

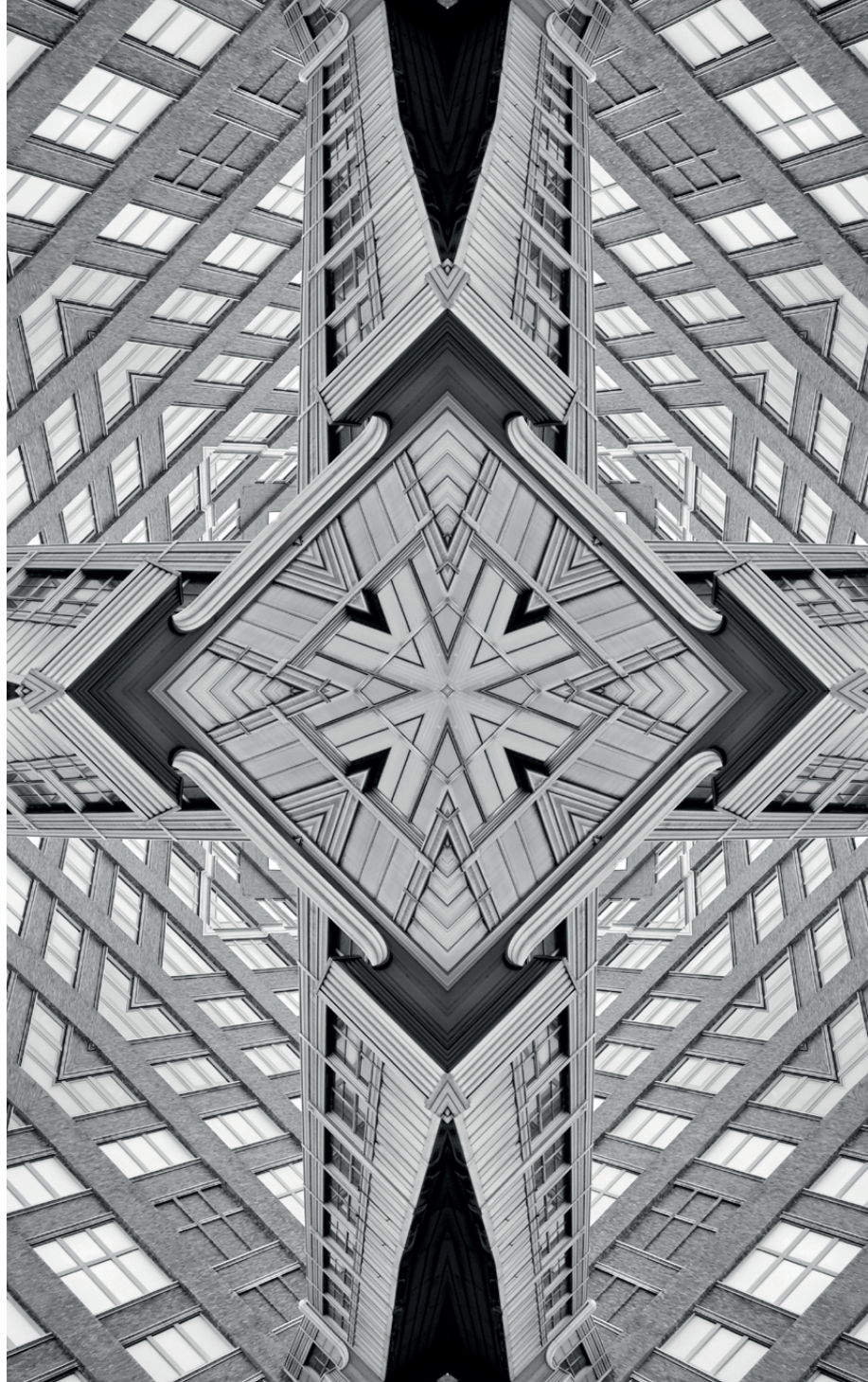
# Issue

---

# Brief

---

ISSUE NO. 780  
FEBRUARY 2025





# Improving Mental Health Care in India

Lakshmy Ramakrishnan

## Abstract

The treatment of mental health disorders is a difficult task due to the highly subjective nature of each case, the varying efficacy of drugs available, and the social stigma associated with mental illness. In India, the treatment gap is steep, but it can be reduced in a number of ways: through concerted efforts by the biotechnology and pharmaceutical industries on novel drug development; by leveraging allied technologies such as data science, artificial intelligence, and nanotechnology; and by exploring the possibility of psychedelics. Fostering public-private partnerships can spearhead efforts to commercialise cures. Other pathways to improving the mental health landscape include expanding the scale of psychiatry training in medical schools, promoting awareness, and widening the ambit of government initiatives like the helpline Tele-MANAS.



# Introduction

**N**early 970 million people across the world are living with some kind of mental health condition.<sup>1</sup> Mental health problems affect physical and emotional well-being, and can lead to disabilities and premature mortality. These disorders include excessive anxiety, bipolar disorder, depression, schizophrenia, and post-traumatic stress disorder (PTSD).<sup>2</sup> India's National Mental Health Survey (NMHS), 2015-2016 estimated that 10.6 percent of the country's adults suffer from a mental health disorder.<sup>3</sup> The COVID-19 pandemic, through restrictions on mobility that resulted in social isolation, worsened the mental health situation and raised concerns of a "loneliness pandemic".<sup>4</sup>

Mental health management is carried out through a combination of pharmacological and psychological interventions. In India, there remains a substantial treatment gap, underlining the need to prioritise research and development (R&D) of efficacious therapeutics that can achieve targeted responses.<sup>5</sup> This brief highlights the reasons for this gap and the crucial roles of the pharmaceutical and biotechnology industries in reducing it.

