemic sampling technique was adopted for screen negative cases. The sampling interval was 4 for screen negative cases. Trained Research Psychiatrists interviewed all screen positive cases and every fourth screen negative case for diagnosis of true cases of mental disorders following DSM 5 criteria of diagnosis within two days of first screening by DEs. If any screen positive case or 4th respondent of screen

negative cases was not found recalls were made for three times within two days of completion of data collection and if they were not found after recalls then the case was assumed as dropped out.

Research psychiatrists diagnosing persons with mental disorders in this stage prescribed treatment for the diagnosed patients and referred the patients to the psychiatry department of nearby Medical College or NIMH or Mental Hospital, Pabna as required.

b. Re-checking the negative cases

Additionally every 4th negative case was re-checked for negativity by the trained psychiatrist within two days after initial screening.

c. Collecting information on treatment seeking behavior

In this second stage of interview research psychiatrists also collected information from persons diagnosed with mental disorders using **WHO Encounter Form: Pathway of Care** to know about treatment gap and treatment seeking behavior of the patients.

Data collected by research psychiatrists in this second stage of interview were recorded manually using paper pencil method and then entered into computer software later on for analysis.

3.19 Project management

i. **Technical Advisory Committee:** A committee was formed to coordinate and supervise the survey. This committee provided directions for the survey, supervised progress, ensured quality and examined time lines.

ii. **Working group:** An expert working group was formed to help develop survey protocol, develop questionnaires and conduct survey following the designed protocol. The group members sat 10 times in meetings during the study time. Working group had constant supervision over the survey activities.

iii. **Monitoring by divisional coordinators:** Eight divisional coordinators were employed to coordinate and supervise the survey especially in their respective study area.

iv. WHO team in collaboration with the core National Institute of Mental Health (NIMH) Team comprising of psychiatrists and epidemiologists with extensive experience in conducting population based surveys conducted 8 days Training of Data Collectors, Field Supervisors, Research Psychiatrists and members of Divisional Monitoring Team following the guidelines developed for Data Enumerators (DEs)and Field Supervisors. Training also included the technique of using Tablets.

v. Guidelines for field data enumerators (DEs) and guidelines for research psychiatrists were developed by WHO and core NIMH team.

vi. Prior to training study protocol was supplied to all members of core NIMH team and divisional monitoring team. Outline of training was presented by WHO team and core NIMH team before all members who were trained. Presentation was made on specific mental disorders also.

vii. Record keeping was maintained by data enumerators (DEs), field supervisors, monitoring team and core NIMH team through different forms / checklists designed for different levels.

viii. GPS system was used to determine the location of data collectors in the field.

ix. Continuous monitoring was done by investigators, monitoring team, and national technical advisory committee.

3.20 Data Management

3.20.1 Electronic devices for data collection

Electronic hand-held devices were used for interview and data collection and transfer of data from the field on daily basis through internet. Data were transferred and processed instantly in Epi Info/SPSS software and analyzed. Whole procedure of data collection was supervised electronically from WHO head office in Bangladesh and NIMH.

3.20.2 Data Processing and analysis

Data from respective hand held device of interviewers were sent to the FTP server by all Data Enumerators on a daily basis. IT personnel from WHO aggregated the data received from all Enumerators twice in a week and gave instant feedback to the field staffs if any problem observed. IT personnel cleaned data. WHO IT team aggregated all the files into a single SDF file. Then using an aggregation module in GSS software and a statistical software SPSS version 18 the aggregated data were transposed to an analyzable raw data format that can be read by statistical software for further analysis and reporting. Complex survey data analysis was performed to obtain population estimates and their 95% confidence intervals. Collected data were used for assessment of prevalence of mental disorders and association of different factors with the disorders in population of Bangladesh. All analysis were done using SPSS 18.0 version. Quality control check was performed regularly during review of the data downloaded from server.

In this report an index of household economic status was created and used as background characteristics with information on household ownership of assets. It is an indicator of the level of wealth that is consistent with expenditure and income measures.(19). The wealth index was constructed using principal component analysis of the household asset. Each asset was assigned a weight (factor score) and resulting asset score were standardized in relation to normal distribution with mean zero and standard deviation. Each household was then assigned a score for each asset. The scores were summed for each household. Individuals were ranked according to the total score of the household in which they resided. The samples were then divided into quartiles from one (lowest) to four (highest). A single asset index was developed for the whole sample; indices were not prepared for urban and rural population separately. Distribution of factors across the quartiles were then examined.

3.20.3. Quality assurance of data

- All the members of the field team were extensively trained on the research objectives, research design and methods, data collection instruments and techniques. Evidence suggests that effective training has the potential to

minimize the difference in measurement by different raters irrespective of whether they are physicians or not. [20]

- Data collection instruments were translated into Bengali and then back translated and pretested. They were corrected and in some cases validated as per requirements.

- The android devices were programmed with the help of WHO experts and were used for data collection after extensive pretesting.

- To ensure quality of data, quality control procedures were put in place through regular field supervision of interviews and daily review of collected data by Survey Investigators, WHO team, BBS Team, Divisional Team and IT personnel.

3.20.4. Monitoring and Supervision of data collection

- Members of the Technical Committee frequently visited field to ensure the valid data collection.

- Member of BBS also visited field for monitoring and supervision of data collection activities.

- The representative of NCDC of DGHS and WHO were involved in monitoring field activities.
- Weekly and fortnightly review and problem solving meetings were held both locally at divisional level and with NIMH team. Data were captured in handheld devices and strict protocol was followed for data transfer and management with controlled mechanisms.
- **Five coordination meetings** with Line Director, Program Manager and Deputy Program Manager of NCDC, DGHS were held periodically.

- None of the observers reported any violation of the procedure of data collection. The overall range of interviewers' conduct and performance was found to be satisfactory based on indicators, behavior of interviewers, mode of measurement, maintenance of interview environment and mode of administration of questionnaires.

3.21 Ethical consideration

- The survey was conducted maintaining all possible ethical considerations. Ethical approval for the study was obtained from Bangladesh Medical Research Council (BMRC). The survey protocol, instruments, consent and assent forms for this survey were approved by the ethical review board of Bangladesh Medical Research Council (BMRC). Informed written consent was obtained from all participants prior to collection of survey data.

- The participation was voluntary. Before data collection informed written consent of the study subject was obtained in conformity with the revised declaration of Helsinki.

- In order to document the assent from the child and consent from parents or guardian, Bengali version of assent and consent forms were read out and were then signed by children in the ascent form and their parents or guardians in the consent form. Assent Forms were used for children 7 years to 17 years.

- Detailed study related information were read out and explained in the local language.

- The illiterate respondent and parent or guardian were asked to put their thumb impression.

- Interviews were conducted at times and locations suitable to the study individuals and privacy was maintained during assessment.

- Informed written consent and assent forms contained objectives and methods of the study, possible duration and frequency of interview.

- Consents and assents were taken in Bengali and interviews were conducted in Bengali.

- Finger impressions were obtained from the participant who could not sign.

- Assents were taken from child respondents and informed written consents were also taken from their guardians as they were under 18 years of age.

- In addition, consents were taken from the guardians of the respondents who could not provide consent for interview due to diagnosis of severe mental disorders in both stages of the survey.

- Consents were obtained from the relevant authorities of the study sites.

- The respondents were ensured about the confidentiality of the data to be obtained before proceeding of the interview.

- Sensitive questions were asked only after establishment of good rapport and were used only for this study.

- Confidentiality of data was maintained with highest priority. Privacy of the respondents was maintained during data collection.

- There was no physical harm or risk on the study population as no hazardous procedure was involved with the study participants. There was no loss of working hours of the studied population.

- Before data collection, formal permission was obtained from the respective community leader.

- During data collection, privacy of the participants and confidentiality of data were maintained strictly.
- Every endeavor was made to limit harmful effect of the study either on the family or on the individual.

- The study did not cause any injustice to the participant and did not create any emotional, financial, social or professional problem to the participants.

- Participants were offered due respect and they were given full freedom to withdraw their consent of participation at any stage of the study. They were free to refuse to answer any question.

- Each questionnaire was identified by a code number. The final report did not contain the names of the respondents.

- Data were used only for this study. Data were analysed and presented anonymously.

4. Results

4.1. General characteristics

Household and Individual response

Total 8928 House Holds in 496 PSUs in 64 districts of 8 divisions in Bangladesh were approached for data collection from **adult** respondents. One PSU could not be visited due to unrest in Chattagram Hill Tracts. Among 8928 HHs roaster could be completed in 7320 HHs for interview (female HHs 3835 and male HHs 3485). Among 8928 HHs some were not HHs (11), some HHs were not found (89), some were broken HHs (111), some were locked HHs (430), some were vacant HHs (96) and some HHs (32) had group accommodation. No eligible respondent was present in 757 HHs. Some HHs were found but information was refused (82). Among 7320 HHs, individuals were absent in 39 HHs and 11 individuals refused to give information. Finally interview of 7270 adult individuals from 7270 households were completed. Overall, HH response rate was 91.0% and individual adult response rate 99.3%. Overall, total adult response rate for this survey was 90.4% (Table 3).

Households were selected randomly from the households list made by BBS in 2011 for national population survey. [7] It was revised in 2015. So household selection in 2018-2019 for National Mental Health Survey of Bangladesh is likely to miss a good number of households as significant relocation, reconstruction, internal and external migration may have taken place in the community and in the country as a whole.

Respondents and their interview

Multistage probability sampling technique was used to ensure less chance of bias in selection of sample. Thus, it can be concluded that national representation of population was ensured in this study and generalization of study findings was valid and acceptable. Recalls for two consecutive times were made as required in both stages of interview to reduce nonresponse. Drop out in the second stage of interview was mainly due to absence of respondents in the house who were initially interviewed, refusal to interview, fleeing out of home because of shyness, fear of being exposed and caught in legal system. It was well realized that data collection in relation to mental

disorders and substance use was difficult to capture. Recalls for two times were also made in the second stage of the interview. Psychiatric interview in the second stage of interview was conducted within two days of the completion of first screening stage of interview. Diagnoses of mental disorders were made in the second stage of interview by well trained research psychiatrists following diagnostic criteria of DSM 5. [14] DSM 5 is a globally accepted valid checklist for diagnosis of mental disorders including substance use specially when it is applied by expert clinicians. Research psychiatrists employed for this survey were experienced and they were intensively trained specially on application of DSM 5 in the field survey. DSM 5 was used in different studies in Bangladesh including national survey on mental health in 2005 [1] and child mental health survey in 2009. [3]

4.2 Socio-demographic characteristics

Socio-demographic characteristics of the population describe factors associated with health and mental health of the people in the community**.** It is established that different socio-demographic factors including age, sex, residence, education, marital status, occupation and income are contextually related to mental disorders and understanding of the relationship is important for meaningful interpretation of the data. Before approaching for screening of mental disorders by SRQ and RQC information regarding PSU, House Hold (HH), eligible member in the HH, socio-demographic data of the respondents, household assets, mental health status of the family, stigma towards persons with mental illness and attitude towards mental health services were taken. Many of the information may be related to mental health of the people living in the community.

Age

Age of the respondents ranged from 18 years to 99 years (Table 4). Majority of the respondents were from younger age groups. Most of the respondents were from the youngest age group 18 to 29 years (36.0%) followed by age group 30 to 39 years (22.8%), 40 to 49 years (17.3%), 60 years and above (12.1%) and 50 to 59 years (11.8%) and (Table 4). The mean age was 38.2 years (CI 37.6-38.8) (Table 5). Respondents distributed in different age groups evident in the survey is in consistent with the distribution of the country's population in general (2). Female population were

relatively younger (mean age 37.2 years, CI 38.5-40.3) than male (mean age 39.4 years, CI 36.3-38.0) (Table 5).

Sex

Of the 7270 respondents 3465 (47.66%) were male and 3805 (52.34%) were female (Table 4). Usually, community survey records a higher representation of females because of their increased availability at homes during interview. Earning members of the family in Bangladesh are usually male and they remain outside of home at day time which was the common time of data collection. Illiteracy was higher among female (20.1%) than male (10.5%) and education above graduation was also less among female (M 9.1%, F 3.9%) (Table 5).

Residence

Respondents from rural area (3749) were more than from urban area (3521) as major part of the population in the country are living in rural area. [4] Rural people were older (mean age 38.9 years) than urban people (36.2 years) and they had lower level of education (mean years of education 5.5) than urban population (mean years of education 7.7) (Table 5). More people with urban background had higher level of education (12.2% graduation and above) than rural people (4.5% graduation and above) (Table 5). Overall, illiteracy was also higher in rural people (17.5%) than in urban population (9.4%) (Table 5).

Education

Overall, mean years of education of the respondents was 6.0 and mean years of education of male was higher (6 .6) than female (5 .5) (Table 5). Urban people had higher level of education (mean years of education 7.7) than rural population (mean years of education 5.5 (Table 5). About 15.5% of respondents were illiterate. About literacy rate, primary level of education was among 37.8% respondents followed by secondary level of education in 31.8% cases. Higher secondary education and education level graduation and above were among 8.5% and 6.4% of the respondents respectively (Table 5). Literacy rate (84.5%) found in this survey is in consistent with average literacy in Bangladesh.[7]

Family type

About 69.7% of the respondents had nuclear family which was more common in urban than rural area (U 73.1% vs R 68.6%) (Table 5). Nuclear family was more among male (72.8%) than female (66.8%) (Table 5)

Religion

Majority of the respondents were Muslim (87.7%) followed by Hindu (11.9%) and Christian (0.3%) (Table 5) which is consistent with national census data of BBS (2). Respondents with Buddhism were insignificant.

Marital status

About 83.5% of the respondents were married and married people were more in rural area (U 80.2% vs R 84.5%). Among the respondents married women (86.5%) were more than married man (80.2%) (Table 5).

Occupation

Household works (45.2%) was the commonest occupation of the sample cases followed by farming (12.1%), business (11.5%), daily laborer (9.3%) and service (8.3%). Business included small and large business and services included government, private, autonomous and self-employment. A paradigm shift has been observed in occupation in Bangladesh where business appeared almost near to farming. About 5.2% respondents were unemployed (Table 5).

Household assets information

Information of asset covered information on household ownership of 20 items. The wealth index was constructed using principal component analysis. Then a single asset index was generated. According to the wealth index the survey population was found to be distributed in all five economic quintiles with the maximum representation from middle economic group (21.5%) of population (Table 5) followed by representation from high income group (21.0%), lowest income group (20.6%), low income group (19.4%) and the highest income group (17.5%%) (Table 5). People belonging to the highest (U 38.6%vs R 10.5%) and high income groups (U 23.8% vs R 20.1%) were

more in the urban area and people in low (U 11.9% vs 21.9%), lowest (U 7.6% vs R 24.9%) and middle income (U 18.1% vs 22.7%) group more in the rural area (Table 5).

The economic status of the respondents may indicate gradual development of the country in respect of increasing per capita income of the citizens of Bangladesh and it is likely that people with the highest income will be living more in the urban area.

4.3 Responses in SRQ

Total 1570 (21.6%) respondents were screen positive and majority of them were between 30 years to 49 years of age 9 Table 6). Overall, 872 respondents (15.5%) were found screen positive in the second stage of interview by research psychiatrists who were initially found screened negative by data enumerators in the first stage. Female (23.0%) and rural respondents (21.1%) overrepresented male (17.3%) and urban respondents (14.5%) in positivity respectively (Table 7). Female and rural group of people need to be screened more carefully by data collectors to get expected results. Training of data collectors should also be more intensive so that they can ask questions appropriately to get exact answers.

4.4 Prevalence of mental disorders

Prevalence of mental disorders

Overall prevalence of mental disorders among population 18 years and above was found to be 18.7% (Table8).

Prevalence of mental disorders by age

Prevalence of mental disorders was highest among people 60 years and above (28.1%) followed by prevalence among people 50 to 59 years (22.1%), 30 to 39 years (20.0%), 40 to 49 years (17.2%) and 18 to 29 years (14.6%) (Table 8). Prevalence of physical comorbidities among older groups of people may be among the causative factors of increased prevalence of mental disorders among them. In addition, some newer disorders are usually added to the prevalence of mental disorders among older people with the increase of age.

Prevalence of mental disorders by sex

Prevalence of mental disorders in women (21.5%) was higher than that of in men (15.7%). (Table 8).On average, female suffers more from mental disorders than male which is the usual trend of female preponderance around the globe. Higher prevalence found in females are consistent with findings of other studies.[1,21,6] The greater susceptibility of women may be attributed to a variety of gender specific factors such as biological (neuroendocrine) vulnerability, specific life events like pregnancy, menstruation and menopause and gender specific roles like mothering and associated stress. [22,23,24] The difference between mental morbidity among male and female in the study may be further explained by male dominance in the society and high incidence of domestic violence in the country. A study of rural households in the country found that 38% of women was beaten by their husbands. [25] The problem may be higher in rural and urban slum areas. Female characteristics such as increased reporting by female may be also an explanation.

Prevalence of mental disorders by residence

Overall, urban people (18.9%) were suffering more from mental disorders than urban people (18.7%) (Table 8) but the difference is not significant. Urban people are vulnerable to some of the risk factors of mental disorders where as rural people are predisposed to some other factors which may explain the differences in the occurrence of disease among them. Poverty, illiteracy and inadequate mental health service facilities are common issues in rural area and housing, social competition, traffic problem and substance use are common in urban area . These differences may explain the difference in frequency of mental disorders depending on area of residence.

Prevalence of mental disorders by wealth index and sex

Prevalence of mental disorders varied to some extent in all five groups of population according to five economic quintile distribution. The prevalence of mental disorders was 20.9% in population group with middle income followed by population group with the highest income (20.6%), the lowest income (20.5%) and high income (20.4%). Male from the lowest income group (24.0%) had the highest prevalence of mental disorders followed by male from the low-income group (23.8%). and the highest income group (20.4%). Lowest prevalence was found among male with high income (14.5%). Female in high income group (24.4%) had the highest prevalence of mental

disorders followed by female from middle income group (23.4%) and the highest income group (20.8%). The lowest prevalence of mental disorders was seen among women in the low income group (13.4%) (Table 9). Results of the study indicate higher income in family is protective for mental disorders among men which is not seen protective for women.

Prevalence of mental disorders by wealth index and residence

Prevalence of mental disorders varied in urban and rural population in relation to the economic status of their family. The prevalence of mental disorders was highest among urban population(38.0%)with the low income followed by urban population with the lowest income (23.3%), highest income (16.8%) and middle income (14.9%) and high income (7.0%). Rural people from high income group (24.9%) had the highest prevalence of mental disorders followed by rural people from middle income group (22.9%). and the highest income group (21.9%). Lowest prevalence of mental disorders was found among rural people with low income (10.7%). (Table 9). Results of the study indicates higher income is protective for mental disorders among people with urban background which is not seen protective for people living in rural area.

Prevalence of gross (group) mental disorders by sex

Depressive Disorders (6.7%) was the commonest group of mental disorders among adults followed by Anxiety Disorders (4.7%), Somatic Symptoms and Related Disorders (2.3%), Schizophrenia Spectrum Disorders group of Major Mental Disorders ((1.0%), Sleep Wake Disorders (1.0%), Obsessive Compulsive and Related Disorders (0.7%), Bipolar and Related Disorders type of Major Mental Disorders (0.5%),Substance Related and Addictive Disorders (0.5%), Neurocognitive Disorders (0.4%), Neurodevelopmental Disorders (0.3%), Sexual Dysfunction (0.3%) and Personality Disorders (0.1%) (Table 10).

Prevalence of Schizophrenia Spectrum Disorders (1.0%), Sleep Wake Disorders (1.0%), Obsessive Compulsive and Related Disorders (0.7%), Bipolar and Related Disorders (0.5%),and Neurocognitive Disorders (0.4%) are also synonymous to findings in another study in Bangladesh. [21]

Depressive Disorders (M 5.4%, F 7.9%), Anxiety Disorders (M 4.0%, F 5.4%), Schizophrenia Spectrum Disorders (M 0.9%, F 1.1%), Neurocognitive Disorders (M 0.3%, F 0.5%), Obsessive Compulsive and Related Disorders (M 0.5%, F 0.9%), Sleep Wake Disorders (M 1.0%, F 1.1%) and Somatic Symptoms and Related Disorders (M 0.9%, F 3.7%) were more prevalent among female.(Table 10)

Anxiety disorders included separation anxiety disorder; specific phobia; social anxiety disorder (social phobia); agoraphobia; panic disorder; generalized anxiety disorder; anxiety disorder due to another medical condition and unspecified anxiety disorder.

Schizophrenia spectrum disorders included schizotypal (personality) disorder; brief psychotic disorder; schizophreniform disorder; schizophrenia and schizoaffective disorder.

Bipolar disorder consisted of current or most recent episode hypomanic; bipolar I disorder- current or most recent episode manic; bipolar I disorder-most recent episode (or current) depressed, moderate; bipolar I disorder, most recent episode depressed, mild and bipolar ii disorder.

Depressive disorders included disruptive mood dysregulation disorder; major depressive disorder - mild; major depressive disorder – moderate; major depressive disorder – severe; major depressive affective disorder-single episode, mild; major depressive disorder- single episode, moderate; major depressive disorder - recurrent; major depressive disorder - recurrent moderate; major depressive disorder - recurrent severe; major depressive disorder- recurrent, unspecified; major depressive disorder-recurrent, mild; major depressive disorder specified as with psychotic behavior; major depressive disorder, single episode, severe with psychotic features; dysthymia; premenstrual dysphoric disorder; depressive or bipolar disorder due to another medical condition; other depressive disorder.

Male preponderance of the prevalence of mental disorders was seen in Substance Related and Addictive Disorders (M 0.9%, F 0.1%), Bipolar and Related Disorders (M 0.7%, F 0.3%), Sexual Dysfunction (M 0.6%, F 0.0%) and Disruptive, Impulse Control and Conduct Disorders (M 0.2%, F 0.0%) (Table 10). Some disorders are usually

common among males and some disorders among females. The pattern of gender differences in respect of prevalence of mental disorders seen in this survey is also in line with differences observed around the globe.

Prevalence of gross (group) mental disorders by residence

Urban Rural differences in the prevalence of different mental disorders was not found much significant. However, Somatic Symptoms and Related Disorders were found higher among rural respondents (U 1.5%, R 2.6%) and Substance Related and Addictive disorders were more among urban people (U 0.7%, R 0.4%).(Table10). Relatively low awareness and orientation about mental health problems may predispose rural people to express their mental distress in the form of physical symptoms. Increased availability, peer pressure, frustration and life stress related to urban life may explain increased prevalence of substance use in the urban area.

Prevalence of individual mental disorders by sex and residence

Among the individual mental disorders Generalized Anxiety Disorder (3.5%) was the most frequently prevalent disorder in the community followed by Somatic Symptom Disorder (1.9%), Persistent Depressive Disorder (1.3%), Insomnia Disorder (1.0%), Depressive Disorder due to another medical condition (0.9%), Major Depressive Disorder – moderate (0.8%), Major Depressive Disorder– mild (0.7%), Obsessive Compulsive Disorder (0.6%) and Schizophrenia(0.5%). Bipolar and Related disorders were of different types and total percentage combining all was (0.5%) (Table11). Details of prevalence of every individual disorder in respect of sex and residence are given in Table 11.

Prevalence of mental disorders demonstrated in this survey (18.7%) does not show significant differences with the findings of prevalence in different surveys in Bangladesh. WHO supported national survey on mental health in 2005-2006 found 16.1 % of adult population of Bangladesh was suffering from mental disorders. [1]

Prevalence of mental disorders among adults and children found in a countrywide survey in Bangladesh in 2018 were 13.7%and 17.3% respectively. [21] The reported 28% prevalence of mental disorders observed in an urban community of Bangladesh was somewhat higher than the findings of other studies in Bangladesh. [6] This survey

was conducted in a densely populated urban area of Dhaka city with limited sample size which was not representative of whole of Bangladesh. Recently conducted national mental health survey of India 2015-2016 found current prevalence of mental disorders among adult population (18years +) as10.56%.[25] Mental and behavioral problems due to psychoactive substance use including tobacco use disorders was considered separately in Indian national mental health survey which may be an explanation of relatively lower prevalence of any mental disorder in the community. The variation in the findings of different surveys may be explained to some extent by the use of different methodologies and different diagnostic approaches used in different surveys.

Among adult mental disorders reported in this national survey Generalized Anxiety Disorders, Somatic Symptoms and Related Disorders, Insomnia Disorder, different types of Major Depressive Disorders were the most frequent diagnostic groups which are also in consistent with findings of previous studies in the country. [1,21]

The claim of rising mental illness in the society is supported by the assumption of increased utilization of mental health care, increased prescription and consumption of psychotropic medicines, increasing trend of suicide and substance use, increase of life stresses, concept of increased burden due to depression and mental disorders and rise of disability pension rates. In a systematic review and meta-analysis it was concluded that the increase of prevalence of adult mental illness was small and authors assumed that increase was mainly related to demographic changes as suggested by the Global Burden of Disease (GBD) data. [27] Different illness conditions may develop in varied ways with prevalence of one illness condition increasing while others are decreasing. Many systematic reviews using different methodological approaches have not supported the assumption of increasing prevalence rates over time. Wittchen et al, 2010 reviewed and reanalyzed prevalence data for Europe and identified no relevant changes in recent years. [28]

Whatever may be the prevalence, the study findings indicate that mental disorders constitute a major public health concern in Bangladesh. This huge burden causes morbidity, even mortality and productivity loss. The current prevalence and pattern of mental disorders demonstrated in this survey also provide an understanding of the severity and importance of the issue in the community.

4.5 Treatment seeking behavior of patients with mental disorder

The help seeking behavior of patients with mental disorders is central to the effective planning of psychiatric services. [29] A number of studies have been conducted across the world (30)(31)(32)(33) but to our knowledge there are no available reports from Bangladesh. Therefore, this survey panned to investigate the treatment gap and characteristics of pathways to care adopted by patients with mental disorders in the country. Pathway of care highlights the help seeking behavior of patients with mental disorders.

WHO Encounter Form: Pathway to care [17] was applied among people with history of previously diagnosed mental disorders. A modified, translated, pretested and validated version of the form was used to gather information about the paths which people with mental disorders follow in the course of their search for treatment help. Looking for pathways of referral treatment seeking behavior of the persons with mental disorder is the prime objective of the instrument. Some questions were added to find out the treatment gap in mental health in Bangladesh. Information were collected from respondents with pre-diagnosed mental disorders through the modified WHO encounter form about their prior treatment seeking behavior. Guardians of the subjects, who were unable to answer the questions due to diagnosis of severe mental illness, were interviewed for the information.

Treatment gap and non-adherence to treatment

Only 9% of respondents with pre-diagnosed mental disorders took treatment. Overall, 91.0% of adults did not receive any treatment for mental disorders which is the exact **Treatment Gap** in adult psychiatry in Bangladesh (Table 12). Treatment gap was more among men (92.0%) than in women (90.4%) and almost same in urban and rural area (Table12). Treatment gap was found higher among older group of population which may be an indication of relative inattention to mental health care of older people in Bangladesh.

Overall 23.1% of the patients who were taking medicines did not take regularly which is called **non-adherence**. Such non-adherence was more in women (25.7%) than in men (17.8%) and Urban and rural people had same rate of non-adherence (21.1%) 9

(Table13). Higher rate of literacy and more availability of adult mental health services in urban area did not decrease non-adherence to treatment. So some other factors such as stigma and negative attitude may be related with the situation.

High **treatment gap** (91%) for mental disorders found in this survey reflects the existing scenario of mental health services in Bangladesh. Among total treatment gap 39.8% was contributed by Depressive disorders, 26.1% by Anxiety Disorders, 12.6% by Somatic Symptoms and Related Disorders/ 5.0% by Schizophrenia Spectrum Disorders, 4.9% by Sleep Wake disorders, 3.2% by Obsessive Compulsive and Related Disorders, 2.7% by Neurocognitive Disorders, 2.0% by NDDs, 1.6% by Bipolar and related Disorders, 1.0% by Substance Related and addictive Disorders, 0.5% by Personality disorders, 0.3% by Sexual Dysfunctions and 0.2% by Disruptive, Impulse Control and Conduct Disorders. Distribution of treatment gap in adults by different disorders roughly moves around the respective prevalence of different disorders in the community. Even severe mental disorders like Schizophrenia Spectrum Disorders contributed only 5% to the total treatment gap. Treatment gap was found higher for common mental disorders than it was for severe mental disorders.

The findings of treatment gap are consistent with findings in India [26] and findings of treatment gap of epilepsy in Bangladesh.[4] A multi-country survey supported by WHO demonstrated that 35-50% of the serious mental disorders in developed countries and 76-85% in the less developed countries received no treatment in the previous 12 months.[34] A community study in a limited rural population in Bangladesh showed treatment gap among epileptic patients (GTCS) was 78% (3). A study by the Government of India in 2002 to 2005 reported treatment gap of about 95% for common mental disorders and substance use disorders.[35] On average, only about 1 in 10 persons with mental disorders receive treatment. Treatment gap is defined as the number of people with active disease who are not getting treatment and is calculated as a percentage of the total number of people with active disease. Treatment gap is an important indicator for availability, accessibility, utilization and quality of health care. A high treatment gap would result in increased disease burden. [36]

High treatment gap in mental health may be explained by demand side barriers like low perceived need of treatment due to limited awareness, stigma and sociocultural beliefs while the supply side barriers include inadequate and unequal distribution of

resources(35). Treatment gap may be also influenced by high out of pocket costs and the poor quality of mental health services. Primary health care service providers are not always well trained and sometimes not interested to provide mental health services. People with mental health problems also sometimes experience stigma within health care delivery system. [37]

Reduction of treatment gap requires addressing both demand side barriers and supply side barriers. Intervention for demand side should include increasing public awareness about mental health, community engagement and protecting human rights of people with mental disorders as well as those of their families. [38] Supply side intervention needs to give attention on integration of mental health with primary health care, capacity building of health service providers, scaling up of existing health care services and increasing financing for mental health services.

