

# Intervention-based mental health training for community level workers in India –A systematic review

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#### Abstract

Community-level workers (CLWs) are frontline workers who function as mediators between the government and the community. They effectively and efficiently distribute government policies and welfare schemes directly to the public, especially health aspects. They play a vital role in primary care access and quality. Many recent studies demonstrate that physical health training of CLWs is indeed effective and increases access to services. However, there are no recent reviews that systematically understand the training of CLWs concerning mental health interventions, and reviews on CLW's understanding about mental health issues and implementation at the community level is inadequate. CLWs are underutilized in aspects of mental health interventions despite having more potential for the same. They are the ones who need to know much about mental health issues and treatment availabilities. To understand this gap, a systematic review on training on mental health interventions to the CLWs in India, the method and content of mental health training in such studies was done. Our systematic search following the PRISMA guidelines included eight studies that met the eligibility criteria. The review of the studies that satisfied inclusion criteria suggests that training on mental health knowledge and discusses implications of mental health interventions through trained CLWs for the community. Based on the review findings, the researcher recommends ideas about how CLWs can be utilized accordingly in mental health aspects during the current pandemic.

Keywords: Community-based training, community-level workers, mental health intervention

# Introduction

Community-level workers (CLWs) are community members chosen by the Government/Non-Government organisations or community members to provide basic health services within their community. Community health workers are qualified people with no formal medical education but can provide community support and primary care services. They are the bridge between

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community and government policies, welfare schemes and health care delivery systems. Usually, health services will be provided in the community settings by them. In most instances, CLWs belong to the same community where they work and are highly connected with people in the community. They will be recruited by the government officials on a contract basis and will be subjected to two to three months of training on how to provide health care services to the community. CLWs are classified as Anganwadi workers, Community health workers, Village health workers, ASHA (Accredited Social Health Activist), lay health workers, Auxiliary nurse-midwives, Multipurpose workers.

Community-level workers perform people-centered functions, supporting the treating team-based care, addressing the various

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social determinants of health or diseases, promoting the people to access health care in the community, and engaging the patients. Frontline health workers have been particularly effective in reflecting peer support by sharing ethnicity, language, socioeconomic background, and life experiences with the communities they serve. The research focuses on various ways in which community health professionals are best known for their participation in local and global settings.<sup>[1]</sup>

According to a national mental health survey, India is home to an estimated population of 150 million people with mental illness.<sup>[2]</sup> Research studies show that inadequate mental health trained professionals, especially in the rural villages, cannot provide mental health services to most people in India.<sup>[3]</sup> Mental health service is a must in rural populations where a huge mental health treatment gap is observed. In rural areas, if people acquire any acute physical or mental illness, they straight away approach primary health centres with limited medical professionals and lack mental health professionals. In such remote areas, awareness about mental health issues is always a question mark. Even studies in India have brought into the limelight that the awareness and an understanding of mental disorders are weak among villagers and community health workers in many communities.<sup>[4]</sup>

CLWs play interlinking roles. The scope of CLWs' interventions in rural India is very high. CLWs, as mentioned earlier, Anganwadi teachers, school teachers, and volunteers together could strengthen the mental health service access to the unreached population.

The World Health Organization (WHO) has advocated integrating mental health services into the primary health care centre to reduce the disease burden and treatment gap in low-income countries. For effective mental health integration into primary care, grassroots workers must get the necessary information and skills to recognize, refer, and support persons in their communities who are suffering from mental disorders.<sup>[5]</sup> However, India is experiencing inadequately trained CLWs in mental health, and there exists a compelling situation to train them by providing basic mental health care programmes at the community level.

CLWs can play an important role in enhancing primary care access and quality. Clinical services focusing on health assessment, remote care, and rehabilitation; CLWs can help primary care physicians reduce mental health inequalities by providing community resource connections that connect patients to community-based resources and by providing health education.<sup>[1,6]</sup> Given the significant workforce constraints and shortage of mental health specialists, CLWs can assist primary care physicians in providing mental health interventions and increasing access to care. Despite their potential to support the practice of primary care physicians as effective primary care team members, they are largely underutilized. CLWs' priorities and perspectives differ, and their mental health training is required to help primary care physicians close the mental health treatment gap. So far, the systematic reviews on Community health workers or community level workers have focused on the extent of involvement of CLWs in delivering mental health interventions.

