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The socio-economic burden of disability linked with mental health problems – findings from the National Mental Health Survey of India 2015-16 in Uttar Pradesh, India

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Abstract

Objective: Mental health problems can lead to a substantial disability, financial loss, and a caregiver burden globally. The national mental health survey of India (NMHS) 2015-16 attempted to estimate the disability and socio-economic impact of mental morbidities in India and the representative state level. This paper reports the socio-economic impact and disability due to mental morbidity in Uttar Pradesh, India, by NMHS-2015-16, which will help the policymakers address the mental healthcare needs of the community.

Materials and methods: This was a cross-sectional study done in the community setting. The investigators estimated socio-economic impact due to mental morbidities by using a structured questionnaire and applying the Sheehan Disability Scale.

Results: A total of 3,508 adults were interviewed, of which 282 individuals had a lifetime prevalence of mental health problems (excluding tobacco use disorder). Disability was reported: 27.3% at work, 31.9% in family life and 28.4% in social settings. Disability due to mental health problems were more evident in those with common and severe mental illnesses. The median monthly expense for the illness was found to be about 1,000 rupees INR (10 GBP). The individuals with mental health issues found in this study had 10 days of absentism from work and 20 days of reduced efficiency in work in the past 30 days.

Conclusion: Disabilities related to mental health illness are having significant socio-economic impact across India. There is a need for early intervention and more adequate addressing of these issues across the national mental health policy and programming arena.

Keywords

Socio-economic impact, disability, mental illness, mental health problems, national mental health survey, India, mental health

INTRODUCTION

Mental health problems tend to be chronic, prone to relapse, and significantly disabling. Recent reports on the Global Burden of Diseases (GBD) reported that worldwide, 183.9 million disability-adjusted life years (DALYs) are attributable to mental health problems and substance use disorders, which have now become the leading causes of disability worldwide (Whiteford et al., 2013). Among mental health concerns, depression accounts for 2/5th of the DALYs due to mental health problems, whereas severe illnesses like schizophrenia and bipolar disorders account for 1/14th each. The GBD report also highlights that disability due to mental health problems are influenced by age and gender characteristics, with the maximum disability for those between 10-29 years of age (Whiteford et al., 2013). The global burden of disease study also measured the trend of disability due to mental health problems between 1990 and 2017 across the states of India. As per this paper, the DALYs due to mental health concerns in 1990 was 2.5%, which increased to 4.7% in 2017 (Sagar et al., 2020). Depressive disorders and anxiety disorders attribute to more than 505 of DALYs due to mental health problems and females have higher

DALYs than males (Sagar et al., 2020). However, males have higher DALYs, when the mental health problem is severe such as schizophrenia and bipolar disorder. Autism, intellectual disability and attention deficit hyperactivity disorder are compared between males and females (Sagar et al., 2020). With compromised productivity due to their illness, individuals often encounter challenges related to employment. They also struggle to meet the daily needs of life and expenses related to treatment (Brouwers, 2020; Olesen et al., 2013).

There is a bidirectional relationship between mental health problems and disability. Mental illness results in disability, and disability may worsen mental health too (Sánchez et al., 2019). The disability of the person with mental health problems also adversely affects their family members and carers (Hallion et al., 2018). Even if mental health improves, the residual disability may result in unemployment for the person. Additionally, it may contribute to their carers' employment disadvantage (Diminic et al., 2019). Understandably, persons living below the poverty line suffer the most (Vijayalakshmi et al., 2014). So, there exists a bidirectional relationship between socio-economic status and mental health. Poor mental health can be the outcome and cause of poor socio-economic status (Macintyre et al., 2018).

Global research data suggests that the expenses (direct and indirect) related to mental health issues are more than any other medical condition. After mental health problems, the cost of care for health conditions is due to cardiovascular disorders, diabetes, cancer, and chronic respiratory illnesses (Trautmann et al., 2016). It is challenging to measure disability, as disability is a dynamic phenomenon that keeps changing from time to time. So, cross-sectional measurements of disability fail to give insight into the disability holistically. Also, disability level depends on the nature of job profile (for example, disability resultant of schizophrenia may look severe for a company executive but may not be so disabling for a manual labourer). The cognitive deficits may hamper the performance of an executive more than a labourer in terms of quality of work, as different professions demand different degress of higher mental function and organisation.

