Original Article

Community-based Psychosocial Intervention for Persons with Severe Mental Illness in Rural Kerala: Evaluation of Training of Lay Mental Health Workers

Abstract

Background: High-quality mental health care is scarce in rural India. The Mental Health Action Trust a Nongovernmental Organization based in Kozhikode, South India, has been providing free mental health services to the economically disadvantaged people in the surrounding districts. Comprehensive multidisciplinary care is provided through existing health-care clinics through training of lay mental health workers (LMHW). The current paper evaluates the classroom training methods employed to educate the LMHW. **Materials and Methods:** The training module designed after coordination and need assessment was delivered through classroom training sessions by trained trainers over 2 months weekly 6 h and completed by 13 volunteer LMHW (5 males and 8 females and who were in the age range of 22–56 years) could complete all the modules of training. The evaluation of training was done quantitatively and qualitatively. **Results:** The LMHW's knowledge, attitudes, perceived interpersonal skills, and confidence levels demonstrated a noticeable change following the classroom training program. **Conclusion:** It is feasible to train LMHWs to deliver psychosocial interventions for people with severe mental disorders and their families in rural India. In addition to classroom training, case-based training and proper ongoing supervision are required to improve their skills, attitudes, and knowledge.

Keywords: *Community setting, psycho-social intervention severe mental disorder*

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Introduction

Mental disorders contribute to 11.8% of the Disease Burden in India.[1,2] The lifetime prevalence of severe mental disorders is nearly 1.9% in the general population with 0.8% having an ongoing disorder.[3,4] It is well documented that mental illnesses lead to poor quality of life, decreased productivity, and lower earning potential.[5,6] The treatment gap for all mental disorders is unacceptably high[7] and the lack of professionals to provide services well known.[8,9]

Apart from the need to provide medical treatments, the need for psychosocial interventions that address associated dysfunctions and the subsequent interest in developing novel methods to deliver psychological interventions is gaining widespread attention.[10-15] Most importantly, the role of lay mental health workers (LMHW) in delivering psychosocial interventions has come to be increasingly acknowledged. Several studies have shown that in developing nations, where the presence of qualified professionals is frequently scarce, LMHWs can provide a safe and reliable alternative. In several countries, such as India and Pakistan, programs have been developed to train LMHWs to reach out to and serve the community, and to serve as intermediary support systems in the absence of trained professionals.[15-17]

Over the following paragraphs, we will examine a number of studies which evaluate the LMHW training programs and the methods used in the different programs.

Lay mental health worker training programs

In India, lay counseling training was initiated as early as the 1970s. The number of trained professionals were few and the lay counselors were found to possess more

How to cite this article: Pallikkuth R, Kumar TM, Manickam LS, Cherian AV, Bunders-Aelen JF, Regeer BJ. Community-based psychosocial intervention for persons with severe mental illness in Rural Kerala: Evaluation of training of lay mental health workers. Indian J Soc Psychiatry 2021;37:430-6.

Received: 17-12-2019, **Revised:** 13-03-2020, **Accepted:** 13-10-2020, **Web Publication:** 25-11-2021

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Access this article online

Website: www.indjsp.org

DOI: 10.4103/ijsp.ijsp_126_19

Quick Response Code:

or less the same level of empathic skills.[18-21] Several programs have thereafter been initiated and executed in various parts of India to address the needs of different target groups with methods such as classroom-based and case-based training.[20] A major randomized control trial on task shifting in anxiety and depression in India involved a stepped-care intervention, with psycho-education and interpersonal psychotherapy being provided by lay counselors. It was shown that the subjects showed lower scores on symptom severity and disability, fewer planned or attempted suicides, and fewer days of lost work.[10,22-25] Evidence from other studies in schizophrenia have also showed similar results.[12,23-27] In terms of methods of training, didactic lectures supplemented by field training has been used.[18]

Similarly, individual studies reporting the effectiveness of psychosocial interventions led by LMHWs are many.[28,29] A meta-analytical review suggested that the training and evaluation of LMHW should be prioritized to address the unmet mental health needs of the community.[29] A recent systematic review[16] looked at 29 studies of training courses spanning 16 countries over 11 years. As can be expected, the different studies evaluated different aspects of efficacy of training nonprofessional mental health workers, but overall the outcomes were positive. These outcomes include the change in trainees' attitude toward mental health (87%), improvement in knowledge (76%), clinical practice and clinical skills (66%, 64%), increase in confidence (78%), clinical outcome (100%) and trainees' satisfaction with the course (100%). Training courses varied enormously in size, length of training (I day to 2 years), and trainee demographics. Training methods also varied as didactic, interactive, or mixed. In other studies, the approaches used have included the use of standardized treatments, a decentralized delivery model, and simplified treatment protocols.