# Current Treatment Gaps in India

The NMHS 2015-16 estimates India's treatment gap for mental health illnesses at an alarming 70-92 percent.<sup>a,6</sup> Poor awareness, limited number of specialists, and constraints in resources are the primary causes.<sup>7</sup> Contributory factors include people's lack of access to essential medical infrastructure, financial barriers to adequate treatment and medical facilities, logistical limitations especially in rural areas, absence of additional support in the form of psychological counselling, and the social stigma associated with mental illness.<sup>8</sup> All these deter patients from seeking medical intervention.<sup>9</sup> To begin with, the number of psychiatrists across the country is estimated at a paltry 9,000, or 0.75 psychiatrists per 1 lakh persons, compared to the global average of 1.7;<sup>10</sup> in high-income countries, it is as high as 8.6.<sup>11,12</sup> The number of clinical psychologists—another essential part of the mental health workforce—is less than half this figure.<sup>b,13</sup>

Given the chronic nature of mental illnesses, they often place a massive financial burden on families as they are seldom covered by insurance.<sup>14</sup> Many patients do not view mental health issues as illnesses on par with physical ones requiring treatment, such as hypertension or diabetes, and therefore do not find it necessary to seek medical support. Another challenge is that some patients, particularly those suffering from hallucinations, may not even recognise their symptoms as mental illness that need intervention.<sup>15</sup>

Those patients who do try to find treatment are often faced with challenges in diagnosis and in the efficacy of pharmacological interventions. Psychiatrists go primarily by descriptive aspects of mental health conditions to diagnose them,<sup>16</sup> relying on the Diagnostic and Statistical Manual of Mental Disorders (DSM). The DSM, despite its high standing amongst clinicians, is often criticised for oversimplifying the complexity of human behaviour, placing undue emphasis on symptoms over underlying conditions, and being limited in its understanding of culturally diverse populations (as it was originally created, and pertains to conditions observed in the United States).<sup>17</sup> Owing to the highly subjective nature of each mental health case—with diagnosis dependent on capturing emotions, thoughts, and behavioural patterns of individuals—clinicians often find it difficult to distinguish between temporary mental health issues due to transient stressors, such as job loss, and symptoms that are indicative of a chronic underlying condition.<sup>18</sup>

a As of writing, NMHS-2 is underway and is expected to be completed later this year.

b Global comparisons are difficult as India did not participate in the 2020 WHO Mental Health Atlas project.

