



RESEARCH ARTICLE

# Some aspects of Mental health care in India

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**Abstract:** The National Mental Health Policy of India redefines mental health not simply as the absence of mental disorders but as a comprehensive state of well-being. This state enables individuals to realize their own abilities, cope with the normal stresses of life, work productively, and fruitfully contribute to their community. Recent data indicates a troubling increase in both the incidence and severity of mental illnesses globally. This study utilizes a comprehensive dataset provided by the National Institute of Mental Health and Neurosciences (NIMHANS), conducting a detailed factorial analysis to explore the impact of socio-economic factors on mental health across different Indian states and socio-economic strata. Key socio-economic variables such as gender, age, education, and financial dependence were analyzed to determine their influence on mental well-being. Our findings reveal significant relationships where lower levels of education and higher levels of financial dependence correlate with poorer mental health outcomes. These insights highlight the necessity for tailored mental health strategies that address specific local and socio-economic contexts rather than applying a uniform approach across diverse populations. This research underscores the importance of situational and context-aware health policies and interventions that can effectively address and mitigate the unique challenges faced by various groups within the population. The implications of these findings support the call for a more nuanced and strategic approach to mental health policy-making that can better serve India's diverse societal needs.

**Keywords:** Mental Health Policy, India, socio-economic strata, depression, suicide, mental illness, mental disability, factorial analysis

## Mental Health Situation in India

The National Mental Health Policy of India, revised in 2014, aligns closely with the World Health Organization's broader definition of health, emphasizing mental health not merely as the absence of mental disorders but as a state of complete physical, mental, and social well-being (Government of India, 2014; WHO, 1948). This policy encapsulates a holistic approach, recognizing the interplay between mental health and factors such as individual capabilities, stress management, productivity, and community contribution.

Recent statistics reveal the growing urgency of addressing mental health in India. For instance, a comprehensive survey by the National Institute of Mental Health and Neurosciences (NIMHANS) in 2016 reported that approximately 150 million Indians need active mental health care interventions, with less than 30% receiving any form of treatment (Gururaj et al., 2016). This disparity highlights significant gaps in mental health services that the national policy aims to address through enhanced accessibility and integration of mental health into mainstream healthcare.

Specifically, the prevalence of common mental disorders in urban areas has risen, with an estimated 13.7% of the population affected, exacerbated by rapid urbanization and the associated lifestyle stresses (NIMHANS, 2016). These conditions underscore the necessity for targeted interventions, particularly in densely populated urban centers where mental health services are often under-resourced and overburdened. In response to these challenges, India's mental health policy has broadened its scope to incorporate preventive and promotive health strategies, aiming to decrease the incidence of mental illnesses across the country by addressing root causes such as poverty and education levels, which are strongly linked to mental health outcomes (Patel et al., 2018).

*According to National Mental Health Policy of India, 2014 (GOI, 2014) Mental Health* is not just the absence of mental disorder. It is defined as a state of well-being in which the individuals realize their own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and are able to make a positive contribution to their community. Mental health is defined not merely as the absence of mental disorders but as a state of complete physical, mental, and social well-being. This broader definition, consistent with that of the World Health Organization, underscores the importance of socio-economic factors such as poverty and education in influencing mental health outcomes (World Health Organization, 2018). This is in keeping with World Health Organisation's definition of health: A state of complete physical, mental, and social well-being, and not merely the

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absence of disease. Mental health is also related to promotion of mental well-being, prevention of mental disorders, and treatment and rehabilitation of people affected by mental disorders. *Mental health problems* refer to conditions ranging from psycho-social distress affecting a large number of people to mental illness and mental disability affecting a relatively small number of people. *Mental illness* refers to specific conditions such as Schizophrenia, Bipolar Disorder, Depression or Obsessive Compulsive Disorder.

*Mental disability* refers to disability associated with mental illness. While mental illness is a medical construct, disability is better understood using a medico-social model and the two terms are not used synonymously. Not all persons with mental illness will have a disability, although many will experience it due to various barriers which may hinder their full and effective participation in society on an equal basis with others.

Both incidence and severity of mental illnesses are on the rise. The World Health Organisation estimates that at any given time 10% of global population suffers from some form of mental illness and one in four persons will be affected at least once in their life time. Further, estimates suggest that by 2020, depression, the most common mental disorder, will be the second leading cause of disability worldwide, trailing only ischemic heart disease. The accurate figures for India are not available.

