

# Perceptions of Asha Workers in the Hope Collaborative Care Mental Health Intervention in Rural South India: A Qualitative Analysis

Stuti Bansal (✉ [sbansal@berkeley.edu](mailto:sbansal@berkeley.edu))

University of California Berkeley <https://orcid.org/0000-0003-2375-5417>

Krishnamachari Srinivasan

St. John's Research Institute

Maria L Ekstrand

University of California San Francisco

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## Research

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# Abstract

**Background:** Common mental disorders are responsible for a heavy disease burden in India and are often highly co-morbid with non-communicable diseases like diabetes and cardiovascular disease, which are increasing in prevalence across India as well. There is a severe lack of mental health resources in India, particularly in rural areas. Rural health care is often dependent on ASHA workers (Accredited Social Health Activists), high school-educated village women trained as community health workers. ASHA workers have been effectively involved in a variety of interventions, including a handful targeting mental illness, but perspectives of ASHA workers have been greatly overlooked.

**Methods:** One-on-one qualitative interviews were conducted with 15 ASHA workers, all of whom completed the parent HOPE study, a collaborative-care randomized controlled trial that aims to integrate mental health care into existing primary care systems in rural Karnataka. The 15 ASHA workers in this substudy were asked questions about their role in HOPE, as well as their perspectives on patient health, mental illness, and the HOPE study.

**Results:** ASHA workers mostly had positive interactions with patients, including encouraging them to attend sessions, helping to explain the topics and techniques, and checking in on the patients frequently. Occasionally ASHAs had negative relationships with patients. ASHA workers were able to identify key barriers to treatment and facilitators to treatment. ASHAs claimed that their knowledge about mental illness improved because of the HOPE study, though some gaps remained in their understanding of mental illness etiology and treatment. Overall, ASHA workers viewed the HOPE study as a necessary and effective intervention, and requested that it continue and expand.

**Conclusions:** ASHA workers are important in establishing and maintaining relationships with patients that encourage attendance and participation, and the efforts of ASHAs often help in mitigating common barriers to treatment. Our results show that the beliefs and knowledge of ASHA workers can be changed in regards to mental illness, and ASHAs can become effective advocates for patients. The perspectives of ASHA workers need to be understood in order to understand the complexities of a rural health system that relies on their work, and most effectively help patients.

## Background

Mental illness, particularly depression, is a leading cause of disability globally [8, 31] and India accounts for 15% of the global mental, neurological, and substance use disorder (MNSUD) burden [4]. Common mental disorders (CMD) make up a large part of the mental illness disease burden, with depression and anxiety together accounting for almost 50% of MNSUD-caused DALYs (Disability Adjusted Life Years). CMD are often highly co-morbid with non-communicable diseases (NCD) like diabetes and cardiovascular disease [6, 22], which is doubly concerning as the burden of disease due to NCD continues to rise rapidly across India [11].

There is a severe lack of mental health resources in India, with roughly one psychiatrist per 300,000 people [15, 23] and in rural areas there is one psychiatrist per 500,000 people [9, 10]. According to the 2011 Indian census, 68.8% of the Indian population live in rural areas, making the lack of mental health resources more challenging [3]. In rural India, health care is often dependent on the efforts of Accredited Social Health Activists (ASHA). In 2005, the ASHA program was established in India as a component of the National Rural Health Mission to address the shortage of health care workers in rural areas [16]. It recruits high school educated village women to be trained as community health workers. There is one ASHA worker per village of approximately 1000 residents. ASHA workers receive training in basic health care, and work primarily in the field of maternal and child health. They also participate in health education campaigns on nutrition, sanitation, and basic health [25, 30].

ASHA workers have been effectively involved in a variety of interventions targeting conditions like HIV [17–20, 29], mental health [2], and NCD [14], among others. However, studies have noted that ASHA workers display stereotyped beliefs about people with mental illness [24], and have very little understanding of clinical depression [1].