The National Mental Health Survey (NMHS) 2015-16 estimated the lifetime and current prevalence of the mental illness among the general population to be 13.67% and 10.56%, respectively (Gururaj et al., 2016). If these prevalence estimates are projected to the total population of India (currently more than 1.38 billion), the number of people with mental health problems is enormous. As health is a state matter (in India, states of the country have their own policies), examining the disability estimates due to mental illness and their socio-economic impacts at state levels (rather than national level) is critical for service delivery. It will also help in the development of schemes and programmes for patients with mental health problems. Additionally, the government can build rehabilitation centres, halfway homes, and daycare centers to address disability-related issues.

In Uttar Pradesh, the prevalence estimates were 7.97% and 6.08% for lifetime and current mental health problems (Kar et al., 2018). Uttar Pradesh is the most populated state of India.

If these prevalence rates are projected to the country's total population, the burden of mental health problems will be huge. This huge burden of mental illness has a significant disability and socio-economic impact. From a health economics perspective, for equitable resource allocation, health services planning and administration have to consider prevalence estimates and the disability and socio-economic impact of health conditions. Unfortunately, there is no research data that gives in-depth insight to the socio-economic impact and disability associated with mental illnesses in the community settings of Uttar Pradesh (rural as well as urban). The NMHS report discusses these domains at the national level and in-depth state level data is not discussed in the report. The GBD report suggested that there are variations in the DALYs across the states of India (Sagar et al., 2020). Uttar Pradesh being a under-resourced state with a heavy population has a unique set of challenges. So, this study will guide the policymakers to understand this important aspect of mental illness, which may be addressed in state-level programmes. Similarly, under-resourced countries across the globe with paucity of research in these domains will have insight to tackle similar challenges in their countries. We hypothesise that the socio-economic impact of disability due to mental illnesses are significant.

This paper presents data, from the NMHS, on the socio-economic impact of disability from mental illness for Uttar Pradesh.

MATERIALS & METHODS

The NMHS was conducted across 12 states in India, following a uniform method. The sampling technique used for recruitment of participants in this study was multi-stage, stratified, random cluster sampling. Earlier publications give methodological details for the NMHS (Pradeep et al., 2018) and epidemiological patterns of mental illness (Kar et al., 2018). This study aimed to

measure the prevalence of various mental illnesses, treatment gaps, help seeking behaviour, service utilisation pattern, disability due to mental illness and the socio-economic impact of mental illness in the community representative population of India.

The current article focusses on the socio-economic impact and disability due to mental illnesses in the community representative population of the most populous state in the country. This study operationalised the study variables (socio-economic impact and disability) before the conduct of the study. Disability is taken as the impairments resulting from mental illnesses in an individual in one or multiple broad domains of life (work, social life and family life) (Gururaj et al., 2016). The socio-economic impact of mental health problems are measured as the overall monthly expense (for the medical care of the patient) because of the illness of a typical individual in the family.

Furthermore, also the inability to perform daily work, one or more family member missing the work (due to the mental illness of a person) and missing family or leisure activities, over the past month, past three months, and past 12 months, respectively (Gururaj et al., 2016).

Disability due to mental health problems was measured using a modified version of the Sheehan Disability Scale (Sheehan et al., 1996). This scale measures disability in the domains of work, social life, and family life by asking the respondents to rate their disability on a Likert scale of 0 to 10 (0= no disability; 1-3 = mild disability; 4-6 = moderate disability; 7-9 = marked disability; 10 = extreme disability). Each domain (work, social life and family life) are assigned with the level of disability as per the score rated by the patient.

The socio-economic impact of mental health problems was measured by a structured questionnaire and was based on select questions predominantly from the World Health Organization – Disability Assessment Schedule (WHO-DAS) 2.0 version (Üstün et al., 2010). The questions in the structured questionnaire captured the socio-economic impact in terms of i) monetary expenditure on treatment (medication, travel, loss of workdays); ii) time spent (number of days without or with diminished work capacity); and iii) family's loss (inability of the family member to attend to work or social obligations due to caring responsibilities).

The survey was carried out by the trained investigators and data collectors. The tool (Sheehan Disability Scale) selected has good internal consistency, inter-rater reliability and is a part of the MINI software platform (which was a software-based questionnaire installed to tablets used in this survey). All the participants were evaluated on the study questionnaire irrespective of whether they had mental illness or not. A disability-related questionnaire was applied to all individuals, who had one or other psychiatric illnesses. Data was described in terms of means, standard deviation, percentages, and proportions. A chi-square test was applied to compare disability scores between various subgroups of population using SPSS 20.0 version.

