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Original Research Article

Community based sensitization to address maternal and child health problems in tribal population of India

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ABSTRACT

Background: India fights with substantial maternal and child health (MCH) concerns, accounting about one quarter of the global burden of maternal and childhood mortality. The current study was tried to assess the impact of community partnerships between medical students, community stakeholders (TBAs and local tribal girls) and general community members on their awareness levels about MCH care and services.
Methods: a community-based pilot interventional study was conducted at one of the rural blocks of Maharashtra state of India. Of 120, sixty (50%) first year undergraduate MBBS medical students (intervention group) posted at two months rural healthcare training programme' participated in preparing MCH related health education material (HEM) in local language. Similarly local tribal girls, TBAs and general community people were trained about MCH and their knowledge levels were assessed.
Results: Pre and post training assessment scores of participants (students, TBAs, tribal girls and general people) indicated significant ($p<0.05$) differences in their knowledge about MCH. The used approach of community collaborations in this study upgraded the knowledge of stakeholders (TBAs, tribal girls) and common tribal people about basic aspects of MCH and associated welfare schemes. The study also reported positive attitudes of all participants about an intervention.
Conclusions: Productive and synergistic community partnerships can be created among health care providers, community health workers and other stakeholders to ensure commitment and engagement towards positive health.

Keywords: Community partnerships, MCH, Tribal population

INTRODUCTION

India struggles with significant MCH concerns, accounting about one quarter of the global burden of maternal and childhood mortality.[1] Low health literacy, socio-cultural norms, different living environment, poverty and inadequate local participation in decision making etc. are few of the identified reasons for several MCH related unmet needs among tribal people in India.[2] Insufficient trained manpower to provide quality health care is one of the key barriers to the extension of MCH services to these population. Traditional birth attendants (TBA), who are the frequent first point of care can be trained to deliver basic MCH services in remote and medically unserved areas. However, the literature reported their suboptimal knowledge about antenatal and postnatal care, normal delivery practices and other aspects of MCH.[3]

Community based education and service (COBES) positively influences and prepares students to care for individuals in the rural and marginalized communities.[4] As students collaborate with community members and field health workers, the relevance of COBES and importance of working in the communities may be internalized due to their interactions with community stakeholders.[4] The aim of the study was attempted to evaluate the impact of

community partnerships between medical students, community stakeholders (TBAs and local tribal girls) and general community members on their awareness levels about MCH care and services.

METHODS

Study design and area

A community-based pilot interventional study was conducted at one of the rural field practice blocks of D. Y. Patil Medical College, Navi Mumbai of Maharashtra state of India.

Study population

From the same study institute, of 120, sixty (50%) first year undergraduate MBBS medical students (intervention group) posted at two months 'Rural healthcare training programme' participated in preparing MCH related health education material (HEM) in local language. The control group encompassed of remaining 50% students and were taught MCH topics with regular teaching methods. The inclusion criteria involved all 120 first year UG students of the respective institute and those students who were not willing to participate were excluded from the study. The study was implemented between February 2019 to March 2019. Second group of study population included traditional birth attendants and local tribal girls (60) and general community people (435) of selected area. They were selected as per convenience sampling method. All illiterate members were excluded from the study.

Ethics procedures

An institutional ethics approval was obtained from the respective institute. An informed consent was obtained from the study participants. Confidentiality as well as anonymity of participants was maintained throughout the study.

Methodology

The health education material (HEM) was self-developed five modules on MCH topics and information brochures (IBs). These modules were 'pregnancy care', 'safe delivery practices', recognition and management of antenatal and postnatal complications', 'child immunization' and 'keeping children clean and healthy'. Each single module was formulated by each subgroup of 12 students respectively. The module topics were finalized through consensus of students after having community visits and preliminary group discussions.

The self-made IBs included comprehensive information about different government MCH welfare schemes for tribal population. Diverse engagement activities like role plays, poster competitions, quiz, video making competitions were integrated to motivate students during the study (Figure 1). Subsequent training flow of prioritized community stakeholders is depicted in Figure 1. The same prepared HEM was utilized as a resource material to train TBAs, tribal girls and general community people.

