Assessing Knowledge and Competency of CHOs (Community Health Officers) Post-MNS (Mental, Neurological, and Substance Use Disorders) Training Under Ayushman Bharat-AAM

Submitted by :

Dr. Sameera Khan (PT)

Under the mentorship of

Prof. Piyusha Majumdar

(Associate Professor)

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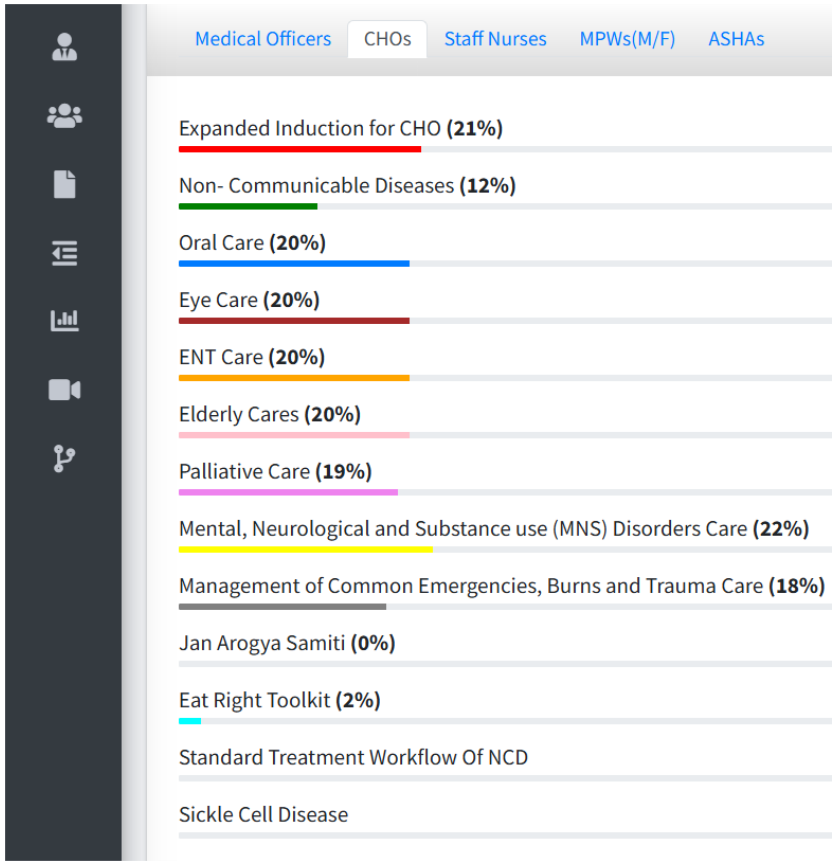
राष्ट्रीय स्वास्थ्य मिशन

Research Problem

1. **High Prevalence of Mental Health Disorders**: Approximately **10.6%** of adults in India suffer from mental health disorders, with rural areas exhibiting a lower prevalence **(6.9%)** compared to urban areas **(13.5%).** However, the treatment gap remains significant. iasgoogle.com
2. **Significant Treatment Gap**: The treatment gap for mental disorders in India ranges from **70% to 92%**, indicating that a vast majority of individuals do not receive appropriate care. iasgoogle.com
3. **Shortage of Mental Health Professionals**: India has only **0.75 psychiatrists per 100,000 people**, falling short of the WHO's recommendation of **3 per 100,000**. This shortage is more pronounced in rural areas. thehindu.com
4. **Role of CHOs**: Community Health Officers (CHOs) are pivotal in delivering primary healthcare services in rural regions. Despite undergoing Mental, Neurological, and Substance Use (MNS) training, their actual competency in managing mental health cases in the field remains uncertain.
5. **Need for Assessment**: Evaluating the knowledge and competency of CHOs post-MNS training is crucial to identify gaps and enhance community-based mental healthcare delivery.



Introduction

This study explores how effectively Community Health Officers (CHOs) apply the mental health training received under Ayushman Bharat–AAM. Despite structured modules for MNS disorders, gaps in knowledge application, tool usage, and referral practices remain largely unexamined. By assessing CHO knowledge, practical skills, and on-ground challenges, this research contributes to improving primary-level mental healthcare delivery in Rajasthan.

Research Question and Objectives

Research Question:

To what extent are CHOs knowledgeable and competent post-MNS training?