Perspectives of ASHA workers in general have been greatly overlooked, and as more ASHA workers take on additional responsibilities, it is important to understand their experiences and beliefs, particularly about community-based mental health interventions. The aim of this sub-study was to use qualitative methods to investigate the perspectives and beliefs of the ASHA workers who participated in the HOPE study, a cluster randomized controlled trial (RCT) which used a collaborative care model to integrate mental health treatment in primary care clinics in a rural district of Karnataka [28].

## Methods

This study is a follow-up to the parent HOPE RCT that is implementing and evaluating the integration of mental health interventions in primary care [28]. In the HOPE study, ASHA workers performed the role of liaison between patients and primary health center (PHC) staff, which included conducting home visits and delivering reminders to HOPE patients about appointments. In addition, ASHA workers helped run health screening fairs that recruited patients for the HOPE study, and co-facilitated 21 weekly and monthly Healthy Living Group (HLG) sessions with trained research staff to improve patient health behaviors.

### Sub-study Participants:

Study staff contacted and recruited 17 ASHA workers who participated in the HOPE study, from seven PHCs where the study and follow-up had been completed. ASHA workers were only considered if they were able to provide written informed consent in the local language (Kannada).

### Instruments and Procedures:

The ASHA workers each completed a 45–60 minute semi-structured qualitative interview administered at their nearest PHC by the study researcher (SB) and a qualified interpreter who was conversant in Kannada and English. The interview guide included questions about the ASHA worker's role during the screening fairs and HLG sessions, her experiences with individual patients, her experiences with home visits, and her thoughts on the HOPE study. The guide was translated into Kannada and back-translated into English, and discrepancies were resolved. The interview guide was pilot tested with two participants to finalize the questions and procedures.

Since the ASHA workers spoke only Kannada, the study researcher asked questions in English, and the interpreter translated the questions into Kannada. The responses of the ASHA workers were translated into English. Interviews were audio recorded with permission from the participants. The English translations of the ASHA interviews were manually transcribed, and the transcriptions were verbatim except for minor grammatical changes for clarity. Each ASHA worker was compensated 150 INR (2.08 USD) for travel expenses.

## **Analyses:**

15 non-pilot transcripts were coded by using Dedoose, an open coding platform, to apply codes to excerpts and organize coded material within a thematic framework. This framework was devised through line-by-line coding and the grounded theory approach, and was subsequently applied to each interview. The framework underwent editing whenever new themes appeared. Final themes were determined when additional interviews no longer yielded new themes (i.e. thematic saturation), and any redundant codes were merged. Excerpts were edited lightly for clarity.

## **Results**

Table 1 summarizes the demographic characteristics of the 15 non-pilot participants. When asked how many patients they served for HOPE, and how many HLG sessions they attended, several ASHA workers gave ranges, or were unable to come up with numbers. In the case of ranges, the lower number of the range was taken to calculate an approximate mean. The included ASHAs had on average an age of 38.6 years, 10.13 years of education, and 8.67 years of experience in the government ASHA program. They each worked with approximately 10 patients for the HOPE study, and attended 12.67 HLG sessions.

Table 1  
Sample Characteristics

Characteristic	Range	Mean
Age	28–46	38.6
Number of Patients served in HOPE study	5–15	~ 10
Years in ASHA program	3–11	8.67
Number of HLG sessions attended	5–21	~ 12.67
Years of education	7–12	10.13

Over the course of 15 qualitative interviews, ASHA workers revealed their perspectives on their participation in the HOPE study and their beliefs about mental illness and non-communicable disease. The themes that emerged from these interviews were: interactions between ASHA workers and patients, ASHA workers’ knowledge and beliefs about mental illness, barriers and facilitators to treatment, and ASHA workers’ perspectives on the HOPE study.