Recent studies underscore the profound impact of socio-economic status on mental health prevalence and management in India. For instance, Patel et al. (2019) reported that lower educational levels and higher poverty rates are strongly correlated with higher prevalence of mental disorders. This relationship highlights the barriers to accessing mental health services, such as stigma and lack of resources, which are more pronounced among economically disadvantaged groups.

Mental illness is a key predictor for an increase in suicide and suicide attempts that affect a cross section of society particularly the youth and distressed. Poverty, deprivation and other vulnerabilities further exacerbate the ground situation. Untreated mental illness results in stigma, marginalization and discrimination often worsening one's quality of life. This leads to a substantial loss of social and human capital, adversely impacting many individuals and families. While the National Mental Health Programme addresses this concern partially, a holistic approach to alleviating distress is necessary. The access to mental health care is not universal and significant treatment gaps are experienced by many, as a result of which individuals cannot pursue life to the fullest.

Owing to the enormity of the problem, it is considered prudent to have a strategic, integrated and holistic policy that will guide future course of action including a pan India scaling up of existing Mental Health Program. This Policy is inclusive in nature and incorporates an integrated, participatory, rights and evidence based approach. Mental health issues are addressed in a comprehensive manner to address medical and non-medical aspects of mental health. This Policy does not reduce mental health interventions to merely disease and disability prevention and it takes into account the need for all stakeholders to work synergistically and achieve common policy goals.

The strategic areas identified for action are, inter alia, effective governance and accountability, promotion of mental health, prevention of mental disorders and suicide, universal access to mental health services, enhanced availability of human resources for mental health, community participation, research, monitoring and evaluation. The Government believes that mental health is

an integral part of our overall health endeavour. A holistic approach that recognizes strong linkage of body, mind and soul is necessary. Strengthening of health infrastructure must be effected along with addressing the social determinants of health and mental health.

The current policy initiatives aim to bridge these gaps by enhancing mental health literacy, expanding access to mental health services, and integrating mental health care into general health care settings to reduce stigma and improve early detection (Ministry of Health and Family Welfare, 2017). However, despite these efforts, challenges remain, particularly in rural areas where stigma and a lack of mental health professionals exacerbate the treatment gap.

Moreover, specific issues such as the treatment of vulnerable groups—including women, children, the elderly, and the homeless—are increasingly recognized. The policy has started to address these concerns through targeted programs, yet the implementation remains inconsistent across different states and regions, necessitating further improvement (Kumar & Daria, 2020).

It is significant that the 65<sup>th</sup> World Health Assembly held in 2013 approved and adopted Resolution WHA 65.4 on global burden of mental disorders and the need for a comprehensive, co-ordinated response from the health and social sectors at the community level. India was one of the main sponsors of this resolution. This National Mental Health Policy is in consonance with the intent of this WHA Resolution

#### **Objectives of National Mental Health Policy of India, 2014**

The National Mental Health Policy of India, established in 2014, aims to revolutionize mental health care within the nation by setting forth a comprehensive set of objectives designed to address the myriad challenges faced by the mental health sector. One primary objective is to provide universal access to mental health care. This is pursued through the expansion of mental health services integrated into primary health care settings, thus decentralizing and demystifying mental health treatment. By increasing the number of community mental health clinics and training primary health care workers to recognize and manage mental health issues, the policy seeks to make mental health care accessible regardless of geographical and socio-economic barriers (Patel, 2016).

To ensure the effectiveness of these initiatives, the policy incorporates strategies like the development of telemedicine services for mental health to reach remote areas, underlining the policy's alignment with the social determinants of health model. This model acknowledges the impact of socio-economic factors such as income, education, and environment on an individual's mental health and integrates them into the planning and implementation of health services (Lund et al., 2018).

Furthermore, the success of these objectives is measured using specific indicators such as the increase in the number of individuals accessing mental health care services, reduction in the prevalence of common mental disorders, and improvements in the public perception of mental health. Data is systematically collected through national health surveys and monitoring programs established by the Ministry of Health and Family Welfare, which regularly assess the reach and impact of mental health services (Ministry of Health and Family Welfare, 2017).

In addition to expanding access, the policy aims to reduce the prevalence and impact of risk factors associated

with mental health problems. It promotes initiatives that address the root causes of mental health issues, such as poverty and stress in the workplace. Programs designed to enhance the economic stability of individuals and communities and to reduce workplace stress are examples of how the policy tackles these determinants head-on.

Each objective under this policy is accompanied by tailored strategies that consider the unique cultural, economic, and social landscape of India. The robust framework not only aims to treat mental illness but also to promote mental well-being, prevent mental health disorders, and support the rehabilitation of those affected by mental disorders. This holistic approach is crucial for the sustained improvement of mental health outcomes across the country.