This study was approved by the Institutional Ethics Committee of the study organisation.

RESULTS

In the NMHS, 3,508 adults (age more than 18 years; 51.2% males) were interviewed in Uttar Pradesh. During the survey, disability-related questions were asked to all individuals with mental health problems and not just those with current mental illness (severe mental illness, common mental illness, suicidality, substance use including tobacco use disorders). In the analysis, we discussed the disability and socio-economic impact in the context of a lifetime mental disorder as disability is also known to exist in individuals who have past psychiatric illness (currently recovered) and this residual disability also interferes with daily living (Figure 1).

It was found that work-related disability is reported among 27.3% participants with any psychiatric morbidity; whereas 27.95 participants with common mental disorders, 38.5% of the participants with severe mental disorders and 14.3% participants with substance use disorders (excluding tobacco use disorder) reported disability in the same domain. The highest percentage of participants with severe mental disorders reported disability in the family life domain (53.8%) and social life domain (38.5%). Most of the participants who reported disability, had a mild level of disability in any of the three domains of Sheehan's disability scale (Table 1).

There was no significant difference in the disability domains across gender categories (Table 2), domicile (Table 3), income groups (Table 4), in participants with any psychiatric morbidity, common mental disorders, severe mental disorders and substance use disorders (Figure 2).

In this study we also evaluated the disability between the participants with mental health problems and those without illnesses (Table 5). Disability is higher among participants with life time mental health concerns.

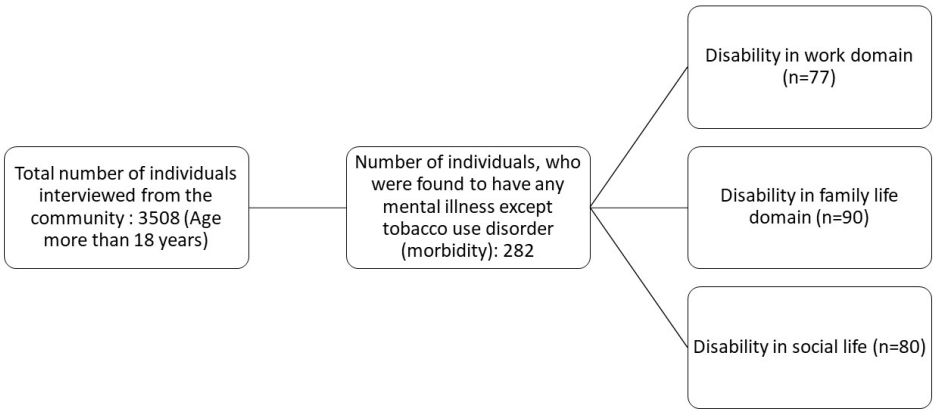

Figure 1: Flow diagram showing the recruitment of participants with mental health problems, who reported disability.

Table 1: Domains of disability among various groups of psychiatric disorders.