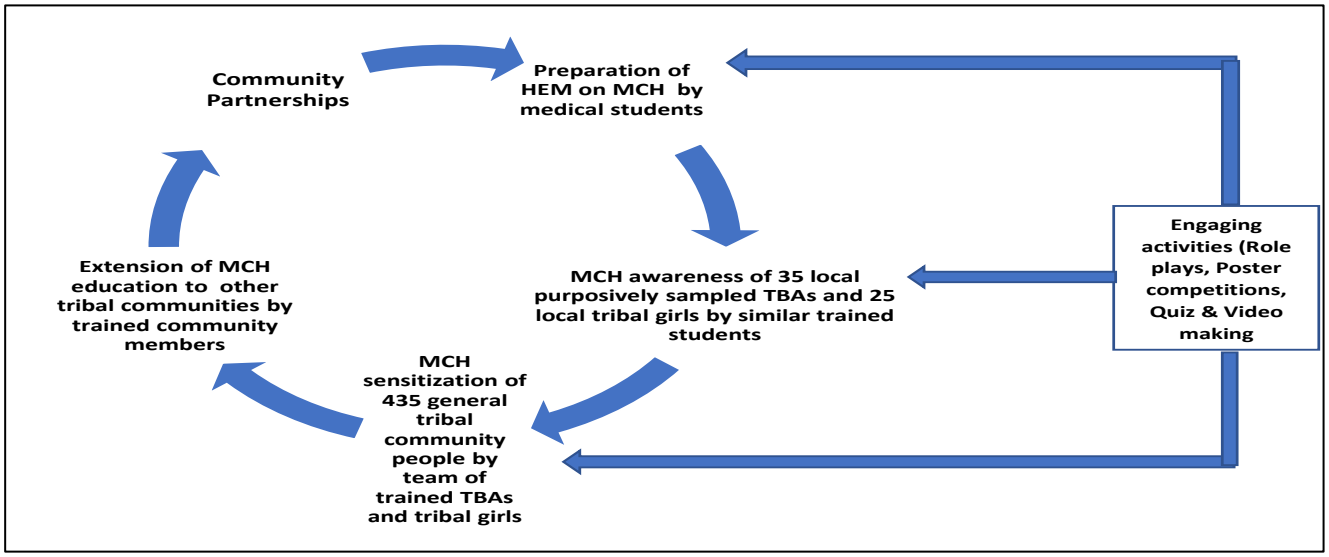

Figure 1: Flow of MCH training to stakeholders through community partnerships.

RESULTS

Demographic features of study participants are depicted in Table 1. Pre and post training assessment scores of participants (students, TBAs, tribal girls & general people) indicated significant ($p<0.05$) differences in their knowledge about MCH. The used approach of community collaborations in this study upgraded the knowledge of stakeholders (TBAs, tribal girls) and common tribal people about basic aspects of MCH and associated welfare schemes. Table 2 shows an increase in knowledge of medical students about MCH topics.

Table 3 indicates positive perspectives of all participants.

Table 1: Demographic characteristics of study participants.

Parameters	MBBS students, (n=120) (%)	Traditional birth attendants and tribal girls, (n=60) (%)	General community members, (n=435) (%)
Age range (years)	18-20	17-45	20-65
Gender	Males-68 (56.66)	Females-60 (100)	Males-313 (71.95)
	Females-52 (43.33)		Females-122 (28.04)
Educational status	First year MBBS students	Primary-12 (20)	Primary-126 (28.96)
		Secondary-3 (38.33)	Secondary-78 (17.93)
		High school-25 (41.66)	High school-231(53.10)
Occupation	Medical students	Students-41 (68.33)	Labours-133 (30.57),
		Service-19 (31.66)	Farmers-113 (25.97)
		-	Service-128 (29.42)
		-	Teachers-13 (2.98)
		-	Unemployed-48 (11.03)
Marital status	Single-120 (100)	Married-14 (23.33)	Married-269 (61.83)
		Single-46 (76.66)	Single-166 (38.16)

Table 2: Mean marks of participants (medical students), (n=120).

Variables	Mean marks (out of 20)	SD	T value	P value
Pre intervention	5.87	2.61	26.68	<0.001
Post intervention	14.22	2.68		

P less than 0.05 was considered as statistically significant.

Table 3: Positive perceptions of study participants for an intervention.

