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Enlightening mental health survey: A deep dive

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Abstract
The National Mental Health Survey (NMHS) in India revealed stark challenges and critical gaps in mental health care. Survey findings highlighted that approximately 150 million individuals across the nation are affected by mental, behavioral and substance use disorders. Despite excluding children and adolescents, the survey underscored the urgent need for comprehensive mental health interventions across all demographics. Key concerns include inadequate infrastructure, sparse human resources, and insufficient integration within healthcare systems. To address these complex issues effectively, the survey emphasizes the imperative of strengthening the National Mental Health Programme, enhancing policy frameworks, and improving monitoring and evaluation mechanisms. This comprehensive review aims to enlighten and provide profound insights into mental health, offering valuable data and analysis that can empower stakeholders, researchers, policymakers, and healthcare professionals to implement informed strategies, develop effective interventions, and enhance the overall well-being and treatment of individuals with mental health challenges.

Keywords: Depression, elderly, geriatric patients, anxiety

Introduction
The ancient practice of Yoga, which emphasizes calming the mind, contrasts with modern initiatives like the 2001 World Health Report, which highlighted mental health as a critical public health issue [1]. The theme "Stop exclusion - Dare to care" from World Health Day 2001 underscored integrating mental health into broader health agendas, alongside efforts to tackle non-communicable diseases. India's health landscape is evolving due to socio demographic and epidemiological transitions. The burden of communicable and non-communicable diseases, including injury and violence, strains health systems at all levels [2]. Mental, neurological, and substance use disorders (MNSUDs), categorized under non communicable diseases, are significant public health challenges contributing to morbidity and disability. According to the Global Burden of Disease report, mental disorders contribute to 13% of Disability-Adjusted Life Years lost due to Years Lived with Disability, with depression being the predominant cause [3]. Previous reviews and reports have suggested that approximately 100 million individuals in India require systematic care, although these estimates may be outdated and subject to methodological limitations. Globally, countries are working towards developing integrated services to address these issues, and India initiated one of the earliest National Mental Health Programs in the early 1980s, focusing on accessible and equitable mental health care [4]. MNSUDs encompass a spectrum of conditions with varied presentations, ranging from acute to chronic, and may include remissions, relapses, emergencies, or prolonged illnesses [5]. These disorders often go unrecognized due to neglect, lack of standardized diagnostics, or insufficient services. They are major contributors to morbidity and disability, with some conditions also leading to increased mortality. Mental disorders affect individuals across demographics such as age, gender, residence, and socioeconomic status, albeit with varying impacts [6]. Conditions affecting the brain and mind are increasingly prevalent, influenced by heightened societal awareness, and improved recognition, variations in disease patterns, changing lifestyles, and biological factors [7]. This trend is reflected in rising cases of depression, anxiety, alcohol and drug use disorders, suicidal behaviors, and sleep disorders. Research indicates close interconnections among mental disorders as precursors, co morbidities, or consequences of various acute and chronic conditions, including non-communicable diseases, injuries, violence, and maternal and child health issues [8]. For instance, depression can coexist with cancer, and anxiety disorders may contribute to cardiovascular disorders.

The causes of mental disorders are multifaceted, arising from interactions among biological, social, environmental, cultural, and economic factors. In countries like India, social determinants such as employment, education, living conditions, environment, service access, and equity significantly influence the onset and recovery from mental disorders [9]. Poverty and low living standards exacerbate disorder prevalence, perpetuating cycles of deprivation. Individuals facing mental disorders encounter societal challenges when their conditions go unrecognized or inadequately managed. Such illnesses can diminish productivity, earnings, and contribute to antisocial behaviors, crime, homelessness, domestic violence, and substance abuse [10]. Chronic mental health issues can have lifelong consequences, reducing the quality of life for affected individuals and their families. In Indian society, mental disorders carry significant stigma, leading to neglect and marginalization [11]. Managing these conditions and fostering productivity is challenging due to prevailing attitudes, media portrayals, societal discrimination, and limited opportunities. The theme "Stop exclusion - Dare to care" from World Health Day 2001 underscores the integrating of mental health into broader health agendas, alongside efforts to tackle non-communicable diseases [12].

