

# Capacity Building of “Accredited Social Health Activist” under Rural Health Training Center Regarding Mental Health: An Interventional Study

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## Abstract

**Background:** Mental health is one of the critical health requirements that society needs to address in the present century. Accredited Social Health Activist (ASHA) can play an important role in identifying mental health problems at the earliest and help in improving community health status. **Objectives:** The objective of this study was to evaluate the effectiveness of a mental health education program on knowledge, attitude, and practices (KAP) of ASHAs. **Materials and Methods:** An intervention study was conducted to empower ASHAs for providing mental health services at a district located in Western India during 2016 and 2017. A semi-structured questionnaire was administered to assess KAP regarding mental health in intervention and control groups before and post intervention. An educational program was imparted in two batches. Hybrid methods for imparting teaching/training were utilized. “Paired *t*-test” was applied to compare pre- and post-results in intervention group and “unpaired *t*-test” for baseline comparison. **Results:** There was a statistically significant improvement in KAP of ASHAs after intervention. Majority of ASHAs referred cases of mental health problems to government tertiary care hospitals. **Conclusions:** The study indicates that it is possible to empower ASHAs with a short course related to mental health to achieve effective outcomes in terms of improved knowledge, attitudes, and practices.

**Keywords:** Accredited Social Health Activist, capacity building, mental health education program, primary health center

## INTRODUCTION

Around 14% of the global disease burden is caused by mental disorders, and one of the 10 leading causes of disability in Asia are mental illness.<sup>[1]</sup> Evidence suggests that enhanced understanding of mental health and mental disorders and decreased stigma toward mental illness can facilitate early recognition of mental disorders, improve mental health outcomes, and increase the utilization of health services.<sup>[2]</sup>

The WHO has given evidence-based intervention models, called the Mental Health Gap Action Program intervention guide, to help integration with primary health care.<sup>[3]</sup> Changing the role of specialist mental health staff (psychiatrists and psychologists) from a primary emphasis on service delivery to also developing and building clinical capacity of the Primary Health Center (PHC) staff could aid in scaling up mental health services in the low- and middle-income countries.<sup>[4,5]</sup>

Accredited Social Health Activist (ASHA), a community health worker, serves as a “bridge” or link between rural citizens and health service outlets. Equipping ASHAs with correct knowledge, attitude, and practice (KAP) on mental health can play an important role in identifying mental health problems at the earliest and help in improving community health status.<sup>[6]</sup> The present study was carried out to evaluate the effectiveness of a mental health education program on KAP of ASHAs.

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## MATERIALS AND METHODS

An intervention study was conducted among ASHAs serving villages under Primary Health Centers (PHC) of a district located in Western part of India between March 2016 and March 2017 after obtaining permission from the concerned authorities. A total of four PHCs were decided to be selected for the study. Two PHCs serving villages under Rural Health Training Centre (RHTC) of the attached medical institution were conveniently selected for recruiting participants of intervention group. Whereas another two PHCs were selected randomly from non-RHTC area for recruiting ASHAs as control group by lottery method and there were 42 such PHCs. One ASHA worker is designated to serve one village generally, considering population served by one PHC there would be some 30 such workers. Although we intended to study all ASHAs, due to few vacant posts, 55 ASHAs could be included in the intervention group and 57 in the control group.

A semi-structured questionnaire was administered to assess KAP of ASHAs regarding mental health in both the groups at the baseline. After the administration of questionnaire, all participants of the intervention group underwent a well-designed health education program. Post intervention data were collected after 3 months from both the groups. The intervention was imparted in two groups of approximately thirty ASHAs in each group at their respective Primary Health Centers. A psychiatrist was consulted to design and administer the program. Training was imparted for 1 day; divided into two sessions of 3 hours each. A follow-up program of 1 hour was conducted after 2 months of intervention to assess retention of messages and fulfilling of gaps in KAP after intervention. Attitude and practice questionnaire was administered after 4 months of intervention to assess attitude and practices in both the groups. They were further appraised to identify and refer persons with mental health problems during their routine home visits to appropriate health-care facilities.

The program comprised PowerPoint presentations in local language. The role of ASHAs in mental health was included to enhance counseling techniques, diagnosis, and referral services. Frequently asked questions were included for facts and myths related to negative attitudes and beliefs. Two case studies were also included with interactive discussion to facilitate identification and consequences of mental health diseases in the community, and two videos of 11 min and 13 min were shown to improve the attitude of participants towards mentally ill. Two role plays were designed to equip them with positive attitude. Printed leaflets on take-home messages were provided to assist them while engagement and conversation with patients and caretakers.