## ASHA-patient interactions

The ASHA workers described their interactions with patients as positive and productive, and these interactions were crucial to recruitment and engaging patients. ASHA workers confirmed that they helped to explain the study to patients who needed clarification and motivate patients to come to the health screening fairs, enroll in the study, and attend the HLG sessions. They stated that they encouraged patients to follow health advice and practice diet changes, exercise, and stress management techniques like yoga and breathing exercises, both during group sessions and home visits. ASHAs mostly believed that patients listened to them and took their advice.

However, not all interactions with patients were positive. Some ASHA workers mentioned that they were uncomfortable interacting with certain patients because the ASHAs did not have sufficient knowledge about relevant topics.

*“Before I was not aware of the topic... and if I tell incomplete knowledge maybe the [patients] won’t accept, I was thinking like that. Later I got to know more information about smoking, smokeless tobacco, and all, I am comfortably speaking now.” [A104]*

Additionally, several ASHA workers mentioned that some of their patients were hostile towards them, which led to the ASHA workers avoiding interactions with these patients – some patients refused to listen to the ASHA workers, insulted them, and told them they knew nothing.

*“The patients were telling me that they are elder than us, so why should they listen to our words. That we don’t know anything, they know everything, like that they were telling. They said that other people will tell*

*me things, and then I am coming and telling these things to them - I don't know anything, but they [patients] are experienced and know everything." [A113]*

## **ASHA knowledge and beliefs about mental illness**

Many of the ASHA workers reported that they had held misconceptions about mental illness prior to their participation in the HOPE study. The most commonly described beliefs were that mental illness is caused by evil spirits and that patients with mental illness do not improve. ASHA workers also occasionally mentioned that they had believed mental illness patients were different from other patients and they didn't know how to approach these patients.

On the other hand, some ASHA workers who had received training on mental health as part of the government ASHA program were able to identify mental illness. Others had personal experiences with mental illness, which influenced their beliefs.

*"Yeah, mental illness... When I was small my mom also got the same – the god rituals, all those things we did... Once my father told that all those things are not required, and he will take her to NIMHANS [Psychiatric institution] and get [her] treated." [A111]*

Most ASHAs said that following their participation in the HOPE study, they understood that mental illness is a treatable condition. ASHA workers identified sitting alone, talking to oneself, and refusing to leave the house as symptoms of mental illness.

Some of the most commonly cited causes of mental illness were the patients' co-morbid physical problems and "overthinking".

*"Before she [a patient] was thinking too much about her disorder and about the family it seems. Because she's staying with her husband, and he is too old now. And her children have shifted to Bangalore it seems, nobody is taking care of her now. So she was thinking too much about her life, how it will run and what should she do. All those things. And in the mean time she got this sugar [diabetes] also, how to treat, all those things she was thinking too much." [A116]*

Other causes included family problems, family deaths, and other stressors. When asked how to treat mental illness, most ASHA workers said that controlling the patient's physical disorder would cure the mental illness. Every ASHA worker seemed to believe that mental illness is always temporary, and always treatable.

*"Ok, she [a patient] got into depression because she got diabetes. So when the diabetes is under control and it's treatable, when she got to know that, she became normal slowly." [A104]*

Another common belief among ASHA workers was that mentally ill patients needed to stop worrying too much, in order to relieve tension.

Their understanding of the complex etiology of CMD remained incomplete at the time of the interviews. No ASHA worker mentioned any genetic or neurological causes of mental illness. Additionally, they had a simplified understanding of CMD treatment, failing to mention any forms of psychotherapy, and their common advice to “stop worrying” was met with resistance.

*“Patients are saying that we are telling them not to think too much about their problems... but the patients are facing family problems and they haven’t constructed their house. They have that work and this work and all those things, but still we are telling them not to think. They asked how can they be without thinking?” [A105]*

Several ASHA workers mentioned a need for more formal and detailed training about mental illness, particularly to help them become more adept at giving advice about treatment for mental illness.

## **Treatment facilitators**

Positive relationships between patients and ASHA workers helped in treatment compliance and retention, and helped improve patients’ understanding of their health conditions. ASHA workers frequently told stories where patients gave them credit for their improvement.