Discussion

Economically, MNSUDs exert significant impact due to their prolonged duration and effects on economic growth, productivity, and individual earning potentials [13]. Challenges such as limited awareness, availability, accessibility, and affordability of quality mental health care exacerbate the situation. The costs associated with treatment are increasingly prohibitive, posing barriers to accessing necessary care for individuals with mental illness. Notably, nearly a quarter of patients in primary care settings suffer from mental disorders, underscoring the burden at peripheral healthcare levels. These individuals often present with common mental health issues or as co morbid conditions alongside other disorders, leading to under-recognition or inadequate management [14]. Addressing the substantial treatment gap for mental illness in Indian society remains a longstanding concern, driven by public unawareness and limited resources. Efforts are ongoing to strengthen, integrate, and expand activities aimed at developing comprehensive and unified mental health services. India initiated early efforts to promote mental health through its National Mental Health Programme in the early 1980s [15]. However; mental health has historically received lower priority compared to other health and social issues, resulting in unsatisfactory progress [16]. The absence of systemic approaches and public health components in mental health care delivery has contributed to this situation. Over the past five decades, mental health research in India, led by both domestic and international researchers, has explored various mental health issues in clinical and population-based settings with aligned priorities. From a public health perspective, research has focused on understanding the prevalence, patterns, characteristics, and determinants of different mental disorders [17]. Additionally, research has addressed challenges related to service delivery and systemic issues. Despite these efforts, methodological limitations have hindered the scientific extrapolation and estimation of mental health data at national and state levels. In addition to prevalence rates, there remains a noticeable dearth of data on healthcare utilization, disability, stigma, and the broader impacts of mental disorders on individuals and families [18]. Recent studies and anecdotal reports have highlighted emerging issues such as common mental health conditions, substance abuse, depression, and suicidal behaviors, which continue to be inadequately researched [19]. This gap impedes both the expansion and enhancement of mental health services quantitatively and qualitatively [20]. Achieving high standards of care and improving outcomes requires strengthening health systems to effectively address evolving health priorities. The Indian Council of Medical Research (ICMR) has been involved in various mental health surveys and research initiatives in India. One significant initiative is the NMHS, which was conducted by the National Institute of Mental Health and Neurosciences (NIMHANS) under the guidance of the Ministry of Health and Family Welfare, Government of India. A robust mental health framework is indispensable for mitigating the consequences of untreated mental illnesses, safeguarding human rights, ensuring social protections, and enhancing quality of life, particularly for vulnerable populations. Effective mental health systems must not only provide treatment but also promote mental well-being and facilitate rehabilitation [21]. Without a comprehensive approach, mental health services risk becoming dysfunctional or insufficient. Public health strategies integrated within healthcare systems play a pivotal role in integrating services and improving access for individuals with mental health needs. Policymakers can enhance mental health services by adopting a systemic approach that bridges treatment disparities and strengthens preventive, promotional, and rehabilitative efforts [22]. A well-coordinated mental health structure can significantly improve service delivery, achieve positive outcomes, and uphold human rights. To develop effective healthcare systems and mental health initiatives, high-quality data is crucial. Reliable information supports the development of new programs, monitors effectiveness, and guides policy decisions. Limitations in data impede strategic realignment of healthcare services and program activities. Despite gradual progress, mental health initiatives are expanding both in scale and quality in India [23]. The NMHS, conducted from 2014 to 2016, was a significant national effort aimed at comprehensively understanding mental health issues among individuals aged 18 years and above across 12 Indian states. The study meticulously planned its activities, running from June 1, 2015, to June 1, 2016, and actively engaged state administrators, health ministry officials, professionals, and communities through continuous dialogue and digital communication platforms [24]. Core objectives of the NMHS included estimating the prevalence and patterns of various mental disorders, identifying gaps in treatment, assessing healthcare utilization, disabilities, and impacts associated with mental disorders, and evaluating the current state of mental health services and systems in the surveyed states [25]. The NMHS employed a robust methodology encompassing both quantitative and qualitative research methods to provide comprehensive insights into mental health challenges across India. Led by the Centre for Public Health and faculty from the Department of Psychiatry, the survey aimed to evaluate prevalence, patterns, and outcomes related to mental health care [26]. The survey included a nationally representative sample with a high household response rate of 91.9% and an individual interview rate of 88%. Additionally, a pilot study focused on adolescents aged 13-17 years was conducted in four states, employing scientifically rigorous sampling methods [27]. State teams were trained and equipped to conduct data collection using tablets, facilitating efficient data entry and management. Data analysis utilized weighted frequencies and descriptive statistics, adjusted for the multi-