Objectives:

1. Assess current knowledge of CHOs post-MNS training
2. Evaluate CHOs' practical competency in managing mental health issues
3. Identify gaps and retraining needs for improved service delivery

Hypothesis:

- Null Hypothesis (H0): No significant knowledge or competency gaps post-training
- Alternative Hypothesis (H1): Significant gaps exist, requiring retraining

Review of Litrature

S.No.	Authors (Year)	Study Location	Key Findings / Salient Features
1	Bashar et al. (2019)	Kheri Village, Haryana	Integrated mental health into primary care; 74.1% adherence to treatment via community screening.
2	Patel et al. (2013)	Goa	Task-shifting using lay counsellors effectively managed depression and anxiety in low-resource areas.
3	Shidhaye et al. (2015)	Sehore District, Madhya Pradesh	Mental Healthcare Plan developed by integrating WHO's mhGAP into primary care using mixed methods.
4	Sangwan et al. (2024)	Jodhpur District, Rajasthan	Explored frontline provider challenges in mental health screening and management at PHCs.
5	Kumar et al. (2021)	Sahibzada Ajit Singh Nagar, Punjab	Time-motion study revealed CHOs' workload and engagement in healthcare delivery, including mental health.

Methodology

Study Design: Cross-sectional descriptive design to assess CHO knowledge and competency at a single point in time.

Study Setting: Ayushman Arogya Mandirs (AAMs) across Jaipur I, Jaipur II, and Ajmer blocks, Rajasthan.

Study Population: CHOs who completed MNS training and report mental health cases on the AAM digital portal. DATA

Sample Size & Sampling: 30 CHOs selected using purposive sampling.

Data Collection Methods

1. **Structured Questionnaire**: Assessed knowledge, awareness, and recall of screening protocols.
2. **In-Depth Interviews**: Explored implementation experiences, training impact, and challenges.

Data Analysis

1. **Quantitative:** Descriptive statistics and chi-square tests (Excel).
2. **Qualitative:** Thematic analysis of interview transcripts.

Ethical Considerations: Informed consent, confidentiality, voluntary participation, and ethical clearance obtained.

Analysis (Quantitative)

Assessment Tool: 30-item multiple-choice questionnaire covering MNS knowledge. Questionnaire

Descriptive Statistics:

- **Mean Score**: 19.23 / 30
- **Median**: 19.5
- **Standard Deviation**: 2.90
- **Score Range**: 13 (min) – 25 (max)
- **Average % Score**: 64.11%

Chi-Square Analysis

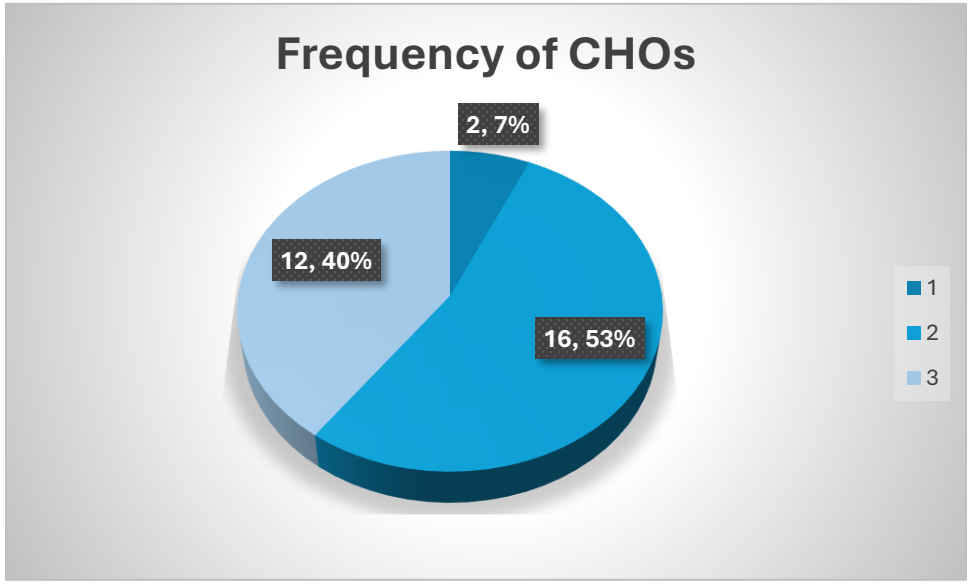
Score Categories: <15, 15–20, 20–30

Chi-Square Value: 0.0055

p-value: > 0.05 → **Not statistically significant** **Score Interpretation (Modified Kirkpatrick Model)**

View File

Analysis (Quantitative)