Disability and socio-economic impact measures		Any psychiatric morbidity (N=282)		Common mental disorders (N=265)		Severe mental disorders (N=13)		*Substance use disorders (N=70)	
Disability	Work/ school related disability	**Disability reported**	**77 (27.3%)**	**Disability reported**	74 (27.9%)	**Disability reported**	**5 (38.5%)**	**Disability reported**	10 (14.3%)
		Mild	32 (11.3%)	Mild	30 (11.3%)	Mild	1 (7.7%)	Mild	6 (8.6%)
		Moderate	21 (7.4%)	Moderate	21 (7.9%)	Moderate	1 (7.7%)	Moderate	1 (1.4%)
		Marked	12 (4.2%)	Marked	11 (4.1%)	Marked	3 (23.1%)	Marked	1 (1.4%)
		Extreme	12 (4.2%)	Extreme	12 (4.5%)	Extreme	0 (0%)	Extreme	2 (2.8%)
	Family life /home responsibilities	**Disability reported**	**90 (31.9%)**	**Disability reported**	87 (32.8%)	**Disability reported**	**7 (53.8%)**	**Disability reported**	12 (17.1%)
		Mild	39 (13.8%)	Mild	38 (14.3%)	Mild	2 (15.4%)	Mild	5 (7.1%)
		Moderate	27 (9.6%)	Moderate	26 (9.8%)	Moderate	3 (23.1%)	Moderate	3 (4.3%)
		Marked	12 (4.2%)	Marked	11 (4.1%)	Marked	2 (15.4%)	Marked	2 (2.8%)
		Extreme	12 (4.2%)	Extreme	12 (4.5%)	Extreme	0 (0%)	Extreme	2 (2.8%)
	Social life	**Disability reported**	**80 (28.4%)**	**Disability reported**	77 (29%)	**Disability reported**	**5 (38.5%)**	**Disability reported**	12 (17.1%)
		Mild	34 (12%)	Mild	32 (12.1%)	Mild	2 (15.4%)	Mild	7 (10%)
		Moderate	24 (8.5%)	Moderate	24 (9%)	Moderate	1 (7.7%)	Moderate	3 (4.3%)
		Marked	10 (3.5%)	Marked	9 (3.4%)	Marked	2 (15.4%)	Marked	0 (0%)
		Extreme	12 (4.2%)	Extreme	12 (4.5%)	Extreme	0 (0%)	Extreme	2 (2.8%)

*Substance use disorder, excluding tobacco use disorders.

In this study, the socio-economic impact of mental health problems was calculated in terms of difficulties in carrying out daily chores in past thirty days. Those individuals with common and severe mental disorders experienced difficulties in carrying out their daily chores in half of the days in a given month and the family members for almost a week every month. The median monthly expense for the illness was found to be about 1,000 rupees INR; however, the expenses for the treatment of severe mental disorders is higher than any other mental illness. Table 6 mentions the socio-economic impact of mental morbidities.

Table 2: Gender differences in disability across mental morbidity groups

Disability domains	Any psychiatric morbidity			Common mental disorders			Severe mental disorders			*Substance use disorders		
	Males	Females	Chi-sq	Males	Females	Chi-sq	Males	Females	Chi-sq	Males	Females	Chi-sq
Work/school related	43	34	0.11	40	34	0.19	4	1	0.04	9	1	2.14
Family life/ household responsibility	49	41	0.49	46	41	0.59	5	2	0.26	11	1	1.56
Social life	44	36	0.27	41	36	0.39	4	1	0.04	11	1	1.56

Chi-square test is applied for each domain of disability between males and females.
*Substance use disorder, excluding tobacco use disorders.
None of the comparisons across gender are significant for disability.

Table 3: Urbanicity differences in disability across mental morbidity groups

	Any psychiatric morbidity				Common mental disorders				Severe mental disorders				Substance use disorders			
Disability	Rural	Urban non-metro	Urban metro	Chi-sq	Rural	Urban non-metro	Urban metro	Chi-sq	Rural	Urban non-metro	Urban metro	Chi-sq	Rural	Urban non-metro	Urban metro	Chi-sq
Work/school related	54	10	13	1.79	51	10	13	1.91	3	1	1	0.47	8	0	2	0.91
Family life/ household responsibility	62	11	17	0.83	59	11	17	0.97	4	1	2	0.07	8	0	4	2.39
Social life	54	11	15	1.31	51	11	15	1.81	2	1	2	0.63	8	0	4	2.39

Chi-square test is applied for each domain of disability between various domicile categories.
*Substance use disorder, excluding tobacco use disorders.
None of the comparisons across domiciles are significant for disability.

Table 4: Income quintile differences in disability across mental morbidity groups

		Disability		
Morbidity group	**Income quintile**	**Work/school related**	**Family life/household responsibility**	**Social life**
Any psychiatric morbidity	Lowest	23	27	23
	Second	15	20	16
	Middle	20	22	20
	Fourth	9	10	10
	Highest	10	11	11
	Chi-sq	2.17	4.35	1.72
Common mental disorders	Lowest	22	26	22
	Second	15	20	16
	Middle	19	21	19
	Fourth	8	9	9
	Highest	10	11	11
	Chi-sq	1.27	3.26	0.95
Severe mental disorders	Lowest	2	2	1
	Second	0	1	0
	Middle	3	3	3
	Fourth	0	0	0
	Highest	0	1	1
	Chi-sq	3.7	2.13	2.65
Substance use disorders	Lowest	2	2	2
	Second	3	4	4
	Middle	2	2	2
	Fourth	2	2	2
	Highest	1	2	2
	Chi-sq	2.49	4.57	4.57

Chi-square test is applied for each domain of disability between males and females.
*Substance use disorder, excluding tobacco use disorders.
None of the comparisons across income quintiles are significant for disability.