# Current Treatment Gaps in India

Another obstacle is the varying efficacy of pharmacological interventions. Mental health conditions are managed primarily through a combination of psychological counselling and pharmacological interventions.<sup>19</sup> However, the success of the drugs prescribed is not guaranteed, particularly in the case of anti-depressants, which have been widely described as ‘hit or miss’ strategies.<sup>20</sup> Some patients may be completely unresponsive or resistant to available drug treatments in the case of major depressive disorders.<sup>21</sup> A primary contributory factor is that a majority of the currently available mental health drugs were developed over 50 years ago;<sup>22</sup> development since then has chiefly focused on improving tolerance and reducing side effects. Several mental health disorders are also treated with a combination of drug therapies and are therefore approached with little specificity.<sup>23</sup> Efficacy is impeded further by the quality of drugs. Generic players contribute significantly to India’s market but their bioavailability, or the part of the drug that has an active impact on the body, may not always be on par with the branded (standard) equivalent.<sup>24</sup> Physicians often end up titrating<sup>c</sup> doses of generics to provide the optimal dose to patients.<sup>25</sup>

The tardy pace of R&D in the treatment and management of mental health disorders is attributed primarily to the challenge of understanding pathophysiologies,<sup>d</sup> of producing drugs that cross the blood-brain barrier, and the tortuous process of developing new drugs. The high failure rate and steep costs of R&D have deterred pharmaceutical companies.<sup>26</sup> Assessing the efficacy of drugs is made problematic by a wide spectrum of symptoms that vary from patient to patient and not marked by a specific underlying biology.<sup>27</sup> Lack of understanding of complex neural pathways and disease conditions further impedes the development of therapies that target specific symptoms.<sup>28</sup>

---

c Titrating a drug means increasing its dosage by small amounts over days, weeks or even months to the maximum extent a patient’s body can withstand.

d Pathophysiology is the study of how diseases or injuries lead to, or are associated with, abnormal physiological processes.

# Opportunities for Change

There are huge opportunities for ramping up R&D to produce better drugs. Drug therapies for other serious clinical conditions such as cancer, degenerative disorders, and infectious diseases have progressed dramatically in the 21<sup>st</sup> century.<sup>29</sup> Stumbling blocks to drug development were overcome through expansive research studies that elucidated the cellular and molecular mechanisms behind these pathologies.<sup>30</sup> Similar studies for mental health disorders can lead to more targeted therapies.<sup>31</sup> Knowledge gaps can be minimised by linking basic research activities which have the potential for clinical use with industry partnerships.

India's generic drug manufacturing capabilities may have made it the world's leading provider of generic medicines, but the active pharmaceutical ingredients often come from China.<sup>e,32</sup> India will need to venture into novel drug development to remain competitive. China has done well in this arena, producing 30 new drugs in 2023 alone.<sup>33</sup> India can undertake similar risky and innovative enterprises to address global and domestic demands. India's burgeoning biotechnology industry, which is expected to reach US\$300 billion by 2030, is well-positioned to capture attention and collaborative projects from the pharmaceutical sector to produce biologically relevant products for the mental health sector.<sup>34</sup>

Homegrown R&D has already led to drug developments for conditions such as diabetes, cancer, leishmaniasis (kala-azar), and malaria.<sup>35</sup> Similar contributions are possible for mental health problems, more so by intersecting with allied fields, such as nanotechnology, which can aid in enhancing drug delivery, or artificial intelligence (AI), which can contribute to precision psychiatry. (This is a recent field catalysed by data science, computational science and AI, that utilises large biological datasets to develop biomarkers.<sup>36</sup> Biomarkers aid identifying mental health disease states and determining progress of disorders, particularly neurodegenerative ones.) Precision psychiatry is expected to make therapies more targeted. Similarly, progress in genomics can enhance therapies. Most disorders are attributed to multiple genes, which makes treatment complex.<sup>37</sup>

---

e 75 percent of India's total API import is from China (based on quantum of API).