*“Overall the patients told that even we [ASHA] are taking care of their health so much, why can’t they take [responsibility for their own health]? Now, even they start taking care of their health, they thank me for my help and support. Before the patient was not knowing anything about her health condition and how to take care of health. But now she has learned everything and whenever I do home visit, she will be telling, thankful, that because of me only she got the treatment and learned many things.” [A116]*

ASHAs viewed the HLG sessions as very helpful for patients, especially due to the friendships that patients made in the groups. In addition, they believed participation in HLG sessions helped patients bring structure and regularity to their schedule.

*“Usually... if a person is going [to the] office... every day they will eat at 8:30. If the person is staying at home, they won’t [eat at] this exact time – they’ll eat whenever they are free. The same thing happens [to the patients] – if they are taking the sessions, they’ll come regularly in time and start doing [the techniques]. If they are staying at home, it’s not possible for them.” [A107]*

Many ASHA workers claimed to have implemented lifestyle changes in their own lives following participation in HOPE, and to have disseminated their new knowledge informally among other ASHA workers and village members.

Perhaps the most frequently mentioned facilitator to treatment was that it was offered free of cost. ASHA workers often used this to motivate patients to attend screening fairs and sessions. ASHA workers occasionally mentioned that support from patients’ families helped facilitate treatment, with families pushing the patients to go to sessions and take care of their health.

## **Treatment barriers**

An important barrier to treatment was the lack of accessibility to both the district hospitals and to the HLG sessions at the PHCs. Every ASHA worker mentioned at least one accessibility-related barrier during her interview, including distance to the PHCs, the transportation costs, the financial consequences of losing a full day's work, disability-related issues, and work and family obligations.

As described previously, negative relationships between patients and ASHA workers were occasionally a barrier to treatment. Also, ASHAs involvement in the government-sponsored ASHA program and/or their personal housework sometimes interfered with effective participation in the HOPE study.

ASHA workers occasionally mentioned that some patients were particularly distrustful of the medical system and government health programs.

*"At the start when we were visiting village members, the villagers would think that we are coming for some survey, and we'll do our work, we will not do anything for the villagers. The villagers were refusing to take me [ASHA] into the home... Usually we wear a pink colored sari, so when we wear that and go [to houses], they [villagers] think that we are coming for some survey – larvae survey or some other thing, leprosy.. It's not going to benefit them. So they were not responding properly to us." [A117]*

This lack of trust occasionally extended to HOPE study staff, especially regarding the study's intentions.

*"Some of the patients were saying that [study staff] will come 1 or 2 times and they won't take care then – they'll do whatever they want... This means, that some NGOs will come for 1 or 2 days and the NGOs will give all [kinds of] hopes to the villagers, but they will leave [after 1 or 2 days] and they will not come back again. [Patients thought] that even the HOPE study staff also do same thing, that they'll come today and then the next day they won't come." [A107]*

Similarly, ASHAs mentioned that some patients did not understand the purpose of medical procedures like blood tests, which scared them away from taking part in the HOPE study. With such patients, however, ASHA workers and study staff were able to intervene and explain the purpose of study procedures.

## **ASHA perspectives on the HOPE study**

Most ASHA workers were able to remember the general procedures of the HOPE study and the content of the HLG sessions, without prompting. Some ASHAs were unable to recall all of the topics of the HLG sessions. One ASHA worker was unable to recall any of the components of the HOPE study.

In general, ASHA workers believed the HOPE study was useful for patients, claiming that the health of almost all participating patients improved. They reported that most patients enthusiastically participated in HLG sessions and practiced the tasks taught, and some patients still maintained the relationships they formed with other patients.