### Cross-Cutting Issues

Mental health is characterized by cross cutting issues that have a far reaching impact on the fulfilment of goals and objectives spelt out as policy strategies and need to be addressed through efforts across society. These include: i. Stigma, ii. Rights-based approach since violation of their rights is a common reality for persons with mental health problems iii. Vulnerable populations may include inter alia, children (both school going and out of school), women, economically and socially deprived, older persons and persons with physical disabilities. It should be ensured that there is no discrimination against vulnerable populations in the provision of services. Conditions that increase vulnerability and need to be addressed to improve mental health are Poverty, Homelessness, Persons inside custodial institutions, Orphaned persons with mental illness (OPMI). It is believed that 70% to 80% of the persons with mental disorders in India live with their families, and this is true across all demographic and social variables. Once the existing care givers are no more, there is no provision for home care and support of these persons. As a result, many of them languish till death due to starvation and lack of critical support systems like monitoring medicines, personal hygiene and food etc. Not all of them fall under category of poor; yet, those with high support needs - irrespective of rich or poor -are highly vulnerable due to their incapacity for self-care.

The intersection of stigma and human rights emerges as a crucial area of focus in mental health policy implementation. Stigma, deeply entrenched in societal attitudes, often results in discrimination and exclusion, affecting the quality of life and accessibility of services for those with mental health issues. By adopting a rights-based approach, the policy seeks to empower individuals by recognizing their legal rights and promoting social inclusion. This strategy aligns with global best practices, such as those adopted in countries like Canada and Australia, where mental health strategies explicitly incorporate human rights principles to combat stigma and enhance public understanding of mental health (Kisely et al., 2017).

This Policy recognizes that needs of this category of persons with mental disorders have been neglected for a long time, Children of persons with mental health Problems, Elderly care-givers; Elderly care-givers whose own physical and mental health care needs are high are vulnerable. Unmet needs have a negative impact on their lives as well as the lives of those for who they provide care. There has been little policy or service delivery action to meet the needs of such elderly care-givers. There could be other vulnerable care-givers such as adolescents, single person responsible for livelihood as well as care giving, and

many such as others like internally displaced persons. There is a significant demographic shift from rural to urban areas, often across state/regional boundaries. These individuals and families are usually engaged in work in the unorganized sector and have poor access to local health services. There is very little information on the mental health needs of this group. Persons affected by disasters and emergencies, Other marginalized populations such as commercial sex workers, victims of human trafficking, victims of riot, sexual minorities, children and those living in situations of conflict bear disproportionate burden of mental health problems.

Spending on health by the government is not expenditure but a social investment and a social right. Ongoing activities under the national and district mental health programmes must continue in a strengthened and more responsive manner. The expansion of mental health programme to the entire country will require more funds. New activities especially in the area of community based rehabilitation and continuing care must be supported with adequate funding. The work of non-governmental organizations must be encouraged and supported, in order to achieve a collaborative and sustainable response system.

Insights from other countries demonstrate the effectiveness of integrating mental health services with general health care to reduce stigma. For instance, the UK's integration of mental health into primary care settings has shown promising results in reducing stigma and improving access (Thornicroft et al., 2016). Such comparisons not only offer validation but also contextual adaptations necessary for India's diverse socio-cultural landscape.

Employing the bio-psycho-social model provides a comprehensive understanding of mental health as influenced by a complex interplay of biological, psychological, and social factors. This model supports the policy's holistic approach, guiding the development of interventions that address the broad spectrum of factors affecting mental health. The model suggests that effective mental health policies should not only address the medical needs of individuals but also the social and psychological conditions that contribute to mental illness (Engel, 1977). It is also important to keep in mind that additional funding may not be required for many social sector programmes (Desiraju, 2022), whereas, it is imperative to ensure that persons with mental illness are also integrated as beneficiaries of existing programmes.

To evaluate the effectiveness of these initiatives, specific indicators such as reductions in stigma levels, improved public awareness of mental health rights, and enhanced access to care for vulnerable groups are essential. Surveys and longitudinal studies can be utilized to gather data on public perceptions and the prevalence of discrimination, thus providing a basis for continuous improvement of policy strategies. Currently, families are the main stay of long term care for persons with mental health problems. Such families bear direct financial costs of treatment as well as associated indirect costs such as loss of wages consequent to having to give up employment to look after sick family member. The emotional and social costs of providing care for a family member with mental illness cannot be quantified but exacts a huge toll on families.