# Opportunities for Change

Psychedelics—a particular group of hallucinogenic drugs—are also increasingly being used to treat mental disorders for their therapeutic potential in drug-resistant depression, PTSD, and substance abuse disorders.<sup>38</sup> They have been found to reduce anxiety, depression, and other negative moods that affect cognition, emotion, and behaviour. In India, psychedelics are associated with cultural and spiritual activities. In November 2024, the neural pathways targeted by psychedelics in animal studies were identified by researchers in India.<sup>39</sup> These findings could aid novel drug development for mental health disorders.

With over 8,000 start-ups devoted to biotechnology alone, India already has an ecosystem that can be employed for public-private partnerships (PPPs) in this field.<sup>40</sup> Recent policies announced by the government such as Biotechnology for Economy, Environment, and Employment (BioE3) and Biotechnology Research Innovation and Development Entrepreneurship (Bio-RIDE) can harness basic research studies on underlying physiologies of disease states and generate novel products with translation potential.<sup>41</sup>

Public-private partnerships at different levels of research, with the support of bodies such as the Biotechnology Industry Research Assistance Council (BIRAC), can bolster efforts. The National Health Mission has highlighted PPPs as an important route to attaining health security<sup>42</sup> – they can help in fine-tuning proof-of-concept ideas, providing spaces for incubation, and in identifying seed capital for investment opportunities that will eventually enable ideas to be monetised.<sup>43</sup> Biotech will also need to collaborate with the pharmaceutical sector to take advantage of government programmes such as the Promotion of Research and Innovation in Pharma MedTech (PRIP).<sup>44</sup>

International cooperation is another pathway to promote more therapeutics for mental health disorders. Global funding agencies are increasingly interested in innovative solutions for mental health illnesses.<sup>45</sup> Cancer Moonshot, for instance—an initiative to improve cancer therapies—has bridged research and innovation in the US and a similar initiative (QUAD Cancer Moonshot) has been launched for the Indo-Pacific.<sup>46</sup> Similarly, initiatives through India's Department of Science and Technology (DST) can engage with countries of the Global North in drug discovery. Partnerships between the Department of Biotechnology (DBT) and the US National Science Foundation (US-NSF) and the Indo-US Science and Technology Forum (IUSSTF) can explore potential therapies of commercial value.<sup>47</sup> India can partner, for instance, with the

# Opportunities for Change

Psychiatry Consortium—a group of research charities funded by the Wellcome Trust and pharmaceutical companies—that work on generating and validating novel drugs for mental health conditions.<sup>48</sup> India could also join the Psychiatric Genomics Consortium, which is conducting an ongoing experiment to understand the genetic links in various psychiatric disorders, and which seeks to elucidate genetic findings to various conditions and determine therapeutic approaches, while making the findings freely available to researchers.<sup>49</sup>


Within the country, India can bolster training and education in psychiatry and streamline training in clinical psychology.<sup>50</sup> The Indian Council for Medical Research (ICMR) has initiated the Indian Clinical Trial and Education Network (INTENT), an initiative to expand India’s clinical trials. Including therapies for mental health in the project will provide a deeper understanding of clinical responses in the Indian population, also providing a cultural perspective.<sup>51</sup> ICMR has also implemented a pan-national programme to promote mental health awareness and suicide risk prevention amongst students.<sup>52</sup>

Following the COVID-19 pandemic, the Prime Minister’s Science, Technology, and Innovation Advisory Council (PM-STIAC) launched the Mental Health and Normalcy Augmentation System (MANAS) Mitra in April 2021<sup>53</sup> to promote mental health alongside evidence-based research activity. Tele-MANAS, a telephone-based mental health service, has also been started, and has received nearly 1.5 million calls in the past two years.<sup>54</sup>



# Conclusion

**M**ental disorders are a silent pandemic that is unlikely to abate unless proactive measures are taken. Limitations in current therapeutics can be addressed through innovative research activities in biotechnology and pharmaceuticals. Breakthroughs achieved can be transformed into commercially viable products through PPPs. Insurance companies should increase coverage of mental health related illnesses as India's Mental Health Care Act (2017) has provisions for doing so.<sup>55</sup>

As government and privately funded insurance coverage expands, the commercial viability of many treatments will concomitantly improve. Other measures including improving education and training in psychiatry, increasing the number of clinical psychologists, and creating more sustained ecosystems for mental health awareness can narrow the treatment gap in India. 

