

Mixed-Method Analysis of Community Health Camps: A Novel Approach Beckoning

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Abstract

Background: In India, 60% of the population lack basic medical facilities, so health camps which provide short-term medical interventions for target communities may be beneficial. This study epidemiologically analyzes a health camp event in a rural area of Maharashtra to provide practical insights for organizing, planning, and implementation of health camps. **Objectives:** 1. Assess the sociodemographic profile and spectrum of morbidity of camp beneficiaries. 2. Assess expectations and satisfaction perceived by community and organizers from health camps. 3. Gain practical insights from the camp event to advocate participation-friendly policies in the community. **Materials and Methods:** This is a cross-sectional mixed design study. Using qualitative method, a total of four focus group discussions (FGDs) were held with beneficiaries attending the camp and three in-depth interviews (IDIs) were held with camp organizers. A semi-structured questionnaire was used to interview 358 beneficiaries to be studied quantitatively. **Results:** The camp comprised 52.7% of males and 36.7% of females as beneficiaries. Observed were cases of acute disease (41.6% [$n = 149$]) and chronic disease (58.7% [$n = 209$]) with maximum beneficiaries visiting ophthalmology department (25.4%) followed by general medicine (16.70%). FGDs and IDIs revealed two major themes – expectation and satisfaction and several subthemes. **Conclusion:** The beneficiaries appreciated the event and expressed the requirement of organizing such camps in future again. The camp was need based as revealed by the organizers and beneficiaries. Few strategies in future can result in more participation-friendly health camps.

Keywords: Community participation, expectation, health camp, Health for All, satisfaction

INTRODUCTION

Health care is the right of every individual, but lack of quality infrastructure, dearth of qualified medical functionaries, and nonaccess to basic medicines and medical facilities thwart its reach to Indian citizens.^[1] In rural areas, the number of primary health-care centers (PHCs) is limited: 8% of the centers do not have doctors or medical staff, 39% do not have laboratory technicians, and 18% of the PHCs do not have a pharmacist.^[2] In the current health care scenario of our nation, health camps which are stationary or mobile can be a convenient solution imparting short-term medical intervention to the targeted population.^[3,4] Most of the camps are initiated by nongovernmental organizations and political organizations and also the local private practitioners which mobilize the government health system for this purpose,^[5] but proper utilization of these health camp services is determined by the attitude of the target population.^[6] If epidemiological approach on need-based evidence is adopted, these health camps can be

an effective media for delivery of health services needed^[7] than just focusing on disease-oriented approach.^[6]

This study focuses on a mega health camp event organized in the Beed district of Maharashtra state, which is categorized as a low-performing district.^[8] Like the prevailing scenario in rural India, Beed area also had the problems of accessibility to health services and dependence on private sectors.^[9] Hence, a novel model, i.e., the community health camp, is studied, which may be helpful for the masses and increases the outreach of the health services. This study helped to provide practical insights for organizing, planning, and implementation of a mega health camp.^[10] The basic objectives were to assess the

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sociodemographic profile and spectrum of morbidities among camp beneficiaries and to utilize qualitative and quantitative methods to identify the health concerns, expectations, and satisfaction perceived by the community and the organizers helping in advocating participation-friendly policies in the community.

MATERIALS AND METHODS

Study design

A mixed-methods study design was employed to assess the expectation of the organizing committee while conducting a mega camp and the perception of beneficiaries about the camps. Quantitative data was collected via a pre-validated semi-structured interview schedule. Qualitative data was collected by a pre-designed focus group discussion (FGD) guide for conducting the FGDs among the camp beneficiaries and an In-depth interview (IDI) guide for interviewing the camp organizers.

Settings

The study was conducted in Beed town, Maharashtra, India.

Participants

The present study employed a cross-sectional design, where quantitative data were collected by convenient sampling method with a sample size of 358 of adult rural men and women who were above 21 years of age and gave consent for FGDs and interviews.

Four FGDs were conducted. Each FGD group consisted of 5–6 participants, and each session lasted for 20–30 min' duration. After taking written informed consent from the key informants, key informant interviews were conducted for 2 days during the camp and 1 month after the camp for a duration of 30–45 min. We selected purposive sampling technique for selecting the key informants including organizing committee members; for instance, medical officers, general practitioners, and community volunteers. The interviews focused on health issues that need to be addressed in the community, mobilization techniques used, motivation behind organizing the camp, and elaborating their postcamp opinions.

Ethical approval

The study was approved by the Ethical Review Board of Seth G. S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra. All participants gave written consent prior to participating in the baseline interview and FGDs.