However, no review has been conducted on CLWs training on mental health, methods, and effectiveness in the Indian context. Therefore, our review aims to systematically synthesize the existing evidence on mental health training and its effectiveness among CLWs in India. The results of our review will be crucial to understand the existing knowledge in this area and inform policy-makers and researchers for the future development of mental health training programmes for CLWs in delivering mental health interventions to support the primary care physicians for reducing the mental health treatment gap.

# Method

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standards were used to conduct this systematic review.

# Data sources and data search strategies

A comprehensive electronic search was carried out in PubMed, Scopus, OVID, Science direct, Cochrane, and Google scholar databases for articles on mental health training for CLWs in India published up to December 2020. The search strategy [Box 1] used subject headings and keywords with no language restriction. In case of discrepancy, authors discussed the same with the second and third authors for consensus in search results. Websites and published documents by the national health mission were also taken into account for the review. If more than one publication on the same topic was published, the article with the most up-to-date data was chosen for the current study. To find relevant primary literature for the review, the author looked through the bibliographies of included articles and government reports on government websites.

# Study selection and data extraction

For this current systematic review, the original research done in India on mental health training for the CLWs was included. The author excluded the research done on medical professionals at the

Box 1: Search keywords used for identification of articles for the review of Mental health training among community level workers in India from 1987-2020

("community level worker" OR "lay worker" OR "Anganwadi worker" OR

- "ASHA" OR "village health workers" OR community health workers" OR "multipurpose health workers")
- ("mental " OR "mental illness" OR "mental disorders" OR "mental health")

("intervention" OR " training" OR "orientation")

("effectiveness" OR "outcome" OR "impact")

("India" OR "South Asia")

(#1 AND #2 AND # 3 AND #4 AND # 5)

community level, such as doctors and nurses. Physical health or illness related interventions and the effectiveness of the practices at the community level are excluded. The author included the study published up to December 2020 to know about CLWs' mental health training status. Review articles, editorials, research published only as brief abstracts or as posters, letters, conference proceedings, duplicate publications, and pieces lacking significant information were also removed. Two independent authors (AR & RP) screened the titles of the articles and abstracts, which is relevant to the review objective. The retrieval of full-text articles followed this review, and the retrieved full-text articles were assessed further for eligibility criteria for final inclusion in the review. The flow of study selection according to PRISMA guidelines is provided in Figure 1.

#### Data extraction and synthesis

Data from the selected studies were extracted into the review matrix using a customized data collection form. Based on the research objectives, the data collection form's data elements were finalized after discussion with experts and reviewers. The following study characteristics were extracted for the current review: Author's name, year of publication, research design, assessment method and outcome of the training program. The extracted data were cross-checked to ensure consistency. Additionally, we conducted a content analysis of the included articles to understand the methodology of training.

#### Risk of bias assessment in included studies

Two reviewers independently rated each article that satisfied the inclusion criteria for quality using the National Institutes of Health (NIH) quality assessment tools (https://www.nhlbi.nih. gov/health-topics/study-quality-assessment-tools). Each article was given a "Yes" or "No" rating based on the quality of the evidence and the availability of information. Each study was given a rating of good (7–9), fair (4–6), or bad (3) based on the number of "yes" responses. A study that receives a "bad" rating has a high chance of bias. If the scores are not the same, the reviewers discussed the article to reach a consensus. If consensus has not arrived, then the article was forwarded to a third author for quality adjudication.

# Results

Our search strategy initially retrieved 90 article titles from PubMed, Scopus, OVID, Science direct, Cochrane and Google Scholar. After removing non-relevant titles, 40 abstracts met the requirements for inclusion, followed by full-text research. Finally, eight research met the qualifying criteria and were included in the final analysis.