stage, random sample design based on the International Classification of Disease, 10th revision, Diagnostic Criteria for Research (ICD 10 DCR). The survey reflected age distributions from the Census of India-2011; emphasizing a significant representation of young adults (aged 18-29 years) [28]. Female representations were slightly higher in certain states like Kerala, Assam, and Manipur. Survey highlighted the profound impacts of mental illnesses such as bipolar affective disorder, major depressive disorder, and psychotic disorders on various aspects of life, including work, social interactions, and family dynamics [29]. Families faced significant economic burdens due to mental health care costs, mainly through out-of-pocket expenses averaging INR 1000-1500 per month. Moreover, caregivers experienced substantial impacts on their own well-being and productivity. The survey reflected age distributions from the Census of India-2011, emphasizing a significant representation of young adults (aged 18-29 years) [30]. Prior to the NMHS, preliminary assessments in Karnataka and Tamil Nadu refined the Systematic Mental Health Systems Assessment proforma, evaluating various domains and sub-domains of mental health systems. Data for the assessment was sourced from census reports, health profiles, and state health department documents, overseen by state-level advisory committees [31]. It utilized fifteen quantitative and ten qualitative indicators to assess mental health system performance at the state level. These initiatives significantly contributed to understanding and addressing India's mental health challenges, guiding evidence-based policy and program implementation. The recommendations emphasize integrating mental health into broader health initiatives and ensuring inclusive, responsive mental health services at the state level. The approach provides a dual assessment of mental disorder prevalence and available systems for addressing them across 12 diverse states [32]. Except Gujarat and Kerala, no other state had a standalone mental health policy with defined goals and mechanisms; West Bengal focused on rehabilitation. States mostly followed national policies but lacked clear action pla0ns or well-defined activities. States unanimously expressed the need for comprehensive action plans, budget allocation, timelines, responsible agencies, and monitoring indicators. Health Management Information Systems were inadequately integrated and disease-focused, particularly lacking in mental health integration except in a few states. Valid and reliable outcome indicators for mental health were scarce. Health care facilities varied significantly across states, ranging from 14.8 facilities per lakh population in Uttar Pradesh to 31.2 per lakh population in Rajasthan [33]. While numerous private health care institutions and professionals existed, their numbers, quality, and activities were unclear. Availability of psychiatrists ranged from 0.05 per lakh population in Madhya Pradesh to 1.2 in Kerala, with all states except Kerala falling short of the recommended ratio. Kerala also had the highest number of clinical psychologists per lakh population, while psychiatric social workers were generally scarce across NMHS states [34]. Specialist mental health professionals were predominantly situated in urban areas, which posed challenges to equitable mental health care delivery. Information on core mental health personnel and supportive service providers from the private sector was insufficient. Despite efforts to strengthen primary and community-based mental health care, some patients still required institutional and rehabilitative services [35]. Most surveyed states had mental hospitals, medical colleges with psychiatric departments, and general hospitals with psychiatric units, but availability and adequacy varied widely among states. As India shifts focus away from mental hospitals, there is a growing emphasis on expanding the role of medical colleges and district hospitals in providing mental health care. Outreach facilities are crucial not only for treatment but also for mental health promotion and rehabilitation services. Private sector involvement remains underutilized and would benefit from clear guidelines to enhance mental health care delivery through medical colleges, district hospitals, and outreach programs [36]. The density of the health workforce per lakh population varied significantly across states, ranging from 146 in Uttar Pradesh to 995 in Kerala. States like Kerala, Manipur, Punjab, Rajasthan, and Tamil Nadu had relatively higher workforce densities. The availability of doctors also showed wide variation, ranging from 64.4 per lakh population in West Bengal to 5 in Chhattisgarh. Grassroots health functionaries such as Accredited Social Health Activist, Auxiliary Nurse Midwife and health workers significantly contribute to the workforce density, highlighting their potential involvement in mental health programs through skill enhancement initiatives [37]. The District Mental Health Programme (DMHP) has been integral to the National Mental Health Programme (NMHP) since its inception in 1996. However, DMHP coverage across districts remains uneven. Kerala was the only state with all districts covered, ensuring comprehensive care statewide. While expansions have occurred, such as in Tamil Nadu post-2016, only one-third of surveyed states had over 50% of their population covered by DMHP. Coverage has improved since 2012 but remains limited. The number of medical officers trained to deliver mental health services per lakh population varied significantly across states, ranging from 0.1 in Jharkhand and Madhya Pradesh to 9.73 in Manipur [38]. This underscores disparities in human resource capacity across different regions, emphasizing the need for standardized training and equitable distribution of mental health service providers. This reflects the progress or lack thereof in integrating mental health service delivery in primary care. Information on rehabilitation workers, special education teachers, and paraprofessional counselors was either unavailable or grossly inadequate to meet current needs. Tamil Nadu had the highest number of institutions offering postgraduate courses in psychiatry, followed by Kerala and Uttar Pradesh. Annual intake across these institutions in NMHS states ranged from none to 52 per year [39]. Following the Mental Health Act, 1987 and Supreme Court directives; there has been significant progress in establishing Mental Health Authorities in each state. These authorities play a defined role in improving care and certifying institutions. However, mental health care delivery remains the responsibility of state health services, with program officers often juggling diverse responsibilities, leaving little time for mental health. Coordination between mental health authorities, health departments, medical education, and welfare sectors was found lacking in many states. Although states reported varying levels of implementation of mental health legislation, formal or informal evaluation reports assessing coverage, efficacy, and effectiveness were absent [40]. The Mental Health Act, Juvenile Justice Act, and Domestic Violence Act were implemented to a significant extent in most states, but human rights protections for individuals with mental illnesses were partially implemented in many cases. Compliance with the Narcotic Drugs and Psychotropic Substances Act was also reported variably. Enhancing legislative implementation requires sensitization of key personnel, increased public awareness, and establishment of necessary mechanisms. Financing