Data analysis

The constant comparative method was used to compare themes across the groups and key informants and to determine relationships among them. The qualitative data was coded and the analysis of focus group and key informant transcripts were done by using N6, 2006 version (QSR International, Melbourne, Australia). For the quantitative questionnaires, descriptive statistics were generated to characterize respondents in terms of socioeconomic background by using Microsoft Excel 2016. A

list of conditions which required improvement were identified by the respondents and these were labeled as themes. After this, the frequencies were generated to characterize the number of individuals who identified each type of condition and were framed as sub-themes.

RESULTS

Out of the 358 camp beneficiaries, 52.7% were male beneficiaries and 36.1% were female beneficiaries. Nearly 37.9% of the beneficiaries were having farming and cultivation as their occupation. Almost 30.7% of the beneficiaries were having primary education and 28.2% were illiterate. Nearly 37.7% of the beneficiaries were belonging to lower class and only 1.1% beneficiaries were of higher class according to the B. J Prasad's classification [Table 1].

Out of the 358 beneficiaries, 41.62% ($n = 149$) of the beneficiaries had acute diseases and 58.7% ($n = 209$) had chronic diseases. Chronic disease in this study is defined as a disease lasting for >3 months and not prevented by vaccine

Table 1: Sociodemographic characteristics of the camp beneficiaries ($n=358$)

Characteristics	Total number, n (%)
Sex	
Male	189 (52.7)
Female	129 (36.1)
Occupation	
None	109 (30.4)
Laborer	87 (24.3)
Business	18 (5.2)
Cultivation	136 (37.9)
Service	8 (2.2)
Education	
Illiterate	101 (28.2)
Primary	110 (30.7)
Middle	80 (22.3)
High school	53 (14.8)
Graduate	13 (3.6)
Above	1 (0.002)
Religion	
Hinduism	305 (85.2)
Islam	42 (11.7)
Christianity	1 (0.3)
Buddhism	10 (2.7)
Caste	
Schedule tribe	7 (1.9)
Schedule caste	49 (13.6)
OBC	124 (34.6)
Open	178 (49.7)
Income	
Lower class	135 (37.7)
Lower middle class	123 (34.3)
Middle class	67 (18.7)
Upper middle class	29 (8.1)
Upper class	4 (1.1)

or totally cured by medicine. The total number of surgeries performed was 76. Nearly 55.2% ($n = 42$) of the surgeries were ophthalmological surgeries [Figure 1].

Qualitative result

For the qualitative data, initially, open coding was done. Furthermore, *in vivo* coding was applied followed by axial coding. Subthemes were established for the themes of “expectation and satisfaction” of the beneficiaries. IDIs were further coded into subthemes for the theme of “expectation of organizers” from the camp. We have prepared a conceptual model based on the results of this study. The model represents a summary of the themes and subthemes from the four FGDs and three IDIs held^[11] [Figure 2].

The responses of the camp beneficiaries on days 1 and 2 were recorded by four FGDs. After analyzing these discussions, we developed two main themes – satisfaction and expectation among the patients and several subthemes [Table 2].

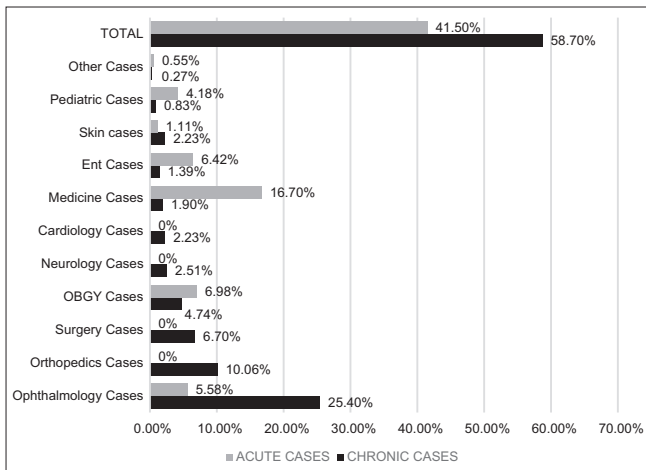


Figure 1: Spectrum of morbidity of diseases of camp beneficiaries ($n = 358$)

The IDIs conducted by the camp organizers evolved the following components – accessibility, affordability, expert consultations, and challenges [Table 3].

DISCUSSION AND CONCLUSION

Analyzing the transcript of all the four FGDs, we identified two themes, i.e., satisfaction and expectation. The subthemes identified for satisfaction were medical services, physician conduct, nonmedical services, and affordable services. Medical services were the first factor in which the respondents were either satisfied or unsatisfied. The participants commented that they were satisfied with medical services such as rehabilitative, curative, and diagnostic but unsatisfied with the absence of superspecialty medical services. Expensive diagnostic tests and few surgical procedures were provided free of costs, which was another main reason for their satisfaction. Provision of transportation, food water services, shaded waiting area, and proper guidance by the camp volunteer while availing services inside the camp also supplemented to the satisfaction level. However, absence of ventilation and overcrowding in the waiting area were issues of dissatisfaction. Although the beneficiaries were dis-satisfied with consultation duration, they agreed that the physicians were empathetic and responsive to their health issues.