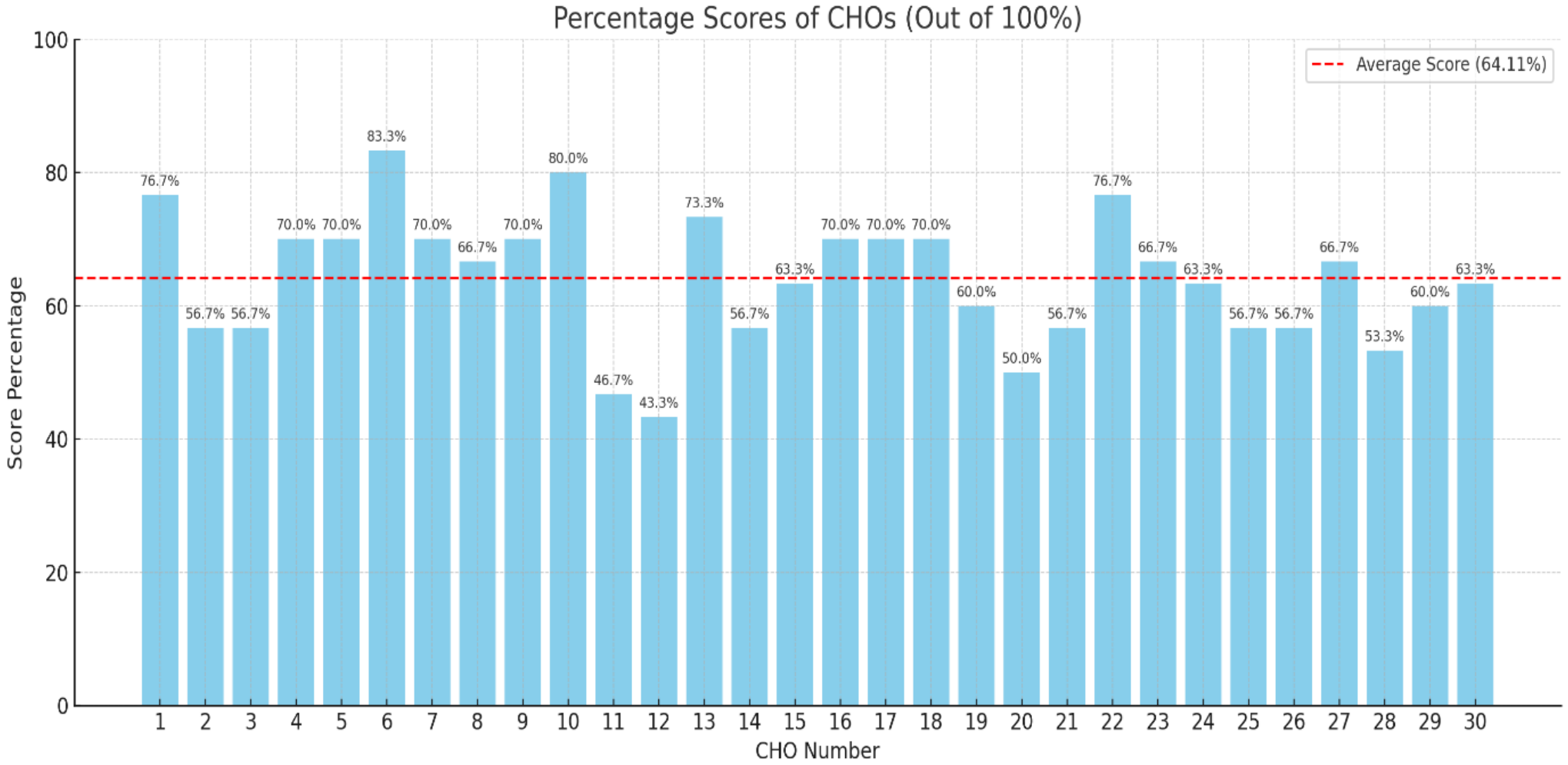


Pie Chart showing Frequency distribution into the categories

Score Range	No. of CHOs	Interpretation
< 50%	2	Training failed; critical knowledge gaps
50–70%	16	Moderate learning; reinforcement needed
> 70%	12	Good learning; outcomes largely achieved

Score Interpretation (Modified Kirkpatrick Model)

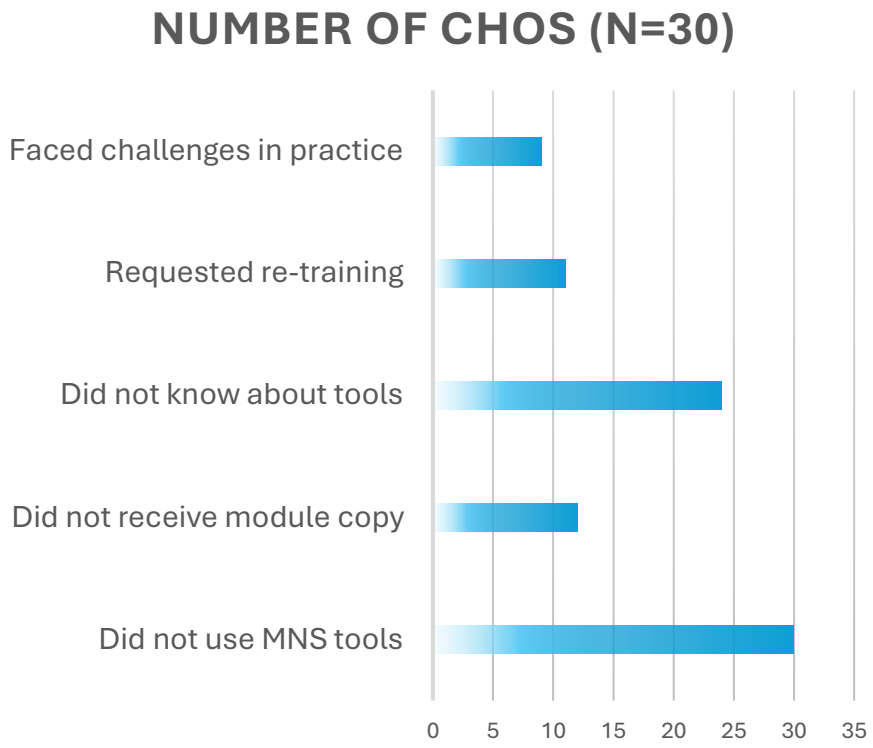
Analysis (Quantitative)