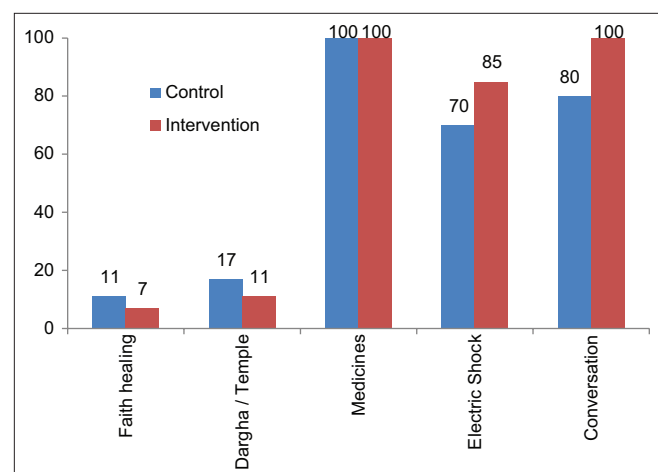
The data were entered in MS Excel and analyzed in using the IBM SPSS Statistics for Windows, Version 23 (IBM SPSS Statistics for Windows, IBM Corporation, Armonk, NY). “Paired *t*-test” was applied to compare pre- and post-results in intervention and control groups, and baseline comparison between intervention and control groups was done by

“unpaired *t*-test.” Chi-square was applied for the difference in percentage. Approval by the Institutional Ethics Committee for Human Research, EC Reg. No: ECR/8/Inst/GJ/2013, dated 17/11/2015, and written consent from participants was obtained before collecting data.

## RESULTS

A total of 112 ASHAs, 55 in the intervention group and 57 in the control group, participated in the study. The mean age of ASHAs in both the groups was similar (intervention;  $35.01 \pm 3.88$  and control;  $35.03 \pm 3.41$ ). Around 55% of ASHAs in intervention group and 42% in control group were in the age group of 31–35 years, followed by 27% and 39% in 36–40 years, respectively. Majority of them had working experience of 7–8 years, followed by experience of 5–6 years. The mean duration of experience was 5.40 years and 5.92 years in intervention and control groups, respectively. Almost half of them (56.2%) were educated up to primary level, whereas 43.8% received secondary or higher level of education.

Possession by evil spirit, black magic or witchcraft, God’s punishment, poverty, traumatic events or shock, drugs or alcohol, genetic or familial, and brain diseases were the causes responsible for mental health problems as per the respondents. After intervention, religious–magical views of causation as a factor responsible for mental health problems were found to be decreased, whereas biological factors in the causation were found to be increased among participants. The responses to treatment option available for mentally ill people were faith healing, dargah or temple, medicines, electric shock, and through conversation/counseling. Although the knowledge of treatment options (medicines, electric shock, and conversation) available for mentally ill people was found to be improved, there was not much improvement seen in perceptions such as faith healing and dargah/temple as treatment options even after intervention [Figure 1].



**Figure 1:** Distribution of knowledge (%) regarding treatment options for mentally ill in intervention and control group

After intervention, mean score of KAP was 69.67 and 50.36 in intervention and control group, respectively, which was statistically significant;  $P < 0.0001$  [Table 1]. Mean of correct responses to knowledge items is seen to be increased in all components of knowledge after intervention in intervention group, whereas this is almost similar in the control group. The increase is statistically significant;  $P < 0.0001$  [Table 2].

A statistically significant improvement,  $P < 0.0001$ , was seen after intervention in the intervention group in almost all components of attitude and practice explored. Around 83% and 98% of ASHAs said that they would extend empathy and help when they would come across a person with a mental health problem. Some of the areas were challenging such as equal rights, visiting traditional healer, marriage can treat mental illness, willingness to marry a mentally ill where only four ASHAs in intervention group and one in control group expressed that they would be prepared to marry a mentally ill person [Table 3].

Majority of ASHAs (92%) mentioned government tertiary care hospital as a preference for referral, whereas only a few (7%) mentioned PHC in the intervention group. In

control group, majority of them preferred PHC (58%) followed by government tertiary care hospital (26%), private hospitals (7%), and CHC (9%). This suggests that the education program was effective in providing correct information related to health facilities providing mental health services.

## DISCUSSION

The study was tailored to address mental health issues, specifically identifying gaps from the baseline. The study shows that the correct knowledge regarding mental illness among participants was inadequate. Possible explanation could be that the training curriculum of ASHA does not include a mental health component. Majority of the participants believed that they had a limited role in providing mental health care. These beliefs may also explain why many cases of mental illness in India are treated punitively through traditional faith healers or unhelpful pharmacological interventions. The study findings of the causes responsible for mental health problems are in line with similar studies.<sup>[7-9]</sup> Aruna *et al.* among medical graduates in Karnataka found a majority of the students to attribute mental problems to genetic reasons (59.9%) and imbalance of neurotransmitters (60.6%).<sup>[7]</sup> A study by Gureje *et al.* in Nigeria found a stronger belief in supernatural causation.<sup>[8]</sup> A study by Crabb *et al.* in Malawi found that most participants attributed mental disorder to alcohol and illicit drug abuse (95%), brain disease (92.8%), spirit possession (82.8%), and psychological trauma (76.1%).<sup>[9]</sup>