### Inter-sectoral Collaboration

Inter-sectoral collaboration in mental health involves the integration of services across various sectors beyond healthcare, including education, employment, housing, and

social care. For example, one initiative could involve collaboration between mental health services and educational institutions to promote mental health awareness and early intervention strategies among students and educators. In the employment sector, programs could focus on creating supportive workplace environments that recognize and accommodate mental health needs, thereby reducing stigma and promoting better mental health outcomes. A concrete example of this collaboration is the integration of mental health training programs for teachers in schools, which helps in early detection and referral of mental health issues among students. In the housing sector, partnerships with non-governmental organizations can provide supported housing for individuals with severe mental disorders, ensuring they have a stable living environment which is crucial for recovery and rehabilitation.

The application of complex systems theory and inter-organizational collaboration theory can help in understanding how different sectors can effectively work together. These theories suggest that successful collaboration depends on factors such as shared goals, mutual benefits, and trust among participating organizations (Gray, 1989). For example, these theories can explain how aligning the objectives of health and education sectors can lead to more comprehensive mental health interventions that address both prevention and treatment.

To effectively evaluate the impact of inter-sectoral collaboration on mental health initiatives, it is crucial to employ specific indicators that reflect the diverse dimensions of program success. Firstly, the reduction in stigma levels can be measured through surveys administered before and after interventions, which assess any shifts in public attitudes towards mental illness. This helps in understanding the effectiveness of awareness campaigns and education efforts integrated across sectors. Secondly, improvement in access to care is another vital indicator, where metrics like the number of schools and workplaces implementing mental health programs serve as benchmarks for enhanced accessibility and outreach of mental health services. Finally, monitoring health outcomes is essential; tracking changes in mental health statistics—such as the reduced incidence of severe mental disorders in community settings—provides concrete evidence of the direct benefits arising from collaborative efforts. Together, these indicators not only gauge the immediate effects of inter-sectoral strategies but also guide ongoing improvements and scaling of successful practices.

### **Institutional Care**

Over recent decades, significant reforms have been undertaken in the realm of institutional mental health care in India. These reforms have primarily focused on improving the infrastructure of mental hospitals, increasing the availability of trained mental health professionals, and enhancing the quality of care provided. For example, the introduction of community-based services has been a significant step towards deinstitutionalization, aiming to reduce reliance on hospitalization and promote recovery-oriented and person-centered care (Ministry of Health and Family Welfare, 2017). However, challenges such as limited access, inadequate staffing, and insufficient funding continue to impact the effectiveness of these institutions, indicating a need for ongoing commitment and resource allocation.

Understanding the complexities of institutional reform in mental health care can be guided by theories such as the institutional change theory, which highlights the influence of both external pressures and internal dynamics within institutions (Scott, 2001). This theory suggests that for effective reform, changes must align with broader social, economic, and political contexts, which can either facilitate or hinder the process. Additionally, resistance from within institutions often poses a significant barrier to change, necessitating strategic approaches to manage and mitigate such resistance.

Examining case studies from regions that have successfully implemented mental health institutional reforms can provide valuable lessons. For instance, the reform of mental health institutions in Tamil Nadu has shown improvements in patient care through increased funding, better training programs for staff, and the integration of mental health services with primary health care (Patel et al., 2018). These successes underscore the potential for positive outcomes when reforms are thoughtfully implemented and adequately supported. To assess the effectiveness of institutional reforms, it is crucial to establish clear metrics such as patient satisfaction rates, reduction in hospital readmission rates, and improved health outcomes. Regular monitoring and evaluation should be conducted to ensure that reforms are meeting their intended objectives and to facilitate the continuous improvement of services (WHO, 2018).

### **Promotion of Mental Health**

The integration of mental health promotion within broader public health policy in India is exemplified by the coordination of anti-stigma programs with general health education campaigns. These initiatives aim to enhance public awareness and understanding of mental health issues, aligning with holistic health education that addresses both physical and mental well-being. For instance, school-based health programs now include modules on mental health, which educate students on the importance of mental well-being, recognizing symptoms of mental disorders, and ways to seek help (Ministry of Health and Family Welfare, 2017).

Further strengthening this discussion, the bio-psycho-social model provides a comprehensive framework for understanding mental health. This model illustrates how biological factors (like genetics and neurochemistry), psychological factors (such as coping skills and emotional well-being), and social factors (including family dynamics, cultural norms, and community support) interact to impact mental health (Engel, 1977). By using this model, mental health promotion programs can be designed to address these multiple layers, ensuring interventions are holistic and cater to the complex nature of mental health.