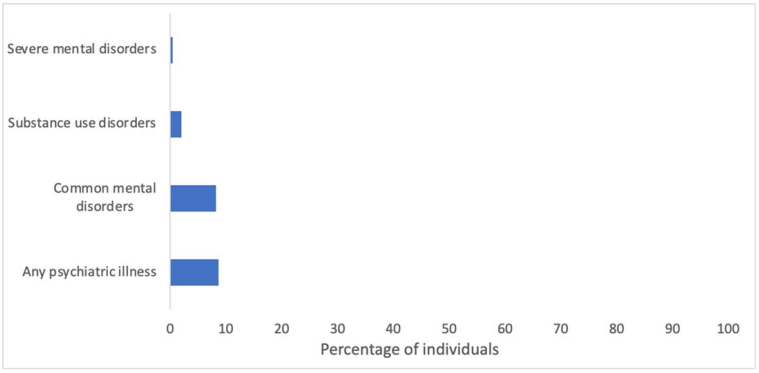

Figure 2: Distribution of any psychiatric morbidity, common mental disorders, severe mental disorders and substance use disorders in the study population.

Table 5: Comparison of disability in those with and without psychiatric morbidity.

		Disability				
Mental morbidity		No disability	Mild disability	Moderate disability	Marked disability	Extreme disability
Any mental morbidity (except tobacco use and suicidality)# [N = 3505]	Absent	3185	23	8	4	3
	Present	192	39	27	12	12
Any mental morbidity (including tobacco use and suicidality)## [N = 3501]	Absent	2618	0	2	2	1
	Present	755	62	33	14	14

#Chi square 705.41; p<0.00001.
Could not be calculated as value in one cell is 0.
NB: Though the survey had assessed 3,508 participants, however data available for disability for the above two categories was 3,505 and 3,501 respectively

Table 6: Socio-economic impact due to various psychiatric disorders.

Disability and socio-economic impact measures		Any psychiatric morbidity (N=282)	Common mental disorders (N=265)	Severe mental disorders (N=13)	*Substance use disorders (N=70)
Socio-economic Impact [Median (1st quartile, 3rd quartile)]	No. of days difficulties present in the past one month	14.5 (4.75, 30)	14.5 (4.25, 30)	15 (7, 30)	30 (11.25, 30)
	No. of days totally cut back on work in the past one month	10 (5, 30)	10 (5, 30)	20 (9.25, 30)	3 (2, 4)
	No. of days reduced work in the past one month	20 (7, 30)	20 (7, 30)	10 (10, 30)	30 (30, 30)
	In the past 3 months how many days did family members not work	6 (3, 13.75)	5 (3, 10)	9 (6, 12)	6 (4, 8)
	In the past 1 year did family miss social or leisure activities	15 (8, 30)	15 (7.75, 30)	197.5 (113.8, 281.2)	NA
	Monthly expense on mental health	1000 (800, 2500)	1000 (800, 2500)	1300 (950, 1650)	1000 (650, 9000)

*Substance use disorder, excluding tobacco use disorders.

DISCUSSION

In our survey, we had a unique opportunity to measure the overall impact of disability and socio-economic impact on individuals, primarily for those who had current mental health illnesses and others with mental health problems. This study will give insight about the socio-economic impact and disability associated with mental health illness in the most populous state of India. As the state is under resourced in comparison to most other states in the country, understanding the scenario of Uttar Pradesh will also be useful for many under-resourced and heavily populated countries across the globe, in making policy and programmes to meet these challenges. This study is a part of the largest epidemiological study on mental health in India, which followed a sound methodology. (Gururaj et al., 2016; Pradeep et al., 2018).

Disability due to mental health problems

The national data suggests that disability to be higher among individuals with epilepsy, depression, and bipolar affective disorder. However, an extreme level of disability was reported among individuals with schizophrenia and related psychotic disorders (Gururaj et al., 2016).