# Characteristics of the included studies

The detailed quality assessment showed that five studies were of excellent quality, and three were of moderate quality



Figure 1: Flowchart of study selection according to PRISMA guidelines

with no significant risk of bias [Table 1]. Most of the studies were quasi-experimental studies with pre and post-test designs [Table 2]. There were no controlled trials on mental health training among CLWs in India. The training was provided to a range of CLWs, and all the studies had demonstrated the feasibility of mental health training for CLWs. The content, domain, and focus of mental health training differed across the studies. Most of the studies have assessed immediately post-training, and the long-term impact and follow-up after mental health training were not assessed by most of the studies. Though most studies have measured the effectiveness of training on mental health-related knowledge and attitude, the behaviour component, which is crucial to support primary care physicians, was not assessed. The included studies did not provide any information on continued education or refresher training.

The studies also highlighted the absence of need-based mental health training. Though most mental health training was delivered through didactic lectures and interactive discussion, contact-based training, which are crucial to reducing mental health stigma, was almost absent in all the studies. Further, the content analysis of the studies that spanned over 32 years (1987--2020) had shown considerable variations in the method, content, and assessment of mental health training [Table 3]. Standardized mental health literacy tool was used in only one study, while the others had used focused group discussion or semi-structured interviews to assess the effectiveness of mental health training. Overall, the included studies highlighted the absence of structured and standardized mental health training and its monitoring for CLWs.

# Discussions

Training the CLWs is crucial to integrate the mental health care services into primary health care and reducing the massive mental health treatment gap in rural India.<sup>[15]</sup> The current review has provided evidence on the existing mental health training programmes and their feasibility for CLWs in India. The review also highlighted the absence of structured and standardized mental health training and its monitoring for CLWs. The needs and gaps identified in the current review will have crucial implications for designing and strengthening the mental health training for Mid-level Health Providers (MLHP) who are envisaged under AYUSHMAN BHARAT MISSION to deliver Comprehensive Primary Health Care (CPHC) services.

Most of the mental health training in India were provided on an Adhoc basis and were fragmented with no long-term systematic monitoring. As most of the studies were quasi-experimental, future studies should focus on obtaining robust evidence from pragmatic controlled trials. Though the study findings had shown improvement in mental health knowledge and attitude among the trained CLWs, most of them had lacked a standardized tool for assessment. Training needs to ensure a valid and robust assessment, and future training should include a standardized and validated tool based on the training and service needs of CLWs. This training also will allow for the comparison of mental health training across

				Tabl	e 1: Qua	lity assessme	ent of the art	icles					
Author with reference	Study	Pre	Participants	Pre	Sample	Intervention	Pre specified	Blinded	Lost to	Statistical	Interrupted	Individual	Total
and year of the study	objective	specified Population	Eligibility	specified criteria	size	described	outcome measures	to the participants	follow up	test done	time series design	level data	scoring
Nagarajaiah <i>et al.</i> , 1987	Υ	Υ	Υ	z	Y	z	Υ	NA	z	NA	z	z	5
Chinnayya et al., 1990 <sup>[8]</sup>	Υ	Υ	Υ	Z	Υ	Z	Z	NA	Z	Υ	Z	Z	5
Mathur <i>et al.</i> , 1995 <sup>[9]</sup>	Υ	Υ	Y	Υ	Z	Υ	Z	NA	Z	NA	Z	Z	5
Armstrong et al., 2011 <sup>[10]</sup>	Υ	Υ	Y	Z	Υ	Υ	Υ	NA	Z	Υ	Z	Υ	8
Paudel et al., 2014 <sup>[11]</sup>	Υ	Υ	Y	Υ	Z	Υ	Υ	NA	Υ	NA	Z	Z	7
Micheal et al., 2018 <sup>[12]</sup>	Υ	Υ	Y	Υ	Υ	Υ	Υ	NA	Υ	Z	Z	Z	8
James <i>et al.</i> , $2019^{[13]}$	Υ	Υ	Y	Z	Υ	Υ	Y	NA	Υ	Υ	Z	Υ	8
Malla <i>et al.</i> , 2019 <sup>[14]</sup>	Υ	Υ	Y	Υ	Z	Υ	Y	NA	Υ	Z	Z	Ζ	7
V - Ves N - No Na - Not Applicablep	ĥ												