plays a crucial role in translating mental health plans into practical programs at the ground level. Only Gujarat and Kerala reported a distinct budget allocation for mental health, while in most states, the allocated budget was less than 1% [41]. This funding primarily covered staff salaries and medication procurement. Budgetary support for mental health activities faced challenges such as lack of specificity, timely allocation, and utilization constraints due to human resource limitations. Despite these issues, some states managed to access funds based on needs [42]. Advocacy and awareness-raising are essential for guiding mental health programs effectively, but the study found limited strategies and resources hindered these efforts, often restricting them to occasional events. Continuous availability of medications listed under the essential drugs list is critical for mental health care. States like Chhattisgarh, Assam, Gujarat, Jharkhand, and Rajasthan reported consistently high availability of listed mental health drugs. Madhya Pradesh and Tamil Nadu also reported substantial availability, albeit slightly lower. Gujarat and Tamil Nadu ensured availability of all listed drugs at Primary Health Centers, whereas Rajasthan had select drugs available at that level [43]. Psychotropic medications were generally accessible in private pharmacies across states, with better availability noted at district levels compared to lower administrative tiers. Collaboration between different sectors for mental health was reported by over 72% of states surveyed, although it was not always well-defined. States like Gujarat, Manipur, Kerala, West Bengal, and Punjab reported significant collaboration involving health and non-health sectors, including departments for disability, HIV/AIDS, and social welfare. However, there was a lack of timely coordination of activities, and functional coordination across different levels—from central to district to local institutions—was often absent, leading to delays in implementation recognized in stakeholder meetings. This was attributed to the absence of a designated central unit for mental health at the state level [44]. Given that 14% of adults experience mental health issues and nearly half of those affected by conditions such as bipolar disorder, epilepsy, major depression, and psychoses have moderate to severe disabilities, rehabilitation should be an integral part of management strategies. However, in many states, facilities such as day care centers, halfway homes, sheltered workshops, and temporary stay facilities, etc., and personnel like social workers, counselors, and physiotherapists, were limited and mainly concentrated in urban areas or district headquarters [45]. Social welfare initiatives for mentally disabled persons primarily include issuing disability certificates, pensions, and job reservations, albeit with limited scope. For instance, the issuance of disability certificates for mental illness varies widely among states, ranging from very few in Manipur to 7.5 lakhs in Gujarat. Job reservations and preferential housing allocations for mentally ill individuals are reportedly implemented only in Gujarat. Mental health non-governmental organizations operate in all surveyed states except Jharkhand, with approximately 69 actively engaged across the 12 states [46]. However, one of the most neglected aspects in the delivery of mental health services, akin to many other public health programs, is program monitoring. Except for Tamil Nadu and Gujarat, other states lack mechanisms for regular or meaningful monitoring. Evaluation processes are minimal, with defined indicators, data collection methods, and dedicated program officers sorely lacking [47]. Research priorities need to be outlined by policymakers and supported by national and state agencies to bridge knowledge gaps. Operational research in medical colleges is limited, hindering mental health growth in various states. The organization of comprehensive mental health services in India faces challenges due to its socio-cultural, political, and economic diversity [48]. Recent advancements, such as the Mental Health Bill and initiatives by the National Human Rights Commission, signal progress in integrating evidence-based practices into public health frameworks. The National Mental Health Survey 2016 highlighted that around 150 million individuals in India need mental health interventions, underscoring the burden of mental, behavioral, and substance use disorders nationwide [49]. To address these challenges effectively, stakeholders must prioritize actions such as strengthening the National Mental Health Programme and District Mental Health Programme, enhancing integration within healthcare systems, and developing explicit action plans with state stakeholders. Dedicated funding mechanisms, human resource development, and improved drug delivery logistics are crucial components. Policies should integrate mental health into broader health initiatives, including non-communicable disease control and programs for children, adolescents, and the elderly. Each state should develop a Biennial Mental Health Action Plan detailing specific activities, financial provisions, and legislative measures. Robust monitoring and evaluation frameworks are essential for assessing progress and refining strategies periodically [50]. Educational institutions and workplaces should support mental health agendas, starting with pilot studies from District Mental Health Programme sites. Empowering policymakers and enhancing human resource development at national and state levels are critical for sustainable improvement. This involves increasing awareness, training program officers, enhancing service delivery skills, and improving expertise among healthcare providers and community workers involved in mental health care [51]. The District Mental Health Programme (DMHP) serves as the primary operational arm of the National Mental Health Programme, led by psychiatrists or medically trained professionals. Strengthening DMHP officers' competencies should encompass clinical skills, program implementation, monitoring, and evaluation. Leadership training at the district level is crucial to ensure effective management and coordination of mental health initiatives. Human resource development involves identifying training institutions, resources, and securing funding for ongoing education. Expanding virtual learning methods is crucial for educating healthcare providers in remote areas, supported by technologies integrated into broader healthcare systems. Training programs led by Centers of Excellence focus on developing core mental health interventions for diverse settings, including child, adolescent, geriatric mental health, addiction management, suicide prevention, violence prevention, and disaster management. State mental health action plans should prioritize improving treatment facilities, drug logistics, last-mile accessibility, and streamlining funding mechanisms. These efforts are crucial to establish economic support mechanisms and integrate mental health into broader health initiatives effectively [52]. Geo-mapping through a national registry of service providers and mental health resources enhance care access. Rehabilitation efforts should expand to district and state-level facilities such as day care centers and halfway homes, crucial for supporting mental health recovery. Integrating mental health into urban health initiatives, workplaces, educational institutions, and broader social and economic development schemes is vital to reducing stigma and expanding coverage. A national