In the Uttar Pradesh population, the most common domain of disability is within family life, which was also reported from Punjab. However, it is markedly higher in Punjab (70.1%) than Uttar Pradesh (31.9%) (Chavan et al., 2018). As the current and lifetime mental illness is higher (13.4%) in the Punjab population than the Uttar Pradesh population, the family life impairment might be higher. Similarly, alcohol use disorder and other substance use disorders (except tobacco) are higher in Punjab than in the population of Uttar Pradesh, which might be responsible for such an outcome. At the national level, the extreme form of disability was found among patients with schizophrenia and related psychotic disorders followed by bipolar affective disorder (Gururaj et al., 2016). Individuals suffering from these severe mental health problems have significant impairment in daily activities. Most of the individuals with any mental health morbidity, who reported disability, were having a mild to moderate level of disability.

As this was a community survey, mostly clinically stable patients were being treated at community level or with the home and those with severe symptoms often treated within a hospital setting; marked to extreme disability were less documented in the survey.

With mental health problems, the disability not only affects the person who is suffering from it, instead, the whole family suffers.

This "extended disability", i.e., family members also becoming "unable to live a life they would prefer" – due to the impact of the mental illnesses within the family. Therefore, the number of disabled persons may increase multi-fold. Minimising the disability of patients with mental health problems is likely to reduce the 'ability' of the family members. However, unfortunately, it is an ignored area in mental healthcare in developing countries.

In our study, we found that the impact of mental illness on the work, family, leisure or social activities of the family members of the patient, was significant. Absenteeism from work, expense on care provision, and missing family and social responsibilities were reported by family members of patients with mental illness (Table 6).

As the study suggests that disability is more among persons with severe mental illnesses (Table 1), there is a need to address these issues in policy recommendations. Early identification of mental illnesses by primary care physicians and timely referral will help in early intervention for psychosis and limitation of disability. Early identification of severe mental illnesses at the community level through a district mental health programme may be helpful in this regard. The NMHS also estimated the treatment gap for mental illnesses in India to be 84.5% (Gautham et al., 2020). Disability and adverse socio-economic impact due to mental illness may also attribute to the treatment gap. Hence, addressing these issues may also help. In our study, family members of the patients with mental illness had socio-occupational impairment which is likely to have financial implications like a decrease in earnings. Hence, early and prompt psycho-social intervention and enrolment in community mental health programmes will be useful in effective management of mental illnesses and the prevention of their disabling outcome.

Socio-economic impact due to mental health problems

The data of India's NMHS suggests that the socio-economic impact is highest due to depressive disorders and lowest due to alcohol use disorders (Gururaj et al., 2016). In addition, it has been reported that for any category of mental illness, a median of 1,000 rupees INR (10 GBP) is spent for treatment (Gururaj et al., 2016). We found the expenditure to be INR 1,000 per month (approximately 12,000 INR per year) in our population. The survey conducted under NMHS in Punjab revealed that the family used to spend INR 1,500 a month for a person with mental health problems (Chavan et al., 2018).

The population of Uttar Pradesh being more impoverished than the population of Punjab accounts for such findings. The per capita annual income of the Punjab and Uttar Pradesh population in 2013-14 was 92,350 rupees (913 GBP) and 36,250 rupees (358 GBP), respectively (Gururaj et al., 2016). The financial constraint in the Uttar Pradesh population might be responsible for less expenditure on the treatment of mental health illnesses and problems.

In our study, family members could not go to work several days in a month due to their family member's mental illness. The picture was similar in Punjab (Chavan et al., 2018).

This is likely to affect the family's household income. It is reported that the adverse impact on the microeconomy due to health-related issues happens through exhaustion of financial resources due to expense on treatment and decrease in income due to absenteeism and job losses (World Health Organization, 2016). The direct expenses on medical treatment are the visible costs of expenditure. However, the loss of income by the patient and family members, travel expenses, expenses due to disability and mortality are hidden expenses.

In mental illnesses, the hidden expenses are extensive (Trautmann et al., 2016). Other than the financial impact, the mental illness of a family member also exhausts the family's coping reserves and social security and increases the stigma, which again has an adverse psychosocial impact (World Health Organization, 2016). It has been anticipated that the expenditure on mental illnesses during 2010 is expected to double by 2030, which is a potential threat to the global economy (Trautmann et al., 2016).