Paramasivam, et al.: Mental health training for community level workers

		Ta	ble 2: Details of the article		
Author with reference and year	Study Design	Population Size	Training focused area	Assessment method	Outcome
Nagarajaiah <i>et al.</i> , 1987 <sup>[7]</sup>	Quasi Experimental research	275 Multi-purpose health workers	Mental retardation and its management	Pre and post test	Improvement in mental health related knowledge and attitude.
Chinnayya <i>et al.</i> , 1990 <sup>[8]</sup>	Quasi experimental research	150 multipurpose workers	Psychosis, Epilepsy and Mental Retardation	Pre and Post test	Improvement in attitude towards mental illness
Mathur et al., 1995 <sup>[9]</sup>	Quasi experimental study	10 Anganwadi workers	Childhood disability -early recognition and management	Only post assessment	Improvement in mental health related knowledge and attitude.
Armstrong et al., 2011 <sup>[10]</sup>	Quasi experiment research study	70 Community Health Workers	Mental health and disorder, Psychological first aid, Mental health promotion	Pre-test post-test with three months follow-up.	Positive impact on attitudes towards people with mental illness and decreased stigma on mental health issues
Paudel et al., 2014 <sup>[11]</sup>	Quasi experimental (only post test)	24 Village Health Workers	Depression	Focused group discussion	Positive and supportive attitudes towards patients with depression.
Michael <i>et al.</i> , 2018 <sup>[12]</sup>	Quasi Experimental research design	60 Community Health Workers	Depression	Pre and post assessment	Participants learned about common mental health issues in elderly population.
			Dementia		Able to identifying and teaching strategies to prevent mental illness
			Anxiety disorder Substance abuse		Attitude level changes noted.
James <i>et al.</i> , 2019 <sup>[13]</sup>	Quasi experimental research	95 ASHA	Severe mental illness		Knowledge and Attitudinal level changes in mental health.
Malla et al., 2019 <sup>[14]</sup>	Quasi experimental research	40 Lay Health Workers	Mental Health Care (the etiology, principles of providing care, adherence management, psycho education of patients and families, health promotion, psychosocial rehabilitation, and relapse prevention) and suicide prevention	Only post test	Positive change in knowledge and perceptions about mental illness.

the states and districts. Further, the mental health training should be accompanied by a structured resource guide/manual in local languages to support the CLWs post-training.

The importance and relevance of community mental health care by non-specialist health workers has been emphasized for low- and middle-income countries (LMIC). CLWs have the potential to help in reducing the mental health treatment gap. Effective mental health intervention was proposed to be shifted to community-level health workers to increase mental health care coverage in low- and high-income countries.<sup>[16]</sup> In delivering mental health treatment services by community-level health workers through task sharing, the crucial mental health training should be guided by mapping community interventions and identifying competencies for CLWs. The existing gaps in mental health training for CLWs in India highlighted in the current review would need to be addressed through sound implementation science methods grounded with tools to facilitate community services, indicators to evaluate community mental health services, and standardized reporting for community-based mental health programs. Future researches should also focus on developing indicators for impact evaluation with feedback from final beneficiaries of the community. These results will be key for ensuring sustainability and scalability of mental health services by CLWs.[17]

The reviewed studies in Indian settings had focused more on preventive and curative aspects of mental disorders. So, there is a need to integrate a promotive aspect of mental health into the existing training modules. As CLWs are not restricted to the health sector alone, addressing current gaps in mental health training for CLWs in India would require a strong inter-sectoral collaboration. With substantial variation in methodologies and focus for mental health training for CLWs, it was impossible to assess the effective method of mental health training from the included studies. Future researches need to give attention to measuring the effectiveness of different methods of mental health training for CLWs.