Treatment of first mental illness

Persons giving advice for treatment of first mental illness

For first mental illness**,** first advice for treatment was most frequently from close relatives (72.5%) followed by self referral (12.3%), neighbors (10.1%), physician (0.7%) and friends (0.6%%) (Table 14). Good social communication with and mutual responsibility to the relatives and neighboring people may be an important factor for frequent referral by them.

Place of seeking treatment for first mental illness

Among those who sought treatment, chamber of psychiatrists was consulted by 24.9% of patients followed by chamber of other physicians (22.0), government hospital (20.0%), private hospital (18.9%), specialized mental hospital (3.0%) and homeopathy / unani / ayurveda (2.4%) (Table14). Limited psychiatric services nearby patient's doors and lack of knowledge and awareness about the ability of trained general physicians for treatment of mental illness may be among possible explanations of selection of psychiatrists as the most frequent contact of the patients. About 52.5 % of the patients sought treatment from places other than psychiatrists (Table 14). This finding highlights the importance of the role of other physicians in the treatment of mental disorders. Referral by physicians were insignificant which reflects the urgent

need of their training and orientation. This pattern of contact with service facilities reflects the inadequacies of the existing service facilities at the community level which is a barrier to providing mental health services at the grass root level of the country.

Alternative methods of treatment (homeopathy, unani & ayurveda) was sought by a group of patients (2.4%). Belief in traditional methods of treatment is very much prevalent in Bangladesh. General tendency of people in Bangladesh is to visit faith and traditional healers first for treatment of any illness followed by pharmacy men, village doctors (pallichikishok), genera physicians, medicine and other specialists and lastly specific specialists.

Government hospitals were not in the priority list of the patients for seeking mental health treatment which highlights the importance of creating mental health facilities in the general hospitals of the country. Government hospital was first source of treatment only in 20.0% cases. Frequency of taking treatment from government hospitals is still less. Out of pocket payment is the most frequent form of expenses for treatment of adult mental disorders. Raising awareness about modern service facilities and increasing service facilities specially in the government sector are of urgent needs. Psychiatrists and physicians other than psychiatrists are providing major parts of mental health services. Training of general physicians and enriching undergraduate course curriculum with psychiatry are also required for providing mental health services in the country.

Duration taken for seeking treatment for first mental illness

On average, 3.2 years after the onset of illness were required for seeking treatment of the first mental illness (Table14). Many of the patients consulted for treatment within first year of illness and some of them consulted even after 20 years. There seems to be a huge time gap between onset of symptoms and seeking of care among adults with mental disorders. Poor awareness about mental illness and scientific treatment of mental disorders, lack of knowledge about service facilities, existing stigma and negative attitude towards mental illness may be the reasons of the existing scenario in the country.

Time taken to reach mental health facilities for treatment of first mental illness

Overall, 1.6 hours were required on the way to reach mental health facility for treatment of mental disorders (Table 14). About 20 to 30 kilometers of distance may be covered in this period of time. Many of the patients required less than one hour to reach physician or hospital and some of them required even 14 hours of time. Developing mental health facilities nearby patients' home and improving communication network and transport facilities are important issues to reduce the time to reach mental health facilities.

This findings highlight the urgent necessity of introduction of mental health services at the primary (community clinics, union health center & upazilla health complex) and secondary levels (district hospital) of health services which is now absent at the district hospital and quiet inadequate at the upazila hospitals in the country.

4.6. Medications prescribed to adults with previous mental disorders

Amitryptyline was the most frequently prescribed drug for mental illness among adults. Most commonly prescribed drugs were amitriptyline (15.2%), clonazepam (11.4%), escitalopram (7.6%), propranolol (7.6%), haloperidol (6.3%), fluphenthixol + melitracin (5.1%), quetiapine (95.1%), sertraline (3.8%), olanzepine (3.8%) and fluphenazine (3.8%) (Table 15)**.** Other drugs commonly prescribed were chlorpromazine, citalopram, clozapine, olanzapine, risperidone, imipramine, nortryptyline, quetiapine, sertraline, sodium valproate, trifluperazine, trihexiphenidine, procyclidine, tadalafil, nortryptyline plus fluphenazine, flunarizine, fluoxetine, fluvoxamine, fluphenthixol, fluphenazine, memantine (Table 15).

4.7 Sign symptoms of first mental illness in adults

Among the first symptom-signs of first episode of mental illness sleep disturbance (21.3%) was the commonest presentation followed by feeling low down (18.7%), aggressiveness (11.8%), odd behavior (9.3%), headache (7.7%), feeling superior (4.9%), undue suspiciousness (3.6%), restlessness (3.2%), feeling irritable (2.3%), palpitation (2.0%), burning sensation all over the body (1.9%), repeated thoughts (1.6%) and decreased appetite (0.6%) re (Table 16). As second symptom-sign sleep disturbance (20.1%) was the commonest one and feeling irritable (11.2%) appeared as the second one while aggressiveness (9.0%) remained same as the third symptom

(Table 16). As third symptom headache (14.2%) appeared as the commonest one while repeated thoughts (11.9%) and undue suspiciousness (10.7%) became second and third in position (Table 16). Another study by National Institute of Mental Health, Dhaka also demonstrated commonest symptoms of mental disorders in Bangladesh as sleep disturbance in GAD, feeling low / down in MDD, pain in body parts in Somatic Symptoms Disorder, Aggressiveness in BMD (Manic), repeated thoughts in OCD, sleep disturbance in Substance Related and Addictive Disorder, feeling down / low in Schizophrenia and palpitation in Panic Disorder (39). Somatic symptoms like headache, palpitation and burning of the body are common symptoms of mental disorders in the country with traditional culture like Bangladesh as people living here are not well oriented with the mental health problems ant its proper expression. Awareness about common presentation of mental diseases will be helpful for proper diagnosis and treatment of the problems.

4.8 Mental health status of family members

In the first stage of data collection of the survey, respondents were asked about different mental health issues in the family through a pretested 10 items questionnaire. According to the responses of the respondents (Table 17) 54.3% of the respondent had good relation with other house hold members, 40.7% very good relation and 4.5% fair relation. About 15.2% of the family had mental health problems and 3.6% had mental disorder. Among the mental disorders in the family severe type of mental disorders were 28.6%, moderate type 40.4% and mild type 31.0%. Women reported severe type of mental disorders more frequently (35.6%) while male reported moderate type (47.9%) (Table17). History of suicide was present in HH members of 0.4% family and history of attempted suicide in HH members of 1.0% family. Smoking / tobacco use was reported among HH members of 41.1%. respondents and smokeless tobacco use (jarda / ghul/ sada pata / nassi) were among 38.3% family. History of substance use (alcohol/cannabis/yaba/heroin/phensidyl etc.) / drug addiction was reported in HH members of 0.9% respondents (Table 17).

Smoking including ghul and other related substances was reported 45.30% in Bangladesh (21) and the prevalence in the Global Adult Tobacco Survey (GATTS) conducted by WHO also found comparable prevalence of smoking in the country (9).

Prevalence of substance abuse among adults in 2005 (1) and among children in 2009 (3) were 0.6% and 0.78% respectively. The findings of the survey conducted in 2018 in Bangladesh on substance use (21) showed prevalence of substance use as 3.3%, 1.5% and 0.2 % among population 18 years and above, 12 to 17 years and 7 to 11 years respectively which indicate substance use is a problem in the country. Varieties of illegal drugs are available in Bangladesh. Most frequently used substances in Bangladesh include cannabis (42.70%) followed by alcohol (27.5%), amphetamine (yaba) 15.20%, opioid (5.4%) and sleeping pills (3.4%) (21). Alcohol intake among muslims are very limited possibly because of strict religious restriction but alcohol intake in Chattagram Hill Tracts and special groups of population like Fisher's village is a part of religious and cultural practice. This may explain the high prevalence of alcohol found in this survey in the country.

Major causes of easy availability of abusing substances in the country may be due to its geographical proximity to opium producing regions of South East and South West Asia (Golden Triangle and Golden Crescent respectively), long border with India facilitating trafficking of drugs, illicit internal cultivation of poppy and cannabis, emerging threat of synthetic and semisynthetic drugs and availability of prescription drugs without prescription. Frequent drug seizures by the Narcotics Control Department and department of Police and Border Guard Bangladesh is just tip of the iceberg. Amphetamine is widely prevalent in Myanmer and Thailand. Common border of Bangladesh with Myanmar and recent influx of Rohingya refugees in Cox's Bazar have created increased threat of availability of amphetamine in the name of Yaba in the country.

Changing societal values added by urbanization, industrialization and unemployment may be driving people to use abusing substances. The problem is more common in younger male population. Adults and older group of people are not also immune to substance abuse. Amphetamine is also used by the young and adult male for enhancement of sexual function and increase of general drive and motivation. Withdrawal of amphetamine intake causes low drive, lethargy, dysthymia and somnolence which prevents users to stop using amphetamine. Many mental disorders are associated with an increased risk of later substance use conditions. Study results show that secondary substance use disorders might be reduced substantially through the prevention of primary mental disorders. [40]

4.9 Stigma towards mental illness

There are lots of misconception, lack of knowledge and understanding about mental disorders in the society. Stigma towards mental illness and negative attitude towards mental health services may cause delay its identification and treatment.

Stigma mean “any attribute, trait, or disorder that marks an individual as being unacceptably different from the ‘normal’ people with whom he or she routinely interacts, and that elicits some form of community sanction.” [41] Link and Phelan (2001) have written that stigma consist of four elements; labeling of personal characteristics, stereotyping, separation between normal and labeled group, status loss, and discrimination. [42]

It is generally perceived as a multidimensional phenomenon and agreeing with that perception and guided by theory on stigma, a seven point Likert-type scale Day’s Mental Illness Stigma Scale (DMISS) developed by Emer N. Day (15) was used in this survey. This scale measures 7 factors of stigma / attitude towards people with mental illness: interpersonal anxiety, relationship disruption, poor hygiene, visibility, treatability, professional efficacy and recovery. There are 28 items in this Likert-type scale. High score indicates more stigma. Absence of stigma and presence of different levels of stigma were measured depending on the responses of the respondents to different questions in the survey. Responses ranged from “not agreed at all” (score 1) to “agreed fully” (score 7). Seven of its original subscales were condensed to four subscales through factor analysis. Regarding reliability of the condensed subscales Relationship and Anxiety subscale had Cronbach’s alpha 0.82, Treatability and Recovery subscale Cronbach’s alpha 0.79, Hygiene subscale Cronbach’s alpha 0.79 and Visibilty subscale Cronbach’s alpha 0.67.

This study is important for several reasons. First, stigma was measured by a nationwide household survey using a multiple-item scale. Second, Bangladesh has a very low literacy rate and it is undergoing rapid economic transition. Third, association between perceived stigma, socio-demographic factors and mental disorder were evaluated.

People with status of stigma on individual question

Absence of different types of stigma towards mental illness was found very low in percentage even as low as 1.2% in respect of belief about professional efficacy in the treatment of mental illness. Proportion of absence of stigmas varied from 1.2% to 62.4% in different questions of 7 factors which means stigmas towards mental illness are strongly prevalent in Bangladesh (37.6% to 98.8%). (Table 18)

Total 7270 respondents completed the DMISS questionnaire. Only 62.4% of the respondents believe that there are effective medications for mental illness that allow people to return to normal and productive lives, 57.2% believe that mental health professionals, such as psychiatrists and psychologists, can provide effective treatment for mental illness but to the surprise only 1.2% opined that psychiatrists and psychologists had knowledge and skills needed to effectively treat mental illnesses.

For people with mental disorders, the stigma and discrimination they experience can cause them to avoid getting the help they need, make their problems worse and make it harder to recover. They face stigma and discrimination not only from society, but also from families, friends and employers- before, during or after their illnesses. Physical, psychological, social and economic well-beings of these individuals can be affected by stigma towards mentally ill and mental illness. Stigma can be a barrier for individuals who experience psychiatric illness by making them hesitant to help-seek due to the fear of being labeled and discriminated against. [43] (Table 18)

High prevalence of stigma in relation with mental disorders in the society leads the patients to undergo unnecessary treatment by faith and traditional healers before seeking professional help. They hide illnesses from people and become reluctant to take medical treatment. There is delay in treatment seeking because of people's negative perception both about persons with mental illness and about the illness itself. In spite of advancement of knowledge about health people with mental health problems are still labeled with different derogatory terms by the media and public at large. Some one behaving a bit differently is referred to as "Pagal" and excluded from the society. Sometimes drama, documentary and cinema show them as socially excluded and abused in different ways. Electric shock is shown as the only way of

treatment for mentally ill persons and modern approach of treatment is seldom highlighted. Psychotropic drugs are shown as sleeping pills without highlighting its effective role in cure of the illness. Exclusion from social opportunities, discrimination in academic institutions and work places are common. If employed, responsibilities and promotion are frequently denied leading to job dissatisfaction, absenteeism and early retirement. Many of them do not marry or marry late or end up with separation and divorce. Orientation and training of media people is an urgent need.

Gender and stigma

Responses about stigmas varied across gender. Male had high stigma in all subscales except treatability subscale where female had higher stigma. (Table 19, Figure 2)

Stigma and other socio-demographic factors

Our analysis (Table 19, Figure 2) compares the mean scores for perceived stigma with the characteristics of the respondents and the results show that level of perceived stigma was higher in males, unmarried individuals, urban residents, those completed secondary or higher than secondary education, those belonged to highest economic status and had someone in the family with mental illness. Perceived stigma didn't vary across age and whether the person had sought traditional treatment like Kabirizi, Ayurveda, Unani, Homeopathy or not. One significant finding was that those who took treatment for their mental disorders from physicians, those who didn't seek treatment for their mental disorders and those without mental disorder didn't vary in their perceived stigma scores.

4.10 Attitude towards mental health services

A five-point Likert-type scale Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS) was used to measure attitude of the respondents towards mental health services. Original scale had 24 items with three subscales each containing 8 items. Responses ranged from "not agreed" to "agreed". Scoring 0 means "not agreed" and 4 means "agreed". Five items were added in the modified IASMHS in the cultural context of Bangladesh making it 29 items questionnaire. Finally, 25 items were extracted out of 29 items and the modified questionnaire was validated at the beginning of the national mental health survey of Bangladesh. Three factors explain

40% variability with Cronbach's alpha 0.78 in modified 25 items IASMHS. Regarding IASMHS reliability 10 items in Indifference to Stigma subscale had Cronbach's alpha 0.80, 10 items in Health Seeking Propensity subscale had Cronbach's alpha 0.73 and 5 items in Psychological Belief subscale had Cronbach's alpha 0.80. Attitudes at different levels were measured depending on the responses of the respondents to different questions in the survey. High score indicates more negative attitude.

Stigma and attitude in relation to mental illness assessed by a different questionnaire in the national survey on mental health in 2005 had almost same type of result (1) which indicates the scenario has not changed much in a period of more than one decade.

Gender, Residence and attitude

Male (36.1, C I 35.7-36.5) had more negative attitude than female (32.0, C I 31.5-32.4). Rural people (34.6, C I 34.2-35.1) had more negative attitude than urban people (33.2, C I 32.7- 33.7) (Table 20).

In the Indifference to Stigma subscale male (mean = 18.9, SD=9.38) showed statistically significant more negative attitude than female (mean =13.88, SD=8.48) ($t=23.63$, $p<0.001$), in the Help Seeking Propensity subscale female (mean = 12.4, SD=6.92) showed statistically significant more negative attitude than male (mean =11.6, SD=6.76) ($t=4.88$, $p<0.001$)and in the Psychological Belief subscale no statistically significant difference was found between male (mean = 5.7, SD=5.41) and female (mean =5.7, SD=4.87) (*t= -39,p=ns*). (Figue 3 ,Table 20)

Education and attitude

Illiterate groups of people had more negative attitude than educated people.

People with fully positive attitude on individual question

Attitude towards mental health services were evident in response to different questions of 29 items questionnaire. Response to individual question gives information about specific issue of attitude. Table 21 shows respondents with fully positive attitude in individual question which is very poor in percentage. Presence of positive attitude among respondents evident in the survey varied from 5.6% to 62.2% in different

questions which means negative attitude towards mental health services are strongly prevalent in Bangladesh (37.8% to 94.4%).

Only 59.5% of the respondents believed that mental illnesses were not due to possession by Jene, Ghost or some spiritual power and 53.9% did not agree that was not possible to cure persons with mental illness by holy water, tabiz, koboz or kabirazi medicines. About 49.6% of the samples opined that mental illnesses cannot be get cured by marriage. About 45.3% respondents did not agree that it is not wise to take medicines for mental illness as these have excessive side effects. About 52.5% opined that having a mental illness was not an issue of shame. Only 45.1% samples wanted their significant ones know about his/her psychological problem. About 62.2% respondents would like to advice their friends for professional help if they have psychological problems. Only 34.9% respondents told that they would not feel uneasy to take professional help thinking what other people will think (Table 21).

4.11 Model Child Mental Health Survey

The model child mental health survey was conducted along with National Mental Health Survey of Bangladesh 2019. This was a descriptive cross sectional study. Samples were randomly selected from 8 divisional sites which represents the all 64 districts of Bangladesh. The survey was conducted simultaneously during the same period (01 October 2018 to June 2019) of conduction of NMHS 2019 which was similarly divided into preparatory phase, protocol and research instruments development, pilot study, finalization of Master Protocol, field preparation, data collection, quality control check, data processing and analysis followed by report writing. The field work took place between February to June 2019. In order to diagnose mental disorder of child and adolescent group we targeted the age group between 7-17 years residing in Bangladesh and selected the household where they lived with parents. Severely ill children and adolescents were excluded from the survey. By employing the systematic random sampling method at first 496 primary sampling unit (PSU) was identified according to the Bangladesh Bureau of Statistics (BBS) population census 2011. [7] Then from each PSU 6 households were selected randomly. The study aimed to diagnose the mental disorders among the child and adolescent of Bangladesh, to find out their common presentation, relevant socio-demographic

variables like age, sex, habitat, economic condition of the family, treatment gap, treatment non-adherence, health seeking behavior, and mental health information about child mental health.

Data were collected by face to face interview by trained data collectors. The data collectors had minimum graduation degree from Bangladesh and got intensive training in the NIMH for 8 days. After getting the informed written consent from the parent and the ascent from the child an adapted and pretested socio-demographic and related questionnaire was applied. Screening questionnaire for mental disorders was the Bangla version of Reporting Questionnaire for Children (RQC). [44] It consists of 10 questions. It was developed by WHO and has been validated in several developing and developed countries. The Diagnostic and Statistical Manual 5 (DSM-5) [14] criteria were applied for diagnosis of mental disorders among the children by research psychiatrists. All screen positive cases were interviewed by research psychiatrists for diagnosis. Electronic hand-held devices were used for interview and data collections and transfer of data from the field on daily basis through internet to the Server of World Health Organization (WHO), Bangladesh. GPS location and time for completion of data at field level were checked regularly by the WHO surveillance team. The sample size was calculated using the formula for epidemiological survey where the p value was taken from a previous survey in Bangladesh by Rabbani et al 2009. [3] Then using the design effect, age and sex group and considering the 10% nonresponse the initial sample size was 2000. Allocating 6 households in each PSU of 496 PSUs the total sample size was estimated 2976 and the total respondents were 2270. The main causes of nonresponse were no eligible child found at the selected household and the refusal to give interview. Data were analyzed using the Microsoft Excel and Epi-info software for descriptive analysis. Missing data were excluded from the analysis.

4.11.1 General characteristics

Household and individual response

Total 2976 children were approached for interview. Finally, interview of 2270 HHs were completed. Eligible child was unavailable in 71 HHs and in 36 HHs interview was refused. Lastly information from 2163 respondents were analyzed. Overall individual response rate was 95.3%. From each of the HH one eligible adult and one eligible

child respondent were interviewed (Table1). Households were selected randomly from the households list made by BBS in 2011 for national population survey. [7] So, households' selection in 2018-2019 for National Mental Health Survey of Bangladesh is likely to miss a good number of households as significant relocation, reconstruction, internal and external migration may have taken place in the community and in the country as a whole.

Age

Age of the child respondents ranged from 7 years to 17 years and the mean age was 12.0 years (CI 11.8 – 12.2) (Table 2). Regarding age distribution of the respondents1237 (55.1%) were between age range of 7 to 12 years and 1009 (44.9%) between 13 to 17 years (Table 3). Mean age of boys was 12.1 years (CI 11.9-12.4) and girls 11.9 years (11.7-12.2) (Table 2). Mean age of urban and rural respondents was same (12.0 years) (Table 2).

Sex and residence

Among respondents' girls were 1118 (51.7%) and boys 1045 (48.3%). Respondents from rural background (n=1162) were more than those of from urban background (n=1001) (Table 3).

4.11.2 Household wealth index by residence

About 27.2% of the respondents from rural background were from the lowest economic group and 39.0% of the respondents from urban background were from the highest economic group. Respondents from middle income group were almost same in both urban and rural background (U 20.3%, R22.3%) (Table 4, Figure 1).

4.11.3. RQC positivity

The pre-tested Bengali version of RQC (Reporting Questionnaire for Children) for child and adolescent mental disorders was applied for screening of probable case and probable non-case in children 7 years to 17 years of age. [3] It consists of 10 questions. It was developed by WHO and was validated in several developing and developed countries. RQC was pretested, adapted and used in the community survey on child mental disorders in 2009 [3] in Bangladesh. One "yes" answer in the questionnaire was considered as RQC positive.

Among 2163 child respondents 20.5% were screen positive (RQC positive) and 21.8% of them were boys (Table 5).

4.11.4 Prevalence of mental disorders

Total prevalence of mental disorders in children was found 12.6%. Prevalence across different age groups did not differ much and it ranged from 12.4% to 12.8% (Table 6). In 2018, a national survey in Bangladesh showed that 13.7% ? of child population of the country were suffering from mental disorders [21] which is in consistent with the findings of the present survey. Prevalence was higher among boys (13.7%) than in girls (11.5%) and higher among rural children (12.9%) than in urban group of children (11.5%). Prevalence of mental disorders in child population (12.6%) of the country found in this survey is relatively low in comparison with prevalence (18.05%) figure found in 2009.[3] Small sample size and different methodological approach in this survey may explain the difference at least to some extents.

Epidemiological studies of child and adolescent mental health disorders in the developing world have showed prevalence estimates ranging from 1 to 49% (45). Bangladesh is a low middle income nation with a total population of 158.9 million people, of whom 40% are under the age of 18 years. [9]

Earliest report among urban primary school children revealed 13.4% had some types of behavioral disorder, with boys being twice more affected than girls (20.4 vs. 9.9%) [46] However, a study among socially disadvantaged (urban slum) children, reported 22.9% had some forms of psychiatric disorder with slightly lower prevalence in boys than girls (20.0% in boys and 25.5% in girls).[47] Mullick & Goodman used Development and Well- Being Assessment (DAWBA) questionnaire, and previously validated Strengths and Difficulties Questionnaire (SDQ) tools[48] in their study and found overall prevalence of 15.2% in different settings (rural, urban and urban slum) with the highest prevalence in the urban slum (19.5%)[49]. Another study found 14.6% children with behavioral problems as reported by the parents in rural Bangladesh.[50] Another more recent community-based study reported prevalence of mental disorder among 18.4% of the children.[3]

It is important to find out the prevalence of mental disorders among the children and adolescents in Bangladesh and their common presentations as since long period of

time there is no epidemiological study on child and adolescent mental health in Bangladesh and we measured the prevalence and common presentation by a nationwide household survey using a multiple stage diagnostic process.

Gross diagnosis of mental disorders

Among total diagnosis, Neurodevelopmental disorders (NDDs) (5.1%) was the commonest group of diagnosis followed by Anxiety Disorders (4.7%), Disruptive, Impulse Control and Conduct Disorders (1.7%), Depressive Disorders (0.4%), Sleep Wake Disorders (0.4%), Major Mental Disorder (Schizophrenia spectrum disorders) (0.2%), Major Mental Disorder (Bipolar and related disorders) (0.1%) and Obsessive Compulsive and Related Disorders (0.1%)(Table 7). NDDs include Intellectual Disability (I.D.), Attention Deficit Hyperactivity Disorders (ADHD), Autism Spectrum Disorder (ASD), Specific Learning Disorders , Motor disorders, Communication disorder.[14]

Among child mental disorders, Neurodevelopmental Disorders (NDDs) were found to have a significant level of prevalence (5.1%) which supports the ongoing government initiatives for addressing the issue of Autism and other NDDS with priority approach. Anxiety Disorders, Disruptive, Impulse Control and Conduct Disorders, Sleep Wake Disorders and Depressive Disorders were other common diagnostic groups among children.

Biological factors are principal determinants of Neurodevelopmental Disorders. In Bangladesh, majority of the deliveries are still at home and among hospital deliveries many are difficult ones due to late arrival of mothers in the hospital. Difficult deliveries, neonatal asphyxia, neonatal jaundice, febrile convulsion and epilepsy, encephalitis and meningitis of the babies, malnutrition and under nutrition are very common in the country leading to higher prevalence of NDD in Bangladesh. Conduct Disorders (C.D.) are among the commonest mental disorders among children around the globe and higher prevalence in this survey is also in consistent with the global findings. Academic pressure, lack of involvement with the recreational activities, dependence on mobile, internet and internet game are among the factors giving rise to anxiety disorders, depression and sleep disorders. Though major mental disorders like Schizophrenia

and Bipolar disorders are considered as adult disorders a percentage of the them usually has childhood onset.

Prevalence of gross mental disorders by sex and residence

Overall prevalence of mental disorders was higher in boys (13.7%) than girls (11.5%). Prevalence of mental disorders was higher in rural people (U 11.5%, R 12.9%) than urban population (Table 6). Boys had higher prevalence of NDDs (B 6.4%, G 3.9%), Disruptive, Impulse Control and Conduct Disorders (B 2.3%, G 1.1%) and Sleep Wake Disorders (B 0.5%, G 0.2%). Anxiety Disorders (B 4.0%, G 5.3%), Depressive Disorders(B 0.2%, G 0.5%) and Major Mental Disorders were more frequent in girls (Table 7). Complicated deliveries including home deliveries are likely to be more common in the rural area giving rise to higher incidence of NDDs in rural area.

Individual diagnosis of mental disorders

As individual mental disorder intellectual disability was the commonest one (I.D.-moderate 1.9%, I.D.-mild 0.6%, I.D.-severe-0.1%) and moderate type of I.D. is more common among girls (2.6%) and rural people had higher prevalence of this type of I.D. (Table 8). Enuresis (1.6%) was the second most prevalent mental disorder among children followed by Attention Deficit Hyperactivity Disorder (ADHD) (1.1%), Conduct Disorder (0.9%), Social Phobia (0.7%), Specific Phobia (0.6%), Oppositional Defiant Disorder (0.6%), Generalized Anxiety Disorder (0.4%), ,Conversion Disorder (0.4%), Language Disorder (0.4%), Childhood Onset Fluency Disorder (0.3%), Nightmare Disorder (0.3%) and Unspecified Somatic Symptom and Related Disorder (0.3%) (Table 8).

Prevalence of mental disorders by wealth index and sex

Overall, boys with low wealth index (18.6%) had the highest prevalence of mental disorders followed by boys with high wealth index (16.8%) and girls with high wealth index (15.7%) (Table 9, Figure 2)

Prevalence of mental disorders by wealth index and residence

Overall, children with high wealth index (15.7%) had the highest prevalence of mental disorders followed by children low wealth index (14.4%). Children with the highest wealth index (8.8%) had the lowest prevalence (Table 9, Figure 2). Children with high wealth index and urban background (18.1%) had the highest prevalence of mental

disorders followed by children with low wealth index and urban background (17.1%) (Table 9, Figure 3).

4.11.5. Treatment gap and non-adherence to treatment

Overall, 94.3% of the children aged 7 years to 17 years did not receive any treatment for mental disorders which is the exact **Treatment Gap** in child psychiatry in Bangladesh (Table 10). Treatment gap is more among boys (98.4%) than in girls (89.7%) and almost same in urban and rural area (Table 10).

Overall 30.8% of the patients who were taking medicines did not take regularly. Such **non-adherence** is more in boys (36.2%) than in girls (29.9%) and more in urban areas (61.5%) than in rural part (14.9%) (Table12). Higher rate of literacy and more availability of child mental health services in urban area did not decrease non-adherence to treatment. So some other factors may be related with the situation.

4.11.6 Presenting sign-symptoms of mental disorders

Among first presenting symptom- sign of child mental disorders delayed development of milestone (26.6%), was the commonest one followed by school problem / poor academic performance (19.9%) headache (13.2%), odd behavior (8.5%), irritability (7.9%), fit like attack (6.8%), fearfulness (4.5%), self harm (4.1%), language problem (3.5%), eneurosis (3.3%), disobedience (3.3%), hyperactivity (3.3%), low mood (2.9%), sleep disturbance (2.1%) and bullying (1.4%). As second symptom low mood ((22.8%) became the most frequent one while school problem / poor academic performance (21.8%) appeared as the second one and disobedience (16.1%) as the third one,. As third presenting symptom irritability became the most frequent one (Table13). Perinatal birth injuries linked with high prevalence of home and difficult deliveries are still very common in Bangladesh leading to delayed development of milestone, low intelligence, academic slowness, epilepsy and higher incidence of mental disorders in children.

The common presentations of child mental health problem is important as early identification of the problem by primary health care will be improved and early diagnosis and management of the disorder will lower the disease burden. It will also

help us to compare the common presentation of disorders in a developing country and developed ones and find an insight on factors behind this.

4.11.7 Treatment seeking behavior

Persons giving advice for first time for treatment of mental illness in children

Overall, 77.4% of children were first advised for treatment of the **last episode** of their mental illness by close relatives followed by neighbors (19.3%) and self (3.4%) (Table14). Close relatives (85.8%) also most frequently advised for treatment of **first episode** of mental illness in children and neighbors (14.2%) were the second group in this respect (Table15). Good social communication with the neighboring people may be an important factor for increasing rate of referral for treatment of mental illness.