In low and middle-income countries, the socio-economic impact of non-communicable diseases is enormous (Miranda et al., 2008) and affects productivity. The healthcare expenses for non-communicable diseases was 53.8 billion dollars in 2013, worldwide. Nearly 1/6th of this expense was by the patient's households (Ding et al., 2016).

Morbidity, physical inactivity, and disability amount to the financial burden in non-communicable diseases. It is also applicable to mental illnesses.

Implications

Many countries run programmes for non-communicable diseases. There is a need to have clear national policies for non-communicable diseases, and mental health needs to be incorporated into the non-communicable disease programme to optimise the use of mental healthcare facilities. As per the global burden of diseases, globally iron deficiency anemia, migraine, lower back pain, hearing loss, and major depressive disorders were the five most common causes of years lived with disability in the year 2016 (GBD 2016 Disease and Injury Incidence and Prevalence Collaborators, 2017). Mental illnesses, including substance use disorders, are significant attributes to disability worldwide (Global Burden of Disease Study 2013 Collaborators, 2015). As per the current evidence, there is a strong association of chronic diseases with lifestyle-related factors like physical inactivity (Miranda et al., 2008). Mental illnesses are often associated with physical inactivity (Nyboe and Lund, 2013; Weyerer, 1992), hence increases the risk of many other lifestyle-related disorders. Therefore, addressing mental illnesses adequately may also reduce the risk of many lifestyle-related disorders. The recent research finding from extensive scale surveys and systematic reviews reveal a large treatment gap for mental illnesses in India (Gururaj et al., 2016; Patel et al., 2016; Sagar et al., 2017). Scarcity of resources, unawareness, poor socio-economic status attribute to significant treatment gaps. Mental illness compromises an individual's ability and adversely impacts the family economy; hence, it is more likely to attribute to the treatment gaps.

Extreme disability is reported in multiple domains in the patients with mental illness in our study. Evidence support that people with mental illnesses are more disabled than the general population, and the most disabling mental illnesses are psychotic disorders (Formánek et al., 2019). Significant disability due to mental illness indicates a need to target disability in the government's overall health management plans. Limiting disability through rehabilitation will help to optimise the functioning of the individual as well as increase productivity. Unfortunately, there is a gross scarcity of rehabilitation facilities in India to meet current needs. (Kumar et al., 2014). Therefore, there is a need to integrate rehabilitation into the conventional treatment plan for the holistic management of mental illnesses. Similarly, it is required to sensitise people about the disability benefits provided by the government for the protection of rights and the empowerment of people with mental illness (Basavarajappa and Angothu, 2019).

The policies and programmes may facilitate the identification of risk factors, early identification of mental illnesses in the community, timely intervention, rehabilitation, and community integration to retain the productivity of individuals with mental illness and minimise the healthcare burden on the families. Incorporating mental illnesses into the programming for non-communicable disorders

will facilitate more attention towards mental illnesses and treatment. More awareness activities among the public to use disability benefits for severely disabling mental illnesses may lessen the burden of care for families. Expansion of the district mental health programme and intense outreach activities may facilitate early identification of mental illnesses and their prompt treatment, which may limit the disability too. There is a gross scarcity of opportunities for rehabilitation in developing countries like India. Creating more opportunities for rehabilitation of mentally ill patients will also likely support mental healthcare. There are several critical challenges in the low and middle-income countries: poor implementation of legislation and policy, poor budget allocation, inadequate infrastructure, a scarce mental health workforce, poor organisation and planning, and lack of evidence-based intervention (Rathod et al., 2017). These issues need to be addressed on a priority basis to facilitate mental healthcare delivery.

There are few limitations of the study. This study measured disability with a simple tool that is based on subjective reporting. The use of an exhaustive tool that determines disability more holistically will be helpful in future studies. Community-level disability assessment was done by trained people. Evaluation by a mental health expert may give a more accurate account of disability.

CONCLUSION

People with severe mental illnesses have a significantly higher disability than any other forms of mental illnesses. Mental illness related disability affects work life, social and family life. About one sixth to one seventh of patients with any mental illness, who reported disability had an extreme level of disability, which suggest that there is serious need of rehabilitation to address the disability.
The socio-economic impact of mental illness takes place in the form of expense of caring for the patient with mental illness, absenteeism from work, compromised social and leisure life for the family members.
This understanding can be used for the early identification and prompt treatment of mental illnesses and also for possible rehabilitation, which can limit the disability.

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Conflicts of interest: None.

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