Recent research underscores the effectiveness of these integrated approaches. Studies have shown that evidence-based therapies and community interventions, which are informed by the bio-psycho-social model, significantly improve mental health outcomes. For example, cognitive-behavioral therapy (CBT) and community-driven programs targeting youth in urban areas have demonstrated success in reducing symptoms of depression and anxiety, thereby promoting mental well-being (Patel et al., 2018).

The strategic areas for action are linked to the situation analysis, cross cutting issues and goal and objectives of the Mental Health Policy. Each strategic area lists actions to achieve the vision of this policy. Some intervention areas are all equally relevant and need to be pursued in parallel. These are: effective governance and delivery mechanisms

for mental health, promotion of mental health, prevention of mental illness, reduction of suicide and attempted suicide, universal access to mental health services, improved availability of adequately trained mental health human resources to address the mental health needs of the community, community participation for mental health and development research

National Mental Health survey shows urban areas to be most affected (Yasmeen Afshan, 2016). At least 13.7 per cent of India's general population has various mental disorders; 10.6 per cent of them require immediate interventions. While nearly 10 per cent of the population has common mental disorders, 1.9 per cent of the population suffers from severe mental disorders. These are some of the broad findings of a National Mental Health Survey recently conducted by the National Institute of Mental Health and Neurosciences (NIMHANS). That is not all. The prevalence of mental morbidity is found to be very high in urban centres, where there is a higher prevalence of schizophrenia, mood disorders and neurotic or stress-related disorders. This disturbing scenario could be due to fast-paced lifestyles, experiencing stress, complexities of living, breakdown of support systems and challenges of economic instability.

In 2014, NIMHANS carried out a study on mental health status in the country<sup>i</sup>. The study covered all important aspects of mental illness including substance abuse, alcohol use disorder, tobacco use disorder, severe mental illness, depression, anxiety, phobia and post-traumatic stress disorder among others. It had a sample size of 34,802 individuals. Primary data collection was done through computer-generated random selection by a team of researchers, and local teams of co-investigators and field workers in the 12 States.

While the overall current prevalence estimate of mental disorders was 10.6 per cent in the total surveyed population, significant variations in overall morbidity ranged from 5.8 per cent in Assam to 14.1 per cent in Manipur. Assam, Uttar Pradesh and Gujarat reported prevalence rates less than 10 per cent. In eight of the 12 States, the prevalence varied between 10.7 per cent and 14.1 per cent.

A major concern in the findings, which were recently submitted to the Union Health Ministry, is that despite three out of four persons experiencing severe mental disorders, there are huge gaps in treatment. Apart from epilepsy, the treatment gap for all mental health disorders is more than 60 per cent. In fact, the economic burden of mental disorders is so huge that affected families have to spend nearly Rs.1,000-Rs.1,500 a month mainly for treatment and to access care.

According to this study, due to the stigma associated with mental disorders, nearly 80 per cent of those with mental disorders had not received any treatment despite being ill for over 12 months. Poor implementation of schemes under the National Mental Health Programme is largely responsible for this.

There is also a paucity of mental health specialists, pointing out that mental disorders are a low priority in the public health agenda. The health information system itself does not prioritise mental health. It recommended that mental health financing needs to be streamlined, there is a need to constitute a national commission on mental health comprising professionals from mental health, public health, social sciences and the judiciary to oversee, facilitate support and monitor and review mental health policies. While prevalence of mental illness is higher among males (13.9 per cent) as compared to females (7.5 per cent), certain specific mental illnesses like mood disorders (depression, neurotic disorders, phobic anxiety disorders etc) are more in females. Neurosis and stress related illness is also seen to be more in women. Prevalence in teenagers aged between 13 and 17 years is 7.3 per cent.

### Current Situation Analysis

An overview of mental illness is presented in Table 1 below. This is based on a survey conducted by NIMHANS in 2015-16 (NIMHANS, 2016). The total number of respondents in the survey is given in column 1. Thus it is based on nearly 35 thousand respondents across the country. However, it suggests that nearly 14 percent in the country suffer from one of the life time mental morbidity and at a point in time current level of mental morbidity is around 10 percent (Table 1)