Place of taking treatment for mental illness in children

Homeopathy / Unani / Ayurved (30.6%) was most frequently consulted for treatment of child mental illness followed by chamber of other physicians (21.0%), chamber of psychiatrists (16.5%), private hospital (9.9%), government hospital (5.2%) and specialized mental hospital (3.9%) respectively. Other places were contacted in 12.9% cases (Table16). Frequency of taking treatment from government hospitals is still less which is lesser than the frequency of taking care from private hospitals. Out of pocket payment is the most frequent form of expenses for treatment of child mental disorders. Raising awareness about modern service facilities and increasing service facilities especially in the government sector are the urgent needs. Psychiatrists and physicians other than psychiatrists are providing major parts of child mental health services. Training of general physicians and enriching undergraduate course curriculum with psychiatry are also required for providing mental health services to children with mental health problems.

Time taken to reach mental health facilities

Overall, 8.1 hours were required by the children on the way to reach mental health facility for the first time and it was more for girls than boys (B 3.5 hrs., G 12.1 hrs.).Communication network and transport facilities are important issues to reduce the time to reach mental health facilities.

Time (days) lapsed for psychiatric consultation in the past

On average, 14.1 days were taken to take first psychiatric consultation for child mental disorders and it was significantly longer for urban children than rural ones (U 45.7 days, 6.3 days.) and longer for girls than boys (B 9.8 days. G 17.7 days (Table15). Unfortunately, in spite of more education, increased orientation and increased availability of mental health services urban people have more negative attitude than rural population in seeking mental health care and they are also possibly more stigmatized about individuals with mental illness. Girls took almost double times than boys to seek mental health services which may indicate that girls are still neglected more in respect of getting mental health care.

4.11.8 Common medications used for child mental disorders

Treatment for child mental disorders requires both non-pharmacological and pharmacological approaches. Medications are usually needed for severe and moderate cases of the illnesses. Common drugs prescribed for children in Bangladesh were clonazepam, fluoxetine, risperidon, haloperidol, quetiapine, sodium valproate, phenobarbitone, imipramine and procyclidin. Methylphenidate were not available in the country which is commonly prescribed for ADHD. Risperidone (23.1%) was the most commonly prescribed drug followed by Sodium Valproate (15.4%). Procyclidine (15.4%) was also frequently prescribed to combat drug induced extrapyramidal syndrome (EPS) which is not basically a psychotropic drug. Each of the other drugs were prescribed in 7.7% of the cases (Table17).

4.11.9 Information about child mental health

Modified version of global school health questionnaire was used by the research psychiatrists to see status of child mental health in the country. Responses of the parents were recorded (Table 18).

According to the responses of the parents 79.1%of children had no sleep problem during the last 12 months of period. Rest of the children had sleep problems of different ranges starting from rarely/seldom (9.4%) to always (1.4%) (Table18).

Parental responses showed that about 3.2% of children did not have any close friends, 11.9% had one friend, 34.5% two friends and 50.3% three or more friends (Table18). From parental responses it was seen that only 54.2% of children did not miss school without permission in last 30 days and others did not go to school for different days of time ranging from 1 to 2 days (26.4%), 3 to 5 days (12.3%), 6 to 9 days (3.6%) and 10 days or more (3.6%) (Table18).

Parents said that 7.5% of them did not monitor home works of their children in last 30 days and others monitored for varied period of time such as rarely (6.2%), sometimes (23.6%), mostly (19.8%) and always (42.9%) (Table 18).

About 4.5% of parents did not know about their child's leisure time in last 30 days and others knew for varied period of time such as rarely (3.8%), sometimes (21.9%), mostly (21.9%), always (48.0%) (Table 18).

About 74.0% of parents never removed their child's property in last 30 days without informing him / her and others removed for varied period of time (Table 18).

About 2.6% of parents did not spend time with their children in last 30 days and others spent for varied period of times such as rarely (3.5%), sometimes (19.3%), mostly 25.0% and always (49.6%) (Table18).

5. Opportunities and challenges of the National Mental Health Survey 2019

Opportunities of the survey include supportive information to policy of the government on mental health in Bangladesh are made available, receiving financial support from government, getting technical support from WHO, collaboration with Bangladesh Bureau of Statistics (BBS), motivation of psychiatrists at NIMH for doing national survey, strengthening of research capacity of NIMH and involvement of psychiatrists around the country with the survey activities.

Challenges faced during survey activities are lack of well oriented medical epidemiologist at the level of organization, adequate preplanning with achievable time line based on available resources, adequate resource allocation for conducting high quality survey, ensuring inter rater reliability, selection of appropriate field staff specially Data Enumerators, implementation of field activity following the survey protocol, high quality programing of android tablet for quality assurance, deployment of a digital data collection and transfer mechanism, effective monitoring of field activities and timely feedback mechanism, proper handling of data and analysis and gap in the understanding of investigators and data analyst about research objectives of the survey. Development of a readers friendly survey report and motivating stake holders for proper use of data are also challenges after completion of the survey.

6. Limitations of the study

There are some limitations of the survey. Mental disorder is highly stigmatized in the society of Bangladesh. Collecting information with self-reporting questionnaire always carried the risk of underreporting of the problems. There has been no study in Bangladesh to assess the extent of under reporting in the study of mental disorders. Moreover, avoidance of the data enumerators and refusal to give information by the possible patients with mental disorders (respondents) were not unlikely. As data collection time was principally in day time data enumerators were likely to have missed some male respondents with history of mental disorder. Finding out of the exact risk factors of mental disorders required some more appropriate statistical analysis. Tabular and graphical presentation of data and Chi Square analysis of the data showed association of factors with mental disorders in the country. Nevertheless, this

is a largest survey conducted on mental disorders among nationally representative samples in Bangladesh. We are therefore confident that within the possible margins of error, profile of mental disorders we have reported reflects the exact profile of persons with mental disorders in Bangladesh.

7. Implications of NMHS 2019 results

National Mental Health Survey 2019 was conducted in eight divisions of the country based on random cluster sampling method with representation from whole population of Bangladesh.

The survey results are reliable as it used proper sample size, appropriate sampling method, valid instruments, standard procedure of translation, pretesting, training, piloting, uniform approach of data collection by hand held android tablet and proper statistical procedure.

The survey was done among adult population of the country 18 years and above and also considered a small size of child population 7 years to 17 years as a model approach for estimation of mental morbidity among children.

The survey results provide evidences that mental morbidity in Bangladesh is very high. The survey identified 18.7% of adult population are suffering from mental disorders and they are in need of active mental health interventions. Elderly group of people has the highest mental morbidity requiring special attention. Among population 7 years to 17 years 12.6 % have diagnosable mental disorders requiring different forms of treatment.

In addition to prevalence the survey assessed attitude, stigma, treatment gap and treatment seeking behavior in mental health in Bangladesh.

Negative attitude and stigma related to mental health are highly prevalent in the country.

People with mental disorders are still seeking treatment from faith and traditional healers and makes significant delay in seeking medical treatment.

A treatment gap for mental disorders and non-adherence to treatment are still very high in the country.

Children are also significant sufferers from mental disorders. Treatment gap is also very high among children. Guardians are not giving quality time to their children.

The impact is huge affecting quality, productivity and earning potential of individuals. Both health and non-health aspects of one's life get affected by mental disorders. The impact on spouse, children and other family members are significant. Drop out from academic institution and unemployment are also frequent.

Current facility in mental health delivery needs to be increased many times to reduce the treatment gap. Initiatives are required to enhance treatment seeking behavior. Short term and long terms goals should be designed and implemented accordingly.

8. Conclusion

National Mental Health survey 2019 revealed a huge burden of mental disorders in Bangladesh and existence of 91.0% treatment gap in the field. Reasons of high treatment gap are many. Majority, who seek treatment, reports to treatment seeking points in late even after 10 years of onset of the illness. Majority of patients seeking treatment are reporting to private chamber of psychiatrists. Individuals with mental disorders and their families are stigmatized and discriminated in the society. Attitude towards mental illness is strongly negative. Status of family mental health and parental care of children are also issues of concern.

Evidences derived from this survey are based on scientific, uniform and standard methodology. Efforts of the government to achieve SDGs needs attention to mental health of the country's population. Measures taken by the government to address the issue of mental illness should be supported by the evidences generated from this research. Survey results should be used as evidences to develop, strengthen and implement mental health policy, plan and programs in the country in future.

9. Recommendations

Information on key indicators derived from NMHS 2019 conducted across the whole country with rigorous methodologies provide essential evidences for policy makers, program managers, academicians, development partners and researchers to adopt necessary interventions to combat the burden of mental disorders in Bangladesh.

Depending on the survey results reported in this document following recommendations are placed for development of mental health services in Bangladesh.

Recommendations	**Actions to be taken**	**Responsibility**	**Time frame**
1. As prevalence of mental disorders is very high (18.7% in adults and 12.6%in children) and treatment gap (91.0% in adults, 93.4% in children) is very wide mental health should be given higher priority in the agenda of the government.	Separate Task Force / Action Plan for mental health in MOH&FW .	MOH&FW, DGHS, NIMH	Short term: 2021-2022
2. Considering the importance of huge mental health problems in all populations (children and adult) in both genders (male and female) as well as in urban and rural population development of policy, strategy, plan and programs addressing the issues are urgently required.	Developing policy, strategy, plan and programs for mental health	MOH&FW, DGHS, NIMH	Short term: 2021-2022

3. As spectrum of mental health problems are very high and nature of the problem is different from other NCDs a separate office of mental health in DGHS under MH&FW is required for coordinating and implementing mental health activities in the country.	Creating a separate office of a Director in Directorate General of Health Services (DGHS) under MOH&FW	MOH&FW, DGHS, NIMH	Short term: 2021-2022
4. Establishing mental health service facility including services for substance use in secondary level of health services (District Hospital) is essential for reducing treatment gap and developing referral system.	Establishing a 10 bedded Psychiatry Unit including substance use in all District Hospitals	MOH&FW, DGHS	Short term: 2021-2022
5. Establishing psychiatry units in Medical Colleges of the country for addressing treatment gap, referral system and integration of mental health with general health care.	Establishing Psychiatry Department including Substance use in all government and non-government Medical Colleges of the country	MOH&FW, DGHS, BMDC, CME, Respective University, authority of medical college	Short term: 2021-2022
6. Implementation of mental health programs in Bangladesh through its integration with general health care system / Primary Health Care (PHC) System of the country should be accelerated to provide mental health services to the doorsteps of community people and thus reducing treatment gap and time to reach treatment facility.	Implementation of mental health programs through PHC	MOH&FW, DGHS, Authority of PHC Centers	Short term & long term: 2021-to be continued

7. Increasing logistic support and human resources (trained and qualified), ensuring psychotropic drugs delivery, devising effective record system and data transmission are urgently required at all levels of health system to reduce treatment gap.	Creating physical space, employing trained or qualified manpower, supplying psychotropic drugs and including option for mental disorders in data transmission forms at all levels of health services	MOH&FW, DGHS, Respective local health authority	Short & long terms: 2021- to be continued
8. Expanding mechanisms for development of both qualified and trained human resources in NIMH, BSMMU, Mental Hospital, Pabna and Psychiatry Units in Medical Colleges and thus decreasing treatment gap.	Increasing options in postgraduate courses in Psychiatry in NIMH & BSMMU, Opening new courses in 13 old government medical colleges, Increasing training facilities in NIMH, BSMMU, Mental Hospital, Pabna & Medical colleges	BSMMU, NIMH, Principals of 9 MC, Director of Mental Hospital, Pabna, MOH&FW, DGHS,	Long term; 2021-2023
9. As prevalence of substance use is high and this is a form of mental disorders Programs for Substance Use should be included in and coordinated with Mental Health programs and close collaboration with Ministry of Home Affairs is required.	Integrating programs for Substance Use with programs for mental health in collaboration with ministry of Home affairs	MOH&FW, Ministry of Home Affairs, DGHS, NIMH	Short term- Long term: 2021- continued
10. As stigmas, negative attitudes and poor health seeking behavior in relation to mental health problems are strongly prevailing in the society Mental Health Literacy Programs and inclusion of mental health in high school curriculum are required.	Printing & distribution of IEC materials through out the whole country & more effective use of electronic & printing media for Mental Health Literacy Programs, Revision of high school curriculum.	MOH&FW, MOE,DGHS, NIMH	Long term: 2021-continued

11. As current situation of child mental health is poor parents are required to give more time to children and communicate about their personal and academic life	Parents giving time to children and discussing with children regularly	Parents and children	Long term: 2021-continued
12. As epidemiology of mental disorders vary among special groups of population mental health should be integrated with government sectors related with mental health such as social welfare, education, women and children affairs, public works, home affairs need to include mental health agenda in their policies, plans and programs.	Mental health to be included in the policies & programs of Ministry of social welfare, education, women and children affairs, public works & home affairs	MO SW, Education, Women & Children, PW & Home Affairs	Long term:2021-continued
13. Government Funds for mental health needs to be increased and streamlined with proper planning and performance based timey disbursal.	Increasing government Funds / budget for mental health	MOH&FW	Short term & long term: 2021- to be continued

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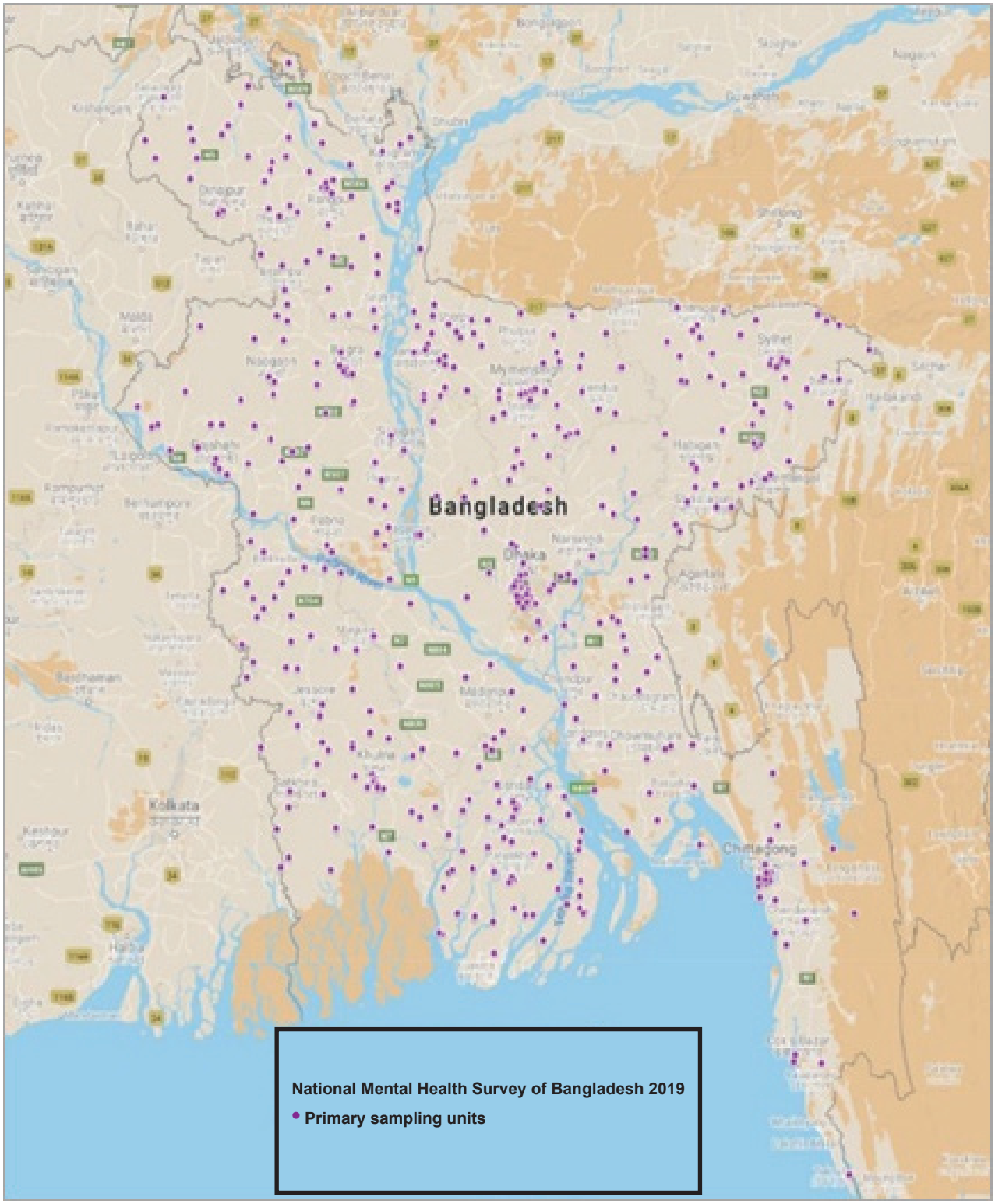
11. Appendices

11.1. Flow chart of survey activities

Activities	First month	Second month	Third month	Fourth month	Fifth month	Sixth month	Seventh month	Eighth month	Ninth month
• Development and acceptance of survey protocol	♦	♦							
• Co-ordination meetings of Technical advisory committee		♦	♦						
• Meetings of the working committee for development, adaptation and validation of the questionnaires		♦	♦						
• Appointment of data collectors, field supervisors, research psychiatrists, divisional coordinators & office staffs.				♦	♦				
• Collection of electronic haldheld devices (tablets) and installation of quiesionnaires in the devices, orientation training of data collectors, and other team members						♦			
• Piloting of the study and development of Master Protocol						♦			
• Administrative contact & contact with different stakeholders in the study sites						♦			
• Informal talk with community people						♦			
• Data collection							♦	♦	
• Data entry								♦	
• Data analysis									♦
• Preparation of report									♦

11.2 Map of Bangladesh with 496 PSUs selected randomly for National Mental Health Survey 2019



11.3 Questionnaires

জাতীয় মানসিক স্বাস্থ্য জরিপ বাংলাদেশ ২০১৯

National Mental Health Survey Bangladesh 2019

Questionnaire

প্রশ্নাবলী

এন.সি.ডি
স্বাস্থ্য অধিদপ্তর

World Health Organization

নির্দেশনা

কলামগুলোর নির্দেশনাঃ

কলাম	ব্যাখ্যা
প্রশ্ন	প্রতিটি প্রশ্ন অংশগ্রহণকারীকে পড়ে শুনাতে হবে
উত্তর	এই কলামে সম্ভাব্য উত্তরগুলো থাকবে যেখানে সংগ্রহকারী উত্তরগুলো পূরণ করবে। স্কিপ গুলো উত্তরের নিচের দিকে থাকবে এবং তথ্য গ্রহণের সময় তা গুরুত্ব সহকারে অনুসরণ করতে হবে।
কোড	এই কলামটি এমনভাবে তৈরি করা হয়েছে যেন তা ট্যাবে, ডাটা এনালাইসিস সিনট্যাক্স, ডাটা বুক, ফ্যাক্ট শিটের সাথে সামঞ্জস্যপূর্ণ থাকে।
[...তৃতীয় বন্ধনীতে লিখিত বাক্য...]	তথ্য সংগ্রহকারীর জন্য নির্দেশনা,উত্তরদাতাকে পড়ে শুনানোর প্রয়োজন নাই।
প্রশ্নের আন্ডারলাইন করা শব্দ	তথ্য প্রদানকারীকে বিশেষ গুরুত্ব দিয়ে পড়ে শুনাতে হবে।

সূচিপত্র

ক - বিভাগ: **১৮ ও তদুর্ধ্ব বয়সের ব্যক্তিবর্গের** মানসিক স্বাস্থ্য স্ক্রিনিং প্রশ্নাবলী 4

ক ১: খানা সম্পর্কিত তথ্যাবলী (Household information) 4

১. খানা লিপিবদ্দকরণ [Add New ousehold]: 4

ক ২: ব্যক্তিগত তথ্যাবলী [Personal information] 7

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৬. মানসিক স্বাস্থ্যের প্রাথমিক স্ক্রীনিং 16

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২. শিশুর মানসিক স্বাস্থ্যের স্ক্রিনিং 28

গ - বিভাগ মানসিক অসুস্থ্যতা নির্ণয় [Diagnosis of Suspected Mental Illness] 29

গ ১. ১৮ বছর বা তার উপরে ব্যক্তিদের জন্য 29

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ক ১: খানা সম্পর্কিত তথ্যাবলী (Household information)

১. খানা লিপিবদ্দকরণ [Add New ousehold]:

প্রশ্ন	উত্তর
খানার আই ডি (Household ID) [এটি স্বয়ংক্রিয়ভাবে ট্যাব তৈরী করে দিবে।] [Handheld will automatically generate this]	E | | | - | | | |
মোবাইল ফোন (Mobile phone number)	| | | | | | | | | | |
খানা কোড (Household codes) (Comments)	

খানার ধরণ	কোড
এটি একটি খানা এবং সাক্ষাৎকার নেয়া সম্ভব হবে (This is a Household and Interview could be done)	০
খানা কিন্তু কোন উপযুক্ত সদস্য নেই (Household but no eligible member)	১
খানা কিন্তু সাক্ষাৎকার গ্রহণ সম্ভবনয় (যেমন: উত্তরদাতা প্রতিবন্ধী) (Household but unable to interview)	২
খানা কিন্তু কোনপ্রকার তথ্য দিতে অসম্মতি (Household but refused)	৩
খানা কিন্তু তালাবদ্ধ বাড়ি (Household but locked)	৪
মেস/হোস্টেল ইত্যাদি (Group accommodation)	৫
খানা নয় (যেমন: ব্যাংক, বীমা, সামরিক বাহিনীর ঘাঁটি, বৃদ্ধাশ্রম ইত্যাদি) (Not a HH)	৬
ভেঙেপড়া বাড়ি (Broken)	৭
খালি বাড়ি (Vacant)	৮
খানা খুঁজে পাওয়া যায়নি (Missing HH)	৯

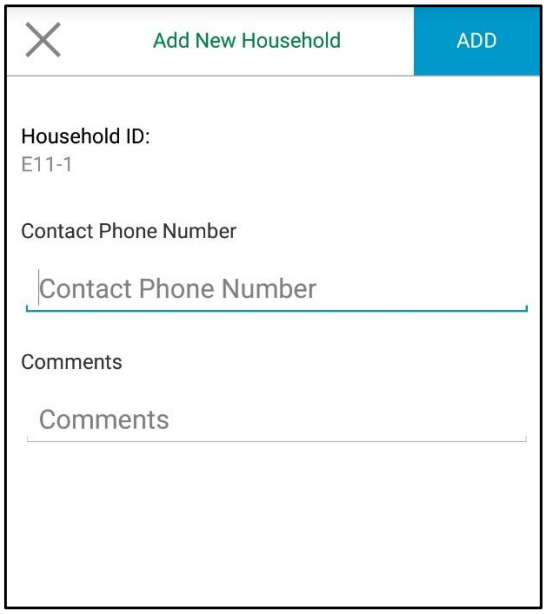


Figure 1: Adding new household in the App

নির্দেশনা: তথ্য দেয়া সম্পন্ন হলে ট্যাবের উপরে ডান দিকে 'অ্যাড' বাটন চাপ দিলে খানাটি টেবে লিপিবদ্ধ হবে।

২. খানার উপযুক্ত ব্যক্তিদের নাম,বয়স এবং লিঙ্গ লিপিবদ্ধ করণ [name, age and sex of the household memebrs] [Add New Member]

নির্দেশনা: এখন খানার উপযুক্ত ব্যক্তিদের নাম, বয়স এবং লিঙ্গ জ্যেষ্ঠ্যতা অনুসারে একের পর এক লিপিবদ্ধ করুন।
[Instruction: record name, age and sex of the household memebrs in chronology of decreasing age]

প্রশ্ন	উত্তর
খানার সবচেয়ে বয়স্ক ব্যক্তির (খানা ভেদে পুরুষ/ নারী) তথ্য/ [Information of the eldest houshold memeber (man/ woman)]	
নামের প্রথম অংশ [Family Surname]	.....
নামের পরের অংশ [First Name]	.....
বয়স।[Age]	☐☐ বছর
লিঙ্গ [Gender]	O পুরুষ O নারী

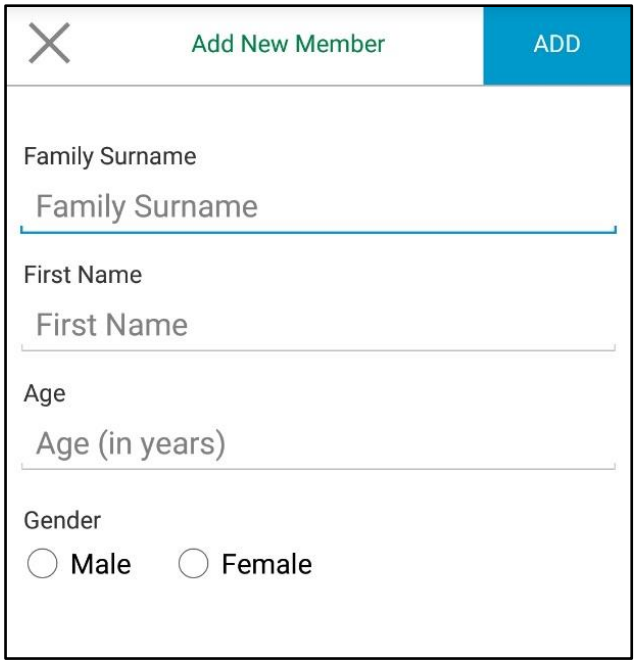


Figure 2: Adding new member

নির্দেশনা: এভাবে খানার সকল উপযুক্ত ব্যক্তিদের (পুরুষ/ নারী) নাম লিপিবদ্ধ হলে ট্যাবে প্রদর্শীত "সিলেক্ট পার্টিসিপেন্ট" বাটন চাপ দিতে হবে। এতে করে ট্যাব স্বয়ংক্রিয়ভাবে একজন ব্যক্তি কে নির্বাচন করে দিবে। নির্বাচিত ব্যক্তির নাম ট্যাবের উপরে "কমলা" রঙে নিম্নরূপে প্রদর্শিত হবে।
[Instructions: Press the "select participant' button on the handheld when all household member information has been recorded. The device will automatically select one person. The name of the selected person will appear in organge colour]

মনে রাখতে হবে কেবলমাত্র নির্বাচিত ব্যক্তি থেকেই পরবর্তীতে ব্যক্তিগত সাক্ষাৎকার গ্রহণ করতে হবে। কোন অবস্থাতেই অন্য কারো সাক্ষাৎকার নেয়া যাবনা।

[Remember that interview can be held only with the selected household member. No one else can be intertviewed instead.]