*"65 year male. Having BP (blood pressure) and sugar [diabetes]. Before, his BP and sugar was not under control. Once he started practicing our techniques, it became under control, and now also he's practicing*

*the things... he's taking medication regularly, and walking every day. And maintaining the diet pattern, which was not there when he first came here. And he is not taking tension for every matter. He's well and good now." [A108]*

The ASHA workers claimed that patients were grateful for the opportunity to participate in the HOPE study, especially because many patients had not known about their various illnesses, and the screening fairs helped them become aware.

*"...some patients were not at all checked for the BP and sugar [diabetes]. Once they got checked and got to know they have BP and sugar, the treatment got started. Those people were telling that because of me only they got to know about their health condition." [A113]*

ASHA workers were reticent when asked about challenges associated with the HOPE study. The most consistent challenge they identified was irregular attendance. They occasionally told stories of patients whose health declined following the end of the study. ASHAs believed that these declines usually occurred because of a death in the patient's family and/or because patients stop practicing the tasks taught during the HLG sessions.

*"A: But one patient, his wife died recently, so because of that he's a bit... sad. Before her death he was doing [the techniques] it seems. Now he is not doing anything.*

SB: He's not doing anything... Are there any techniques he's using at all?

*A: No. He's in a sad [mood] so he's not..*

SB: How often do you visit him?

*A: Every day I go.*

SB: You see him every day? Have you tried to remind him about the techniques?

*A: Every day I'm telling but he's not..*

SB: Why doesn't he do it, what does he say?

*A: He's not refusing and he's not doing. He's just listening. He's not interested in that now." [A105]*

ASHA workers did not have many suggestions for improving the HOPE study. Most simply asked that the program include more patients and be of longer duration. Some requested that additional topics be added, like menstrual health and hygiene. Several ASHA workers asked for more information regarding mental illnesses other than CMD, more details on NCD, and more formal training in mental health intervention.

## **Discussion**

Through this study we obtained insight into the perspectives and beliefs of ASHA workers about their participation in the HOPE study, a community-based primary care mental health intervention. The ASHA

workers expressed enthusiasm and satisfaction about their role and participation in HOPE. They perceived the HOPE study as helpful and necessary, and almost all of the ASHAs requested that the HOPE study continue and expand to additional districts. They also identified key barriers to treatment, many of which they believed were mitigated by HOPE.

An important theme that emerged was how the ASHA workers' beliefs about mental illness changed following their involvement in the HOPE study. Previous to HOPE, most ASHAs claimed to have held misconceptions and stigmatizing beliefs about mental illness, including that mental illness was caused by evil spirits and could not be treated, and that patients with mental illness were different from others. Some ASHA workers had never heard of mental illness. This is consistent with the literature, which shows low mental health literacy among ASHAs [1, 2, 24, 26].

Following their participation in HOPE, most ASHA workers were able to identify a consistent pattern of symptoms and treatments, and advocated for approaching patients with kindness and empathy, which is also consistent with existing literature (Salve et al 2014, Shah 2019). Notably, the ASHAs had astute insights about comorbidity, often discussing the effects that physical disorders have on mental health. This is a unique feature of HOPE, which recruited patients with comorbid CMD and NCD. This is additional evidence that ASHA workers' beliefs and knowledge are receptive to change [1, 7]. Nevertheless, ASHA workers are rarely targeted by community mental health awareness campaigns [12, 27]. Considering the importance of ASHA workers in rural healthcare and their increasing participation in mental health interventions [5, 13, 21, 28], they should be included in mental health education efforts.

Despite their significant gains in mental health knowledge, ASHA workers failed to understand the complex etiology of mental illness, often identifying the co-morbid medical condition as the only cause. Previous studies have also shown that ASHA workers rarely identified genetics, trauma, or brain disease as causes of mental illness [1, 26]. Many ASHAs believed that CMD is always a transient condition, and that treating the co-morbid medical condition and "not worrying" were quick fixes. Additional training is clearly needed to empower ASHAs to provide mental health support to patients, perhaps similar to the *Atmitya* intervention that trained community volunteers to provide basic mental illness counseling [27]. Indeed, several ASHA workers asked for more training in mental health.