The subthemes identified for expectation were expert doctor, availing camp services, affordable medical facilities, and unavailability of services in the native area. Most of the expectations of the camp beneficiaries were met in the camp.

An important fact which came into light from these FGDs was that there were many areas in this district which had paucity of medical services.

The key informant interviews conducted helped us to assess the major expectations and challenges faced by organizers while conducting the camp.

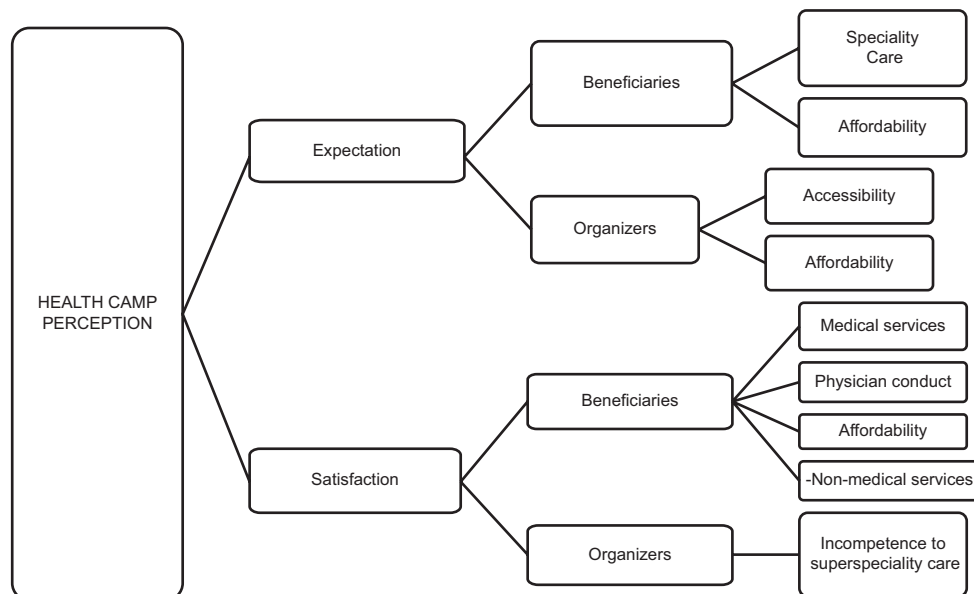


Figure 2: Conceptual model on the findings of the study

Table 2: The responses of the camp beneficiaries on days 1 and 2 recorded by focus group discussions

Theme	Subtheme	Patients' comments	
		FGD 1	FGD 2
Satisfaction	Medical services	<i>"My disabled child was given rehabilitation and that too free of cost, I am overwhelmed"</i>	<i>"I came for good medicines and investigations which I received in properly"</i>
	Physician conduct	<i>"Doctor was very responsive to my complaints; I feel my illness will be gone"</i>	<i>"I waited for long hours, but doctor didn't have time to listen to my complaints and examine me"</i>
	Nonmedical services	<i>"Camp organizers didn't provide proper waiting area, was very hot, I feel management was not proper"</i>	<i>"Only because transportation was provided, we could travel a distance of 90 km today and could meet doctors"</i>
Expectation	Expert doctor	<i>"I heard good doctor from Mumbai will be here, so I came here to consult"</i>	<i>"My child is unable to gain weight, so need an expert doctor"</i>
	Care for chronic disease	<i>"I have long standing both knee pain since 7 years, so came here for expert care"</i>	<i>"I came here to do my blood tests for diabetes"</i>
	Availing services	<i>"I came here for a scan which I heard is available here"</i>	<i>"I heard investigation will be done here for abdomen pain, so came here"</i>
	Affordable services	<i>"I want financial incentives as I'm chronically ill, so thought I will get some help"</i>	<i>"I have wasted a lot of money for my abdominal complaint, now cannot afford expensive treatment, so want cheap and good medicines"</i>