কাগজে প্রিন্ট করা সম্মতি পত্রে উত্তরদাতার স্বাক্ষর/ টিপসই গ্রহণ করার পর সাক্ষাৎকার শুরু করুন।

[Start the interview after collecting the respondent's signature/ thumb imprint on the printed consent paper]

ক ২: ব্যক্তিগত তথ্যাবলী [Personal information]

১. সাক্ষাৎকারের স্থান এবং সাক্ষাৎকার গ্রহণকারীর পরিচিতি [place of intertview and indentity of the interviewer/enumerator]

ক্রম	প্রশ্নাবলী	উত্তর	কোড
	পি এস ইউ আইডি নাম্বার (PSU ID)	|___|___|___|	I1
	তথ্য সংগ্রহকারীর ID নাম্বার [ID of interviewer/enumerator]	|___|___|	I2
	পি এস ইউর ইউনিয়ন [পূর্বে পি এস ইউ আইডি দিলে, এই অংশটির উত্তর স্বয়ংক্রিয়ভাবে ট্যাবে প্রদর্শিত হবে] Union [if the PSU ID is recorded above, the device will automatically generate this]	.....	I3
	পি এস ইউর উপজেলা [পূর্বে পি এস ইউ আইডি দিলে, এই অংশটির উত্তর স্বয়ংক্রিয়ভাবে ট্যাবে প্রদর্শিত হবে] Upazila [if the PSU ID is recorded above, the device will automatically generate this]	.....	I4
	পি এস ইউর জেলা [পূর্বে পি এস ইউ আইডি দিলে, এই অংশটির উত্তর স্বয়ংক্রিয়ভাবে ট্যাবে প্রদর্শিত হবে] District [if the PSU ID is recorded above, the device will automatically generate this]	.....	I5
	পি এস ইউর বিভাগ [পূর্বে পি এস ইউ আইডি দিলে, এই অংশটির উত্তর স্বয়ংক্রিয়ভাবে ট্যাবে প্রদর্শিত হবে] Division [if the PSU ID is recorded above, the device will automatically generate this]	.....	I6
	সাক্ষাৎকার গ্রহণকারীর নাম [পূর্বে সাক্ষাৎকার গ্রহণকারীর আইডি দিলে, এই অংশটির উত্তর স্বয়ংক্রিয়ভাবে ট্যাবে প্রদর্শিত হবে] Interviewer's/ Enumerator's name [if the Interviewer/ Enumerator ID is recorded above, the device will automatically generate this]	.....	I7

২. উত্তরদাতার অবহিতক্রমে সম্মতি [repondent's informed consent]

প্রশ্নাবলী	উত্তর		কোড
উত্তরদাতার সম্মতি নেয়া হয়েছে। ***[উত্তর 'না' হলে সাক্ষাৎকার শেষ করুন]***	হ্যাঁ না	১ ২	**I8**

৩. ব্যক্তিগত তথ্য [personal information]

ক্রম	প্রশ্নাবলী	উত্তর	কোড
	উত্তরদাতার পূর্ণনাম [respondent's full name]	.....	C1
	উত্তরদাতার লিঙ্গ [উত্তরদাতার লিঙ্গ খানার তথ্যের সাথে মিলিয়ে দেখুন] Sex of the respondent [match respondent's sex with household information]	পুরুষ..... ☐১ মহিলা..... ☐২ অন্যান্য..... ☐৩ Male 1 Female 2 Others 3	C2
	আপনার জন্ম তারিখ কত? (জানা নাই হলে ৭৭ ৭৭ ৭৭৭৭ লিখুন।) [what is your date of birth] [if, don't know record as, 77 77 7777]	☐☐ ☐☐ ☐☐☐☐ দিন মাস সাল Day month year	C3 a – c
	[যারা জন্ম তারিখ বলতে পেরেছেন হিসাব করে তাদের বয়স লিখুন, আর যারা বলতে পারেননি তাদের প্রশ্ন করুন] আপনার আনুমানিক বয়স কত? [calculate the age is years of those who could mention date of birth. Report age in years for those who could not.]	☐☐ বছর [বয়স ৯৯ এর অধিক হলে বয়স ৯৯ লিখতে হবে এবং ট্রেকিং ফরমে নোট রাখতে হবে।] [if age is more than 19 years, report as 99 and keep note of actual age in 'tracking form']	C4
	উত্তরদাতার অন্য কোন (যদি থাকে) মোবাইল নম্বর [জানাতে অসম্মতি হলে '৮৮' এবং না থাকলে '৯৯' লিখুন] ***Other mobile number of respondent, if any*** ***[if refused, '88' and if not available, '99']***	☐☐☐☐☐☐☐☐☐☐☐	C5
	এই খানার ধরণ কি? [what is the type of this household?]	একক ১ যৌথ ২ nuclear 1 extended/ joint 2	C6
	এই খানায় মোট কতজন বাস করেন? [how many live in this household?]	☐☐	C7

	এই খানায় কতজনের বয়স ১৮ বছর বা তার বেশী? [**নির্দেশনা:** ১৮ বৎসর বা তার বেশী বয়সের সদস্যদের সংখ্যা খানার মোট সদস্য সংখ্যা থেকে বেশি হবে না। পূর্বের উত্তর পুনরায় বিবেচনা করুন] [how many are aged 18 years or older in this household?] [Instruction: the number of household members aged 18 years and above will not be greater than the total household members. If needed review the provious response.]	⌊__⌋⌊__⌋	C8
	এই খানার কতজন (পুরুষ / মহিলা)-র বয়স ১৮ বছর বা তার বেশী? [**নির্দেশনা:** যদি পুরুষ খানা হয় তাহলে মোট পুরুষের সংখ্যা আর মহিলা খানা হলে মোট মহিলার সংখ্যা লিখতে হবে।] [how many man/ woman in this household are aged 18 years or older?] [if this is a male household, record the total number of males and if female household record the total number of female members.]	⌊__⌋⌊__⌋	C9
	এই খানায় কতজনের বয়স ৭ - ১৭ বছরের মধ্যে? [how many are aged between 7–17 years?]	⌊__⌋⌊__⌋	C10
	এই খানার কতজন (বালক/ বালিকা)-র বয়স ৭ - ১৭ বছরের মধ্যে? [how many boys/ girls are aged between 7–17 years?]	⌊__⌋⌊__⌋	C11
	[উত্তরদাতার প্রাতিষ্ঠানিক শিক্ষাকাল হিসেব করে তিনি সর্বমোট কত বছর প্রাতিষ্ঠানিক শিক্ষা গ্রহণ করেছেন তা লিখুন] (প্রথম শ্রেণীর নিচে এবং উপানুষ্ঠানিক শিক্ষা অন্তর্ভুক্ত হবে না) [calculate and record the total number of academic years completed by the respondent] [academic years under class one and informal education will not be counted]	⌊__⌋⌊__⌋ বছর অসম্মতি ৮৮ years refused 88	C12

	আপনি কোন ধর্মের অনুসারী? [what is your religion?]	ইসলাম ১ সনাতন /হিন্দু ২ খ্রিষ্টান ৩ বৌদ্ধ ৪ অন্যান্য ৫ অসম্মতি ৮৮ Islam 1 Hinduism 2 Christianity 3 Buddhism 4 Others 5 Refused 88	C13
	আপনার বৈবাহিক অবস্থা কি? [what is your marital status?]	অবিবাহিত ১ বিবাহিত ২ পৃথক ৩ তালাকপ্রাপ্ত ৪ বিপত্নিক/ বিধবা ৫ অসম্মতি ৮৮ Unmarried 1 Married 2 Seperated 3 Divorced 4 Widower/ widow 5 Refused 88	C14
	গত ১২ মাসে আপনার প্রধান পেশা কি ছিল? [what was your major occupation in the past 12 months?]	সরকারী কর্মচারী ১ বেসরকারী কর্মচারী ২ স্বায়ত্তস্বাসিত কর্মচারী ৩ ব্যবসা (ছোট) ৪ ব্যবসা (বড়) ৫ কৃষি কাজ (জমির মালিক এবং কৃষক) ক্ষেত মজুর ৬ কারখানার শ্রমিক ৭ দিনমজুর ৮ ড্রাইভার ও অন্যান্য পরিবহন শ্রমিক ৯ ভ্যান, ঠেলা ও রিকশা চালক ১০ স্ব-নিয়োগ ১১ ছাত্র/ছাত্রী ১২ গৃহ-কর্ম ১৩ অবসরপ্রাপ্ত ১৪ বেকার, কমর্ক্ষম ১৫ বেকার, কর্মক্ষম নন ১৬ পারিশ্রমিক প্রাপ্ত গৃহকর্মী ১৭ কামার/কুমার/তাঁতী/ জেলে ১৮ অন্যান্য ১৯ অন্যান্য (নির্দিষ্ট করুন) C8other অসম্মতি ৮৮ Government service 1 Private service 2 Autonomous 3	C15

		Business (small) 4 Business (large) 5 Farming (Farmer with own land) 6 Daily labourer 7 Dirver and others 8 Transport labourer 9 Richshaw van, push cart, rickshaw Driver 10 Self emnployed 11 Student 12 Household work 13 Retired 14 Unemployed, capable 15 Unemployed incapable 16 Paid household helper 17 Balcksmith/potter/weaver/fisherman 18 Others 19 Others (specify) C8other Refused 88	

৪. আর্থসামাজিক তথ্য (sociodemographic infromation)

ক্রম	প্রশ্ন	উত্তর	কোড
	অনুগ্রহ করে জিজ্ঞাসা/ পর্যবেক্ষণকরুন (প্রয়োজনহলে) এই খানায় বা এই খানায় যারাবাস করেন তাদের কারও নিচের সামগ্রী গুলো আছে কি না: [please ask or observe (if needed) whether the following items are present in this household]		
	a. বিদ্যুৎ [electricity]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15a
	b. ফ্লাশ পায়খানা [flush toilet]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15b
	c. [ল্যান্ড ফোন] [land phone]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15c
	d. [মোবাইল ফোন] [mobile phone]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15d
	e. [টেলিভিশন] [television]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15e
	f. [রেফ্রিজারেটর] [refregerator]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15f
	g. [প্রাইভেট কার] [private car]]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15g
	h. [মপেড/স্কুটার/মোটর সাইকেল/অটো রিক্সা] [moped/ scooter/ motor cycle/ auto rickshaw]]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15h
	i. [ওয়াশিং মেশিন] [washing machine]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15i
	j. [বাই সাইকেল?] [bicycle]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15j
	k. [সেলাই মেশিন] [sewing machine]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15k
	l. [আলমিরা / ওয়াড্রোব] [almirah/ wardrobe]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15l
	m. [টেবিল] [table]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15m
	n. [চৌকি/ খাট] [*khat/ chowki*]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15n

	o. [চেয়ার/ বেঞ্চ] [chair/ bench]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15o
	p. [ঘড়ি] [clock]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15p
	q. [কম্পিউটার/লেপটপ/ট্যাব] [computer/ laptop/ tab.]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15q
	r. [গৃহপালিত পশু (গরু, মহিষ, ছাগল ইত্যাদি)] [domestic animal(cow, bull, goat etc.)]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15r
	s. [শ্যালো মেশিন/পাওয়ার টিলার/ট্রাক্টর] [shallow machine/ power tiller/ tractor]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15s
	t. [রিক্সা] [rickshaw]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15t
	u. [চাষাবাদের ক্ষেতি জমি] [farming land]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15u
	v. [মাছ চাষের পুকুর/ঘের] [pond/ '*gher*' for fish cultivation]	হ্যাঁ ১ না ২ অসম্মতি ৮৮	C15v
	প্রধান ঘরের ছাদ/চাল মূলত কি দিয়ে নির্মিত? (পর্যবেক্ষণ করে লিখুন) [Observe and note the material of the roof of the main house]	কাঁচা ১ (বাঁশ/তালপাতা/খড়/চট) টিন/ এসবেস্টস সীট/ অনুরূপ সামগ্রী ২ সিমেন্ট/কনক্রিট ৩ Raw (bamboo/ palm 1 leaf/ hay/ gunny tin/ asbestos sheet 2 similar material cement/ concrete 3	C16

৫. খানার মানসিক স্বাস্থ্য সম্পর্কিত সাধারণ তথ্য [general information on mental health of household memebrs]

ভূমিকা: এখন আমি আপনার খানার সদস্যদের মানসিক স্বাস্থ্য সম্পর্কে কিছু তথ্য জানতে চাইব। এখানে কিছু মানসিক সমস্যা যেমন: পারিবারিক সম্পর্ক, অনিদ্রা, ক্ষুদামন্দা, মনোযগের অভাব, অহেতুক ভয় পাওয়া এবং মানসিক রোগ যেমন: বিষন্নতা, সিজোফ্রেনিয়া, শুচিবাই। উত্তর গুলো আপনার জানামতে আপনি এবং আপনার খানার অন্যান্য সদস্যদের জন্য প্রযোজ্য।

[introduction: I want to know about the mental health of your household members. Here questions refer to some expressions of mental conditions such as, relationship with family members, insomnia, loss of appetite, lack of attention, unusual fear etc and some mental illnesses such as, depression, schizophrenia, obsessive compulsive disorder etc. Answer the questions to the best of your knowledge. These questions apply to the members of your household which includes you.]

ক্রম	প্রশ্ন	উত্তর	কোড
	আপনার খানার বেশিরভাগ সদস্যদের সাথে আপনার সম্পর্ক/ বোঝাপড়া কেমন ?	খুবভাল ১ ভাল ২ মোটামোটি ৩ খারাপ ৪ খুব খারাপ ৫ অসম্মতি ৮৮	M1
	আপনার খানার কোনো সদস্যের কি মানসিক সমস্যা আছে ?	আছে ১ নাই ২ জানি না ৭৭ অসম্মতি ৮৮	M2
	আপনার খানার কোনো সদস্যের কি কোনো ধরণের মানসিকরোগ আছে?	আছে ১ নাই ২ জানি না ৭৭ [skip] অসম্মতি ৮৮	M3
	যদি হ্যাঁ হয় তবে তা কি মাত্রার	গুরুতর ১ মাঝামাঝি ২ লঘু ৩ জানিনা ৭৭	M4
	আপনার খানার কোনো সদস্য আত্নহত্যার চেষ্টা করেছিল কি?	হ্যাঁ ১ না ২ জানিনা ৭৭ অসম্মতি ৮৮	M5
	আপনার খানার কোনো সদস্য আত্নহত্যার করেছিল কি?	হ্যাঁ ১ না ২ জানিনা ৭৭ অসম্মতি ৮৮	M6
	আপনার খানার কোনো সদস্যের কি দীর্ঘমেয়াদি শারীরিক রোগ যেমন ডায়াবেটিস, উচ্চ রক্তচাপ, হৃদরোগ, স্ট্রোক, কিডনির সমস্যা আছে?	আছে ১ নাই ২ জানি না ৭৭ অসম্মতি ৮৮	M7
	আপনার খানার কোনো সদস্য বর্তমানে সিগারেট, বিড়ি, হুক্কা, গ্রহণ করেন?	হ্যাঁ ১ না ২ জানিনা ৭৭ অসম্মতি ৮৮	M8

	আপনার খানার কোনো সদস্য বর্তমানে জর্দা, গুল, সাদাপাতা, নস্যি, খৈনি গ্রহণ করেন?	হ্যাঁ ১ না ২ জানিনা ৭৭ অসম্মতি ৮৮	M9
	আপনার খানার কোনো সদস্য বর্তমানে মদ, গাঁজা, ইয়াবা, হেরোইন, ফেন্সিডিল ইত্যাদি গ্রহণ করেন?	হ্যাঁ ১ না ২ জানিনা ৭৭ অসম্মতি ৮৮	M10

৬. মানসিক স্বাস্থ্যের প্রাথমিক স্ক্রীনিং

ক্রম	প্রশ্নাবলী	উত্তর	কোড
	আপনার কি প্রায়ই মাথা ব্যথা হয় ?	না ০ হ্যাঁ ১	S1
	আপনার কি ক্ষুধা কম লাগে ?	না ০ হ্যাঁ ১	S2
	আপনার কি ভাল ঘুম হয় না ?	না ০ হ্যাঁ ১	S3
	আপনার কি হাত কাঁপে?	না ০ হ্যাঁ ১	S4
	আপনি কি সহজেই ভয় পেয়ে যান ?	না ০ হ্যাঁ ১	S5
	আপনার কি নিজেকে ভীতু ও দুঃচিন্তাগ্রস্ত মনে হয়?	না ০ হ্যাঁ ১	S6
	আপনার কি হজম শক্তি কম?	না ০ হ্যাঁ ১	S7
	আপনার কি কোন বিষয়ে ঠিকমত চিন্তা করতে সমস্যা হয়?	না ০ হ্যাঁ ১	S8
	আপনি কি নিজেকে অসুখী মনে করেন?	না ০ হ্যাঁ ১	S9
	আপনার কি অল্পতেই কান্না পায় ? / আপনি কি স্বাভাবিকের চাইতে বেশি কান্না করেন?	না ০ হ্যাঁ ১	S10
	দৈনন্দিন কাজ কর্মে আপনি কি আনন্দ পান না ? / দৈনন্দিন কাজ কর্মে আনন্দ পাওয়াকে কি কঠিন মনে করেন?	না ০ হ্যাঁ ১	S11
	কোন বিষয়ে সিদ্ধান্ত নিতে কি আপনার কাছে কঠিন মনে হয় ?	না ০ হ্যাঁ ১	S12
	আপনার প্রতিদিনকার কাজে ক্ষতি হচ্ছে কি ?/ আপনার দৈনন্দিন কাজ ক্ষতিগ্রস্ত হয় কি ?	না ০ হ্যাঁ ১	S13
	আপনি কি জীবনে প্রয়োজনীয় ভূমিকা পালনে অক্ষম ?	না ০ হ্যাঁ ১	S14

	আপনি কি কাজ কর্মে উৎসাহহারিয়েফেলেছেন? / আপনি কি কোন কিছুতে উৎসাহহারিয়েফেলেছেন?	না ০ হ্যাঁ ১	S15
	আপনি কি নিজেকে একজন মূল্যহীন মানুষ মনে করেন ?	না ০ হ্যাঁ ১	S16
	আপনার মনে নিজেকে শেষ করে দেয়ার চিন্তা আসে কি ?	না ০ হ্যাঁ ১	S17
	আপনি কি সব সময় ক্লান্তিবোধ করেন ?	না ০ হ্যাঁ ১	S18
	আপনি কি পেটে অস্বস্তি অনুভব করেন ?	না ০ হ্যাঁ ১	S19
	আপনি কি সহজেই ক্লান্ত হয়ে পড়েন ?	না ০ হ্যাঁ ১	S20
	আপনার কি মনে হয় কোন লোক কোনভাবে আপনার ক্ষতির চেষ্টা করছে ?	না ০ হ্যাঁ ১	S21
	অন্য লোকের ধারনার চেয়ে আপনি নিজেকে বেশী বড় মনে করেন কি ?	না ০ হ্যাঁ ১	S22
	আপনি কি আপনার চিন্তায় কোন বাঁধা বা কোন অস্বাভাবিক কিছু লক্ষ্যকরেছেন ?	না ০ হ্যাঁ ১	S23
	আপনি কি কখনো এমন কথা /আওয়াজ শুনেন যা অন্য কেউ শুনেনা বা কোথাহতে আসে বুঝেন না ?	না ০ হ্যাঁ ১	S24

নির্দেশনা: প্রাথমিক স্ক্রীনিং এর ফলাফলের শর্ত সমূহ
যদি S1 থেকে S20 পর্যন্ত কমপক্ষে ৬ বা তার অধিক প্রশ্নের উত্তর 'হ্যাঁ' হয় অথবা S21 থেকে S24 পর্যন্ত যেকোন একটি প্রশ্নের উত্তর 'হ্যাঁ' হলে স্ক্রীনিং "পজিটিভ" হবে।

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	উত্তরদাতার মানসিক স্বাস্থ্যের প্রাথমিক স্ক্রীনিং এর ফলাফল [শর্ত মোতাবেক]	নেগেটিভ পজিটিভ	০ ১	S25

নির্দেশনা: স্ক্রিনিং "পজিটিভ" হলে, মানসিক রোগের বিশেষজ্ঞের দ্বারা মানসিক রোগ নির্ণয়ের জন্য উত্তরদার আই.ডি লিপিবদ্ধ করে রাখুন

৭. মানসিক অসুস্থতার কুসংস্কার

ক্রম	প্রশ্ন	উত্তর							কোড
		১ একেবারেই একমত নোই	২	৩	৪ নিরপেক্ষ	৫	৬	৭ সম্পূর্ণ ভাবে একমত	
	মানসিক রোগীকে স্বাভাবিক ও কর্মক্ষম জীবনে ফিরিয়ে আনার জন্য কার্যকর ঔষধ (মানুষিক রোগের) আছে ।	১	২	৩	৪	৫	৬	৭	D1
	আমি মনে করি না যে (মানসিকভাবে অসুস্থ) কারো সাথে স্বাভাবিক সম্পর্ক রাখা সম্ভব।	১	২	৩	৪	৫	৬	৭	D2
	আমি মনে করি, (মানসিকভাবে অসুস্থ) কাউকে বিশ্বাস করা কঠিন।	১	২	৩	৪	৫	৬	৭	D3
	(মানসিকভাবে অসুস্থ) ব্যক্তির চেহারা ও পোশাকে অযত্নের ছাপ থাকে। / (মানসিকভাবে অসুস্থ) মানুষগণ তাদের বহিরাবয়বকে অবহেলা করে থাকেন।	১	২	৩	৪	৫	৬	৭	D4
	(মানসিকভাবে অসুস্থ) কারো সাথে ঘনিষ্ঠ সম্পর্ক রাখা কঠিন। / (মানসিকভাবে অসুস্থ) কারো সাথে ঘনিষ্ঠ অর্থপূর্ণ সম্পর্ক রাখা কঠিন।	১	২	৩	৪	৫	৬	৭	D5
	(মানসিকভাবে অসুস্থ) কারো কাছাকাছি থাকলে আমি দুঃশ্চিন্তা ও অস্বস্তিবোধ করি।	১	২	৩	৪	৫	৬	৭	D6
	(মানসিক অসুস্থতার) লক্ষণ চেনা আমার পক্ষে সহজ।	১	২	৩	৪	৫	৬	৭	D7
	(মানসিক অসুস্থতার) কোনো কার্যকর চিকিৎসা নেই।	১	২	৩	৪	৫	৬	৭	D8
	আমাকে আগে থেকে না বলা হলে কারো মানসিক রোগ আছে কি না আমি সম্ভবত তা বুঝতে পারবো না।	১	২	৩	৪	৫	৬	৭	D9
	(মানসিকভাবে অসুস্থ) কারো সাথে ঘনিষ্ঠ সম্পর্ক রাখা যেন অনিশ্চিত আবেগের সাথে বসবাস করার/ ঝড়ে পড়া নৌকায় দাঁড়িয়ে থাকার মতো।	১	২	৩	৪	৫	৬	৭	D10

	(মানসিক অসুস্থতার) উপসর্গ/লক্ষণ কমানোর জন্য খুব সামান্যই করণীয় আছে। / (মানসিক অসুস্থতার) উপসর্গ/লক্ষণ কমানোর জন্য তেমন কিছু করার নেই।	১	২	৩	৪	৫	৬	৭	D11
	(মানসিকভাবে অসুস্থ) কারো সাথে ঘনিষ্টসম্পর্ক থাকলে সে খুব বেশী চাহিদা করে। আমি মনে করি কারো (মানসিক অসুস্থ) সাথে ব্যক্তিগত সম্পর্ক বজায় রাখা কঠিন।	১	২	৩	৪	৫	৬	৭	D12
	একবার কারো (মানসিক রোগ) হলে তিনি কখনো সম্পূর্ণ সুস্থ হবেন না।	১	২	৩	৪	৫	৬	৭	D13
	(মানসিকভাবে অসুস্থ) ব্যক্তিরা তাদের নিজের পরিচ্ছন্নতা অবহেলা করে (যেমন, দাঁত মাজা, গোসল, সুগন্ধী ব্যবহার ইত্যাদি)	১	২	৩	৪	৫	৬	৭	D14
	(মানসিক অসুস্থতা) অন্যের সাথে স্বাভাবিক সম্পর্ক রাখতে বাধা দেয় ।	১	২	৩	৪	৫	৬	৭	D15
	আমি যখন (মানসিকভাবে অসুস্থ) কারো পাশে থাকি, তখন আমি চিন্তিত ও ভীত বোধ করি।	১	২	৩	৪	৫	৬	৭	D16
	(মানসিকভাবে অসুস্থ) কারো সাথে কথা বলার সময় আমি চিন্তিত থাকি যে, আমি এমন কিছু বলে ফেলব যা তাকে কষ্ট দেয়।	১	২	৩	৪	৫	৬	৭	D17
	আমি কারো আচরণ/ কর্মকান্ড দেখে বলতে পারি তার মানসিক রোগ আছে কি না।	১	২	৩	৪	৫	৬	৭	D18
	(মানসিকভাবে অসুস্থ) ব্যক্তি যথাযথভাবে পরিষ্কার-পরিচ্ছন্ন/ পরিপাটি থাকতে পারে না। (মানসিকভাবে অসুস্থ) ব্যক্তি যথাযথভাবে পরিষ্কার-পরিচ্ছন্ন/ পরিপাটি থাকে না।	১	২	৩	৪	৫	৬	৭	D19
	(মানসিকভাবে অসুস্থ) হলে ব্যক্তি সারাজীবন অসুস্থ থাকবে।	১	২	৩	৪	৫	৬	৭	D20
	(মানসিকভাবে অসুস্থ) কারো পাশে থাকলে আমি নিজের মতো করে স্বাভাবিক থাকতে পারবো না। আমি মনে করি না যে (মানসিকভাবে অসুস্থ) কারো সাথে থাকলে আমি যখন সত্যিই উদ্বেগবিহীন ও নিজের মতো থাকতে পারি।	১	২	৩	৪	৫	৬	৭	D21

	আমি যখন (মানসিকভাবে অসুস্থ) কারো আশেপাশে থাকি, তখন আমি ভয়ে থাকি যে, তিনি শারীরিকভাবে আমাকে আঘাত করতে পারেন। চিন্তিত আমি যখন (মানসিকভাবে অসুস্থ) কারো আশেপাশে থাকি, তখন আমি চিন্তিত থাকি যে, তিনি আমাকে শারীরিকভাবে আঘাত করতে পারেন।	১	২	৩	৪	৫	৬	৭	D22
	মানসিক রোগ বিশেষজ্ঞ চিকিৎসকও সাইকোলজিষ্ট (মানসিক অসুস্থতার) কার্যকর চিকিৎসার জন্য জ্ঞান ও দক্ষতা আছে। মানসিক রোগ বিশেষজ্ঞ চিকিৎসক ও সাইকোলজিষ্টগণের (মানসিক অসুস্থতার) কার্যকর চিকিৎসার প্রদানের জন্য জ্ঞান ও দক্ষতা আছে।	১	২	৩	৪	৫	৬	৭	D23
	(মানসিকভাবে অসুস্থ) ব্যক্তির কাছে থাকলে কি বলা বা করা উচিত তা আমি বুঝতে পারি না। (মানসিকভাবে অসুস্থ) ব্যক্তির কাছে থাকলে কি বলা বা করা উচিত তা আমি বুঝতে পারবো না।	১	২	৩	৪	৫	৬	৭	D24
	(মানসিকভাবে অসুস্থ) কারো কাছাকাছি থাকলে আমি আতঙ্কিত ও অস্বস্তি বোধ করি।	১	২	৩	৪	৫	৬	৭	D25
	আমি কারো কথা বলার ধরণ দেখে বলতে পারি তার (মানসিক অসুস্থতা) আছে কি না।	১	২	৩	৪	৫	৬	৭	D26
	মানসিকভাবে অসুস্থ) ব্যক্তিদের নিজেদের পরিচ্ছন্নতার ব্যাপারে অধিক/ আরো যত্নবান হওয়া দরকার (দাঁত মাজা, গোসল, সুগন্ধী ব্যবহার ইত্যাদি)	১	২	৩	৪	৫	৬	৭	D27
	মানসিক রোগ বিশেষজ্ঞ চিকিৎসক এবং সাইকোলজিষ্ট (মানসিক অসুস্থতার) কার্যকর চিকিৎসা দিতে পারেন। মানসিক রোগ বিশেষজ্ঞ চিকিৎসক এবং সাইকোলজিষ্টগণ (মানসিক অসুস্থতার) কার্যকর চিকিৎসা দিতে পারেন।	১	২	৩	৪	৫	৬	৭	D28

৮. মানসিক স্বাস্থ্য সম্পর্কিত সেবা গ্রহণের ব্যপারে মনোভাব

ক্রম	প্রশ্ন	উত্তর					কোড
		অসম্মত	কিছুটা অসম্মত	অনিশ্চিত	কিছুটা একমত	একমত	
	প্রত্যেকের জীবনেই এমন কিছু সমস্যা আছে যা নিজ পরিবারের বাইরে আলোচনা করা উচিত নয়। এমন কিছু সমস্যা আছে যা নিজ পরিবারের বাইরে আলোচনা করা উচিত নয়।	১	২	৩	৪	৫	A1
	মানসিক সমস্যার জন্য মানসিক রোগ বিশেষজ্ঞ চিকিৎসকের সাথে কথা বলতে হলে, কি করতে হবে এবং কার সাথে কথা বলতে হবে,সে ব্যাপারে আমার ভালো ধারণা আছে। যদি আমি মানসিক সমস্যার জন্য পেশাগত সাহায্য প্রদানে সক্ষম এমন কারো সাথে কথা কথা বলার সিদ্ধান্ত নেই, তবে কি করতে হবে এবং কার সাথে কথা বলতে হবে, সে ব্যাপারে আমি ভালো ধারণা পাবো।	১	২	৩	৪	৫	A2
	আমি কোনো মানসিক সমস্যায় ভুগলে অন্য কেউ (যেমন, স্বামী/স্ত্রী বা নিকটাত্মীয়) জানুক তা চাইতাম না। আমি কোনো মানসিক সমস্যায় ভুগলে ঘনিষ্ট কেউ (যেমন, স্বামী/স্ত্রী বা অনুরূপ ঘনিষ্ট সঙ্গী) জানুক তা চাইতাম না।	১	২	৩	৪	৫	A3
	ব্যক্তিগত দুশ্চিন্তা এড়িয়ে চলতে নিজেকে কোন কাজে ব্যস্ত রাখাই ভালো উপায়।	১	২	৩	৪	৫	A4
	আমার কোনো ভালো বন্ধু মানসিক সমস্যার জন্য উপদেশ চাইলে আমি মানসিক রোগ বিশেষজ্ঞ চিকিৎসকের	১	২	৩	৪	৫	A5

	সাথে আলোচনা করার পরামর্শ দেব। আমার কোনো ভালো বন্ধু মানসিক সমস্যার জন্য উপদেশ চাইলে আমি মানসিক রোগ পেশাগত কারো সাথে আলোচনা করার পরামর্শ দেব।						
	মানসিক রোগে ভোগা লজ্জার বিষয়।	১	২	৩	৪	৫	A6
	নিজের সম্পর্কে সব না জানাই সম্ভবত সবচেয়ে ভালো।	১	২	৩	৪	৫	A7
	এখন যদি আমি কোনো জটিল মানসিক রোগে ভুগি, তাহলে সাইকোথেরাপির/ কাউন্সিলিং মাধ্যমে এটা ভালো হবে, এই বিশ্বাস আমার আছে। এখন যদি আমি কোনো জটিল মানসিক সমস্যায় ভুগি, তাহলে সাইকোথেরাপির/ কাউন্সেলিংয়ের মাধ্যমে মুক্ত হবো, এই ব্যাপারে আমি সুনিশ্চিত।	১	২	৩	৪	৫	A8
	নিজের মানসিক সমস্যার সমাধান নিজেই করা উচিত, না পারলে মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের সাহায্য নেয়া যেতে পারে। নিজের সমস্যার সমাধান নিজেই করা উচিত, পেশাগত কারো সাহায্য নেয়া শেষ অবলম্বন হওয়া উচিত।	১	২	৩	৪	৫	A9
	যদি আমি কোনো মানসিক সমস্যায় ভুগতাম, আমি চাইলেই বিশেষজ্ঞের সাহায্য পেতাম। যদি আমার কোনো মানসিক সমস্যা হয়, তবে আমি চাইলেই পেশাগত কারো সাহায্য নিতে পারি।	১	২	৩	৪	৫	A10
	আমি মানসিক সমস্যায় ভুগছি এটা জানতে পারলে কাছের গুরুত্বপূর্ণ মানুষেরা আমাকে কম গুরুত্ব দিত।	১	২	৩	৪	৫	A11