ASHA workers play a key role in connecting rural patients to health care systems, and findings from this study highlight the importance of this role. The interviews with ASHAs demonstrated that many ASHAs formed strong positive relationships with patients that encouraged the patients to attend sessions, practice techniques, and make concerted efforts to improve their health. ASHA workers helped recruit patients to the screening fairs and sessions by explaining the study aims, providing assurances and encouragement, and dispelling pervasive misconceptions about study procedures like blood draws. Their relationships with patients were key factors in fostering trust and education on health issues.

There are several important limitations to consider when interpreting the results of this study. The real-time translation by an interpreter may have caused some nuance and complexity to be lost. Also, ASHA workers rarely discussed challenges they faced or suggestions for improvement. It is likely that, despite

being assured that their honest opinions were welcome, some of the ASHAs were reluctant to criticize the study and were telling researchers what they thought they wanted to hear. Lastly, some ASHAs needed to be reminded of HLG topics or study procedures before answering questions, making it difficult to get accurate perspectives. This speaks to a need for reminder sessions after the intervention ends to ensure knowledge retention and long-term sustainability of the intervention.

Despite these limitations, this study has several implications for public health policy and practice. Multiple barriers exist to accessing adequate treatment in rural areas, including financial concerns, transportation difficulties, ignorance of medical science, and a general distrust of government health systems including the PHCs and the ASHA program. These barriers have been corroborated in other literature [10, 27]. ASHA workers may help mitigate these issues, as shown through their experience with HOPE, and ASHAs have previously acted as friends and advocates for vulnerable patients [29]. Additionally, ASHAs may help sustain long-term effects of the HOPE study – as members of the communities they serve, they continue to check in frequently with their patients and spread knowledge with others in their village. Given the positive effects of ASHA involvement, and the ASHAs' enthusiasm for participating in the intervention, future management of NCD and CMD in rural areas should continue to involve the efforts of ASHAs and other lay community health workers, and future community mental health interventions should educate and empower community health workers to most effectively help rural patients.

## Conclusions

ASHA workers are key members of the rural primary care system in India. This study shows their importance in connecting patients to the existing health care facilities, educating patients, and checking in on patient health. It is clear that utilizing the efforts of ASHA workers in mental health interventions may mitigate numerous barriers to treatment, and that ASHA workers can be educated on issues of mental illness. In general, this study shows how useful ASHA workers' perspectives are, and future ASHA interventions should investigate the beliefs and perspectives of the ASHA workers to better understand and improve the interventions.

## Abbreviations

MNSUD

Mental, Neurological, and Substance Use Disorders

DALY

Disability Adjusted Life Years

NCD

Non-Communicable Disease

CMD

Common Mental Disorders

ASHA

Accredited Social Health Activist  
RCT  
Randomized Controlled Trial  
HOPE  
Parent Study  
PHC  
Primary Health Center  
HLG  
Healthy Living Group session  
BP  
Blood Pressure

## **Declarations**

### **Ethics approval and consent to participate:**

The study was approved by the Institutional Review Boards (IRB) of the University of California, San Francisco and Berkeley (IRB 18-24388, reference # 249422), and by the Institutional Ethics Committee (IEC) of St. John's Medical College and Hospital (reference #142/2018).

Informed consent from every ASHA worker who participated was obtained prior to study procedures – ASHAs were given a study information sheet and consent form, both in Kannada, and any questions they had were answered.

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### **Consent for publication:**

Participants provided written consent for anonymized data to be published in scientific settings.

### **Availability of data and materials:**

The datasets generated and analyzed during the current study are not publicly available due to confidentiality and anonymity concerns for individual ASHA participants.

### **Competing interests:**

The authors declare that they have no competing interests.

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## **Author's contributions:**

SB designed the study, acquired and analyzed all data, and drafted the manuscript. KS and ME supervised data acquisition and analysis, and drafted and revised the manuscript.

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