

Mental Health in India: The Pathway to Zero

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Motivation

- 197.3 million affected in India (2017); DALY rate of 2443.
- Likely to rise to 300 million by 2040.
- India's strategy is overly recovery-focused.
- Treatment gap over 80%.

Objective

- A population-level strategy to reduce India's mental health burden.
- From 2443 to 600 in the first phase.
- From 600 to ideally, zero in the second phase.

Opportunities for Intervention

- Over 50% of the burden is visible by age 14.
- Over 75% by age 21.
- The Pre-Frontal Cortex develops from birth to about age 25.
Continues to be plastic even at older ages.
- Strong genetic predictors for Schizophrenia and Bipolar Disorder.

Four Strategic Dimensions

- 1 Resilience
- 2 Reduce
- 3 Recognise
- 4 Recovery

Five Health System Domains of Action

- 1 Social Determinants
- 2 Public Health
- 3 Primary Care
- 4 Hospital Care
- 5 Long-term Care

Five Key Venues

- ① Homes
- ② Day care centres
- ③ Schools
- ④ Communities
- ⑤ Workplaces

How to Build *Resilience*?

- Early Stimulation & Nurturing (Gertler et al., 2021; Michalopoulos et al., 2010; Shonkoff and Phillips, 2000)
- Behaviour Self-Regulation (Kellam et al., 2011).
- OCEAN Non-Cognitive Skills (Kautz et al., 2014; Tatum et al., 2019).
- Old age stimulation (Carlson et al., 2009).

Why *Reduce* Pathogenic Stress?

- Adverse Childhood Experiences (parental, economic) (Felitti et al., 1998).
- Bullying (Lereya et al., 2015).
- Lead in Paint (Freedman et al., 1990).
- Exposure to violence (Bisson and Lewis, 2009).

How to *Recognise* Enhanced Risk?

- Genetic risks (Eaton and Fallin, 2019).
- Occupational risks (Castro et al., 2012)
- Exposure to ACES (Harris, 2014).

How to Enable *Recovery* at Scale?

- Enhanced Self-care (Lewis et al., 2012; OH, 2021).
- Behavioural Health Aide (Dijkxhoorn et al., 2018; Patel and Hanlon, 2018).
- Collaborative Care (Acharya et al., 2017; Archer et al., 2012).
- Long-term Rehabilitation (WHO, 2021).

Intervention Mapping

- ① Comprehensive global search for evidence-based interventions.
- ② Mapping interventions to the 4-R's.
- ③ Examining carefully evidence of harm (Mindfulness, Social Emotional Learning, Universal Screening)
- ④ Mapping interventions to *venues*.
- ⑤ Assessing Phase I and Phase II fit.

- ① *Inputs:* DALY trends, illness prevalence, psychiatrist supply, cost assumptions.
- ② *Output:* DALY burden and cost projections.

Cost Feasibility

- ① *Required:* INR 400 per capita needed to reach 600 DALY Rate.
- ② *Available:* Projected 2040 UHC allocation: INR 585

Institutional Recommendations

- 1 Sentinel Surveillance Network
- 2 Centre for Public Mental Health
- 3 Centre for Recovery Protocols

Conclusion

- India can reduce the mental health DALY burden to near-zero
- Requires systemic, multi-domain, cross-sectoral action

Causal Pathway:

Executive Function Training → Improved Self-Regulation → Academic & Social Competence → Mental Health Resilience

Empirical Evidence:

- Early childhood programs increase lifelong resilience to stress and peer conflict
- Kautz et al., 2014

Causal Pathway:

Bullying Reduction → Lower Social Threat → Reduced Cortisol Reactivity
→ Reduced Depression/Anxiety

Empirical Evidence:

- Reduces bullying and victimisation; improves classroom climate
- Kärnä et al., 2011; Salmivalli and Poskiparta, 2012

Intervention Spotlight: Home-Based Psychosocial Stimulation

Causal Pathway:

Responsive Parenting → Secure Attachment + Cognitive Stimulation → Improved Mental & Neural Development

Empirical Evidence:

- Enhances cognitive scores, school readiness, and reduces behavioural disorders
- Gertler et al., 2021; Grantham-McGregor and Smith, 2016)

Intervention Spotlight: Good Behaviour Game (GBG)

Causal Pathway:

Structured Group Reinforcement → Classroom Norms → Reduced Conduct Disorder + Substance Use Risk

Empirical Evidence:

- Reduced disruptive behaviour and later life antisocial outcomes
- Kellam et al., 2011

Intervention Spotlight: Unite for a Better Life

Causal Pathway:

Shift in Gender Norms → Reduction in IPV → Reduced PTSD/Depression in Women

Empirical Evidence:

- Reduces intimate partner violence and related psychological trauma
- Leight et al., 2021

Thank you

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