	মানসিক সমস্যা অন্য অনেক সমস্যার মতো নিজে নিজেই ঠিক হয়ে যায়।	১	২	৩	৪	৫	A12
	মানসিক সমস্যার জন্য মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের কাছে যাওয়ার সময় বের করা আমার জন্য কিছুটা সহজ। মানসিক সমস্যার জন্য পেশাগত কারো সাহায্য নিতে সময় বের করা আমার জন্য তুলনামূলক ভাবে সহজ।	১	২	৩	৪	৫	A13
	আমার জীবনে এমন কিছু অভিজ্ঞতা আছে, যেগুলো আমি কখনোই কারো সাথে আলোচনা করবো না।	১	২	৩	৪	৫	A14
	অনেক দিন ধরে দুশ্চিন্তা ও হতাশায় ভুগলে আমি মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের সাহায্য নিতাম। অনেক দিন ধরে দুশ্চিন্তা ও হতাশায় ভুগলে আমি পেশাগত কারো সাহায্য নেবো।	১	২	৩	৪	৫	A15
	মানসিক সমস্যার জন্য, মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের সাহায্য নিতে আমি সংকোচ বোধ করবো, কারণ আমার আশপাশের (সামাজিক ও ব্যবসায়িক) মানুষেরা তা জেনে ফেলবে। মানসিক সমস্যার জন্য, পেশাগত কারো সাহায্য নিতে আমি সংকোচ বোধ করবো, কারণ আমার সংশ্লিষ্ট (সামাজিক ও ব্যবসায়িক) মানুষেরা তা জেনে ফেলবে।	১	২	৩	৪	৫	A16
	মানসিক রোগী হিসেবে চিহ্নিত হওয়া কলংকের ব্যাপার।	১	২	৩	৪	৫	A17
	যারা মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের সাহায্য ছাড়াই নিজের ভয় ও দ্বিধাদ্বন্দ কাটিয়ে উঠতে পারে, তারা প্রশংসার যোগ্য।	১	২	৩	৪	৫	A18

	যারা পেশাগত কারো সাহায্য ছাড়াই নিজের ভয় ও দ্বিধাদ্বন্দ সামলাতে পারে, তারা প্রশংসার যোগ্য।						
	যদি আমি মানসিকভাবে ভেঙে পড়ি,তাহলে প্রথমেই একজন মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের শরণাপন্ন হতে চাইবো। যদি আমি মনে করি যে আমি মানসিকভাবে বিপর্যস্ত হয়ে পড়েছি, তাহলে প্রথমেই আমি পেশাগত কারো সাহায্য নিতে চাইবো।	১	২	৩	৪	৫	A19
	অন্যেরা কি ভাববে এটা ভেবে আমি মানসিক রোগের বিশেষজ্ঞ চিকিৎসকের কাছে যেতে অস্বস্তি/ সংকোচ বোধ করবো। অন্যেরা কি ভাববে এটা ভেবে আমি পেশাগত কারো কাছে যেতে অস্বস্তি/ সংকোচ বোধ করবো।	১	২	৩	৪	৫	A20
	শক্ত মনের মানুষেরা মানসিক সমস্যা থেকে নিজেরাই বেরিয়ে আসতে পারে এবং বিশেষজ্ঞের সাহায্য কম প্রয়োজন হয়। শক্ত মনের মানুষেরা মানসিক সমস্যা থেকে নিজেরাই বেরিয়ে আসতে পারে এবং পেশাগত কারো সাহায্য কম প্রয়োজন হয়।	১	২	৩	৪	৫	A21
	আমি উপযুক্ত ব্যক্তির কাছে আমার গোপন বিষয়গুলো বলতে পারি, যদি তা আমার ও পরিবারের কাজে লাগে। আমি স্বেচ্ছায় উপযুক্ত ব্যক্তির কাছে আমার গোপন বিষয়গুলো আস্থার সাথে বলতে পারি, যদি আমি মনে করি যে তাতে আমার ও আমার পরিবারের কোনো সদস্যের উপকার হবে ।	১	২	৩	৪	৫	A22

	আমি মানসিক রোগের চিকিৎসা নিলে তা গোপন করতাম না। যদি আমি মানসিক সমস্যার জন্য চিকিৎসা নিতাম তাহলে সেটি গোপোন করার প্রয়োজনীয়তা অনুভব করতাম না।	১	২	৩	৪	৫	A23
	আমার প্রতিবেশী আমাকে মানসিক রোগ বিশেষজ্ঞের কাছে যেতে দেখলে আমি বিব্রতবোধ করবো। আমার প্রতিবেশী আমাকে পেশাগত কারো কাছে যেতে দেখলে আমি বিব্রতবোধ করবো।	১	২	৩	৪	৫	A24
	মানসিক অসুস্থতাকে জ্বিন ভুতের বা অলৌকিক কিছুর আছর বলে বিশ্বাস করি	১	২	৩	৪	৫	A25
	মানসিক রোগীকে পানি পড়া, তাবিজ কবজ বা কবিরাজি ঔষধ দিয়ে সুস্থ্য করে তোলা যায়	১	২	৩	৪	৫	A26
	বিবাহ দিলে মানসিক অসুস্থ্যতা সেরে যায়	১	২	৩	৪	৫	A27
	হস্ত মৈথুন করলে মানসিক রোগ সৃষ্টি হয়	১	২	৩	৪	৫	A28
	মানসিক রোগের ওষুধের পার্শ্বপ্রতিক্রিয়া অনেক বেশি বলে এই ওসুধ খাওয়া ঠিক নয়	১	২	৩	৪	৫	A29
	আমি বিশ্বাস করি মানসিক রোগের ওষুধ একবার শুরু করলে আর বন্ধ করা যায় না।	১	২	৩	৪	৫	A30

খ - বিভাগ: ৭ থেকে ১৭ বছরের শিশুদের সাক্ষাৎকার

প্রশ্নাবলী	উত্তর		কোড
এই খানায় কি ৭ থেকে ১৭ বছরের কোন শিশু বসবাস করে? **যদি "না" হয় তাহলে উত্তরদাতাকে ধন্যবাদ দিয়ে এখনই সাক্ষাৎকার শেষ করুন।**	হ্যাঁ না	১ ২	

সম্মতি [অভিভাবকের কাছ থেকে]		
প্রশ্নাবলী	**উত্তর**	**কোড**
সম্মতি নেয়া হয়েছে।	হ্যাঁ ১ না ২ *[উত্তর 'না' হলে সাক্ষাৎকার শেষ করুন]*	

নির্দেশনা: খানায় যদি ৭ থেকে ১৭ বছরের একাধিক শিশু থাকে তাহলে ট্যাবের থেকে একজন কে দৈবচয়ন পদ্ধতিতে নির্বাচন করুন।

১. শিশুর ব্যক্তিগত তথ্য

	প্রশ্নাবলী	উত্তর	কোড
	শিশুর পূর্ণনাম	.....।	
	শিশুর লিঙ্গ	পুরুষ..... □ ১ মহিলা..... □ ২ অন্যান্য..... □ ৩	
	শিশুর জন্ম তারিখ কত? (জানা নাই হলে ৭৭ ৭৭ ৭৭৭৭ লিখুন।)	__ __ দিন __ __ মাস __ __ __ __ সাল	
	শিশুর বয়স কত?	__ __ বছর	

২. শিশুর মানসিক স্বাস্থ্যের স্ক্রিনিং

ভূমিকাঃ এখন আমি আপনার শিশুর মানসিক স্বাস্থ্য সম্পর্কে কিছু তথ্য জানতে চাইব। তথ্যগুলো মানসিক সমস্যা সংক্রান্ত, যেমন: শিশুর চিন্তা, আচরণ, বিকাশ, বেড়ে ওঠা ইত্যাদি। যদি সমস্যাটি আপনার শিশুর হয়ে থাকে তবে "হ্যাঁ"উত্তর দিবেন।

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	শিশুর কথা বলতে কি কোনো অসুবিধা হয় ? (কথা বেধে/ জড়িয়ে যাওয়া, অস্পষ্টতা, তোতলামি ইত্যাদি)	হ্যাঁ না	১ ২	R1
	তার কি ঘুমের ব্যাঘাত ঘটে ?	হ্যাঁ না	১ ২	R2
	শিশুটির কি কখনো খিঁচুনি হয়েছিল বা সে অজ্ঞান হয়ে গিয়েছিল কিংবা কোনো কারণ ছাড়াই হঠাৎ করে মাটিতে পড়ে গিয়েছিল ?	হ্যাঁ না	১ ২	R3
	শিশুটির কি প্রায়ই মাথাব্যথা হয় ?	হ্যাঁ না	১ ২	R4
	শিশুটির কি মাঝে মাঝে বাড়ি থেকে পালানোর অভ্যাস আছে ?	হ্যাঁ না	১ ২	R5
	সে কি বাসার জিনিসপত্র চুরি করে ?	হ্যাঁ না	১ ২	R6
	কোনো কারণ ছাড়াই কি সে ভয় পায় বা নার্ভাস হয়ে পড়ে ?	হ্যাঁ না	১ ২	R7
	সমবয়সী অন্যান্য শিশুদের তুলনায় সে কি একটু পিছিয়ে পড়ছে বা তার কি কোনো কিছু শিখতে তুলনামূলকভাবে বেশি সময় লাগছে?	হ্যাঁ না	১ ২	R8
	শিশুটি কি সাধারণত অন্য বাচ্চাদের সাথে খেলাধুলা করে না ?	হ্যাঁ না	১ ২	R9
	সে কি নিজের কাপড়-চোপড়ে প্রস্রাব পায়খানা করে ফেলে ?	হ্যাঁ না	১ ২	R10

নির্দেশনা: প্রাথমিক স্ক্রীনিং এর ফলাফলের শর্ত সমূহ
যদি R1 থেকে R10 পর্যন্ত যেকোন একটি প্রশ্নের উত্তর 'হ্যাঁ' হলে স্ক্রীনিং "পজিটিভ" হবে।

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	শিশুর মানসিক স্বাস্থ্যের প্রাথমিক স্ক্রীনিং এর ফলাফল [শর্ত মোতাবেক]	নেগেটিভ পজিটিভ	০ ১	R11

নির্দেশনা: স্ক্রিনিং "পজিটিভ" হলে, মানসিক রোগের বিশেষজ্ঞের দ্বারা মানসিক রোগ নির্ণয়ের জন্য উত্তরদার আই.ডি লিপিবদ্ধ করে রাখুন

গ - বিভাগ মানসিক অসুস্থ্যতা নির্ণয় [Diagnosis of Suspected Mental Illness]

গ ১. ১৮ বছর বা তার উপরে ব্যক্তিদের জন্য

১. ব্যক্তিগত তথ্যাবলী

নিম্নে উত্তরদাতার আই ডি স্পষ্ট ভাবে লিখুন

1	1	-	0	0	1	-	1

সাক্ষাৎকারের স্থান এবং সাক্ষাৎকার গ্রহণকারীর পরিচিতি

ক্রম	প্রশ্নাবলী	উত্তর	কোড
	সাক্ষাৎকারের তারিখ	...../...../.....	P1
	সাক্ষাৎকার শুরুর সময় (২৪ ঘন্টা হিসেবে)	..... :.....	P2
	পি এস ইউ আইডি নাম্বার (PSU ID)		P3
	চিকিৎসকের নাম	.....	P4

২ মানসিক অসুস্থতা নিশ্চিতকরন

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	উত্তরদাতার মানসিক স্বাস্থ্যের প্রাথমিক স্ক্রীনিং এর ফলাফল [শর্ত মোতাবেক]	নেগেটিভ পজিটিভ	০ ১	P5
	লক্ষণ - ১			P6
	লক্ষণ - ২			P7
	লক্ষণ - ৩			P8
	টিকা/ Note			P9
	রোগ নির্ণয়ের ফলাফল	DSM 5 .		P10

		No mental disorder diagnosed	
	মন্তব্য		P11

৩ মানসিক অসুস্থ ব্যক্তিদের চিকিৎসাসেবা গ্রহণ

P10 প্রশ্নে যদি মানসিক রোগ নিশ্চিত হয় তবে এই অংশ পূরণ করুন

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	মানসিক সমস্যার জন্য পূর্বের কি কোন চিকিৎসা নিয়েছেন?	হ্যাঁ না	১ ২ [Skip]	P12
	মানসিক সমস্যার জন্য কে প্রথম চিকিৎসার জন্য পরামর্শ দিয়েছিল (শেষ বারের মানসিক সমস্যার জন্য) রোগী পুর্বের সেবক/ সেবিকা পরিবার অন্যান্য (নির্দিষ্ট করুন)	রোগী নিজেই নিকট আত্নীয় বন্ধু/বান্ধব প্রতিবেশী চিকিৎসক অন্যান্য অন্যন্য নির্দিষ্ট করুন	১ ২ ৩ ৪ ৫ ৬	P13
	আপনি কোথায় চিকিৎসা নিয়েছেন? [উপরের প্রশ্নের উত্তর ব্যাতিত]	সরকারি হাসপাতাল বেসরকারি হাসপাতাল বিশেষায়িত মানসিক হাসপাতাল মানসিক রোগ বিশেষজ্ঞের চেম্বার অন্যান্য চিকিৎসকের চেম্বারে হোমিওপ্যাথি, ইউনানী, আয়ুর্বেদ অন্যান্য অন্যান্য নির্দিষ্ট করুন জানি না অসম্মতি	১ ২ ৩ ৪ ৫ ৬ ৭ ৭৭ ৮৮	P14
	রোগীকে কত আগে দেখানো হয়েছে?	দিন ..... মাস ..... বছর		P15
	চিকিৎসার জন্য কে পরামর্শ দিয়েছিল	রোগী অন্যান্য	১ ২	P16
	মূল সমস্যা কি ছিল?	Need option		
	মূল সমস্যাটি কতদিন আগে দেখা দিয়েছিল	দিন ..... মাস ..... বছর		P17
	তখন মূল চিকিৎসা কি দেয়া হয়েছিল	১ ..... ২ ..... ৩		**P18 (a-c)**
	প্রথমবার চিকিৎসকের কাছে অথবা হাসপাতালে যেতে কত সময় লেগেছিল	ঘন্টা মিনিট	…….. ……..	**P19**

	আপনার এই মানসিক সমস্যার জন্য চিকিৎসক ব্যাতিত অন্য কোন চিকিৎসা যেমন: কবিরাজি, পানি পড়া, পানিতে ডুবানো, তেল পড়া, তাবিজ, ঝার- ফুক ইত্যাদি	হ্যাঁ না	১ ২	**P20**

গ ২. ৭ থেকে ১৭ বছরের শিশুদের জন্য

১ ব্যক্তিগত তথ্যাবলী

নিম্নে উত্তরদাতার আই ডি স্পষ্ট ভাবে লিখুন

1	1	-	0	0	1	-	1

২ শিশুর মানসিক অসুস্থতা নিশ্চিতকরন

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	উত্তরদাতার মানসিক স্বাস্থ্যের প্রাথমিক স্ক্রীনিং এর ফলাফল [শর্ত মোতাবেক]	নেগেটিভ পজিটিভ	০ ১	P21
	লক্ষণ - ১			P22
	লক্ষণ - ২			P23
	লক্ষণ - ৩			P24
	টিকা/ Note			P25
	রোগ নির্ণয়ের ফলাফল	DSM 5 . No mental disorder diagnosed		P26
	মন্তব্য			P27

৩. মানসিক অসুস্থ শিশুর চিকিৎসাসেবা গ্রহণ

P26 প্রশ্নে যদি মানসিক রোগ নিশ্চিত হয় তবে এই অংশ পূরণ করুন

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	মানসিক সমস্যার জন্য পূর্বের কি কোন চিকিৎসা নিয়েছেন?	হ্যাঁ না	১ ২ [Skip]	P28
	মানসিক সমস্যার জন্য কে প্রথম চিকিৎসার জন্য পরামর্শ দিয়েছিল (শেষ বারের মানসিক সমস্যার জন্য) রোগী পুর্বের সেবক/ সেবিকা পরিবার অন্যান্য (নির্দিষ্ট করুন)	রোগী নিজেই নিকট আত্নীয় বন্ধু/বান্ধব প্রতিবেশী চিকিৎসক অন্যান্য অন্যন্য নির্দিষ্ট করুন	১ ২ ৩ ৪ ৫ ৬	P29
	আপনি কোথায় চিকিৎসা নিয়েছেন? [উপরের প্রশ্নের উত্তর ব্যাতিত]	সরকারি হাসপাতাল বেসরকারি হাসপাতাল বিশেষায়িত মানসিক হাসপাতাল মানসিক রোগ বিশেষজ্ঞের চেম্বার অন্যান্য চিকিৎসকের চেম্বারে হোমিওপ্যাথি, ইউনানী, আয়ুর্বেদ অন্যান্য অন্যান্য নির্দিষ্ট করুন জানি না অসম্মতি	১ ২ ৩ ৪ ৫ ৬ ৭ ৭৭ ৮৮	P30
	রোগীকে কত আগে দেখানো হয়েছে?	দিন ..... মাস ..... বছর		P31
	চিকিৎসার জন্য কে পরামর্শ দিয়েছিল	রোগী অন্যান্য	১ ২	P32
	মূল সমস্যা কি ছিল?	Need option		P33
	মূল সমস্যাটি কতদিন আগে দেখা দিয়েছিল	দিন ..... মাস ..... বছর		P34

	তখন মূল চিকিৎসা কি দেয়া হয়েছিল	১ ..... ২ ..... ৩		**P35**
	প্রথমবার চিকিৎসকের কাছে অথবা হাসপাতালে যেতে কত সময় লেগেছিল	ঘন্টা মিনিট	…….. ……..	**P36**
	আপনার এই মানসিক সমস্যার জন্য চিকিৎসক ব্যাতিত অন্য কোন চিকিৎসা যেমন: কবিরাজি, পানি পড়া, পানিতে ডুবানো, তেল পড়া, তাবিজ, ঝার- ফুক ইত্যাদি	হ্যাঁ না	১ ২	**P37**

৪. শিশুর মানসিক সমস্যা সম্পর্কিত প্রশ্ন

P26 প্রশ্নে যদি মানসিক রোগ নিশ্চিত হয় তবে এই অংশ পূরণ করুন

ক্রম	প্রশ্নাবলী	উত্তর		কোড
	গত ৩০ দিনে তুমি কতবার খারাপ ইঙ্গিতের সম্মুখীন হয়েছ? [During the past 30 days, on how many days were you bullied?]	একদিন ও না ১ বা ২ দিন ৩-৫ দিন ৬-৯ দিন ১০-১৯ দিন ২০-২৯ দিন পুরো ৩০ দিন 0 days 1 or 2 days 3 to 5 days 6 to 9 days 10 to 19 days 20 to 29 days All 30 days	০ ১ ২ ৩ ৪ ৫ ৬ 1 2 3 4 5 6 7	31
	গত ৩০ দিনে <u>সবচাইতে বেশি</u> কি কি ভাবে তুমি খারাপ আচরণ/ ইঙ্গিতের সম্মুখীন হয়েছ? [During the past 30 days, how were you bullied **most often**?]	আমি ৩০ দিনে একবার ও সম্মুখীন হইনি আঘাত, লাথি, ধাক্কা, দরজার ওপাশে আটক পড়েছিলাম আমি তিরস্কৃত হয়েছিলাম আমার গোত্র, জাতীয়তা অথবা গায়ের রং এর কারণে আমি তিরস্কৃত হয়েছিলাম আমার ধর্মের কারণে বাজে জোকস/ মন্তব্য দ্বারা আমি আমার চেহারা বা শারিরীক কাঠামোর কারণে তিরস্কৃত হয়েছি আমি অন্যভাবে খারাপ বা বাজে ইঙ্গিতের সম্মুখীন হয়েছি I was not bullied during the past 30 days I was hit, kicked, pushed, shoved around, or locked indoors I was made fun of because of my race, nationality, or color I was made fun of because of my religion I was made fun of with sexual jokes, comments, or gestures I was left out of activities on purpose or completely ignored I was made fun of because of how my body or face looks I was bullied in some other way	০ ১ ২ ৩ ৪ ৫ ৬ 1 2 3 4 5 6 7 8	32

	গত ১২ মাসে তুমি কতবার নিজেকে এক মনে করেছ? [During the past 12 months, how often have you felt lonely?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 1 2 3 4 5	33
	গত ১২ মাসে তুমি কতবার কোনো কিছু নিয়ে দুশ্চিন্তার কারণে তুমি ঘুমাতে পারোনি ? [During the past 12 months, how often have you been so worried about something that you could not sleep at night?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 1 2 3 4 5	34
	গত ১২ মাসে কখনো কি তুমি আত্মহত্যা করতে চেয়েছ? [During the past 12 months, did you ever **seriously** consider attempting suicide?]	হ্যাঁ না Yes No	১ ২ 1 2	35
	গত ১২ মাসে কখনো কি তুমি <u>সত্যি (গুরুত্বের সাথে)</u> আত্মহত্যা করার পরিকল্পনা করেছিলে? [During the past 12 months, did you make a plan about how you would attempt suicide?]	হ্যাঁ না Yes No	১ ২ 1 2	36
	গত ১২ মাসে কতবার তুমি আত্মহত্যা করার উদ্যোগ নিয়েছিলে? [During the past 12 months, how many times did you actually attempt suicide?]	১ বার ২-৩ বার ৪-৫ বার ৬ বা তারও বেশি বার 0 times 1 time 2 or 3 times 4 or 5 times 6 or more times	১ ২ ৩ ৪ 0 1 2 3 4	37
	তোমার কতজন ঘনিষ্ঠ বন্ধু আছে?	একজন ও না ১ জন	০ ১	38

	[How many close friends do you have?]	২ জন ৩ বা আরো বেশি None One Two Three or more	২ ৩ 0 1 2 3	
	গত 30 দিনের মধ্যে কতদিন তুমি বিনা অনুমতিতে স্কুল বা ক্লাস এ যাওনি ? [During the past 30 days, on how many days did you miss classes or school without permission?]	একদিন ও না ১ বা ২ দিন ৩ বা ৫ দিন ৬ থেকে ৯ দিন ১০ দিন বা তার বেশি none 1 or 2 days 3 to 5 days 6 to 9 days 10 or more days	০ ১ ২ ৩ ৪ 0 1 2 3 4	67
	গত ৩০ দিনের মধ্যে কতবার তোমার বাবা মা বা অভিবাবক তোমার বাড়ির কাজ হয়েছে কি না তা খেয়াল (তদারকি) করেছে? [During the past 30 days, how often did your parents or guardians check to see if your homework was done?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	69
	গত ৩০ দিনের মধ্যে তোমার বাবা মা বা অভিবাবক তোমার সমস্যা বা চিন্তাগুলো কতটুকু বুঝতে পেরেছে ? [During the past 30 days, how often did your parents or guardians understand your problems and worries?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	70
	গত ৩০ দিনের মধ্যে তুমি তোমার অবসর সময়ে কি করেছো সে সম্পর্কে তোমার বাবা মা বা অভিবাবক আসলেই অবগত ছিল? [During the past 30 days, how often did your parents or guardians really know what you were doing with your free time?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	71
				72

	গত ৩০ দিনের মধ্যে কি কখনো তোমার বাবা মা বা অভিবাবক তোমার কথা ছাড়া বা না জানিয়ে তোমার জিনিস ফেলে দিয়েছিলো? [During the past 30 days, how often did your parents or guardians go through your things without your approval?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	
	গত ৩০ দিনের মধ্যে তোমার বাবা মা বা অভিবাবক তোমার সাথে কতটা সময় কাটিয়েছে? [During the past 30 days, how often did your parents or guardians spend time with you?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	73
	গত ৩০ দিনের মধ্যে তোমার বাবা মা বা অভিবাবক কি কখনো তোমাকে মানুষের সামনে বা তোমার বন্ধুদের সামনে লজ্জিত করেছে? [During the past 30 days, how often did your parents or guardians embarrass you in public or in front of your friends?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	75
	গত ৩০ দিনের মধ্যে তোমার বাবা মা বা অভিবাবক কি তোমাকে অবহেলা করেছে? [During the past 30 days, how often did your parents or guardians ignore you (for example, walk away from you or not pay attention to you)?]	কখনো না কদাচিৎ মাঝে মাঝে প্রায় সময় সব সময় Never Rarely Sometimes Most of the time Always	০ ১ ২ ৩ ৪ 0 1 2 3 4	76

11.4 Tables and Figures

Table 1: Sampling frame used for National Mental Health Survey of Bangladesh 2019 based on Population Census 2011

Name of Division	Rural		Urban		Total	
	PSUs	HHs	PSUs	HHs	PSUs	HHs
Barisal	14812	1561303	2688	301538	17500	1862841
Chittagong	40019	4211325	12241	1411240	52260	5622565
Dhaka	41249	4600373	27377	3133637	68626	7734010
Khulna	27485	3072496	5646	664774	33131	3737270
Mymensing	25064	2668255	3650	427080	28714	3095335
Rajshahi	34101	3712882	6599	772370	40700	4485252
Rangpur	29388	3333437	4273	482940	33661	3816377
Sylhet	16222	1511519	2719	278890	18941	1790409
Bangladesh	228340	24671590	65193	7472469	293533	32144059

Table 2: Number of sampled Primary Sampling Units (PSUs) and households (HHs) by division for National Mental Health Survey of Bangladesh 2019 based on Population Census 2011 sampling frame.

Division	Rural		Urban		Total	
	PSUs	HHs	PSUs	HHs	PSUs	HHs
Barisal	31	868	31	868	62	1,736
Chattagram	31	868	31	868	62	1,736
Dhaka	31	868	31	868	62	1,736
Khulna	31	868	31	868	62	1,736
Mymensing	31	868	31	868	62	1,736
Rajshahi	31	868	31	868	62	1,736
Rangpur	31	868	31	868	62	1,736
Sylhet	31	868	31	868	62	1,736
Total	**248**	**6,944**	**248**	**6,944**	**496**	**13,888**