# Strengths and limitations

To the best of our knowledge, this is the first systematic review of mental health training and its effectiveness among CLWs in India. For the current study, we have followed a standard search strategy, risk of bias assessment used for all the studies and PRISMA guidelines were followed. We did a content analysis to understand the contextual factors associated with the mental health training of CLWs in India. Our review has certain limitations. We had excluded 14 potentially relevant studies due to a lack of proper reporting of outcome measures. We did not include unpublished studies and grey literature. Studies published in non-indexed

	India
Category	Themes
Method of Training	Talk and chalk
	Role play
	Manual based training
	Discussion
	Lectures
	Question and answer
	Case demonstration
Content of Training	Early Identification of mental illness
	Understanding the symptoms of mental illness
	Proper Referral
	Ensuring regular medication and follow up
	Psycho education
	Treatment of mental illness
	Mental health first aid
	Mental retardation
Population	Multi purpose health workers
	Anganwadi workers
	Community health workers
	Village health workers
	ASHA
	Lay health worker
Tools used	Semi structured self-administered questionnaire
	Focused group discussion
	Semi structured interview
	Key Informant Interview
	Questionnaire

Table 3: Content analysis	of Mental Health training in
I	ndia

journals were also excluded. We restricted the studies only done in India. So, we cannot generalize the results to other countries.

# Implications for primary care physicians

The current review highlighted major gaps in the mental health training, monitoring, supervision, and continued education for CLWs in delivering mental health intervention. Recently, the role of primary care physicians and family physicians to fight against the mental health impact of COVID-19 by liaising with mental health specialists through telemedicine has been emphasized.<sup>[18]</sup> To make the best out of this upstream strategy, primary care physicians and family physicians should strengthen the downstream strategy involving CLWs. There is substantial evidence that CLWs can give psychosocial assistance in the community, particularly in emergencies like the COVID-19 epidemic. However, a need for training and supportive supervision to help CLWs while delivering psychosocial support to the vulnerable population in Low-Middle Income Countries during COVID-19 and beyond has been emphasized. In this context, primary care physicians had an immense role in leading the primary care team by actively engaging in training and supervision of CLWs to deliver a psychosocial intervention to the community within their available health care systems.

The review also observed a conspicuous absence of contact base mental health training in India. It has been emphasized that contact-based training and providing mental health care would reduce mental health stigma among providers.<sup>[19]</sup> Strengthening the view and attitudes of CLWs towards mental health through training would be a necessary step in integrating them into India's mental health care services.<sup>[10]</sup> Recently, Government of India, under the AYUSHMAN BHARAT Mission, is planning to provide Comprehensive Primary Health Care (CPHC) through Health and Wellness Centers by involving Mid-level Health Providers (MLHP) in the community. Screening and Basic management of Mental health ailments are one of the key components of CPHC. It is thus crucial that MLHP and other CLWs be trained through an accredited training programme that combines theory and contact-based practicum with on-the-job training to deliver mental health services. Their training should be monitored and supported continuously with tele-handholding by primary care physicians for effective primary mental health care.

# Conclusion

In low-income nations like India, adequate mental health treatments must be properly integrated into primary health centres. Then, grass-roots workers must receive training to gain the necessary information and abilities to identify, refer, and support persons in their communities who are suffering from mental illnesses. Educating, training, and supporting CLWs to address mental health appears to be an effective approach to reduce the huge treatment gap for mental health in India. This review had indicated that little is understood about mental health training, its delivery and its sustenance among CLWs in India. There was considerable variability among the mental health training for CLWs in terms of method, content, focus and reported outcomes. Given the diverse nature of mental health issues, mental health training for CLWs in India should be considered a complex intervention. More focus should be given to the design of the training, method of delivery, monitoring, evaluation of the training programme, sustainability and scalability of mental health training. At the next level, future research will benefit from involving various community stakeholders in designing and incorporating implementation science to better document the effectiveness and implementation outcomes of mental health training among CLWs in India.

# Ethics in systematic reviews

The authors of this work followed the ethical criteria of Systematic Reviews, which included authorship guidelines, avoiding redundant (double) publication, preventing plagiarism, transparency, and assuring correctness, among other things.

#### New messages

More focus on mental health training for community level workers is required to improve primary care access for mental health in rural India.

# Key points

• CLWs play an important role in enhancing primary care access and quality.

- Training the CLWs is crucial for providing psychosocial support to the vulnerable population in Low-Middle Income Countries.
- Major gaps exist in the mental health training, monitoring, and supervision for CLWs in delivering mental health intervention.
- Primary care physicians had a potential role in training and supervision of CLWs for effective primary mental health care.

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# **Conflicts of interest**

There are no conflicts of interest.

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