However, a systematic review of qualitative studies on the training of lay health workers (LHWs) to deliver psychological therapies on common mental disorders showed that while LHWs were satisfied with the training, they wanted more robust supervision.[30,31]. It was noted that not enough time was given to training on understanding mental health problems. The review further highlighted that there is a lot of variation in the types of studies, the characteristics of the LHWs described, the characteristics of training and the evidence about the LHWs' experiences in training.[31]

The Mental Health Action Trust training program

The study was carried out by the Mental Health Action Trust (MHAT), a Nongovernmental Organization based at Kozhikode, Kerala, India. MHAT has been providing free mental health services to the economically disadvantaged people in several districts of Kerala. For the past 11 years, MHAT has striven to provide comprehensive multidisciplinary care through local groups with the help of LMHWs. One of the key elements of the model is the service provided by LMHWs who form the bulwark of the community-based work. Their roles range from regular domiciliary monitoring of patients to the provision of psychosocial interventions and rehabilitation.

The MHAT training module was developed using a framework developed for co-production and prototyping of public health interventions.[32] The MHAT training program aims to develop the LMHWs knowledge, skills, and attitudes through the use of lectures, interactive discussions, brainstorming, small group discussions, simulation games, role plays including video recording and feedback, clinical case presentations, and assignments. The training module itself covers mental disorders, common factors in psychological interventions, family psycho-education, activity scheduling, social skills training, assertiveness training, relapse prevention training, communication training, and problem-solving training.

The current paper evaluates the MHAT training program by focusing on the classroom methods trainees considered helpful and effective.

Materials and Methods

The MHAT training program was designed as 6 hours per week of classroom teaching for 2 months. Four trainers (two clinical psychologists and two psychiatric social workers) who had been trained by an experienced clinical psychologist through a "Train the Trainers" workshop, delivered the training. The training content and delivery process were coproduced in accordance to the three-stage framework of evidence review and stakeholder consultation, co-production and prototyping.[32]

Our study at MHAT was conducted in four stages, the development of the training module, implementation of training using the module and the evaluation of the training module, development of the supervisory system, and evaluation of intervention recipients. We performed a qualitative analysis of the daily reflections of LMHWs who participated in the training program, and a quantitative analysis to find out the extent to which trainees can acquire the knowledge and develop the attitudes and attributes necessary for psycho-social interventions. Following the classroom training, the program was studied. This was done through the quantitative analysis of pre and Post knowledge tests and qualitative analysis of end of training reflective notes in a simple proforma and written notes on perceived behavioral and attitudinal changes as a result of the training program.

Participants

Seventeen LMHW from four Northern districts of Kerala (Wayanad, Kozhikkode, Malappuram and Palakkad) participated in the community-based

psychosocial intervention training for severe mental illness. The criteria for the selection of LMHWs were as follows: (1) Hailing from the geographical area where mental health delivery was being provided by MHAT (2) Had completed at least 10 years of formal schooling. (3) Volunteers with at least 1 year of experience in the community clinics of MHAT and (4) Did not have any obvious health limitations. As the training progressed, 4 participants dropped out and the remaining 13 completed the training.

Study instruments

Daily reflections, pre- and post-knowledge tests and end of training reflective notes in a simple proforma, and written notes on perceived behavioral and attitudinal changes as a result of the training program were used.

Daily reflections

Participants' reactions to the classroom training on each day were gauged through written responses to the following questions: "What has gone well so far in this training? What have you learned that is new? What was presented that you already knew? What would you like to know more? What can the trainer (s) do differently to make the training more effective? What can you as participants do to make it more effective? What is your comfort level today?"

Knowledge test

A 13 item-questionnaire was prepared based on the contents of the module, with the answer to each question marked from 0 to 10. It was verbally administered before and 1 day after the whole training program by persons who were not involved in the training and required roughly 45 min. The responses were audiotaped, transcribed, and thematically analyzed. Theme points were matched with an answer key.

End of training reflective notes

At the end of 2 months of training, a self-report consisting of self-reflection and notes on perceived behavioral and attitudinal changes as a result of the training program were obtained, and the domains were evolved from the thematic analysis.