Figure 2: Overview of data collection approach for adult samples

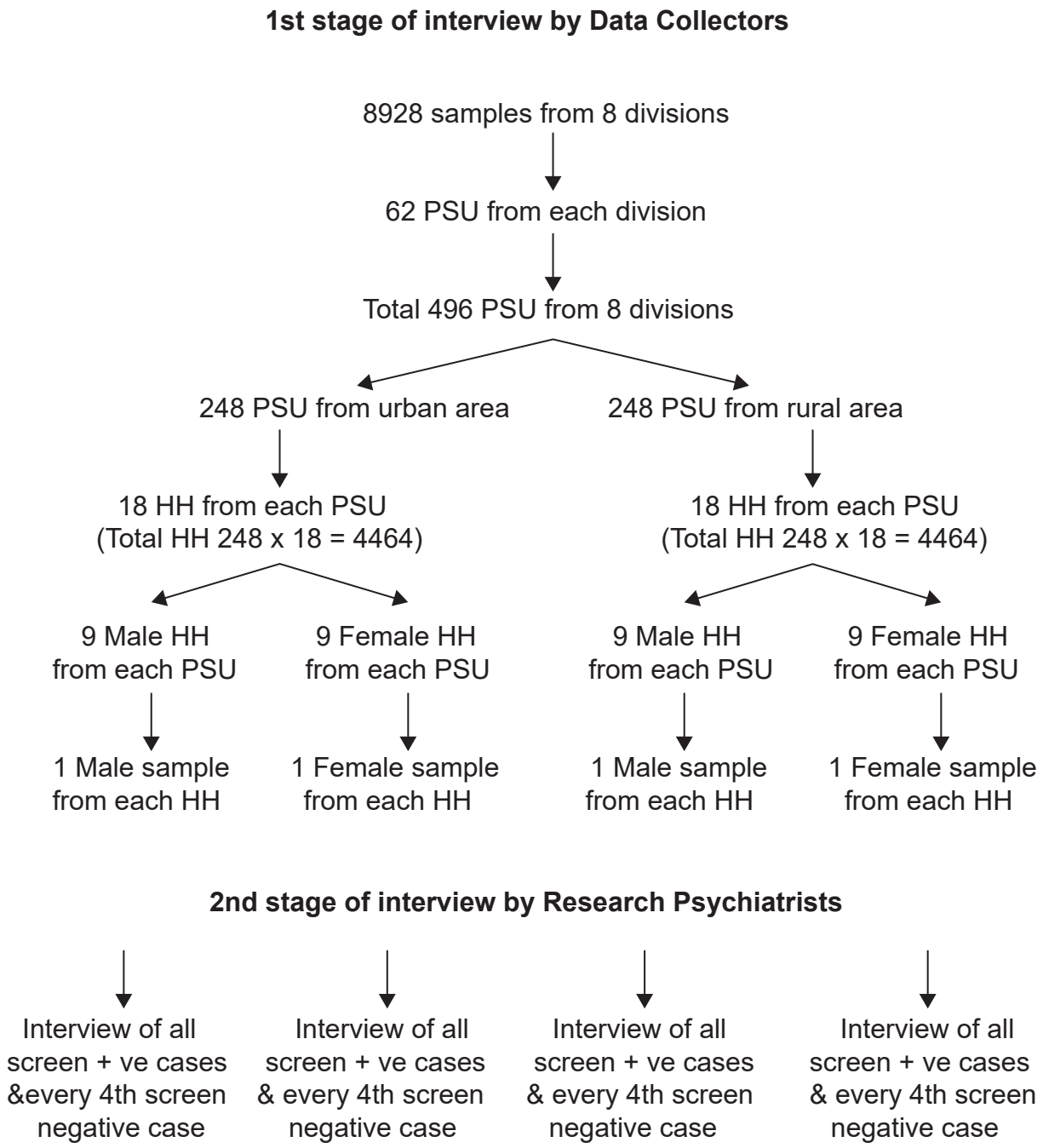


Figure 3: Overview of data collection approach for child samples

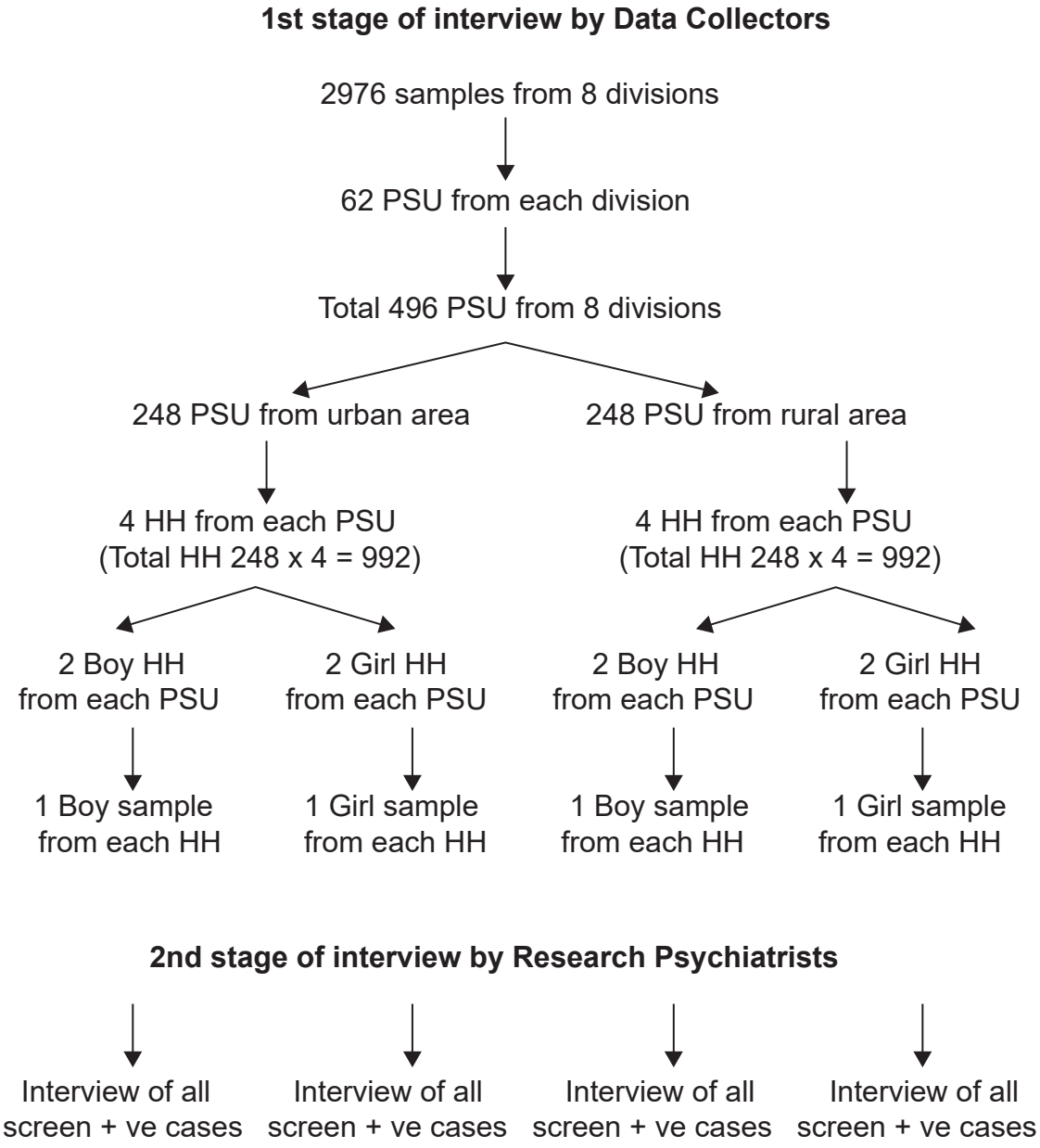
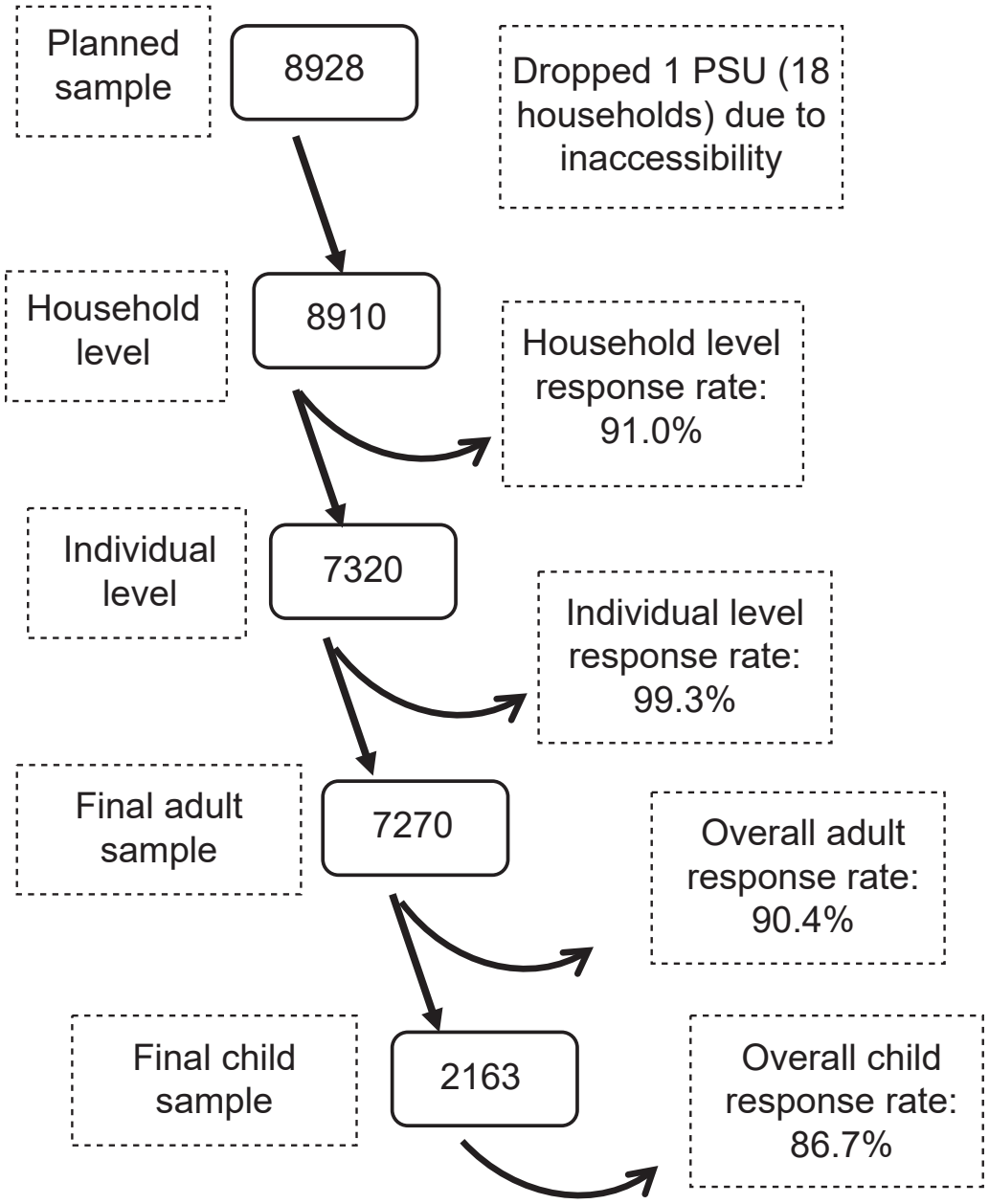


Figure 4: Response rate of the survey



Results

Adult Mental Health Survey

Table 3. Number and percent of households and persons interviewed and response rates by residence and sex

Household status	Residence				Sex				All	
	Urban		Rural		Man		Woman			
	n	%	n	%	n	%	n	%	n	%
At household level (adult and child)										
Roster completed (RC)	3548	79.50	3772	84.48	3495	78.28	3825	85.70	7320	82.2
No one eligible*	369	8.27	388	8.69	575	12.88	239	5.36	757	8.5
Locked house (LH)	251	5.62	179	4.01	191	4.28	182	4.08	430	4.8
Broken house (BH)	73	1.64	38	0.85	51	1.14	60	1.34	111	1.2
Vacant house (VH)	69	1.55	33	0.74	46	1.03	50	1.12	96	1.1
House not found*	63	1.41	20	0.45	46	1.03	43	0.96	89	1.0
Refused interview (HHR)	50	1.12	32	0.72	43	0.96	39	0.87	82	0.7
Group accommodation*	29	0.65	3	0.07	13	0.29	19	0.43	32	0.4
Not HH*	11	0.25	0	0.00	5	0.11	6	0.13	11	0.1
Total	4463	100.00	4465	100.00	4465	100.00	4463	100.00	8928	100.0
Household response rate†		**88.90**		**93.04**		**91.35**		**92.04**		**91.0**
At adult individual level										
Completed (C)	3521	99.24	3749	99.39	3465	99.43	3805	99.22	7270	99.3
Unavailable (U)	19	0.54	20	0.53	18	0.52	21	0.55	39	0.5
Refused (R)	8	0.23	3	0.08	2	0.06	9	0.23	11	0.2
Total	3548	100.00	3772	100.00	3485	100.00	3835	100.00	7320	100.0

Individual (adult) response rate‡		**99.24**		**99.39**		**99.43**		**99.22**	**99.3**
At child individual level§									
Completed (C)	1001	95.61	1162	95.01	1045	93.81	1118	96.71	2163	95.3
Unavailable (U)	25	2.39	46	3.76	50	4.49	21	1.82	71	3.1
Refused (R)	21	2.01	15	1.23	19	1.71	17	1.47	36	1.6
Total	1047	100.00	1223	100.00	1114	100.00	1156	100.00	2270	100.0
Individual (child) response rate**		**95.61**		**95.01**		**93.81**		**96.71**	**95.3**
Total response rate (adult)††		**88.22**		**92.48**		**90.82**		**91.32**	**90.4**
Total response rate (child)††		**84.99**		**88.40**		**85.69**		**91.32**	**86.7**

* These persons were not included as sample as they do not qualify[1] as sample for the Survey.
† Household response rate
(%)=[RCx100]/[RC+LH+BH+VH+HHR]=91.0%
‡ Individual (adult) response rate
(%)=[Cx100]/[C+U+R]=99.3%

§ Eligible child was found in 2270 households
** Individual (child) response rate
(%)=[Cx100]/[C+U+R]=99.3

†† Total response rate (%)=HRR*IRR/100=90.4
1 The American Association for Public Opinion Research. 2016. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 9th edition. AAPOR. Available from: https://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf (Accessed on 3 September 2019).

Table 4: Unweighted and weighted* distribution of respondents by age groups, sex and residence (n=7270)

Age Group (year)	Unweighted										Weighted*									
	Men		Women		Urban		Rural		All		Men		Women		Urban		Rural		All	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
18 – 29	628	18.1	1039	27.3	834	23.7	833	22.2	1667	22.9	16545846	33.4	20553941	38.5	10315205	40.2	26784582	34.7	37099786	36.0
30 – 39	903	26.1	1207	31.7	1053	29.9	1057	28.2	2110	29.0	11191085	22.6	12241756	22.9	6236469	24.3	17196372	22.3	23432842	22.8
40 – 49	781	22.5	783	20.6	758	21.5	806	21.5	1564	21.5	9035528	18.2	8813987	16.5	4262391	16.6	13587124	17.5	17849515	17.3
50 – 59	532	15.4	434	11.4	473	13.4	493	13.2	966	13.3	6328124	12.8	5804063	10.9	2612994	10.2	9519192	12.3	12132186	11.8
60+	621	17.9	342	9.0	403	11.4	560	14.9	963	13.2	6467507	131.0	5966842	11.2	2250748	8.8	10183600	2.3	12434348	12.1
18 - 99	**3465**	**100.0**	**3805**	**100.0**	**3521**	**100.0**	**3749**	**100.0**	**7270**	**100.0**	**49568089**	**100.0**	**53380588**	**100.0**	**25677807**	**100.0**	**77270870**	**100.0**	**102948678**	**100.0**

* Sample number weighted to projected Bangladeshi population aged 18-99 years upto March 2019 based on growth rates and population counts of Housing and Population Census Bangladesh 2011

Table 5: Distribution of respondents by mean age, sex, residence and other socio-demographic criteria (n = 7270)

Socio-demographic characteristics	Sex				Residence				All	
	Men		Women		Urban		Rural			
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
Mean age (years) (n = 7270)	39.4	36.3 - 38.0	37.2	38.5 - 40.3	36.2	35.2 - 37.1	38.9	38.1 - 39.6	38.2	37.6 - 38.8
Mean years of education	6.6	6.3 - 6.8	5.5	5.3 - 5.8	7.7	7.3 - 8.0	5.5	5.2 - 5.7	6.0	5.8 - 6.2
Education group										
Graduation and above	9.1	7.5 - 10.7	3.9	2.9 - 5.0	12.2	10.0 - 14.5	4.5	3.5 - 5.5	6.4	5.4 - 7.4
Higher secondary	9.9	8.0 - 11.7	7.3	5.9 - 8.6	14.4	12.0 - 16.9	6.5	5.2 - 7.8	8.5	7.3 - 9.7
Secondary	29.8	27.1 - 32.5	33.6	31.2 - 36.1	34.5	31.6 - 37.5	30.9	28.4 - 33.3	31.8	29.8 - 33.8
Primary	40.7	37.5 - 43.8	35.0	32. 1 - 33.0	29.4	26.1 - 32.7	40.6	37.6 - 43.6	37.8	35.4 - 40.2
No education	10.5	8.6 - 12.5	20.1	17.6 - 22.6	9.4	7.4 - 11.4	17.5	15.3 - 19.7	15.5	13.7 - 17.2
Family type										
Nuclear	72.8	69.8 - 75.8	66.8	63.8 - 69.8	73.1	69.5 - 76.7	68.6	65.8 - 71.3	69.7	67.4 - 71.9
Extended	27.2	24.2 - 30.2	33.2	30.2 - 36.2	26.9	23.3 -30.5	31.4	28.7 - 34.2	30.3	28.1 - 32.6
Religion										
Islam	87.1	83.6 - 90.5	88.4	84.1 - 92.6	88.9	85.2 - 92.6	87.4	82.6 - 92.1	87.7	84.1 - 91.4
Hinduism	12.6	9.1 - 16.0	11.2	6.9 - 15.4	10.7	7.0 -14.3	12.3	7.5 - 17.0	11.9	8.2 - 15.5
Christianity	0.3	-	0.4	-	0.2	-	0.4	-	0.3	(-)0.1 - 0.8
Buddhism	0.1	-	0.1	-	0.3	-	-	-	-	-
Marital Status										
Unmarried	19.1	16.4 - 21.9	5.0	3.7 - 6.4	16.1	13.2 - 19.0	10.4	8.5 - 12.3	11.8	10.2 - 13.4
Married	80.2	77.5 - 82.9	86.5	84.5 - 88.5	80.2	77.0 - 83.4	84.5	82.6 - 86.5	83.5	81.8 - 85.1
Others	0.6	-	8.5	7.0 - 10.0	3.7	2.7 - 4.6	5.1	4.0 - 6.1	4.7	3.9 - 5.5

Occupation										
Service**	13.66	11.3 - 16.0	3.33	2.4 - 4.3	14.72	12.2 - 17.3	6.17	4.8 - 7.6	8.30	7.0 - 9.6
Business†	23.34	21.0 - 25.7	0.60	0.2 - 1.0	16.16	14.1 - 18.2	10.01	8.6 - 11.4	11.54	10.3 - 12.7
Farming‡	24.90	21.6 - 28.2	0.14	0.0 - 0.3	3.02	1.9 - 4.1	15.06	13.2 - 16.9	12.06	10.6 - 13.5
Daily worker§	15.96	14.0 - 18.0	3.09	1.8 - 4.4	8.73	7.0 - 10.4	9.47	7.9 - 11	9.28	8.1 - 10.5
Driver***	6.03	5.0 - 7.1	0.05	0.0 - 0.1	4.13	2.9 - 5.3	2.53	2.0 - 3.1	2.93	2.4 - 3.5
Student	6.88	5.4 - 8.3	4.18	2.9 - 5.4	7.98	6.0 - 9.9	4.65	3.5 - 5.8	5.48	4.5 - 6.5
Household work	0.36	0.1 - 0.6	86.78	84.7- 88.9	39.94	37.5 - 42.4	46.93	45.1 - 48.7	45.19	43.7 - 46.7
Unemployed††	8.87	6.9 - 10.9	1.85	1.0 - 2.6	5.32	3.8 - 6.9	5.20	3.7 - 6.6	5.23	4.1 - 6.4
Economic quintile distribution										
Highest	-	-	-	-	38.6	33.7 - 43.6	10.5	8.6 - 12.3	17.5	15.2 - 19.8
High	-	-	-	-	23.8	21.1 - 26.5	20.1	17.5 - 22.6	21.0	19.0 - 23.0
Middle	-	-	-	-	18.1	15.8 - 20.4	22.7	20.6 - 24.8	21.5	19.9 - 23.2
Low	-	-	-	-	11.9	9.8 - 14.0	21.9	20 - 23.8	19.4	17.8 - 21
Lowest	-	-	-	-	7.6	5.9 - 9.3	24.9	22 - 27.8	20.6	18.3 - 22.9

*Confidence interval

- Unweighted numbers are < 25

** Service: Government/private/autonomous/self-employment

† Business: small and large

‡ Farming: with or without owned land

§ Daily worker: factory/labourer/paid household/blacksmith/potter/weaver/fisherman

*** Driver: transport driver and other transport worker/rickshaw puller/ rickshaw van puller/push cart driver/private car driver

†† Unemployed: retired/unemployed but capable/unemployed and incapable

Table 6: Distribution of respondents depending on positive screening test (SRQ)

Age group (year)	Men		Women		Urban		Rural		All	
	%	95% CI*	%	95% CI	%	95% CI	%	95% CI	%	95% CI
18 - 29	13.2	9.7 - 16.6	16.3	13.1 -19.5	12.9	9.7 - 16.1	15.7	12.4 - 18.9	14.9	12.4 - 17.4
30 - 39	15.7	12.0 - 19.4	24.4	21.0 - 27.8	16.6	13.1 - 20.0	21.6	18.3 - 24.8	20.2	17.7 - 22.8
40 - 49	14.4	11.2 - 17.6	24.6	20.1 - 29.0	18.1	13.6 - 22.5	19.8	16.2 - 23.5	19.4	16.4 - 22.4
50 - 59	21.2	16.3 -26.1	29.9	24.1 - 35.8	26.3	19.6 - 33.1	25.1	20.5 - 29.7	25.4	21.5 - 29.3
60 and Above	23.5	26.1 -36.2	34.7	27.9 - 41.6	35.2	26.8 - 43.5	32.4	27.6 - 37.1	32.9	28.7 - 37.1
18 - 99	**17.3**	**15.4 -19.3**	**23.1**	**20.9 - 25.2**	**18.0**	**15.4 - 20.6**	**21.1**	**19.0 - 23.1**	**20.3**	**18.6 - 22.0**

* Confidence interval
- Unweighted numbers are < 25

Table 7: Distribution of respondents depending on SRQ positivity and age group identified by data enumerators (n=7270)

Age group	SRQ Negative	SRQ positive	Grand Total
>= 60	649	314	963
18 - 29	1412	255	1667
30 - 39	1692	418	2110
40 - 49	1234	330	1564
50 - 59	713	253	966
Grand Total	**5700**	**1570**	**7270**

Table 8: Prevalence of mental disorder by sex and residence

Age group (year)	Men (n=)		Women (n=)		Urban (n=)		Rural (n=)		All (n=7328)	
	%*	95% CI†	%	95% CI	%	95% CI	%	95% CI	%	95% CI
18 - 29	12.8	9.1 - 16.5	16.0	12.7 - 19.2	18.4	13.8 - 22.9	13.1	10.4 - 15.8	14.6	12.2 - 16.9
30 - 39	15.1	11.4 - 18.8	23.9	20.8 - 26.9	15.3	12.8 - 18.8	21.3	18.1 - 24.2	20.0	17.4 - 21.9
40 - 49	12.6	9.8 -15.4	22.0	18.2 - 25.9	18.1	13.9 - 22.4	17.0	13.8 - 20.1	17.2	14.7 - 19.8
50 - 59	19.4	14.5 - 24.3	25.0	19.4 - 30.6	21.0	15.4 - 26.6	22.4	17.7 - 22.1	22.1	18.3 - 26.0
60 and Above	25.1	20.3 - 29.9	31.4	24.5 - 38.2	30.0	22.7 - 37.8	27.7	22.2 - 32.2	28.1	24.2 - 32.1
18 - 99	**15.7**	**14.0 - 17.4**	**21.5**	**19.8 - 23.2**	**18.9**	**16.9 - 20.9**	**18.7**	**17.1 - 20.2**	**18.7**	**17.4 - 20.0**

All % are weighted to projected population of Bangladesh based on Census 2011
* Confidence interval

Table 9. Prevalence of mental disorder by wealth index* in adult by sex.

Wealth index	Men		Women		Urban		Rural		All	
	%	95% CI†	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Lowest	24.0	17.8 - 30.2	18.1	14.2 - 22.0	23.3	16.2 - 30.3	19.5	15.6 - 23.4	20.5	17.1 - 23.9
Low	23.8	17.6 - 30.0	13.4	9.8 - 16.9	38.0	30.1 - 45.9	10.7	6.9 - 14.5	17.6	14.0 - 21.2
Middle	17.3	13.3 - 21.3	23.4	19.0 - 27.8	14.9	8.7 - 21.2	22.9	19.1 - 26.8	20.9	17.7 - 24.2
High	14.5	10.0 - 19.1	24.4	19.7 - 29.1	7.0	4.4 - 9.6	24.9	20.4 - 29.5	20.4	16.8 - 24.0
Highest	20.4	15.9 - 24.9	20.8	16.4 - 25.2	16.8	11.6 - 22.1	21.9	18.3 - 25.5	20.6	17.6 - 23.6

* Wealth index is constructed using principal component analysis on the asset information collected. Asset information was collected on: electricity, flush toilet, land phone, mobile phone, television, refrigerator, private car, moped/scooter/motor cycle/autorickshaw, washing machine, bicycle, sewing machine, wardrobe, table, bed, chair/bench, clock, computer/laptop/tablet computer, domestic animal (cow/ox/goat etc.), shallow machine/power tiller/tractor), rickshaw, farming land, pond for fish cultivation and roof type of main house. Each asset was assigned a weight factor generated by PCA and the resulting asset scored were standardized in relation to a normal distribution with a mean of zero and standard deviation of one. Each of the household was assigned a score for each of the assets with a household total score - the asset index. The households were ranked based on this asset index and was divided into quintiles. The asset index was not prepared separately for urban and rural but for the whole sample.

†Confidence interval

Table 10. Gross diagnosis of mental disorders (DSM 5*) in adult

	Men		Women		Urban		Rural		All	
	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†
Anxiety disorders	4.0	3.2 - 4.9	5.4	4.4 - 6.4	4.3	3.4 - 5.3	4.9	4.1 - 5.7	4.7	4.1 - 5.4
Depressive disorders	5.4	4.3 - 6.5	7.9	6.7 - 9.2	7.3	5.7 - 9.0	6.5	5.5 - 7.6	6.7	5.8 - 7.6
Disruptive, impulse control and conduct disorders	0.2	-	0.0	-	0.0		0.1		0.1	-
Major mental disorders (schizophrenia spectrum disorder)	0.9	0.4 - 1.5	1.1	0.6 - 1.6	1.2	0.6 - 1.9	0.9	0.5 - 1.3	1.0	0.7 - 1.4
Major mental disorders (bipolar and related disorder)	0.7	-	0.3	-	0.2	-	0.6	-	0.5	0.2 - 0.8
Neurocognitive disorders	0.3	-	0.5	-	0.6	-	0.3	-	0.4	-
Neurodevelopmental disorders	0.3	-	0.3	-	0.5	-	0.3	-	0.3	-
Obsessive compulsive and related disorder	0.5	-	0.9	0.5 - 1.3	0.8	0.4 - 1.3	0.7	0.3 - 1.0	0.7	0.4 -1.0
Personality disorders	0.1	-	0.1	-	-	-	0.1	-	0.1	-
Sexual dysfunctions	0.6	-	0.0	-	-	-	0.2	-	0.3	-
Sleep wake disorders	1.0	0.5 - 1.4	1.1	0.5 - 1.6	0.9	0.4 - 1.3	1.1	0.6 - 1.5	1.0	0.7 - 1.4
Somatic symptoms and related disorders	0.9	0.5 - 1.2	3.7	2.8 - 4.5	1.5	1.0 - 2.1	2.6	2.0 - 3.2	2.3	1.8 - 2.8
Substance related and addictive disorder	0.9	0.3 - 1.5	0.1	-	0.7	-	0.4	-	0.5	-
Any Mental Disorder	15.7	14.0 - 17.4	21.5	19.8 - 23.2	18.9	16.9 - 20.9	18.7	17.1 - 20.2	18.7	17.4 -20.0
No mental health disorder	84.30	82.6 - 86.0	78.5	76.8 - 80.2	81.1	79.1 - 83.1	81.3	79.8 - 82.9	81.3	80.0 - 82.6

* American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM–5). 2013

† Confidence interval

- Unweighted numbers are <25

Table 11: Detailed diagnosis of mental disorders (DSM 5*) in adults.

Diagnosis	Men		Women		Urban		Rural		All	
	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†
Acute stress disorder	0.2	-	0.0	-	0.0	-	0.2	-	0.1	-
Adjustment disorder	0.1	-	0.1	-	0.1	-	0.0	-	0.0	-
Adjustment disorder with anxiety	0.0	-	0.1	-	0.0	-	0.1	-	0.1	-
Adjustment disorder with mixed anxiety and depressed mood	0.1	-	0.1	-	0.0	-	0.2	-	0.1	-
Agoraphobia	-	-	0.0	-	0.0	-	0.0	-	0.0	-
Antisocial personality disorder	0.0	-	-	-	-	-	0.0	-	0.0	-
Anxiety disorder due to another medical condition	0.2	-	0.2	-	0.3	-	0.1	-	0.2	-
Avoidant personality disorder	0.0	-	-	-	0.0	-	-	-	0.0	-
Bipolar I disorder - mild	0.0	-	0.1	-	0.0	-	0.1	-	0.1	-
Bipolar I disorder - moderate	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
Bipolar I disorder, current or most recent episode depressed	0.0	-	0.1	-	-	-	0.1	-	0.0	-
Bipolar I disorder, current or most recent episode hypomanic	0.4	-	0.0	-	0.0	-	0.2	-	0.2	-
Bipolar I disorder, current or most recent episode manic	0.1	-	0.1	-	0.1	-	0.1	-	0.1	-
Bipolar I disorder, most recent episode depressed, mild	-		0.0		0.0	-	0.0	-	0.0	-
Bipolar I disorder, most recent episode (or current) depressed, moderate	0.1	-	-	-	0.0	-	0.0	-	0.0	-
Bipolar II disorder	0.1	-	-	-	0.0	-	0.0	-	0.0	-
Body dysmorphic disorder	0.1	-	0.1	-	0.2	-	0.1	-	0.1	-
Borderline personality disorder	0.0	-	0.0	-	0.1	-		-	0.0	-
Brief psychotic disorder	0.0	-	-	-	0.0	-	0.0	-	0.0	-
Cannabis use disorder	0.3	-	-	-	0.1	-	0.2	-	0.2	-
Circadian rhythm sleep - wake disorder	0.0	-	-	-	0.0	-		-	0.0	-
Conduct disorder unspecified onset	0.0	-	-	-	-	-	0.0	-	0.0	-
Conversion disorder	0.0	-	0.6	-	0.1	-	0.3	-	0.3	-
Delusional disorder	0.4	-	0.4	-	0.5	-	0.4	-	0.4	-
Dementia in other diseases classified elsewhere with behavioral disturbance	0.0	-	0.1	-	0.2	-		-	0.0	-
Depressive disorder due to another medical condition	1.1	0.5 - 1.7	0.7	0.3 - 1.2	0.4	-	1.1	0.6 - 1.6	0.9	0.5 - 1.3
Disruptive mood dysregulation disorder	0.0	-	-	-	0.0	-	0.0	-	0.0	-
Erectile disorder/female sexual arousal disorder	0.0	-	0.0	-	0.1	-	0.0	-	0.0	-
Generalized anxiety disorder	2.7	1.9 - 3.4	4.2	3.3 - 5.2	2.8	2.0 - 3.6	3.7	3.0 - 4.4	3.5	2.9 - 4.1
Histrionic personality disorder	0.0	-	-	-	-	-	0.0	-	0.0	
Insomnia disorder	0.9	0.4 - 1.3	0.1	0.5 - 1.6	0.8	0.4 - 1.2	1.0	0.6 - 1.4	1.0	0.6 - 1.3