*The author acknowledges the expert insights provided by Dr Vijay Krishnan, All India Institute of Medical Sciences - Rishikesh and Dr Biswa Pasun Chatterji, Assam Down Town University.*

**Lakshmy Ramakrishnan** is Associate Fellow, Health Initiative, ORF.

- 1 World Health Organization, “Mental Health,” November 26, 2024, <https://www.who.int/health-topics/mental-health>.
- 2 World Health Organization, “Mental Disorders,” <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>; M.S. Gautham et al., “The National Mental Health Survey of India (2016): Prevalence, Socio-Demographic Correlates,” *International Journal of Social Psychiatry* 66, no.4, March 4, 2020: 361–72, <https://doi.org/10.1177/0020764020907941>
- 3 R.S. Murthy, “National Mental Health Survey of India 2015–2016,” *Indian Journal of Psychiatry* 59, no. 1 (2017): 21–26, [https://doi.org/10.4103/psychiatry.IndianJPsychiatry\\_102\\_17](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_102_17)
- 4 M. Ernst et al., “Loneliness before and during the COVID-19 Pandemic: A Systematic Review with Meta-Analysis,” *American Psychologist* 77, no. 5 (2022): 660–77, <https://doi.org/10.1037/amp0001005>
- 5 Murthy, “National Mental Health Survey of India 2015–2016”
- 6 Murthy, “National Mental Health Survey of India 2015–2016”
- 7 Murthy, “National Mental Health Survey of India 2015–2016”
- 8 Insights provided during Interview with a clinical psychiatrist.
- 9 Insights provided during Interview with a clinical psychiatrist and with a researcher.
- 10 S.S. Dutta, “0.75 Psychiatrists per 100,000 People—House Panel Urges Govt to Increase MD Psychiatry Seats,” *ThePrint*, August 4, 2023, <https://theprint.in/india/0-75-psychiatrists-per-100000-people-house-panel-urges-govt-to-increase-md-psychiatry-seats/1701104/>.
- 11 WHO, *Mental Health Atlas 2020*, October 2021, Geneva, World Health Organization, 2021, <https://iris.who.int/bitstream/handle/10665/345946/9789240036703-eng.pdf?sequence=1>; Ministry of Health and Family Welfare, Government of India, <https://pib.gov.in/PressNoteDetails.aspx?NoteId=153261&ModuleId=3&reg=3&lang=1>
- 12 Dutta, “0.75 Psychiatrists per 100,000 People—House Panel Urges Govt to Increase MD Psychiatry Seats.”
- 13 “3,372 Clinical Psychologists Practising in India, Delhi Has the Highest,” *Indian Express*, August 1, 2023, <https://www.newindianexpress.com/nation/2023/Aug/01/3372-clinical-psychologists-practising-in-india-delhi-has-the-highest-centre-2600894.html>
- 14 V.C.R. Avula et al., “Mental Health Insurance in India: An Examination of Policy Implementation Post-MHCA 2017,” *Indian Journal of Psychological Medicine*, 2024, <https://doi.org/10.1177/02537176241236019>

