

Research Brief

Prioritising mental health research areas for India: A modified delphi-based exercise by the Indian Council of Medical Research

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Background & objectives: The prevalence of mental health disorders in India is a growing public health concern, yet there is a dearth of initiatives and consensus on prioritising mental health research areas at the national level. This paper presents the findings from the modified Delphi-based exercise undertaken by the Indian Council of Medical Research (ICMR) to address this gap. By engaging key stakeholders from diverse sectors—including mental health professionals, State programme officers, health care providers, policymakers, researchers, and civil society representatives—the exercise aimed to identify critical mental health research gaps and develop a blueprint to guide public mental health research in the country.

Methods: A comprehensive methodology consisting of four steps was followed, including the initial conceptualisation and desk review, a national level brainstorming meeting, restructuring and finalisation of the questions, and prioritisation process.

Results: Through a rigorous, iterative process of prioritisation and consensus, the top three mental health research questions were identified. These included (i) implementing suicide prevention interventions in

schools and colleges, (ii) integrating mental disorder screening and treatment into non-communicable disease care, and (iii) reducing the treatment gap for mental disorders.

Conclusion: The outcomes of this exercise shall provide valuable insights for mental health research, policy, and resource allocation strategies at the national level.

Key words India - mental health - modified delphi - prioritisation process - public health - research priorities

Due to their high prevalence, mental disorders including substance use disorders (MSUD), have become a significant public health concern in India. This aligns with global trends, as the World Health Organization (WHO) projects that mental disorders will become the leading cause of mortality and morbidity by 2030¹. Various Indian studies reported psychiatric morbidity to range from 6 to 18 per cent^{2,3}.

The treatment gap for different mental disorders has been estimated to range from 70 to 92 per cent, highlighting the challenges of accessibility, affordability, and acceptability of mental health services⁴. The high burden of disease profoundly impacts individuals, families, and communities and incurs substantial economic costs through health care, welfare spending, and productivity losses, affecting national development⁵.

It is therefore crucial to prioritise MSUD and implement evidence-based interventions using collaborative and participatory methods for priority setting and field implementation that can effectively address the unique challenges faced by diverse populations across the country⁶.

The objective of this article is to guide research initiatives (including implementation research, operational research, and research for thesis purposes), inform policy decisions, and, in turn, facilitate effective resource allocation for improved mental health outcomes in the country using a modified Delphi approach.

Materials & Methods

This study adopted modified Delphi technique, which was employed from January to May 2023 by the division of Non Communicable Diseases, Indian Council of Medical Research, New Delhi to prioritise mental health research needs. A diverse panel of experts across India participated in multiple rounds of anonymous questionnaires. After each round, aggregated responses were shared for reconsideration based on collective feedback to minimise individual

biases and dominant voices, fostering balanced decision-making.

To ensure robust representation and diversity of perspectives, a sample of approximately 20 experts was included in the initial phase, while 15-20 experts were included in the subsequent phases. The total sample size (n=118) reflects the cumulative participation and was determined based on best practices for the modified Delphi method in health research. Delphi studies typically range from 10 to 100 members, with 15-30 experts per group commonly deemed sufficient to achieve consensus, maintain manageability, and reduce attrition^{7,8}. Selection was based on expertise, stakeholder diversity, and logistical feasibility. These stakeholders included mental health professionals, State mental health programme officers, doctors from primary, secondary, and tertiary levels of healthcare, policymakers, researchers and civil society representatives. The methodology employed in the exercise consisted of four steps, illustrated in figure.

Step I: Initial conceptualisation & desk review-identification of MSUD and development of prioritisation criteria: In the first step of the prioritisation exercise, the MSUD conditions prevalent in India were identified *via* a desk review of published literature. This included research papers, the global burden of disease studies, and the findings from the National Mental Health Survey of India (2016)^{9,10}, the National Survey on Magnitude of Substance Use (2019)¹¹, National Family Health Survey (NFHS)-(2019-2021)¹², Global Adult Tobacco Survey (GATS)-(2016-17)¹³, Global Youth Tobacco Survey (GYTS)-(2019)¹⁴.

This was supplemented with the expert opinions during a meeting. The participants of the meeting were selected based on their expertise in the proposed subject area, including Medicine, Mental Health, Public Health, Epidemiology, Biostatistics, and Implementation Research. Inputs from policymakers and other key stakeholders were incorporated to refine

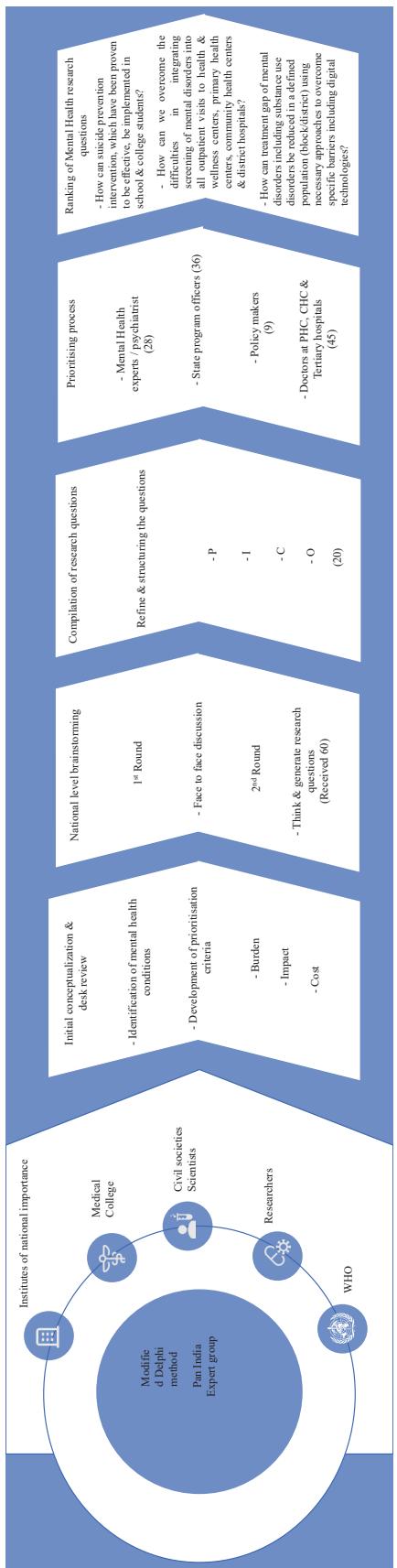


Figure. Process of identifying priority mental health research questions.