Intellectual disability - moderate	0.1	-	0.2		0.2	-	0.1	-	0.2	-
Intellectual disability - severe	0.1	-	0.0	-	0.2	-	0.0	-	0.1	-
Intellectual disorder - mild	0.0	-	0.1	-	0.1	-	0.1	-	0.1	-
Intermittent explosive disorder	0.1	-	0.0	-	0.0	-	0.1	-	0.1	-
Language disorder	0.0	-	-	-	0.0	-		-	0.0	-
Major depressive affective disorder, recurrent episode, moderate	0.2	-	0.3	-	0.2	-	0.2	-	0.2	0.1 - 0.4
Major depressive disorder - mild	0.5	0.2 - 0.7	0.9	0.4 - 1.4	1.1	0.4 - 1.9	0.5	0.2 - 0.8	0.7	0.4 - 1.0
Major depressive disorder - moderate	0.9	0.4 - 1.4	0.7	0.4 - 1.1	1.0	0.4 - 1.7	0.7	0.3 -1.1	0.8	0.5 - 1.1
Major depressive disorder - recurrent moderate	0.0	-	-	-	0.0	-		-	0.0	-
Major depressive disorder - recurrent severe	0.0	-	0.2	-	0.1	-	0.1	-	0.1	-
Major depressive disorder - severe	1.3	0.7 - 1.8	2.3	1.6 - 3.0	1.6	1.0 - 2.1	1.9	1.2 - 2.5	1.8	1.3 - 2.3
Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior	0.0	-	0.2	-	0.2	-	0.1	-	0.1	-
Major depressive disorder, recurrent, mild	0.0	-	0.2	-	0.1	-	0.1	-	0.1	-
Major depressive disorder, recurrent, unspecified	0.0	-	-	-	0.0	-		-	0.0	-
Medication-induced delirium	0.0	-	-	-	0.1	-		-	0.0	-
Mild neurocognitive disorder due to alzheimer's disease	0.0	-	-	-	0.1	-	0.0	-	0.0	-
Nicotine dependence	0.2	-	-	-	0.1	-	0.1	-	0.1	-
Nightmare disorder	0.0	-	-	-	0.0	-		-	0.0	-
Obsessive compulsive and related disorder due to another medical condition	0.1	-	-	-	0.0	-	0.0	-	0.0	-
Obsessive compulsive disorder	0.3	-	0.8	0.4 - 1.2	0.6	-	0.6	-	0.6	0.3 - 0.8
Obsessive compulsive personality disorder	0.0	-	0.1	-	0.0	-	0.0	-	0.0	-
Other and unspecified alcohol dependence	0.1	-	0.1	-	0.1	-	0.1	-	0.1	-
Other specified depressive disorder	0.3	-	0.7	-	0.8	-	0.4	-	0.5	-
Other specified dissociative disorder	0.0	-	-	-	0.0	-		-	0.0	-
Other Specified Sexual Dysfunction	0.0	-	-	-		-	0.0	-	0.0	-
Other specified somatic symptom and related disorder	0.1	-	0.0	-	0.0	-	0.1	-	0.1	-
Panic disorder	0.3	-	0.1	-	0.2	-	0.2	-	0.2	-
Persistent (chronic) motor or vocal tic disorder	0.0	-	-	-	-	-	0.0	-	0.0	-
Persistent depressive disorder	1.1	0.5 - 1.7	1.4	0.9 - 2.0	1.6	0.5 - 2.7	1.2	-	1.3	0.9 - 1.7
Persistent disorder of initiating or maintaining sleep	0.0	-	-	-	0.0	-	0.0	-	0.0	-
Post-traumatic stress disorder	0.1	-	0.1	-	0.2	-	0.0	-	0.1	-
Premature ejaculation	0.5	-	-	-	0.5	-	0.2	-	0.3	-
Probable major neurocognitive disorder due to alzheimer's disease	0.0	-	-	-	0.0	-	-	-	0.0	-
Schizoaffective disorder	0.0	-	0.1	-	0.0	-	0.1	-	0.1	-
Schizoid personality disorder	0.0	-	-	-	0.0	-		-	0.0	-
Schizophrenia	0.5	-	0.5	0.2 - 0.8	0.7	-	0.4	-	0.5	0.3 - 0.8
Social anxiety disorder (social phobia)	0.0	-	0.0	-	0.1	-	0.0	-	0.0	-

Somatic symptom disorder	0.7	0.4 - 1.1	3.0	2.3 - 3.7	1.3	0.8 - 1.8	2.1	1.6 - 2.6	1.9	1.5 - 2.3
Specific phobia	0.1	-	0.3	-	0.4	-	0.1	-	0.2	-
Unknown substance related disorder	0.2	-	0.0	-	0.4	-		-	0.1	-
Unspecified anxiety disorder	0.1	-	0.1	-	0.1	-	0.1	-	0.1	-
Unspecified mental disorder due to another medical condition	0.0	-	0.0	-	0.0	-		-	0.0	-
Unspecified neurocognitive disorder	0.1	-	0.3	-	0.1	-	0.2	-	0.2	-
Unspecified substance related disorder	0.0	-	-	-	0.0	-		-	0.0	-
Vascular dementia without behavioral disturbance	0.0	-	0.2	-	0.0	-	0.1	-	0.1	-
Dissociative amnesia	-	-	0.0	-	-	-	0.0	-	0.0	-
Hypersomnolence disorder	-	-	0.1	-	-	-	0.0	-	0.0	-
Major depressive disorder, single episode, severe with psychotic features	-	-	0.0	-	0.0	-	0.0	-	0.0	-
Mild neurocognitive disorder due to Alzheimer's disease	-	-	0.0	-	-	-	-	-	-	-
Other specified depressive disorder	-	-	0.7	-	-	-	-	-	-	-
Premenstrual dysphoric disorder	-	-	0.1	-	0.1	-	0.1	-	0.1	-
Psychological factors affecting medical condition	-	-	0.1	-	-	-	0.0	-	0.0	-
Schizophreniform disorder	-	-	0	-	0.1	-	-	-	0.0	-
Paranoid personality disorder	-	-	0.1	-	-	-	0.0	-	0.0	-
Unspecified mental disorder due to another mental condition	-	-	-	-	0.0	-	0.0	-	0.0	-
Major depressive disorder in partial remission	-	-	-	-	-	-	0.0	-	0.0	-
Any mental disorder	15.7	14.0 - 17.4	21.5	19.8 - 23.2	18.9	16.9 - 20.9	18.7	17.1 - 20.2	18.7	17.4 - 20.0
No mental health disorder	84.3	82.6 - 86.0	78.5	76.8 - 80.2	81.1	79.1 - 83.1	81.3	79.8 - 82.9	81.3	80.0 - 82.6

* American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM–5). 2013
† Confidence interval
- Unweighted numbers are <25

Table 12. Distribution of treatment gap* in adult by sex and residence

Age group (years)	Men		Women		Urban		Rural		All	
	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†
18 - 29	89.3	79.0 - 99.5	89.7	82.3 - 97.1	90.2	78.5 - 101.8	89.3	82.2 - 96.5	89.6	83.5 - 95.6
30 - 39	85.7	73.9 - 97.6	88.0	81.6 - 94.3	91.3	85.9 - 96.7	86.0	78.6 - 93.5	87.2	81.1 - 93.2
40 - 49	98.2	96.1 - 100.4	91.1	85.5 - 96.7	96.0	92.5 - 99.6	93.0	88.2 - 97.8	93.7	90.0 - 97.5
50 - 59	94.9	90.4 - 99.4	91.8	84.7 - 98.8	92.0	85.5 - 98.4	93.5	87.9 - 99.0	93.1	88.6 - 97.7
60 and Above	94.0	89.2 - 98.7	93.1	85.5 -100.7	85.6	69.1 - 102.2	22.1	91.5 - 99.2	93.5	88.9 - 98.1
18 - 99	**92.0**	**88.2 - 95.7**	**90.4**	**86.7 - 94.1**	**90.9**	**84.4 - 97.4**	**91.0**	**87.8 - 94.2**	**91.0**	**88.1 - 93.8**

* Prevalence of no treatment among all adult pre-diagnosed with mental disorder
† Confidence interval

Table 13. Non-adherence of past mental disorder among adults

Age group (years)	Men		Women		Urban		Rural		All	
	%	95% CI*	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Non-adherence (did not take treatment for past mental disorder), (n=84)	17.8	-	25.7	-	21.1	-	21.1	-	23.1	-

* Confidence interval
- Unweighted numbers are <25

Table 14 : Features of first episode of mental illness (n= 91)

Age groups (years)	Mean duration (years) of seeking treatment - overall	Mean Time (hours) needed to reach physician or hospital	Who advised for treatment (%)							Place of treatment sought (%)									Treatment sought from other than psychiatrist (%)	
			None	Self	Close relative	Friends	Neighbor	Physician	Total	Treatment not sought	Government hospital	Private hospital	Specialized mental [illegible]	Chamber of psychiatrist	Chamber of other [illegible]	Homeopathy/ Unani/ [illegible]	Others	Total	%	95% CI*
18 - 29	3.3	1.7	4.1	14.6	60.8	-	20.5	-	28.8	35.7	47.2	4.7	61.5	18.0	42.0	-	-	28.8	55.1	-
30 - 39	2.2	1.7	0.8	6.3	89.6	-	3.4	-	36.0	32.7	18.0	49.7	-	48.7	35.0	18.6	16.2	36.0	51.5	-
40 - 49	4.2	1.1	-	23.5	61.3	-	10.4	4.8	14.4	-	23.7	3.7	-	18.1	11.1	81.4	-	14.4	67.9	-
50 - 59	3.8	0.7	39.5	6.6	42.8	11.1	-	-	5.8	24.6	7.8	-	-	6.4	-	-	83.8	5.8	50.0	-
60 and Above	4.5	2.1	-	13.7	76.1	-	10.2	-	15.1	7.0	3.2	41.9	38.5	8.8	12.0	-	-	15.1	36.4	-
Total	**3.2**	**1.6**	**3.8**	**12.3**	**72.5**	**0.6**	**10.1**	**0.7**	**100.0**	**8.1**	**20.0**	**18.9**	**3.0**	**24.9**	**22.0**	**2.4**	**0.8**	**100.0**	**52.5**	**34.0 - 71.0**

* Confidence interval

- Unweighted numbers are < 25

Table 15. List of medications (generic name) prescribed to adults with frequency (%) in their first visit by alphabetical order (n=79)

Sl. No.	Medications	%
1	Amitriptyline	15.2
2	Benzodiazepine	2.5
3	Chlorpromazine	1.3
4	Citalopram	1.3
5	Clomipramine	1.3
6	Clonazepam	11.4
7	Clozapine	1.3
8	Donepezil hydrochloride	1.3
9	Escitalopram	7.6
10	Flunarizine	1.3
11	Fluoxetine	2.5
12	Flupentixol+Melitracen	5.1
13	Fluphenazine	3.8
14	Fluvoxamine	1.3
15	Haloperidol	6.3
16	Imipramine	1.3
17	Mebeverine	1.3
18	Memantine	2.5
19	Olanzapine	3.8
20	Propranolol	7.6
21	Quetiapine	5.1
22	Risperidone	2.5
23	Sertraline	3.8
24	Sodium Valproate	2.5
25	Tadalafil	3.8
26	Telazine	1.3
27	Trihexyphenidyl	1.3

Table 16. Inventory of sign-symptoms* arranged in decreasing order of percentage for the first episode of mental illness in adults

1st symptoms-sign	%	2nd symptoms-sign	%	3rd symptoms-sign	%
Sleep disturbance	21.3	Sleep disturbance	20.1	headache	14.2
Feeling low/down	18.7	Feeling irritable	11.2	Repeated thoughts	11.9
Aggressiveness	11.8	Aggressiveness	9.0	Undue suspiciousness	10.7
Odd behavior	9.3	Decrease appetite	8.6	Feeling irritable	9.5
headache	7.7	Undue suspiciousness	7.4	Sleep disturbance	6.0
Feeling superior (grandiosity)	4.9	Feeling low/down	6.1	Feeling low/down	3.5
Undue suspiciousness	3.6	Burning sensation all over the body	5.2	Burning sensation all over the body	3.1
Restlessness	3.2	Odd behavior	4.4	Restlessness	2.5
Feeling irritable	2.3	Palpitation	4.1	Palpitation	2.3
Palpitation	2.0	Repeated thoughts	2.8	Odd behavior	1.5
Burning sensation all over the body	1.9	headache	2.6	Aggressiveness	1.3
Repeated thoughts	1.6	Feeling superior (grandiosity)	0.8	Feeling superior (grandiosity)	0.9
Decrease appetite	0.6	Restlessness	0.3	Decrease appetite	0.6

* Field enumerator recorded these from history of the respondents

Table 17: Mental Health status of the family members

Mental Health Status	Sex				Residence				All	
	Men		Women		Urban		Rural			
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Relationship with family member										
Very good	47.3	42.3 - 52.3	34.6	30.5 - 38.8	49.0	43.7 - 54.3	38.0	33.4 - 42.7	40.7	37.0 - 44.5
Good	47.0	42.4 - 51.6	61.1	57.1 - 65.0	47.3	42.3 - 52.3	56.6	52.4 - 60.8	54.3	50.9 - 57.7
Fair	5.0	3.4 - 6.5	4.1	2.8 - 5.4	3.3	2.1 - 4.6	4.9	3.5 - 6.3	4.5	3.4 - 5.6
Bad	0.7	-	0.2	-	0.4	-	0.5	-	0.4	0.2 - 0.6
Very bad	0.1	-	0.0	-	0.0	-	0.1	-	0.1	-
Mental problem among any family members										
Yes	14.9	12.2 - 17.6	15.5	12.7 - 18.3	14.0	10.6 - 17.4	15.6	13.0 - 18.2	15.2	13.1 - 17.3
Any mental disorder among any family members										
Yes	4.1	2.8 - 4.3	3.1	2.9 - 5.3	4.3	2.7 - 5.9	3.3	2.5 - 4.2	3.6	2.8 - 4.3
Intensity of mental disorder of your family members										
Severe	22.7	12.9 - 32.4	35.6	23.4 - 47.7	23.2	14.8 - 31.7	30.9	19.7- 42.1	28.6	20.3 - 36.8
Moderate	47.9	34.7 - 61.1	31.5	22.5 - 40.5	48.0	35.0 - 60.9	37.1	25.9 - 48.3	40.4	31.8 - 49.0
Mild	29.5	15.5 - 43.4	32.9	21.2 - 44.6	28.8	13.4 - 44.2	32.0	20.4 - 43.7	31.0	21.7 - 40.3
Any household members tried to do suicide ever										
Yes	1.2	0.5 -1.8	0.9	0.4 -1.3	1.0	0.4 - 1.5	1.0	0.5 - 1.6	1.0	0.6 -1.4
Anyone in your household committed suicide										
Yes	0.4	-	0.4	-	0.2	-	0.5	-	0.4	-
Chronic diseases of household members										
Yes	34.5	31.3 - 37.8	38.9	36.4 - 41.5	40.7	37.8 - 43.6	35.5	32.9 - 38.0	36.8	34.8 - 38.9
Current smoker in household										
Yes	43.3	40.3 - 46.2	39.0	36.1 -41.8	37.9	34.6 - 41.2	42.1	39.3 - 44.9	41.1	38.8 - 43.3
Current SLT users in household										
Yes	34.9	31.5 - 38.4	41.5	38.1 - 44.9	31.9	28.3 - 35.5	40.5	37.3 - 43.7	38.3	35.7 - 40.9
Drug addicted in the household										
Yes	1.1	0.5 -1.8	0.8	0.1 -1.4	0.7	0.3 - 1.0	1.0	0.3 - 1.7	0.9	0.4 - 1.5

* Confidence interval
- Unweighted numbers are < 25

Table 18 :Distribution of respondents depending on response to individual question regarding stig illness (n=7270)

Questions	Respondents with no Stigma (%)
Q 1: Treatability: There are effective medications for mental illness that allow people to return to normal & productive lives	4537 (62.4)
Q 2: Relationship disruption**:** I don't think that it is possible to have a normal relationship with someone having a mental illness	907 (12.5)
Q 3: Relationship disruption: I would find it difficult to trust someone with a mental illness	619 (8.5%)
Q 4: Hygiene: People with mental illnesses tend to neglect their appearance	77 (2.2)
Q 5: Relationship disruption: It would be difficult to have a close meaningful relationship with someone with a mental illness	602 (8.3)
Q 6: Anxiety; I feel anxious and uncomfortable when I am around someone with a mental illness	504 (6.9)
Q 7: Visibility: it is easy for me to recognize the symptoms of mental illness	2258 (31.1)
Q 8: Treatability: There are no effective treatment for mental illnesses	3991 (54.9)
Q 9: Visibility: I probably wouldn't know that someone has mental illness unless I was told	1024 (14.1)
Q 10: Relationship disruption: A close relationship with someone with a mental illness would be like living on an emotional roller coaster	402 (5.5)
Q 11: Treatability: There is little that can be done to control the symptoms of mental illness	2937 (40.4)
Q 12: Relationship disruption: I think that a Personal relationship with someone having a mental illness would be too demanding	642 (8.8)
Q 13: Relationship disruption: Once someone develops a mental illness, he or she will never be able to fully recover from it	3414 (47.0)

Q 14: Hygiene: People with mental illnesses ignore their hygiene, such as brushing teeth, bathing and using deodorant	226 (3.2)
Q 15: Relationship disruption: Mental illnesses prevent people from having normal relationships with others	523 (7.2)
Q 16: Anxiety: I tend to feel anxious when I am around someone with a mental illness	211 (6.1%)
Q 17: Anxiety: When talking with someone with a mental illness, I worry that I might say something that will upset him or her	600 (8.3)
Q 18: Visibility: I can tell that someone has a mental illness by the way he or she acts	459 (6.3)
Q 19: Hygiene: People with mental illness Do not groom themselves properly	243 (3.3%)
Q 20: Recovery: People with mental illnesses will remain ill for the rest of their lives	3454 (47.5)
Q 21: Anxiety: I don't think that I can really relax and be myself when I am around someone with a mental illness	792 (10.9)
Q 22.: Anxiety: When I am around someone with a mental illness I worry that he or she might harm me physically	387 (5.3)
Q 23: Professional efficacy: Psychiatrists and psychologists have the knowledge and skills needed to effectively treat mental illnesses	90 (1.2)
Q 24: Anxiety: I would feel unsure about what to say or do if I were around someone with a mental illness	851 (11.7)
Q 25: Anxiety: I feel nervous and uneasy when I am near someone with a mental illness	471 (6.5)
Q 26: Visibility: I can tell that someone has a mental illness by the way he or she talks	503 (6.9)
Q 27: Hygiene: People with mental illnesses need to take better care of their grooming (bathe, clean teeth, use deodorant)	4138 (56.9)
Q 28: Professional efficacy: Mental health Professionals, such as psychiatrists and psychologists, can provide effective treatment for mental illness	4159 (57.2)

Stigma: measured in scale of 1–7, 7 denoting high stigma

Table 19: Distribution of stigma subscales by sex and residence status of respondents

Variable	Overall (n=7,270)		Man (n=3,465)	Woman (n=3,805)		Urban (n=3,521)	Rural (n=3,749)
Percent (95% confidence interval), unless stated otherwise*							
Emer N. Day's scale§	5.3 (5.3–5.3)		5.4 (5.4–5.4)	5.3 (5.2–5.3)		5.3 (5.3–5.4)	5.3 (5.3–5.3)
Relationship disruption and anxiety	5.1 (5.0–5.1)		5.2 (5.1–5.2)	5.0 (4.9–5.0)		5.1 (5.0–5.1)	5.1 (5.0–5.1)
Treatability and recovery	5.6 (5.6–5.6)		5.5 (5.4–5.5)	5.7 (5.7–5.7)		5.7 (5.6–5.7)	5.5 (5.5–5.6)
Hygiene	5.9 (5.9–5.9)		6.2 (6.2–6.2)	5.6 (5.6–5.7)		5.9 (5.9–6.0)	5.9 (5.8–5.9)
Visibility	5.1 (5.1–5.2)		5.2 (5.1–5.2)	5.1 (5.0–5.1)		5.2 (5.1–5.2)	5.1 (5.1–5.1)

* all percentages denote weighted values
† <25 un-weighted responses, 95% confidence interval is not mentioned
§ Emer N. Day's Mental Illness Stigma Scale (28 items, 1 completely disagree -7 completely agree). Seven of its original subscales condensed to four subscales through factor analysis. High score indicates more stigma. Values are mean (standard deviation).

Figure 2: Stigma by sex in different subscales

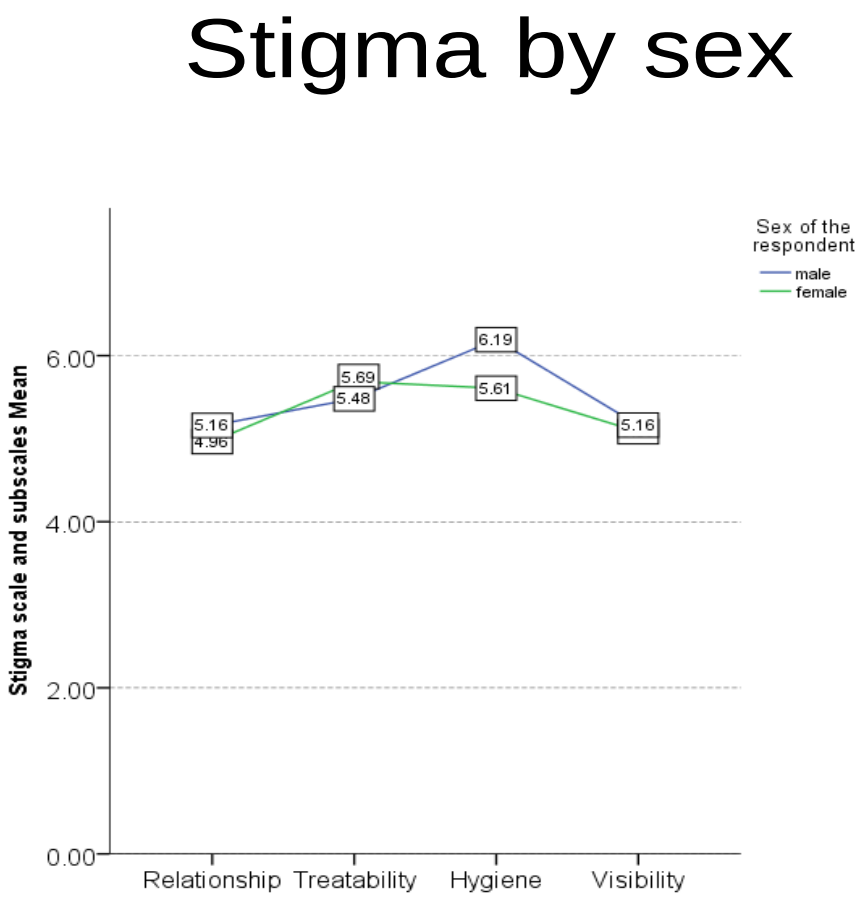


Table 20: Distribution of attitude subscales by sex and residence status of respondents (n=7270)

Variable	Overall (n=7,270)	Man (n=3,465)	Woman (n=3,805)	Urban (n=3,521)	Rural (n=3,749)
	Percent (95% confidence interval), unless stated otherwise*				
Help seeking attitudes and stigma					
IASMHS‡	33.9 (33.6–34.3)	36.1 (35.7–36.5)	32.0 (31.5–32.4)	33.2 (32.7–33.7)	34.6 (34.2–35.1)
Indifference to stigma	16.3 (16.0–16.5)	18.9 (18.5–19.2)	13.88 (13.6–14.2)	15.89 (15.6–16.2)	16.59 (16.3–16.9)
Help seeking propensity	12.0 (11.8–12.1)	11.6 (11.4–11.8)	12.4 (12.1–12.6)	12.0 (11.7–12.2)	12.0 (11.8–12.2)
Psychological belief	5.7 (5.6–5.8)	5.7 (5.5–5.9)	5.7 (5.6–5.9)	5.3 (5.2–5.5)	6.0 (5.9–6.2)

* all percentages denote weighted values
†<25 unweighted responses, 95% confidence interval is not mentioned
‡ Inventory of Attitudes Toward Seeking Mental Health Services IASMHS (Original scale 24 items, 0 = disagree to 4 = agree. Here it is modified and includes 25 items in three subscales category. High score indicates more negative attitude. Values are mean (standard deviation).

Figure 3: Gender differences in the attitude towards mental health services (n=7270)

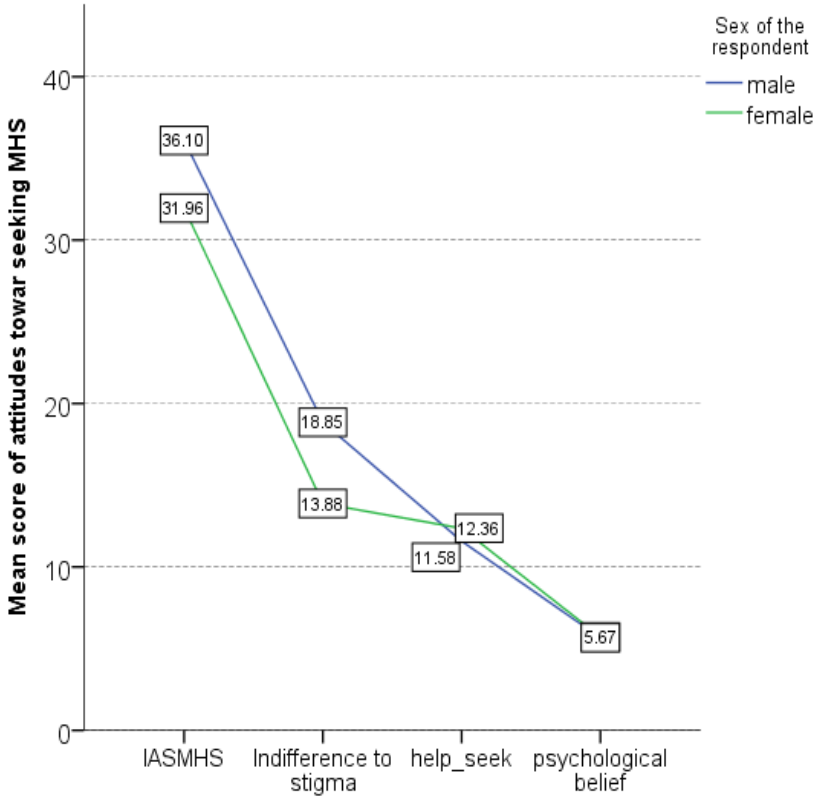


Table 21: Distribution of respondents by fully positive attitude in individual question of the scale (n=7270)

Questions	Respondents with fully positive attitude (%)
Q 1: There are certain problems which should not be discussed outside of one's immediate family	1088 (15.0)
Q 2: I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychiatric problem	3549 (48.8)
Q 3: I would not want my significant other (spouse, partner etc.) to know if I were suffering from psychological problem	3276 (45.1)
Q 4: Keeping one's mind on a job is a good solution for avoiding personal worries and concern	461 (6.3)
Q 5: If good friends asked my advice about a psychological problem, I might recommend that they see a professional / psychiatrist	4521 (62.2)
Q 6: Having been mentally ill carries with a burden of shame	3815 (52.5)
Q 7: It is probably best not to know everything about oneself	3156 (43.4)
Q 8: If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy	2953 ((40.6)
Q 9: People should work out their own problems; getting professional help should be a last resort	1168 (16.1)
Q 10: If I were to experience psychological problems, I could get professional help if I wanted to	3187 (43.8%

Q 11: Important people in my life would think less of me if they were to find out that I was experiencing psychological problem	1400 (19.3)
Q 12: Psychological problems, like many things, tend to work out by themselves	3387 (46.6)
Q 13: It would be relatively easy for me to find the time to see a professional for psychological problems	2066 (28.4)
Q 14: There are experience in my life I would not discuss with any one	194 (5.6)
Q 15: I would want to get professional help if I were worried or upset for a long period of time	3553 (48.9)
Q 16: I would be uncomfortable seeking professional help for psychological problems because people in my social or business circle might find out about it	2662 (36.3)
Q 17; Having been diagnosed with a mental disorder is a blot on person's life	3861 (53.1)
Q 18: There is something admirable in the attitude of people who are willing to cope with their conflicts and fear	1068 (14.7)
Q 19: If I believed I were having a mental breakdown, my first inclination would be to get professional attention	3169 (43.6)
Q 20: I would feel uneasy going to a professional because of what some people would think	2540 (34.9)
Q 21: People with strong characters can get over psychological problems by themselves and would have little need for professional help	1104 (15.2)
Q 22: I would willingly confide intimate matters to an appropriate person If I thought it might help me or a member of my family	3745 (51.5)
Q 23: Had I received treatment for psychological problems, I would not feel that it ought to be "covered up"	3153 (43.4)
Q24: I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems	2613 (35.9)
Q 25: I believe that mental illnesses are due to possession by Jene, Ghost or some spiritual power	4324 (59.5)
Q 26: It is possible to cure persons with mental illness by holy water, tabiz, koboz or kabirazi medicines	3919 (53.9)
Q 27: Mental illnesses get cured by marriage	3607 (49.6)
Q 28: It is not wise to take medicines for mental illness as these have excessive side effects	3293 (45.3)
Q 29; I believe medicines for mental illnesses cannot be stopped once started	3496 (48.1)

National Mental Health Survey 2019

Model Child Mental Health Survey

Table 1. **Number and percent of households and persons interviewed and response rates by residence and sex**

Household status	Residence				Sex				All	
	Urban		Rural		Man		Woman			
	n	%	n	%	n	%	n	%	n	%
At household level (adult and child)										
Roster completed (RC)	3548	79.50	3772	84.48	3495	78.28	3825	85.70	7320	82.2
No one eligible*	369	8.27	388	8.69	575	12.88	239	5.36	757	8.5
Locked house (LH)	251	5.62	179	4.01	191	4.28	182	4.08	430	4.8
Broken house (BH)	73	1.64	38	0.85	51	1.14	60	1.34	111	1.2
Vacant house (VH)	69	1.55	33	0.74	46	1.03	50	1.12	96	1.1
House not found*	63	1.41	20	0.45	46	1.03	43	0.96	89	1.0
Refused interview (HHR)	50	1.12	32	0.72	43	0.96	39	0.87	82	0.7
Group accommodation *	29	0.65	3	0.07	13	0.29	19	0.43	32	0.4
Not HH*	11	0.25	0	0.00	5	0.11	6	0.13	11	0.1
Total	4463	100.00	4465	100.00	4465	100.00	4463	100.00	8928	100.0
Household response rate†		**88.90**		**93.04**		**91.35**		**92.04**		**91.0**
Completed (C)	1001	95.61	1162	95.01	1045	93.81	1118	96.71	2163	95.3
Unavailable (U)	25	2.39	46	3.76	50	4.49	21	1.82	71	3.1
Refused (R)	21	2.01	15	1.23	19	1.71	17	1.47	36	1.6
Total	**1047**	**100.00**	**1223**	**100.00**	**1114**	**100.00**	**1156**	**100.00**	**2270**	**100.0**
Individual (child) response rate**		**95.61**		**95.01**		**93.81**		**96.71**		**95.3**
Total response rate (child)††		**84.99**		**88.40**		**85.69**		**91.32**		**86.7**

* These persons were not included as sample as they do not qualify[1] as sample for the Survey.