Ethics committee approval

The in-house ethical committee of MHAT granted ethical approval as the study did not involve any invasive or drug related pharmacological interventions.

Results

Sociodemographic details of trainees

The 13 LMHWs (5 males and 8 females) who took part in the training were between 22 and 56 years of age (mean = 42.6 years). The details are in Table 1.

Table 1: Socio demographic variables

Variables	(*n*=13), *n* (%)
Age (years)	
Mean	42.6
Range	22- 56
Previous experience as volunteers	
Mean	4.46
Range	2- 8
Gender	
Male	5 (38)
Female	8 (62)
Religion	
Hindu	2 (15)
Muslim	9 (70)
Christian	2 (15)
Educational status	
Secondary school	8 (62)
Higher secondary	3 (23)
Graduation	2 (15)
Marital status	
Married	11 (85)
Single	2 (15)
Occupation	
Homemakers	5 (38)
Retired from full time employment	2 (15)
Part time employed	2 (15)
Self-employment	2 (15)
Unemployed	2 (15)
Socioeconomic status	
Above INR 50,000 ($ 700) per year	4 (31)
Below INR 50,000 ($ 800) per year	9 (69)

Evaluation of classroom training

The study found substantial improvement in LMHWs' understanding of principles and techniques of psychosocial family interventions through 2 months of weekly training. This was accompanied by an attitudinal change regarding the possibility of recovery in severe mental illness. Personal attributes and inter-personal skills changed positively in individuals who had undergone the training. LMHWs were satisfied with the methods and delivery of training, and the individual attention and supervision they received.

Daily reflections

At the end of each day of training, participants reflected on their experience in the frame work mentioned above using 5 questions. The results are in Table 2.

Knowledge

There was an increase knowledge regarding psychosocial interventions for severe mental disorders (t = −7.28, df = 12, P = 0.00) from pretraining phase (mean = 7.23, standard deviation [SD] = 4.04) to posttraining phase (mean = 80.22, SD = 37.59) [Table 3].

Table 2: Daily reflections

Questions	Recurrent themes in answers
What has gone well so far in this training?	Group activities
	Interaction between trainees and trainer
	Patience and guidance of facilitator
	Role play method
	Games, simulations, and problem-solving tasks
	Respect and individual attention for each participant
	Positive reinforcements for each participant
	Checking understanding of trainees
	Redirecting incorrect statement to the class
	Challenging students with questions
	Case presentations and weekly assignments
What was presented that you already knew?	Names of disorders, symptoms and impact of problem in persons and society
What can the trainer(s) do differently to make the training more effective?	Reduce English terms
What can you as participants do to make it more effective?	More participation in discussions
What is your comfort level today?"	
Poor comfortable level	Scheduling problems
	Problems with money
	Problems with transportation
	Lack of time
	Lack of confidence
	Faced difficulty due to physical illness(life style diseases)
Best comfortable level	Trainee- trainer relationship
	Phone discussions on personal issues with trainers in between weekly classes
	Connections with other classmates in between the classes

End of training reflective notes

Perceived behavioral and attitudinal changes are given in Table 4.

Discussion

This paper provides preliminary support for the efficacy of training LMHWs to deliver psychosocial interventions using a particular training module. Our findings show that participation in training enabled most of the LMHWs to develop a level of proficiency essential to the effective delivery of psychosocial interventions.

Analysis of the sociodemographic profile of the participants in this study shows that the average LMHW is a married Muslim woman aged around 42 years of lower socioeconomic status, with basic education, who has already been working as a volunteer for an average of 4.5 years. Their experience and high motivation may have helped them to make use of classroom teaching well. The results corroborate with adult learning theories, which maintain that adults learn what they want to implement in practical life. Given that the setting of the study is Kerala, with higher levels of women's education and independence, the profile of the volunteers may not be replicable in other rural settings in India but maybe more relevant in nonrural settings.