- 15 Insights provided during Interview with a clinical psychiatrist.
- 16 Insights provided during Interview with a clinical psychiatrist.
- 17 M.E. Langa et al., “Cultural Context in DSM Diagnosis: An American Indian Case Illustration of Contradictory Trends,” *Transcultural Psychiatry* 57, no. 4, August 2020: 567–80, <https://doi.org/10.1177/1363461519832473>
- 18 Insights provided during Interview with a clinical psychiatrist.
- 19 Insights provided during Interview with a clinical psychiatrist.
- 20 Insights provided during Interview with a clinical psychiatrist.
- 21 S.S. Al-Harbi, “Treatment-Resistant Depression: Therapeutic Trends, Challenges, and Future Directions,” *Patient Preference and Adherence* 6, May 1, 2012: 369–88, <https://doi.org/10.2147/PPA.S29716>
- 22 S.M. Paul et al., “Finding New and Better Treatments for Psychiatric Disorders,” *Neuropsychopharmacology* 49, no. 1, January 2024: 3–9, <https://doi.org/10.1038/s41386-023-01690-5>
- 23 A.H. Miller et al., “Burning Down the House: Reinventing Drug Discovery in Psychiatry for the Development of Targeted Therapies,” *Molecular Psychiatry* 28, no. 1, January 2023: 68–75, <https://doi.org/10.1038/s41380-022-01887-y>
- 24 G. R. Kumar, “An Analysis of Generic Medicines in India,” *The Hans India*, May 10, 2017, <https://www.thehansindia.com/posts/index/Hans/2017-05-09/An-analysis-of-generic-medicines-in-India/298834>.
- 25 Insights provided during Interview with a clinical psychiatrist.
- 26 J.P. MacEwan et al., “Pharmaceutical Innovation in the Treatment of Schizophrenia and Mental Disorders Compared with Other Diseases,” *Innovations in Clinical Neuroscience* 13, no. 7–8, August 1, 2016: 17–25, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5022985/>.
- 27 Miller et al., “Burning Down the House: Reinventing Drug Discovery in Psychiatry for the Development of Targeted Therapies.”
- 28 S. Loiodice et al., “Neuropsychiatric Drug Development: Perspectives on the Current Landscape, Opportunities and Potential Future Directions,” *Drug Discovery Today*, November 29, 2024, <https://doi.org/10.1016/j.drudis.2024.104255>.
- 29 Paul et al., “Finding New and Better Treatments for Psychiatric Disorders”
- 30 Paul et al., “Finding New and Better Treatments for Psychiatric Disorders”
- 31 Miller et al., “Burning Down the House: Reinventing Drug Discovery in Psychiatry for the Development of Targeted Therapies.”



- 32 “Government of India Ministry of Chemicals and Fertilisers Department of Pharmaceuticals,” *Sansad*, January 22, 2025, <https://sansad.in/getFile/annex/262/AU181.pdf?source=pqars>.
- 33 Z. Chen et al., “Chinese Innovative Drug R&D Trends in 2024,” *Nature Reviews Drug Discovery* 23, no. 11, July 31, 2024: 810–11, <https://doi.org/10.1038/d41573-024-00120-5>.
- 34 *Ministry of Science and Technology, Government of India*, <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2050446>
- 35 M. Dikshit ed., *Drug Discovery and Drug Development: The Indian Narrative* (Springer Nature, 2021).
- 36 Loiodice et al., “Neuropsychiatric Drug Development: Perspectives on the Current Landscape, Opportunities and Potential Future Directions.”
- 37 Paul et al., “Finding New and Better Treatments for Psychiatric Disorders.”
- 38 Yao et al., “Efficacy and Safety of Psychedelics for the Treatment of Mental Disorders,” *Psychiatry Research* 335, May 1, 2024: 115886, <https://doi.org/10.1016/j.psychres.2024.115886>.
- 39 *Tata Institute of Fundamental Research*, “Mapping the Neurocircuit for Effects of Psychedelics on Anxiety,” November 19, 2024, <https://www.tifr.res.in/maincampus/viewSciFile.php?s=bXdGUTFhZXRCdGhGSGR2ei93Zlprdz09&t=ZEZ1L1Urdjpc2ovMG95ZHdoVkpSUT09>.
- 40 *BIRAC, India BioEconomy Report 2024*, November 15, 2024, [https://birac.nic.in/webcontent/IBER\\_2024.pdf](https://birac.nic.in/webcontent/IBER_2024.pdf).
- 41 Ministry of Science and Technology, Government of India, <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2048569>; Cabinet, Government of India, <https://pib.gov.in/PressReleasePage.aspx?PRID=2056001#:~:text=The%20Union%20Cabinet%2C%20chaired%20by,new%20component%20namely%20Biomanufacturing%20and>
- 42 National Health Systems Resource Centre, “Public-Private Partnerships in Health Care under the National Health Mission in India: A Review,” December 8, 2014, [https://nhsrcindia.org/sites/default/files/2022-09/PPP%20BOOK%2027.05.2022\\_0.pdf](https://nhsrcindia.org/sites/default/files/2022-09/PPP%20BOOK%2027.05.2022_0.pdf).
- 43 *Biotechnology Industry Research Assistance Council*, “Index,” 2024, <https://birac.nic.in/index.php>.
- 44 *Department of Pharmaceuticals, Government of India*, “Scheme for Promotion of Research and Innovation in Pharma MedTech Sector,” November 20, 2024, <https://pharmaceuticals.gov.in/schemes/scheme-promotion-research-and-innovation-pharma-medtech-sector-prip>.
- 45 Loiodice et al., “Neuropsychiatric Drug Development: Perspectives on the Current Landscape, Opportunities and Potential Future Directions.”