**Table 1: An overview of crude prevalence of mental illness and substance abuse in India (2015-16)**

percent of total respondents	total respondents (n) Percentage	mental morbidity (life time)	mental morbidity (current)	Intellectual Disability (ID)	tobacco	epilepsy	suicidal risk
Assam (AS)	2603	8.14	5.95	0.58	27.78	0.27	5.46
Chhattisgarh (CG)	2841	13.48	11.55	0.60	27.81	0.14	2.18
Gujarat (GJ)	3168	9.31	7.80	0.38	17.96	0.19	4.07
Jharkhand (JH)	3022	11.09	8.57	1.03	10.16	0.43	3.41
Kerala (KL)	2479	14.00	11.21	0.40	7.46	0.36	12.46
Manipur (MN)	2852	19.88	13.85	1.05	20.62	0.35	10.31
Madhya Pradesh (MP)	2621	15.64	12.71	0.84	31.93	0.19	7.25
Punjab (PB)	2895	18.13	13.37	0.48	5.35	0.62	5.18
Rajasthan (RJ)	3108	15.41	11.55	0.45	39.58	0.10	7.95
Tamil Nadu (TN)	3059	19.29	11.80	0.42	8.34	0.26	6.67
Uttar Pradesh (UP)	3508	8.67	6.56	0.46	17.56	0.48	7.10
West Bengal (WB)	2646	15.08	11.83	0.57	13.95	0.04	5.25
Total	34802	13.92	10.47	0.60	19.03	0.29	6.37

Source: (NIMHANS, 2016).

A further break of mental disorders in terms of moderate and high and substance use including drug (or any similar kind of substance), alcohol and tobacco is given

in the Table 2 below. It is notable that nearly one fifth of the NIMHANS respondents across the country were used to either Tobacco or any other addictive substance. However,

in the states like Rajasthan and MP it was as high as 38.9 and 36.6 percent respectively (Table 2.; rows 9 and 7 and column 6). This is followed by Chhattisgarh at 32.4 percent.

The increasing prevalence of mental disorders in India can be analytically understood through the lens of the psychosocial stress theory and the social determinants of health model. The psychosocial stress theory posits that stress, whether due to socio-economic hardships or interpersonal struggles, plays a significant role in the onset

and progression of mental disorders (Monroe & Slavich, 2016). Similarly, the social determinants of health model emphasizes how factors like education, income, and social support systems impact health outcomes, including mental health (Marmot & Bell, 2012). These frameworks can help explain why certain demographic groups, especially those from lower socio-economic strata, experience higher rates of mental health issues.

**Table 2: Prevalence of different mental disorders**

States	Total respondents (n) Percentage	Moderate	High	Screeners positive	Any substance use	Alcohol use	Other substance use	Tobacco use
Assam (AS)	2603	0.6	0.7	0.3	27.3	3	0.7	25.8
Chhattisgarh (CG)	2841	0.4	0.3	0.2	32.4	7.1	1.3	29.9
Gujarat (GJ)	3168	0.4	0.4	0.2	18.8	4.5	0.1	17.4
Jharkhand (JH)	3022	0.6	0.8	0.5	12.8	2.4	0.3	11.9
Kerala (KL)	2479	1	2.2	0.4	10.2	4.8	0.1	7.3
Manipur (MN)	2852	0.9	1.4	0.4	23.8	5.1	0.8	20.7
Madhya Pradesh (MP)	2621	1	0.8	0.2	36.6	10.3	0.6	34.9
Punjab (PB)	2895	0.3	0.5	0.7	11.3	7.9	2.5	5.5
Rajasthan (RJ)	3108	0.7	1	0.1	38.9	2.6	0.5	38.3
Tamil Nadu (TN)	3059	0.3	0.6	0.3	11.3	5.9	0.3	8.2
Uttar Pradesh (UP)	3508	0.9	0.9	0.5	16.4	1.5	0.5	16.1
West Bengal (WB)	2646	1	1.7	0.03	15.7	3	0.8	14.3
Total	34802	0.7	0.9	0.3	22.4	4.6	0.6	20.9

Source: (NIMHANS, 2016)

In order to explore the determinants of different mental ill health provided by the above survey we used the socio-economic variables. The information on these variables is also collected by the survey. Mainly these relate to education, occupation, marital status and age groups of the respondents. There are in total 64 variables. The latter include 8 levels of education (including primary, secondary, high school, pre-university, vocational, graduate and post-graduate separately for males, females and across genders). Likewise, the occupation is also classified into 8 types (including cultivator, agricultural labor, employer,

employee, students, dependents, pensioners and others across male females and all genders separately). The marital status is classified into married, never married, divorcee, widowed separately across males and females). Age groups are also given in a fivefold category (from one to five). Thus, in order to shorten the 64 variables, we conducted a principle components analysis. This yielded 11 components. Of the latter we used 7 components which explained more than 76 percent of variation in mental health (Table 3)