Our findings revealed that daily reflections are important both for the trainee to maximize her daily learning, as well as for the trainers to customize their training.[33,34] Phone follow-ups between training sessions helped increase the knowledge and motivation of trainees. Apart from the training agenda, addressing personal issues over the phone by trainers helped participants to reduce their stress levels. One of the training methods highlighted by the participants as especially effective was that of group activities.[33] The participants' stressed the need to be involved in the planning and evaluation of their activities. This finding is once again consonant with perspectives of adult learning and development.[34]

Role-playing too was felt to be an effective method of training as it helped them to share experiences closer to reality, including allowing them to make mistakes, which enhanced their learning.[35] It helped that the topics learnt had immediate relevance and impact to their community

Table 3: Comparison of knowledge scores pre- and post-assessment

	Mean	*n*	SD	Significance level
Severe mental disorders				
Pre	5.0769	13	1.89	0.055
Post	7.0615	13	2.76	
Skills of helpers				
Pre	1.1538	13	1.21	0.000
Post	6.0769	13	3.20	
Need of PSI in SMD				
Pre	1.0000	13	1.53	0.000
Post	6.0769	13	3.15	
Family psychoeducation				
Pre	0.0000	13	0.00	0.000
Post	6.0769	13	2.99	
Goal setting				
Pre	0.0000	13	0.00	0.000
Post	6.0769	13	2.90	
Activity scheduling				
Pre	0.0000	13	0.00	0.000
Post	6.1538	13	3.02	
Social skill training				
Pre	0.0000	13	0.00	0.000
Post	6.3077	13	3.25	
Assertiveness training				
Pre	0.0000	13	0.00	0.000
Post	6.0769	13	3.12	
Communication training				
Pre	0.0000	13	0.00000	0.000
Post	6.1538	13	3.29	
Expressed emotions				
Pre	0.0000	13	0.00	0.000
Post	6.0769	13	3.07	
Handling expressed emotions				
Pre	0.0000	13	0.00	0.000
Post	6.0000	13	3.11	
Problem solving training				
Pre	0.0000	13	0.00	0.000
Post	6.0000	13	3.14	
Relapse prevention				
Pre	0.0000	13	0.000	0.000
Post	6.000	13	3.14	

SD=Standard deviation, PSI=Psychosocial interventions, SMD=Severe Mental Disorders

Table 4: Perceived behavioral and attitudinal changes

Perceived behavioral changes
Interpersonal problem-solving skills
Distress tolerance
Emotional regulation
Active listening
Problem-solving skills
Perceived attitudinal changes
Empathy
Nonjudgementality
Optimism about the efficacy of treatment
Attitude towards mental illness
Reduced stigma

work. The unanimous positive reaction towards the role play, games, simulations, and problem-solving tasks methods of training is consistent with the theories on adult learning, indicating that adults perform well in participatory learning.[36-39] The interaction between trainees and trainers was respectful, and the trainers were probably successful in linking theories with their experiences.[38]

Our results are in line with studies that show that LHWs can be trained to deliver psychosocial interventions for persons with severe and common mental illness.[28-30,40-45] A small proportion of LMHWs could not improve their personal attitudes and knowledge about theoretical principles and techniques of psychosocial interventions through our module.[31] One explanation could be that not all individuals are trainable in a similar pattern. Another possible explanation is that some adults may have had difficulty in learning new concepts within the limited period of training, as studies have shown that new learning is related to cognitive and intellectual abilities.[46] Therefore choice of LMHWs for carrying out psychosocial interventions may need to consider this.

The participants of our study were existing volunteers from MHAT, which explains their interest in taking part in the training program. Nevertheless, the findings on attitude towards mental illness showed that the training helped them to improve optimism regarding treatment and to reduce stigma.[47] This may be due to the direct exposure during the fieldwork and assignments, which has been observed by other researchers also.

Only a small number of participants faced difficulty in learning English terms. However, introducing the concepts through role plays may have overcome this hindrance to skill acquisition.[35] All of them viewed this method of delivery positively.

Our findings suggest that the personal attributes of the intervention provider play an important role in delivering psychosocial interventions. Majority of the participants showed improvements in their personal attributes and interpersonal behavior. However, a minority showed no improvement following the short-term training. This is in contrast with the previous studies.[41,47,48] Our results demonstrate the need to individually tailor training and supervision strategies for LMHWs. This module can be recommended for training LMHWs who are already working in the field of mental health. This module with longer-term training may need to be used in other settings.

The limitations of the study include the small sample size, sampling method employed, and the use of qualitative methods, which makes it difficult to comment on the representativeness and generalizability of the study. The use of a single standardized tool to measure the change in personal attributes of trainees would have been ideal. The skills achieved during the classroom training were not objectively assessed.

Conclusion

This paper reflects accurately a rigorous training program for a small number of trainees. Training LHWs to prepare them to deliver psychosocial interventions for people with severe mental disorders and their families is a feasible task-shifting alternative in India. Training, supervision, and quality monitoring are crucial elements.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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