Table. Distribution of various stakeholders			
Stakeholder group	Total invited	Responded	Response rate (%)
State mental health programme officers	36	24	66.66
Subject experts	28	22	78.57
Policy makers	9	3	33.33
Healthcare providers from THC	15	9	60.00
Healthcare providers from CHC	15	5	33.33
Healthcare providers from PHC	15	2	13.33
Total	118	65	55.08

THC, tertiary health centre; CHC, community health centre; PHC, primary health centre

the list of MSUD conditions. Primacy was given to existing literature and expert opinion to gain insights into the contextual factors associated with each MSUD condition.

Step II: To generate research questions- national-level brainstorming meeting: A national-level workshop was organised, bringing together 20 experts from different sectors, including government, academia, and non-governmental organisations. During the workshop, the compiled list of identified MSUD conditions (step-I) was presented. Experts assessed the conditions based on criteria such as burden, severity, prevalence, impact on individuals and communities, treatment availability, stigma, and cost-effectiveness of interventions. Additionally, the experts were asked to generate three research questions for each condition they considered needed to be prioritised at the national level. A total of 60 research questions were received and subsequently reviewed to ensure their alignment with the prioritisation criteria.

Step III: Compilation of research questions received by the ICMR: To further refine and structure the questions, the PICO (population, intervention, comparison, outcome) framework was applied. Through discussions and iterative rounds of review, a final set of 20 research questions was selected. This careful selection process considered the relevance, feasibility, and potential impact of these questions in addressing the identified mental health conditions.

Step IV: Final round of prioritizing process: The prioritisation process involved engaging key stakeholders, including mental health experts, programme officers, health care providers at various levels of healthcare, and policymakers. These stakeholders (n=118) (Table) were provided (*via* email communication) with the list of 20 research questions and were asked to prioritise the top three questions based on the potential impact of addressing the research question, the urgency of the issue, and the feasibility of conducting research in the given context.

Results

A total of 118 stakeholders were invited, of whom 65 responded. The overall response rate was 55.1 per cent. Response rate of more than 60 per cent was received from State mental health programme officers, subject experts and health care providers from tertiary health care centres. Through this multistakeholder engagement process, the study identified eight critical research questions intended to guide research and interventions in the field of MSUD in the country (Supplementary Table). The top three research questions focus on implementing suicide prevention interventions in schools and colleges, integrating mental health disorder screening into NCD care, and reducing the treatment gap for mental disorders

Discussion

With a 55 per cent response rate, the study cautiously highlights the increasing importance of prioritising mental health research areas in India. By engaging diverse stakeholders, including mental health professionals, policymakers and State mental health programme officers of each State in India, the study identified critical research priorities. These priorities underscore the need to develop implementation models and frameworks to address India's unique mental health challenges. The study's findings can inform mental health research, policy, and resource allocation strategies, ultimately improving mental health outcomes in the country. The ICMR's initiative to address top priority research questions through multicentric National Health Research Priority (NHRP) projects is a promising step towards bridging the gap between research and practice.

The prioritisation of research on suicide prevention in educational settings, the integration of mental health

screening into NCD care, and reducing the treatment gap align with evidence showing these areas are critical for early intervention and broad population impact¹⁵. Furthermore, these priorities resonate with key government programmes such as the National Mental Health Programme (NMHP)¹⁶, which emphasises community-based care, and Tele-MANAS¹⁷, which aims to leverage digital platforms for mental health support and accessibility.

The study acknowledges the limitation that the response rate of 55 per cent is lower which potentially might have excluded some suggestions. Moreover, unknown preparedness of the participants limits the generalisability despite reaching over half of potential responders.

This first-of-its-kind initiative in India aims to bridge gaps in mental health care while building a strong evidence base for the field. This manuscript showcases an innovative, systematic, and inclusive effort to set mental health research priorities in India. By bringing together voices from across the country—including mental health professionals, policymakers, researchers, and health care providers—it ensures that research truly reflects the needs seen on the ground.

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Supplementary Table. Priority research questions identified at the end of the process

S.No.	Research question	Proportion of respondents who endorsed it as a priority question (%)
1	How to implement proven suicide prevention interventions effectively in school and college students?	42.4
2	How to address the challenges associated with integrating mental disorder screening into outpatient visits at various healthcare facilities?	38
3	How to reduce the treatment gap for mental disorders, including substance use disorders, in a defined population?	24
4	How can digital platforms be effectively used to provide mental health services to the population?	17
5	Effective mechanism for the promotion of mental health in schools, colleges & workplaces?	17
6	How can interventions to support youth in crisis be implemented in the community (individual therapy, peer group therapy, combination of therapies)?	17
7	What is the effectiveness of an enhanced school health programme, including mental health (awareness, promotion, &early treatment) as compared to the current school health programme in early identification & management of mental disorders in school children?	17
8	What is the effect of the use of digital approaches (including telemedicine, mobile apps, <i>etc</i>) on the treatment gap, as compared to those without digital approaches, while treating anxiety, depression, psychosis & substance use disorder?	17