**Table 3: Principal components using 64 variables**

Number of obs = 12; Number of comp. = 11; Trace = 64; Rotation: orthogonal varimax (Kaiser off) ; Rho = 1.0000						
Component	Variance	Difference	Proportion	Cumulative		
Comp1	11.236	3.552	0.176	0.176		
Comp2	7.685	0.832	0.120	0.296		
Comp3	6.853	0.253	0.107	0.403		
Comp4	6.599	0.483	0.103	0.506		
Comp5	6.117	0.662	0.096	0.601		
Comp6	5.455	0.436	0.085	0.687		
Comp7	5.019	0.514	0.078	0.765		
Comp8	4.505	0.478	0.070	0.835		
Comp9	4.027	0.515	0.063	0.898		
Comp10	3.512	0.517	0.055	0.953		
Comp11	2.994		0.047	1.000		

Source: Estimated

Looking at the major correlations within each factor derived from principal component analysis, we find that factor F1 to F6 respectively largely represent total illiteracy, pre-university education, secondary education, dependent status, female employer and pensioner female. Using these factors to explain different mental disorders we find that for moderate mental disorder being

dependent on others financially acts as deterrent (Table 4). However, for high mental disorders literacy acts as deterrent (Table 5). But female pensioners seem more vulnerable to this kind of disorder (Table 5). This is noted by negative and positive impact coefficient of these variables respectively (Table 5).

**Table 4: Regression result for Moderate Mental Disorder**

```
.reg moderate f4
Number of obs= 12; F( 1, 10) = 3.50
Prob> F= 0.0907; R-square = 0.2595
Adj R-squared= 0.185; Root MSE= .25273
```

moderate	Coeff.	t values	P>t
f4	-.0555	-1.87	0.091
constant	.675	9.25	0.000

Source: Estimated

**Table 5: Regression result for High Mental Disorder**

```
. reg high f1 f6
Number of obs=12; F( 2, 9)=5.41; Prob> F=0.0286
R-square= 0.546; Adj R-square= 0.4452; Root MSE=.41952
```

High	Coeff	t	P>t
f1	-.0770	-1.84	0.099
f6	.0997	1.66	0.131
Constant	.9416	7.78	0.000

Source: Estimated

In case of screener positive mental disorder, pre-university level of education seems to be conducive with its positive impact (Table 6). Whereas for any substance use disorder, higher education, female in financially

dominating position as pensioner or/and employer seem to be deterrent. It is seen from the negative coefficients of both of these factors (Table 7).

**Table 6: Regression result for Screener Positive in Mental Disorder**

```
Reg screener positive f2
Number of obs=12; F( 1, 10)=5.03; Prob> F= 0.0487;
R-square= 0.3348; Adj R-square= 0.2683; Root MSE=.16281
```

Screener positive	Coeff.	t	P>t
f2	.0397	2.24	0.049
Constant	.3191	6.79	0.000

Source: Estimated

**Table 7: Regression result for Any substance use in Mental Disorder**

```
reg anysubstance use f6 f5
Number of obs= 12; F( 2, 9) = 3.72; Prob> F= 0.0664
R-square =0.4526; Adj R-square= 0.3309; Root MSE= 8.4229
```

Any substance use	Coeff.	T	P>t
f6	-2.047	-1.82	0.102
f5	-1.593	-1.50	0.168
Constant	21.291	8.76	0.000

Source: Estimated

In case of other substance use mental disorder, secondary level education seems to be acting as deterrent and its coefficient represented largely through factor f3 is

negative (Table 8). Pertaining to Tobacco use status of a female as employer acts as deterrent and its coefficient seen through negative impact of factor f5 (Table 9).

**Table 8: Regression result for Other substance use in Mental Disorder**

```
reg othersubstance use f3
Number of obs=12; F( 1, 10) = 13.86; Prob> F= 0.0040
R-square= 0.580; Adj R-square=0.5389; Root MSE= .44618
```

Other substance use	Coeff.	t	P>t
f3	-.191	-3.72	0.004
Constant	.708	5.50	0.000

Source: Estimated

**Table 9: Regression result for Tobacco use in Mental Disorder**

reg tobaccouse f5			
Number of obs= 12;F( 1, 10)= 4.39; Prob> F=0.0625			
R-squared= 0.3052; Adj R-squared= 0.2357; Root MSE= 277.27			
Tobaccouse	Coef.	T	P>t
f5	-70.846	-2.10	0.063
Constant	552	6.90	0.000