Parameters	No. of students (%) with positive response, (n=120)	No. of TBAs and tribal girls (%) with positive response, (n=60)	No. of general community members (%) with positive response, (n=435)
Planning and execution			
Training content was steady with SLOs	95 (79.16)	50 (83.33)	332 (76.32)
Simplified and easy to follow training pattern	100 (83.33)	50 (83.33)	421 (96.78)
Interactive sessions were helpful.	120 (100)	54 (90)	410 (94.25)
Time consuming and needed huge preparation.	40 (33.33)	23 (38.33)	217 (49.88)
Resource persons were knowledgeable and cooperative	112 (93.33)	60 (100)	430 (98.85)
Sharpening of skills			
My self-learning and team work abilities are enhanced	111 (92.50)	58 (96.66)	277 (63.67)
My knowledge about MCH is improved.	118 (98.33)	59 (98.33)	420 (96.55)
My awareness about MCH is augmented.	118 (98.33)	50 (83.33)	387 (88.96)
I can do little better to improve MCH in community.	87 (72.50)	45 (75)	398 (91.49)
I can retain the MCH knowledge for long duration.	90 (75)	31 (51.66)	225 (51.72)
General perspectives			
Effective and innovative training	99 (82.50)	51 (51.66)	428 (98.39)
Several public health issues can be dealt with this training	120 (100)	60 (100)	435 (100)
I can provide MCH education to community people	81 (67.50)	50 (83.33)	435 (100)
I will attend such more trainings in future	85 (70.83)	60 (100)	388 (89.19)

Positive responses=agree and strongly agree on the Likert scale (4 and 5 score), TBAs- traditional birth attendants, SLOs- specific learning objectives, MCH-maternal and child health.

DISCUSSION

Early exposure of UG medical students to real community environment not only enhanced contextual professional learning but also developed their positive mindsets towards community life. The students also encountered an array of socio-economic and political forces influencing

MCH in targeted areas. These experiences may assist them to inculcate better understanding of community health as well as to work efficiently in the community as a health care practitioner.[5-7] As reflected through students' feedback, HEM and IBs development process increased self-directed learning, analysing abilities, problem solving, group work and interpersonal communication skills among them. Few important lessons were explored from the present study. The collaborative and complementary efforts between students, tribal community members and TBAs helped to bridge knowledge gaps about MCH among them. In addition to TBAs, tribal girls in same communities were found to be the potential trainers for educating community members about MCH.[8-12] Majority of the tribes in India reside in hilly terrain where health care services are difficult to reach and consequently it becomes challenging for health care system and providers to reach there.[2] Therefore, selecting, training and deploying local volunteers to serve in own communities as a primary health provider may be highly recommended.

The current study established a good rapport between students and community members. Through students' reflections about an intervention, it was understood that the hospitality and cooperation accorded to the students by the community was one of the motivating factors for them to implement similar community-oriented research projects in future. The willingness and preferences of students to serve rural or tribal areas was not because of their mere presence in the community but also due to their awareness of perceived health needs of community and deficient human resources to achieve it.

The study confronted some challenges like engaging and maintaining active involvement of tribal community members in training sessions, group dynamics concerns among students, training of TBAs and tribal girls etc. However, they were effectively tackled with interactive sessions and using various motivational strategies. This study shows robust future implications. It can be propagated to cover other common public health problems among tribal and marginalized regions of India. One of the future plans of the study is to train other key community health workers like Anganwadi workers, ASHAs (Accredited social health activists), multipurpose health workers (MPWs), self-help groups (SHGs) and Traditional healers to promote MCH in tribal areas of India. The long-lasting impact of the study may be assessed in the form of significant awareness as well as reduction in maternal and child morbidity and mortality among tribal population in India. Several lessons were learned during the study. Early introduction of community based medical education improves contextual learning, soft skills as well as positive perspectives of undergraduate medical students towards community health. Collaborative work between health care institutions, community health workers and various community stakeholders can promote positive health especially among marginalized and underserved population. Using the community as training environment may be helpful for medical schools to create competent and empathetic aspiring medical graduates to serve community in an effective way.

Limitations

One of the major limitations of the current study was limited sample size of medical students and field population. Multicentric studies with larger sample size are required for better generalization of results. Involving general community members and training them for the study was a big limitation for this study.

CONCLUSIONS

Productive and synergistic community partnerships can be created among health care providers, community health workers and other stakeholders to ensure commitment and engagement towards positive health. Early exposure of medical students towards community based participatory research not only imbibes cognitive and soft skills but also develops their interest in public health. Furthermore, multicentric studies with larger sample size are needed for generalizability of results.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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