mental health literacy strategy is essential for public awareness and stigma reduction through targeted educational campaigns. Scientific monitoring and research are critical for evaluating program effectiveness, identifying gaps, understanding risk factors, and addressing cultural beliefs affecting service utilization. These strategies aim to establish a comprehensive approach to mental health care in India, improving outcomes through leadership development, technological integration, comprehensive training, improved facilities, accessibility, stigma reduction, and evidence-based research. It is crucial to comprehensively understand the rehabilitation needs of individuals with mental illness at district and state levels, including longitudinal follow-up [53]. Improving understanding of the economic impact of mental health disorders, covering direct and indirect costs, is essential. Evaluating diverse strategies for promoting mental health is imperative. National agencies, including the Indian Council of Medical Research, Indian Council of Social Science Research, Department of Biotechnology, Department of Science and Technology, private sector entities, and international organizations like the World Health Organization and other United Nations agencies, should allocate and augment research funds for mental and substance use disorders [54].

Conclusion

This survey provides valuable insights into the current mental health landscape of specific population or setting. The findings underscore prevalence rates, common challenges, and attitudes towards mental health. These results highlight the significance of actions aimed at improving access to mental health services, reducing stigma, and bolstering support systems. While this survey has made substantial contributions to our understanding, it is crucial to acknowledge its limitations, including sample size constraints and potential biases in self-reporting. Future research efforts should focus on exploring specific demographic differences and conducting longitudinal studies to monitor changes over time. Addressing the findings of this survey necessitates collaborative efforts among policymakers, healthcare providers, and the community to create a more nurturing environment for mental health. Implementing evidence-based strategies and raising awareness can enhance the overall mental well-being of population or setting.

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