A statistically significant mean score of correct responses to knowledge items, attitude, and practice after intervention seen in the current study is in line with other intervention studies that reported positive change in KAP of the participants.<sup>[6,10,11]</sup> Similar results were reported in a systematic review by Hanisch *et al.*, where the primary outcome was a change in at least one dimension of stigma, namely, knowledge and/or attitude and/or behavior after intervention in all the studies.<sup>[12]</sup>

Around 83% and 98% of ASHAs said that they would extend empathy and help, respectively, as reactions when they would come across a person with a mental health problem while marrying a mentally ill was challenging for them. The findings related to attitude and practice in the current study are broadly in line with other studies.<sup>[7,8,13,14]</sup> Cowan *et al.* among doctors of Bengaluru found that approximately 52% agreed that it is difficult to work with mental health patients.<sup>[15]</sup> These findings support that equipping ASHAs with the right type of knowledge regarding mental health is a sound strategy in removing myths and instilling right type of treatment-seeking behavior in the community.

It is important to note that, in the above mentioned studies, training program included only one or two methods of teaching to address all types of mental health issues. Whereas the present study utilized multiple teaching methods for various mental health problems with the active participation of trainees in the program.

**Table 1: Pre- and post-knowledge, attitude, and practice score in intervention and control group**

Pre- and post-KAP score in intervention group (n=55)	Mean	SD	95% CI
Pre-KAP-score	46.49	6.29	43.97-49.00
Post-KAP-score	69.67	6.47	67.92-71.42
<i>t</i> : 25.884, <i>P</i> <0.0001, 95% CI: 21.386-24.977, DF: 54			
Pre- and post-KAP score in control group (n=57)	Mean	SD	95% CI
Pre-KAP-score	50.14	6.33	48.45-51.82
Post-KAP-score	50.36	6.28	48.17-52.56
<i>t</i> : 0.152, <i>P</i> : 0.879, 95% CI: 2.771-3.227, DF: 56			

SD: Standard deviation, CI: Confidence interval, KAP: Knowledge, attitude, and practice

**Table 2: Correct knowledge regarding mental diseases in intervention and control group**

Knowledge items (score)	Mean (correct response)					
	Intervention (n=55)			Control (n=57)		
	Pre	Post	<i>P</i>	Pre	Post	<i>P</i>
General mental diseases (6)	31.53	45.5	<0.0001*	32.66	32.26	0.311
Factor affecting mental diseases (8)	35.2	46.25	<0.0001*	36.12	35.15	0.203
Insights (8)	34.17	45.37	<0.0001*	37.85	37	0.061
Signs and symptoms (23)	35.21	43.95	<0.0001*	38.04	37.13	0.17
Treatment (5)	45	49.4	<0.0001*	45.2	45.4	0.003*
Overall knowledge (50)	36.21	46.03	<0.0001*	37.8	37.26	0.188

\*Independent sample *t*-test;  $P < 0.05$

**Table 3: Correct attitude and practice regarding mental diseases in intervention and control group**

Question	Intervention (n=55)		Control (n=57)		P
	Correct response	Percentage	Correct Response	Percentage	
Response and reaction when coming in contact with mentally ill	46 (empathy)	83.63	42	73.68	0.099
	54 (help)	98.18	12	21.05	<0.0001*
Marriage can treat mental illness	39	70.9	32	56.14	0.153
Patients with mental health problems deserve to have equal human rights (including that of marriage)	49	89.09	51	89.47	0.81
Afraid to converse with the mentally ill	51	92.72	19	33.33	<0.0001*
Upset or disturbed about working with the mentally ill	43	78.18	16	28.07	<0.0001*
Friendship with the mentally ill	49	89.09	11	19.29	<0.0001*
Willing to share a room with the mentally ill	36	65.45	11	19.29	<0.0001*
Ashamed to be related to a mentally ill person	41	74.54	19	33.33	<0.0001*
Prepared to marry a mentally ill person	4	7.27	1	1.81	0.339
Visit psychiatrists if there is an emotional problem	55	100	55	96.49	0.491
Visit to traditional healer if having an emotional problem	54	98.18	55	96.49	0.975

\*Chi-square test;  $P < 0.05$ 

## CONCLUSIONS

The study indicates that it is possible to train ASHAs with a short course training related to mental health and achieve effective outcomes of improved KAP. This study is therefore important for developing countries where there is a scarcity of mental health workers. Studies investigating the effectiveness of such interventions are scarce, and the present study is an example of an intervention that in the light of further studies needed, may be a road ahead and worthy of future implementation on a broader scale.

A tailor-made and pilot-tested intervention developed in collaboration with psychiatrist and public health experts on mental health for ASHAs is needed to be included in ASHAs training module with incentive based on mental health activity. Booster sessions in the form of follow-up and supportive supervision at 6 months and 1 year may be needed to be developed to improve knowledge and attitudes among ASHAs on long-term basis.

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## Conflicts of interest

There are no conflicts of interest.

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