Analysis (Qualitative)

Key Themes

- **No Use of Standard Tools**
  CHOs rely on informal questions; PHQ-9, MMSE not used.
- **Lack of Access to Training Material**
  Many didn't receive the MNS module booklet post-training.
- **Referral Hesitation**
  Referrals based on intuition; fear of aggressive cases.
- **Irregular Community Awareness**
  Mental health is discussed informally, not systematized.
- **Field-Level Challenges**
  Stigma, lack of medicines, and time constraints hinder service.
- **Limited Practical Training**
  Short, theory-focused training; no hands-on practice.
- **Confusion About MNS Disorders**
  Misunderstanding between mental, neurological, and substance use issues.



Results and Findings

Quantitative Highlights

Mean Score: 19.23 / 30 (64.11%) → Moderate knowledge retention

Score Distribution
<50% → 2 CHOs (6.6%)

50–70% → 16 CHOs (53.3%)

70% → 12 CHOs (40%)

Chi-Square Test Result: Not statistically significant → Inconsistent knowledge distribution

Interpretation: Foundational understanding exists, but many CHOs lack clinical readiness and confidence.

Results and Findings Continue…

Qualitative Insights (Emerging Themes)

Tool Usage: 0/30 CHOs used standard tools (PHQ-9, MMSE, etc.)

Tool Awareness: 80% (24/30) unaware of assessment tools

Access to Training Material: 12/30 did not receive module copies

Practical Challenges Reported by CHOs

- Referral based on intuition, not clinical assessment
- Community stigma, lack of medicines, time constraints
- Confusion between mental and neurological disorders
- Training was too short, theoretical, with no follow-up sessions

Recommendation

Refresher & Retraining Modules

Conduct periodic, practical-focused sessions on screening tools, case handling, and referral protocols.

Enhance Training Methods

Incorporate role-plays, simulations, and case-based discussions to improve clinical application.

Mentorship & Supervision

Establish on-ground mentorship by mental health professionals with regular feedback loops.

Improve Training Material Access

Ensure all CHOs receive printed or digital copies of the MNS module and job aids.

Regular Knowledge Assessments

Implement post-training evaluations to track retention and provide targeted support.

Strengthen Community Engagement

Embed mental health messaging in VHNDs and awareness campaigns to reduce stigma.

Conclusion

Study Aim: To assess CHOs' knowledge and competency post-MNS training under Ayushman Bharat – AAM using mixed methods.

Quantitative Findings

- Mean Score: 64.11% (moderate knowledge)
- Only 40% scored >70%; 6.6% scored <50%
- Indicates inconsistent knowledge retention across CHOs.

Qualitative Insights

- Standard tools not used (e.g., PHQ-9, MMSE)
- Lack of training materials & follow-ups
- Referral based on intuition, not assessment
- Stigma, medicine shortages, and misclassification of disorders
- Training was short, theoretical, and lacked practice

Overall Conclusion

- There is a significant gap between training content and real-world practice.
- To fulfill Ayushman Bharat’s mental health goals, training must be more practical, continuous, and contextually grounded.

Strengths and Limitations of the Study

Strengths

- **Mixed-methods design**: Combined quantitative and qualitative data to ensure a comprehensive understanding.
- **Real-world insights**: Field-based interviews revealed practical barriers and implementation gaps.
- **Relevant setting**: Conducted within the operational context of Ayushman Bharat – AAM, ensuring policy relevance.
- **Focused population**: Targeted CHOs actively delivering services, making findings immediately actionable.

Limitations

- **Small sample size**: Study limited to 30 CHOs, restricting generalizability.
- **Purposive sampling**: May introduce selection bias and limit statistical inference.
- **Short duration**: Training retention and long-term competency were not assessed over time.
- **Self-reported responses**: Possibility of social desirability bias in interviews.

Thank You

ANY QUESTIONS?