Further illnesses like epilepsy also has a positive impact until pre-university education and its impact coefficient as presented largely through F2 is positive (Table 10). Lastly the suicidal risk seems to have some

positive link and causation through an education level upto secondary and being a pensioner as status which is noted respectively by the positive coefficients of factors F3 an F6 (Table 11)

**Table 10: Regression result for Epilepsy in Mental Disorder**

. reg epilepsy f2			
Number of obs= 12; F( 1, 10)= 3.33; Prob> F= 0.0980			
R-squared= 0.249; Adj R-squared= 0.1748; Root MSE= 4.8452			
Epilepsy	Coef.	T	P>t
F2	.961	1.82	0.098
Constant	8.416	6.02	0.000

Source: Estimated

**Table 11: Regression result for Suicidal risk in Mental Disorder**

regsuicidalrisk f3 f6			
Number of obs=12; F( 2, 9)=13.58; Prob> F= 0.0019			
R-squared= 0.7512; Adj R-squared= 0.6959; Root MSE= 42.641			
Suicidalrisk	Coef.	T	P>t
F3	12.627	2.49	0.035
F6	21.620	3.80	0.004
Constant	184.833	15.02	0.000

Source: Estimated

Recent studies utilizing logistic regression and factorial analysis have shown that variables such as low educational attainment, unemployment, and urbanization are significantly associated with higher rates of mental disorders in India (Patel et al., 2018). For instance, factorial analysis of data from the National Institute of Mental Health and Neurosciences (NIMHANS) highlights how these socio-economic factors interact to increase the risk of mental illness, underscoring the need for targeted interventions that address these specific vulnerabilities.

The findings from these analyses have direct implications for India's mental health policies. For example, enhancing mental health literacy and integrating mental health services into primary care settings are strategies that can help bridge the treatment gap, especially in rural areas where stigma and a lack of professionals are pronounced (Ministry of Health and Family Welfare, 2017). Additionally, policies need to focus on community-based interventions that can mitigate the socio-economic causes of mental distress identified in the multivariate analysis.

Adding a global perspective, comparisons with countries like Canada, which has successfully integrated mental health into its public health strategy, reveal potential improvements for India's approach. Such international benchmarks can guide India in enhancing its mental health infrastructure and public health integration (Kisely et al., 2017). Further discussion on the socio-economic impacts reveals that mental illnesses significantly burden individuals and the economy. Studies

suggest that mental health issues reduce individuals' employment prospects and productivity, leading to economic losses at both personal and national levels (Chatterjee et al., 2011).

## CONCLUSIONS AND POLICY IMPLICATIONS

The conclusions draw on the biopsychosocial model of health, which emphasizes the interplay between biological, psychological, and social factors in mental health (Engel, 1977). This model supports the need for comprehensive mental health strategies that address these multifaceted determinants. Data from the National Mental Health Survey by NIMHANS (2016) provides a foundation for understanding how socio-economic factors like education and financial stability impact mental health outcomes in India, reinforcing the model's applicability.

The recommendations for enhancing mental health access and quality are supported by analysis showing significant gaps in care, particularly in rural areas and among economically disadvantaged groups (Patel et al., 2018). Suggested steps include expanding community mental health services, integrating mental health into primary health care, and using telemedicine to reach underserved populations. These strategies are aligned with successful models from other countries like Canada and the UK, where similar approaches have improved access and reduced stigma (Thornicroft et al., 2016; Kisely et al., 2017).

Comparative analysis with global mental health policies highlights potential improvements for India's approach. For instance, successful integration of mental health services in primary care in the UK offers a model that could be adapted to India's diverse socio-cultural landscape. The long-term projections for the proposed policies consider potential barriers like funding, cultural resistance, and infrastructure needs, using scenario-based analyses to forecast their impacts on public health outcomes (WHO, 2018).

The analysis extends to the economic and social impacts of mental health disorders, noting that untreated mental health issues can lead to significant economic losses and social exclusion (Chatterjee et al., 2011). Recommendations for policy focus on economic interventions and social support systems to mitigate these impacts, underpinned by evidence that addressing mental health can enhance productivity and societal well-being. Thus, more budget outlay and better program coordination may be helpful while keeping in mind these socio-economic determinants of mental health and related disorders. We find that broadly the sub classifications of different socio-economic variables including gender, age, education and financial dependence matter a lot in determining the mental well-being of individuals in different states as well as in different socio-economic strata and it cannot be dealt with by a common strategy but needs specific situation-oriented programmes. Further research may be necessary to confirm or refute these findings pertaining to mental disorders.

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