- 46 U.S. Mission to India, “Fact Sheet: Quad Countries Launch Cancer Moonshot Initiative to Reduce the Burden of Cancer in the Indo-Pacific,” U.S. Embassy & Consulates in India, September 23, 2024, <https://in.usembassy.gov/fact-sheet-quad-countries-launch-cancer-moonshot-initiative-to-reduce-the-burden-of-cancer-in-the-indo-pacific/>.
- 47 National Science Foundation, “OISE Int’l Collaborations-India,” December 8, 2024, <https://www.nsf.gov/od/oise/IntlCollaborations/India.jsp>; Indo-U.S. Science and Technology Forum, “About IUSSTF,” December 8, 2024, <https://iusstf.org/>
- 48 Psychiatry Consortium, “Psychiatry Consortium | Accelerating Innovative Drug Discovery,” August 23, 2023, <https://psychiatryconsortium.org/>
- 49 PGC, “About Us – PGC,” December 8, 2024, <https://pgc.unc.edu/about-us/>.
- 50 Dutta, “0.75 Psychiatrists per 100,000 People—House Panel Urges Govt to Increase MD Psychiatry Seats”; Y. Afshan, “Clinical Psychology Training in India Needs Central Body, Streamlining to Avoid Dilution of Professional Standards: Study,” *The Hindu*, December 4, 2024, <https://www.thehindu.com/news/national/karnataka/research-paper-evaluates-clinical-psychology-education-and-accreditation-in-india/article68947291.ece>.
- 51 “ICMR to Expand Its Clinical Trial Network to Provide Solutions for Health Issues,” *ET Health World*, December 8, 2024, <https://health.economictimes.indiatimes.com/news/policy/icmr-to-expand-its-clinical-trial-network-to-provide-solutions-for-health-issues/109649234>.
- 52 A. Yasmeen, “Mental Health of Students: NIMHANS, State Health and Education Departments Start Deliberations on ICMR Project,” *The Hindu*, June 6, 2024, <https://www.thehindu.com/news/national/karnataka/mental-health-of-students-nimhans-state-health-and-education-departments-start-deliberations-on-icmr-project/article68260142.ece>.
- 53 Office of the Principal Scientific Adviser, Government of India, “MANAS Mitra: Empowering Mental Well-Being - PM-STIAC Initiative,” December 8, 2024, <https://www.psa.gov.in/manas-mitra>.
- 54 Ministry of Health and Family Welfare, Government of India, <http://pib.gov.in/PressNoteDetails.aspx?NoteId=153277>.
- 55 C.T.L.K. Kumar et al., “Health Insurance for Psychotherapy in India,” *Indian Journal of Psychiatry* 66, no. 5, May 2024: 466–71, [https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry\\_979\\_23](https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_979_23).

*Images used in this paper are from Getty Images/Busà Photography.*





Ideas . Forums . Leadership . Impact

20, Rouse Avenue Institutional Area,  
New Delhi - 110 002, INDIA  
Ph. : +91-11-35332000. Fax : +91-11-35332005  
E-mail: [contactus@orfonline.org](mailto:contactus@orfonline.org)  
Website: [www.orfonline.org](http://www.orfonline.org)