Theme	Subtheme	Patients' comments	
		FGD 3	FGD 4
Satisfaction	Medical services	<i>"Surgery for piles was conducted in the hospital of the camp area, so service was compliant"</i>	<i>"I came here to consult for seizure complaint, but no doctor available, very unhappy"</i>
	Nonmedical services	<i>"I was guided properly by the camp organizers and all services were in the same area"</i>	<i>"Mainly camp facilities were good; food and water provided and transportation provided"</i>
	Affordable services	<i>"Camp had done my cataract surgery for free, which I avoided due to lack of money"</i>	<i>"The scan which was costing me >5000 was here done for free, so good"</i>
Expectation	Expert doctor	<i>"I heard good medicines and expert doctor from big city are in camp, so came to consult them"</i>	<i>"I have epilepsy, taken lot of treatment, relief not good, so now want some good doctors"</i>
	Availing services	<i>"I came for cataract surgery here"</i>	<i>"My blood sugar level has increased so need better medicines now"</i>
	Affordable services	<i>"I am having loose stools and reduced appetite since 2 years. Spent lot of money on treatment. so now want only free medicines"</i>	<i>"Some people informed me piles surgery is free here, so came"</i>
	Unavailability of services	<i>"I have to travel a lot of distance to consult doctor, here they gave transportation, so that I meet good doctor"</i> <i>"I was advised to do scan, which was not present in my resident area, so came here, if it can be done here"</i>	<i>"No good treatment in my area for my illness and those who treat take lot of money, so came here"</i> <i>"I have bad headache, no good treatment in my area so came here"</i>

FGD: Focus group discussion

Table 3: The response of the camp organizers recorded after in-depth interviews

Components	IDI	Organizers' comments
Accessible	IDI 1	<i>"In my view, everyone in the community should get similar medical and health facility which should be easily available to all"</i>
	IDI 3	<i>"Motivation behind camp was to reach the health facility deprived population, which are staying in backward area and underprivileged area"</i>
Affordable	IDI 1	<i>"Major motivation behind camp was to reach poor"</i>
	IDI 2	<i>"Poor people are underprivileged and do not get medical care. Providing them health facility was one of the major motive of this camp"</i>
Expert consultations	IDI 1	<i>"Medical facility in this area is poor and so camp wanted to provide expertise treatment and consultation"</i>
	IDI 3	<i>"Many places backward places in this district lack efficient doctor consultation. We wanted the people to provide poor medical consultations"</i>
Challenges	IDI 1	<i>"There was nonavailability of superspecialty consultation"</i> <i>"Mobilizing the patient from far areas was difficult. Lot of efforts were also required to inform the backward area population about the camp"</i>
	IDI 3	<i>"A lot of people from the different areas praised the camp and said that same type of camp must occur in the future. This satisfied our purpose. But unavailability of superspecialty department was found as a major drawback"</i> <i>"Second day, it was noticed that time provided to patient during consultation was less"</i>

IDIs: In-depth interviews

The camp organizers expected to make health facility affordable services accessible for the population staying in backward and underprivileged areas. The organizers invited expert doctors from different states of India to provide these community with optimal health services. However, mobilizing the beneficiaries from distant backward area was an arduous task. Voluntary workers; community health workers; and social media including radio, newspaper, and social networking sites such as Facebook and WhatsApp helped people to gain information about the mega camp. The organizers provided buses as the mode of transportation for the beneficiaries who wanted to attend camp from distant places. Most of the attendees of the camp required neurology and cardiology consultation which was unavailable, resulting in dissatisfaction among few beneficiaries. However, this issue was handled by proper referrals to higher centers and reassuring the beneficiaries that all costs required for consultation to superspecialty departments of higher centers will be borne by the camp organizing the committee. However, the practical feasibility of such assurance may be dubious for beneficiaries of poor and backward areas. Managing, guiding, and giving proper consultation time to each beneficiary attending the camp were difficult as the total number of attendees outnumbered the precamp estimation. However, the organizing committee's major motives to help the poor, needy, and backward communities residing in distant areas with expert affordable consultation were congregated.

According to the WHO theme, 2019, "Universal Health Coverage: Everyone, Everywhere," it is essential to provide basic primary care to every stratum of people of the society. Health camps have gleamed as a reasonable and practicable approach to provide universal health coverage as it has a reach to the most backward and underdeveloped communities of a society. To construct these community health camps, more participation-friendly strategies such as organizing multiple small-scale health camps in the subdistrict areas, helping in more distinctive attention to individual beneficiaries, enlistment of the disease trend of a particular area, and categorizing the patients requiring superspecialty care for further organization of specific superspecialty camp should be developed for future camps. Prioritizing the specific health-care requirement of a particular area can be accelerated by community participation,^[12] which will further help in gaining the status of universal health coverage.

Limitations

In this study, IDIs could not be conducted with the local politicians of the area as they had a busy schedule. This could

have provided wider perspectives of the challenges faced. Second, this study involved a single mega camp only. Multiple camp studies will provide a better generalization of the study findings.

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Conflicts of interest

There are no conflicts of interest.

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