† Household response rate (%)=[RCx100]/[RC+LH+BH+VH+HHR]=91.0%

‡ Individual (adult) response rate (%)=[Cx100]/[C+U+R]=99.3%

§ Eligible child was found in 2270 households

** Individual (child) response rate (%)=[Cx100]/[C+U+R]=99.3

†† Total response rate (%)=HRR*IRR/100=90.4

Table 2. Distribution of mean age* (years) by sex and residence (n = 2163)

Boy		Girl		Urban		Rural		All	
Mean	**95% CI†**	**Mean**	**95% CI**	**Mean**	**95% CI**	**Mean**	**95% CI**	**Mean**	**95% CI**
12.1	11.9 - 12.4	11.9	11.7 - 12.2	12.0	11.7 - 12.3	12.0	11.8 - 12.3	12.0	11.8 - 12.2

* Range: 7 - 17 years

† Confidence interval

Table 3. Un-weighted and weighted distribution of respondents by sex and residence).

Age group (years)	Un-weighted										Weighted*									
	Boy		Girl		Urban		Rural		All		Boy		Girl		Urban		Rural		All	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
7 - 12	605	55.3	632	54.9	569	55.0	668	55.2	1237	55.1	4108084	55.6	4398303	56.6	1746516	54.4	6759870	56.6	8506386	56.1
13 - 17	490	44.8	519	45.1	466	45.0	543	44.8	1009	44.9	3279966	44.4	3375803	43.4	1462664	45.6	5193106	43.5	6655769	43.9
7 - 17	**1045**	**100.0**	**1118**	**100.0**	**1001**	**100.0**	**1162**	**100.0**	**2163**	**100.0**	**7388050**	**100.0**	**7774105**	**100.0**	**3209180**	**100.0**	**11952976**	**100.0**	**15162156**	**100.0**

Table 4: Distribution (percent) of household wealth indices by residence

Wealth index	Urban	Rural
	percent	
Lowest	9.2	27.2
Low	10.3	21.4
Middle	20.3	22.3
High	21.1	20.8
Highest	39.0	8.3

Figure 1. Distribution (percent) of household wealth indices by residence

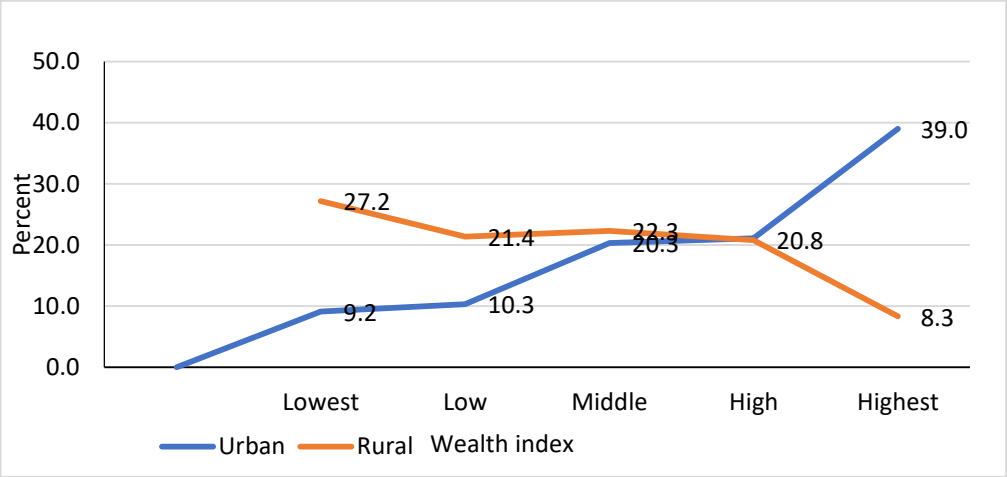


Table 5: Distribution of children based on positive RQC (Enumerator administered)

Age group (years)	Boy		Girl		Urban		Rural		All	
	%	95% CI*	%	95% CI	%	95% CI	%	95% CI	%	95% CI
7 - 12	21.8	16.9 - 26.7	18.4	13.9 - 22.9	18.8	13.1 - 24.6	20.4	16.4 - 24.4	20.1	16.7 - 23.4
13 - 17	21.8	16.2 - 27.4	20.3	15.0 - 25.5	22.7	15.6 - 29.8	20.5	15.9 - 25.1	21.0	17.2 - 24.9
7 - 17	**21.8**	**16.9 - 26.7**	**19.2**	**15.8 - 22.6**	**20.6**	**16.1 - 25.0**	**20.4**	**17.8 - 23.1**	**20.5**	**17.8 - 23.1**

* Confidence interval

Table 6. Prevalence of mental disorders (diagnosed following DSM 5*) in children

Age group (years)	Boy		Girl		Urban		Rural		All	
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
7 - 12	13.2	9.8 - 16.7	11.6	8.3 - 14.9	12.5	8.8 - 16.2	12.4	9.2 - 15.5	12.4	9.8 - 15.0
13 - 17	14.3	9.8 - 18.8	11.5	7.7 - 15.2	10.3	6.1 - 14.4	13.6	9.8 - 17.3	12.8	9.8 - 15.9
7 - 17	**13.7**	**10.9 - 16.5**	**11.5**	**8.8 - 14.3**	**11.5**	**8.8 - 14.2**	**12.9**	**10.3 - 15.5**	**12.6**	**10.5 - 14.7**

* American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM–5). 2013
† Confidence interval

Table 7. Gross diagnosis of mental disorders (DSM 5) in children

	Neurodevelopmental disorders		Anxiety Disorders		Disruptive, impulse control and conduct disorders		Depressive disorders		Sleep-wake disorders		Major mental disorder (Schizophrenia spectrum disorder)		Obsessive compulsive and related disorders		Major mental disorders (Bipolar and Related disorders)	
	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†
Boy	6.4	4.4 - 8.4	4	2.5 - 5.6	2.3	1.2 - 3.4	0.2	-	0.5	-	0.2	-	0.1	-	-	-
Girl	3.9	2.5 - 5.4	5.3	3.5 - 7.2	1.1	-	0.5	-	0.2	-	0.3	-	-	-	0.1	-
Urban	4.5	2.7 - 6.3	4.0	2.1 - 5.8	1.9	-	0.3	-	0.5	-	0.3	-	0.02	-	-	-
Rural	5.3	3.7 - 6.9	4.9	3.4 - 6.4	1.6	-	0.4	-	0.3	-	0.2	-	0.1	-	0.1	-
All	5.1	3.8 - 6.4	4.7	3.5 - 6.0	1.7	1.0 - 2.4	0.4	-	0.4	-	0.2	-	0.1	-	0.1	-

† Confidence interval

- Unweighted numbers are <25

Table 8. Detailed diagnosis of mental disorders (DSM 5*) in children

Detailed diagnosis (DSM 5)	Boy		Girl		Urban		Rural		All	
	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI*	%	95% CI†
Adjustment disorder	-	-	0.3	-	-	-	0.2	-	0.1	-
Agoraphobia	0.2	-	-	-	-	-	0.1	-	0.1	-
Antisocial personality disorder	0.0	-	-	-	0.0	-	-	-	0.0	-
Attention-deficit/hyperactivity disorder	1.9	-	0.3	-	0.9	-	1.1	-	1.1	0.8 - 2.4
Bipolar I disorder current episode hypomanic	-	-	0.1	-	-	-	0.1	-	0.1	-
Childhood onset fluency disorder	0.6	-	0.1	-	0.3	-	0.3	-	0.3	-
Conduct disorder	1.7	-	0.2	-	1.1	-	0.9	-	0.9	0.4 - 1.4
Conversion disorder	0.1	-	0.7	-	0.2	-	0.4	-	0.4	-
Delusional disorders	-	-	0.0	-	0.0	-	-	-	0.0	-
Enuresis	1.9	-	1.3	-	0.9	-	1.8	-	1.6	0.8 - 2.4
Generalized anxiety disorder	0.4	-	0.5	-	0.9	-	0.3	-	0.4	-
Insomnia disorder	-	-	0.1	-	0.2	-	-	-	0.0	-
Intellectual disability	1.4	-	0.1	-	0.3	-	0.2	-	0.2	-
Intellectual disability- moderate	1.1	-	2.6	-	1.7	-	1.9	-	1.9	1.1 - 2.7
Intellectual disability-mild	0.6	-	0.6	-	0.3	-	0.6	-	0.6	-
Intellectual disability-severe	0.2	-	0.1	-	0.3	-	0.1	-	0.1	-
Intermittent Explosive Disorder	0.2	-	-	-	0.0	-	0.1	-	0.1	-
Language disorder	0.7	-	0.2	-	0.3	-	0.5	-	0.4	-
Major depressive disorder - mild	0.1	-	0.3	-	0.1	-	0.2	-	0.2	-
Major depressive disorder - moderate	0.0	-	0.0	-	0.1	-	-	-	0.0	-
Major depressive disorder - recurrent	0.0	-	0.1	-	0.1	-	0.0	-	0.0	-
Major depressive disorder - severe	-	-	0.1	-	-	-	0.1	-	0.1	-
Mild neurocognitive disorder	-	-	0.0	-	0.0	-	-	-	0.0	-
Narcolepsy	-	-	0.0	-	0.0	-	-	-	0.0	-
Nightmare disorder	-	-	0.1	-	0.3	-	0.3	-	0.3	-
Obsessive compulsive disorder	0.1	-	-	-	0.0	-	0.1	-	0.1	-
Oppositional defiant disorder	0.3	-	0.9	-	0.8	-	0.6	-	0.6	-
Other specified anxiety disorder	-	-	0.01	-	0.0	-	0.1	-	0.0	-
Other specified depressive disorder	0.1	-	0.03	-	-	-	0.1	-	0.0	-
Other specified disruptive, impulse control and conduct disorder	0.1	-	-	-	-	-	0.1	-	0.0	-
Other specified neurodevelopmental disorder	0.1	-	-	-	-	-	-	-	0.1	-
Paranoid personality disorders	-	-	0.1	-	0.3	-	-	-	0.1	-

Premenstrual dysphoric disorder	-	-	0.0	-	0.0	-	-	-	0.0	-
Schizophrenia	0.2	-	0.2	-	-	-	0.2	-	0.2	-
Selective mutism	-	-	0.3	-	-	-	0.2	-	0.1	-
Separation anxiety disorder	-	-	0.4	-	0.4	-	0.1	-	0.2	-
Social communication disorder	0.2	-	-	-	-	-	0.1	-	0.1	-
Social Phobia	0.8	-	0.5	-	0.3	-	0.7	-	0.7	-
Specific learning disorder	0.3	-	0.1	-	0.2	-	0.2	-	0.2	-
Specific phobia	0.5	-	0.7	-	0.2	-	0.7	-	0.6	-
Unspecified anxiety disorder	-	-	0.05	-	0.0	-	0.0	-	0.0	-
Unspecified dissociative disorder	0.1	-	0.03	-	0.1	-	0.1	-	0.1	-
Unspecified Intellectual disability	0.4	-	-	-	0.0	-	0.2	-	0.2	-
Unspecified somatic symptom and related disorder	0.0	-	0.6	-	0.9	-	0.2	-	0.3	-
Any mental disorder	13.7	10.9 - 16.5	11.5	8.8 - 14.3	11.5	8.8 - 14.2	12.9	10.3 - 15.5	12.6	10.5 - 14.7
No mental disorder	86.2	83.4 - 89.1	88.5	85.7 - 91.2	88.5	85.8-95.2	87.1	84.5 - 89.7	87.4	85.3 - 89.5

† Confidence interval
- Unweighted numbers are <25

Table 9. Prevalence (percent) of mental disorder by wealth index* and sex in children.

Wealth index	Boy	Girl	All
Lowest	14.4	8.2	11.1
Low	18.6	11.0	14.4
Middle	12.1	12.7	12.4
High	16.8	14.6	15.7
Highest	6.1	11.9	8.8

* Wealth index is constructed using principal component analysis on the asset information collected. Asset information was collected on: electricity, flush toilet, land phone, mobile phone, television, refrigerator, private car, moped/scooter/motor cycle/autorickshaw, washing machine, bicycle, sewing machine, wardrobe, table, bed, chair/bench, clock, computer/laptop/tablet computer, domestic animal (cow/ox/goat etc.), shallow machine/power tiller/tractor), rickshaw, farming land, pond for fish cultivation and roof type of main house.
Each asset was assigned a weight factor generated by PCA and the resulting asset scored were standardized in relation to a normal distribution with a mean of zero and standard deviation of one. Each of the household was assigned a score for each of the assets with a household total score - the asset index. The households were ranked based on this asset index and was divided into quintiles. The asset index was not prepared separately for urban and rural but for the whole sample.

Figure 2. Prevalence (percent) of mental disorder by wealth index* and sex in children.

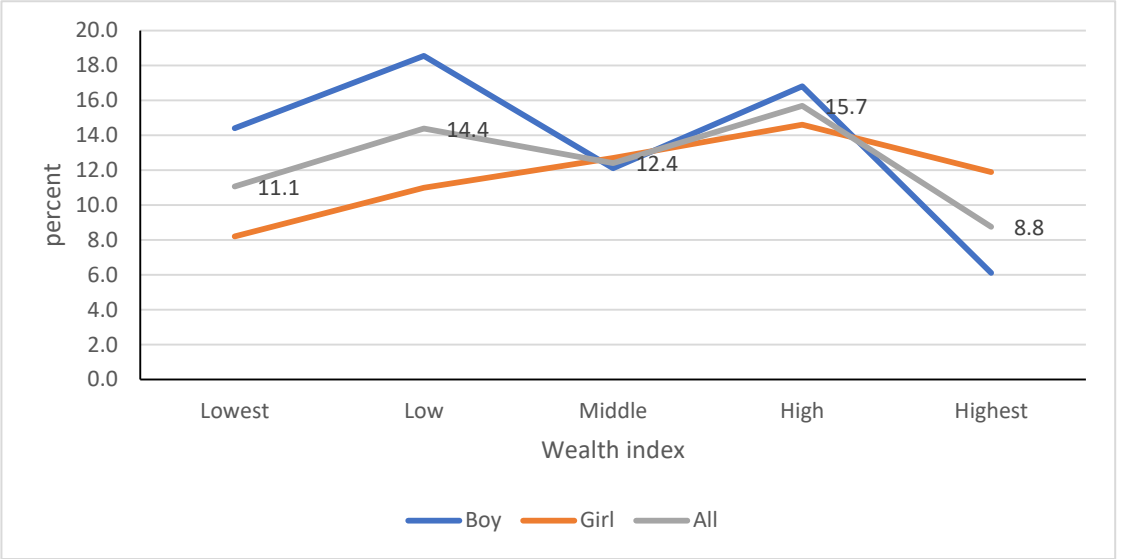


Table 10. Prevalence (percent) of mental disorder by wealth index* and residence in children

Wealth index	Urban	Rural	All
Lowest	14.3	10.8	11.1
Low	17.1	14.0	14.4
Middle	8.2	13.4	12.4
High	18.1	15.0	15.7
Highest	7.5	10.4	8.8

* Wealth index is constructed using principal component analysis on the asset information collected. Asset information was collected on: electricity, flush toilet, land phone, mobile phone, television, refrigerator, private car, moped/scooter/motor cycle/auto rickshaw, washing machine, bicycle, sewing machine, wardrobe, table, bed, chair/bench, clock, computer/laptop/tablet computer, domestic animal (cow/ox/goat etc.), shallow machine/power tiller/tractor), rickshaw, farming land, pond for fish cultivation and roof type of main house. Each asset was assigned a weight factor generated by PCA and the resulting asset scored were standardized in relation to a normal distribution with a mean of zero and standard deviation of one. Each of the household was assigned a score for each of the assets with a household total score - the asset index. The households were ranked based on this asset index and was divided into quintiles. The asset index was not prepared separately for urban and rural but for the whole sample.

Figure 3: Prevalence (percent) of mental disorder by wealth index* and residence in children .

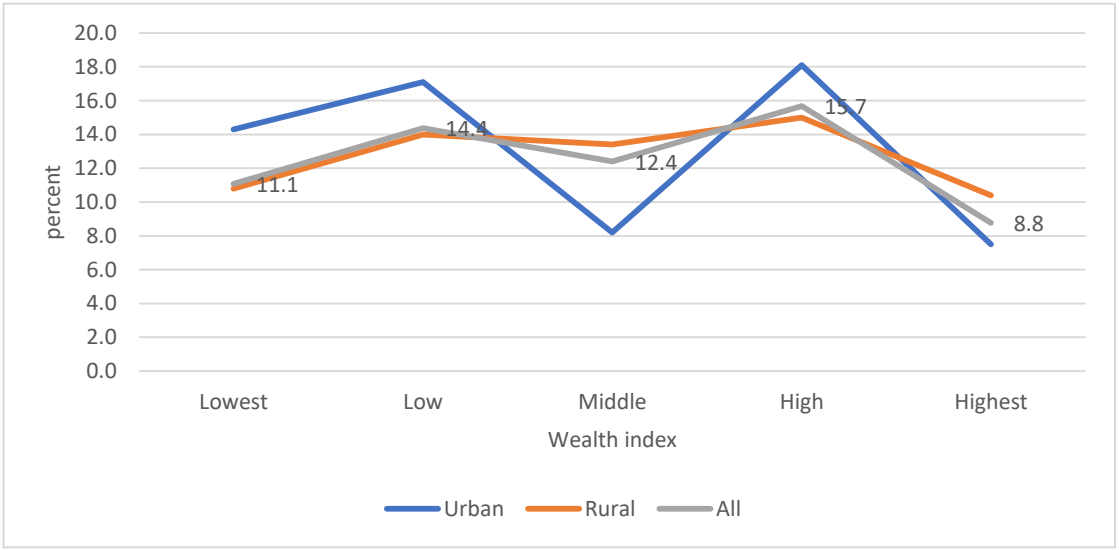


Table 11. Distribution of treatment gap* in children by sex and residence

Age group (years)	Boy		Girl		Urban		Rural		All	
	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†	%	95% CI†
7 - 12	98.6	96.7 - 100.5	93.6	96.5 - 100.8	94.6	88.5 - 100.7	96.6	92.3 - 100.9	96.2	92.6 - 99.8
13 - 17	98.2	95.8 - 100.6	84.5	72.3 - 96.7	93.0	86.1 - 99.9	91.8	84.6 - 99.0	92.0	86.0 - 98.0
7 - 17	**98.4**	**96.9 - 99.9**	**89.7**	**83.3 - 96.2**	**94.0**	**89.5 - 98.4**	**94.4**	**90.5 - 98.4**	**94.3**	**91.1 - 97.6**

* Prevalence of no treatment among all children diagnosed with mental disorder
† Confidence interval

Table 12. Prevalence of past mental disorder and non-adherence of treatment to past mental disorder

Age group (years)	Boy		Girl		Urban		Rural		All	
	%	95% CI*	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Prevalence of past mental disorder, (n=2131)	0.2	-	1.0	-	1.0	-	0.5	-	0.6	-
Non-adherence (did not take treatment for past mental disorder), (n=17)	36.2	-	29.9	-	61.5	-	14.9		30.8	-

* Confidence interval
- Unweighted numbers are <25

Table 13. Inventory of sign-symptoms* arranged in decreasing order of percentage for the first episode of mental illness in children

1st symptom-sign	%	2nd symptom-sign	%	3rd symptom-sign	%
School problem/ poor academic performance	19.9	School problem/ poor academic performance	21.8	Irritability	47.4
Delayed milestone development	26.6	Low mood	22.8	Poor selfcare	18.2
Headache	13.2	Language problem	20.0	Fearfulness	14.0
Odd behaviour	8.5	Disobedience	16.1	School problem/ poor academic performance	11.1
Irritability	7.9	Poor selfcare	10.3	Odd behaviour	4.9
Fit like attack/ epilepsy	6.8	Irritability	7.1	Enuresis	2.3
Fearfulness	4.5	Delayed milestone development	1.8	Fit like attack/ epilepsy	2.0
Self harm	4.1				
Enuresis	3.3				
Disobedience	3.3				
Bullying	1.4				
Low mood	0.6				

* Psychiatrists recorded these from history and clinical examination of the respondents

Table 14. Persons who first advised for treatment for the last episode of mental illness in children (n=22)

Persons advised treatment first for the last episode of mental illness	Boy		Girl		Urban		Rural		All	
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
Self	**-**	**-**	**4.0**	**-**	**13.0**	**-**	**-**	**-**	**3.4**	**-**
Close relative	100.0	-	72.8	-	64.8	-	81.8	-	77.4	-
Neighbor	-	-	23.2	-	22.2	-	18.2	-	19.3	-

* Confidence interval
- Unweighted numbers are <25

Table 15. Persons giving advice for first time for treatment of first episode of mental illness in children and time taken for first psychiatric consultation.

Variables	Boy		Girl		Urban		Rural		All	
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
Persons who advised for treatment of first episode of mental illness in children first (n=25)										
Close relative	20.3	-	82.8	-	95.7	-	83.1	-	85.8	-
Neighbor	-	-	17.2	-	4.3	-	16.9	-	14.2	-
	Mean	**SE†**	**Mean**	**SE†**	**Mean**	**SE†**	**Mean**	**SE†**	**Mean**	**SE†**
Time (days) of first psychiatric consultation in the past (n=1013)	9.8	6.4	17.7	7.7	45.7	23.3	6.3	2.7	14.1	5.1
* Confidence interval										
† Standard error										
- Unweighted numbers are <25										

Table 16. Place of taking treatment for mental illness in children (n=19)

Treatment sought from…	Boy		Girl		Urban		Rural		All	
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
Government hospital	7.1	-	4.8	-	11.7	-	3.6	-	5.2	-
Private hospital	3.9	-	11.2	-	3.4	-	11.5	-	9.9	-
Specialized mental hospital	-	-	4.7	-	-	-	4.8	-	3.9	-
Chamber of psychiatrist	-	-	20.0	-	8.3	-	18.5	-	16.5	-
Chamber of other physician	62.4	-	12.1	-	31.2	-	18.5	-	21.0	-
Homeopathy/ Unani/ayurved	-	-	37.1	-	-	-	38.1	-	30.6	-
Others	26.7	-	10.0	-	45.4	-	4.9	-	12.9	-

* Confidence interval
- Unweighted numbers are <25

Table 17. List of medications (generic name) prescribed to adults with frequency (%) in their first visit by alphabetical order (n=16)

Sl. No.	Medications	%
1	Clonazepam	7.7
2	Fluoxetine	7.7
3	Haloperidol	7.7
4	Imipramin	7.7
5	Phenobarbitone	7.7
6	Procyclidine	15.4
7	Quetiapine	7.7
8	Resperidone	23.1
9	Sodium Valproate	15.4

Table 18. Mental health of child by sex and residence

Issue	Never		Seldom		Occasionally		Frequently		Always			
	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*	%	95% CI*
...worrying leading to sleepless nights in past 12 months												
Boy	80.2	75.7 - 84.8	7.4	4.6 - 10.2	9.9	6.3 - 13.4	-	-	-	-		
Girl	77.9	73.3 - 82.6	11.2	7.7 - 14.7	6.7	4.6 - 8.9	-	-	2.4	0.8 - 4.0		
Urban	78.7	72.8 - 84.5	11.0	7.2 - 14.9	6.3	3.4 - 9.2	-	-	-	-		
Rural	79.2	75.2 - 83.2	8.8	6.2 - 11.5	8.9	6.3 - 11.5	1.8	0.9 - 2.7	-	-		
All	79.1	75.7 - 82.4	9.4	7.1 - 11.6	8.2	6.2 - 10.3	2.0	1.2 - 2.8	1.4	0.6 - 2.2		
	None		**One**		**Two**		**Three or more**		**One or more**			
...having close friends												
Boy	-	-	11.5	8.8 - 14.2	40.9	36.1 - 45.7	45.9	40.6 - 51.1	98.3	97.3 - 99.3		
Girl	4.6	3.0 - 6.2	12.3	9.5 - 15.1	28.5	24.8 - 32.3	54.5	50.1 - 59.0	95.4	93.8 - 97.0		
Urban	4.8	2.5 - 7.2	10.9	8.0 - 13.0	37.7	32.5 - 42.8	46.6	41.0 - 52.1	95.2	92.8 - 97.5		
Rural	2.8	1.8 - 3.8	12.2	10.0 - 14.4	33.7	29.8 - 37.5	51.3	47.0 - 55.7	97.2	96.2 - 98.2		
All	3.2	2.3 - 4.2	11.9	10.1 - 13.8	34.5	31.3 - 37.8	50.3	46.7 - 54.0	96.8	95.8 - 97.7		
	None		**1 - 2 days**		**3 - 5 days**		**6 - 9 days**		**10 or more days**		**1 or more days**	
...missed classes or school without permission in past 30 days												
Boy	48.5	42.5 - 54.6	29.1	24.4 - 33.8	15.8	11.2 - 20.4	2.9	1.5 - 4.2	3.7	2.1 - 5.4	51.5	45.4 - 57.5
Girl	59.0	54.1 - 63.9	24.1	20.0 - 28.2	9.3	6.8 - 11.8	4.2	2.4 - 6.0	3.5	1.8 - 5.1	41.0	36.1 - 45.9
Urban	55.0	48.4 - 61.7	28.3	22.4 - 34.1	10.3	7.2 - 13.5	2.8	1.5 - 4.1	3.6	1.8 - 5.3	45.0	38.3 - 51.6
Rural	53.9	49.6 - 58.2	25.9	22.4 - 29.4	12.8	9.6 - 16.0	3.8	2.4 - 5.2	3.6	2.2 - 5.0	46.1	41.8 - 50.3
All	54.2	50.5 - 57.8	26.4	23.3 - 29.4	12.3	9.7 - 14.9	3.6	-	3.6	2.4 - 4.7	45.8	42.2 - 49.5
	Never		**Rarely**		**Sometimes**		**Most of the time**		**Always**		**At least once**	
... checked if homework was done												

Boy	8.9	6.5 - 11.4	7.6	5.0 - 10.2	31.5	26.7 - 36.2	23.9	19.7 - 28.0	28.1	23.6 - 32.6	91.0	88.6 - 93.5
Girl	6.1	3.9 - 8.2	4.8	3.1 - 6.6	16.2	12.8 - 19.4	16.1	12.8 - 19.4	56.8	51.6 - 62.0	93.9	91.8 - 96.1
Urban	8.8	5.8 - 11.8	5.1	3.2 - 7.0	20.2	16.0 - 24.4	19.9	15.0 - 24.8	46.0	40.0 - 52.3	91.2	88.2 - 94.2
Rural	7.1	5.3 - 9.0	6.5	4.5 - 8.4	24.5	21.2 - 27.8	19.8	16.9 - 22.7	42.1	38.1 - 46.1	92.5	90.9 - 94.1
All	7.5	5.9 - 9.1	6.2	4.6 - 7.8	23.6	20.8 - 26.4	19.8	17.3 - 22.4	42.9	39.5 - 46.3	92.5	90.9 - 94.1
... knew on how free time is spent												
Boy	6.3	4.1 - 8.5	4.2	2.2 - 6.2	30.7	26.4 - 35.0	25.1	21.3 - 28.9	33.7	29.2 - 38.2	93.7	91.5 - 95.9
Girl	2.8	1.3 - 4.3	3.4	1..8 - 5.1	13.5	10.5 - 16.6	18.8	15.2 - 22.4	61.4	56.3 - 66.5	97.2	95.7 - 98.7
Urban	4.1	1.9 - 6.3	2.8	1.5 - 4.0	16.9	13.3 - 20.6	20.8	16.3 - 24.9	55.4	49.9 - 60.9	95.9	93.7 - 98.1
Rural	4.6	3.1 - 6.1	4.1	2.5 - 5.7	23.2	20.2 - 26.2	22.2	19.2 - 25.2	46.0	41.9 - 50.0	95.4	93.9 - 96.9
All	4.5	3.2 - 5.8	3.8	2.5 - 5.1	21.9	19.3 - 24.4	21.9	19.3 - 24.4	48.0	44.6 - 51.4	95.5	94.2 - 96.8
... go through belongings of child without approval												
Boy	71.8	66.6 - 76.9	5.1	3.1 - 7.1	11.0	8.0 - 14.1	8.2	5.6 - - 10.8	3.9	2.2 - 5.5	28.2	23.1 - 33.4
Girl	76.0	71.4 - 80.7	9 8.5	6.1 - 10.9	7.9	5.5 - 10.4	2.4	0.7 - 4.1	5.1	3.3 - 7.0	24.0	19.3 - 28.6
Urban	75.0	69.2 - 80.8	7.1	4.5 - 9.7	8.7	1.6 - 5.4	3.9	1.0 - 2.1	5.3	3.0 - 7.6	25.0	19.2 - 30.7
Rural	73.7	68.8 - 78.5	6.8	4.9 - 8.7	9.7	7.2 - 12.1	5.6	3.7 - 7.5	4.3	2.9 - 5.8	26.3	21.5 - 31.2
All	74.0	69.9 - 78.0	6.9	5.3 - 8.5	9.4	7.4 - 11.5	5.2	3.7 - 6.8	4.5	3.3 - 5.8	26.0	22.0 - 30.1
... spent time with child												
Boy	2.8	1.3 - 4.4	3.2	1.5 - 4.9	26.8	21.8 - 31.7	33.1	28.3 - 38.0	34.1	28.5 - 38.0	97.5	96.3 - 98.8
Girl	2.3	1.0 - 3.6	3.0	1.6 - 4.5	10.7	7.7 - 13.7	18.2	15.0 - 21.3	65.9	60.8 - 70.9	97.7	96.4 - 99.0
Urban	1.4	0.2 - 2.7	1.4	0.6 - 2.1	15.4	11.5 - 19.2	26.1	21.0 - 31.2	55.7	49.8 - 61.6	98.6	97.3 - 99.8
Rural	2.6	1.5 - 3.7	3.7	2.5 - 5.0	19.2	16.0 - 22.4	24.9	22.1 - 27.8	49.5	45.5 - 53.5	97.4	96.3 - 98.5

All	2.6	1.6 - 3.7	3.5	2.2 - 4.7	19.3	16.1 - 22.5	25.0	22.1 - 27.9	49.6	45.5 - 53.6	97.6	96.8 - 98.5

* Confidence interval
- Unweighted numbers are <25

স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
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