Original Article

Assessment of Communitization through Knowledge, Attitude, and Practice Status of the Members of Village Health Sanitation and Nutrition Committees

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Abstract

Background: Village Health, Sanitation, and Nutrition Committee (VHSNC) is an important tool and measure of communitization and way of decentralization to plan & monitor health care down to the village level. **Objective:** To assess the communitization through knowledge, attitude & practices (KAP) status of its members. **Material & Method:** Observational, cross-sectional study conducted over the period of two years in all 13 blocks of Pune District in Maharashtra state. Data were collected using prestructured and pretested proforma from seven members per VHSNC. Qualitative data variables were expressed by using frequency & percentages. Quantitative data variables were expressed by Chi-square tests (95% CI). **Results:** Mean age of members was 40.77 ± 9.30 years. The majority of them, i.e., 76%, were females. The distribution of social categories shows that 20% of members were SCs/STs and 19% OBCs. The majority, i.e., 34%, were found to be educated up to secondary education. The mean KAP score of all members was documented to be 39.05, which indicated unsatisfactory communitization. KAP regarding VHSNCs was highest among Anganwadi Workers, followed by Auxiliary Nurse Midwives, Multipurpose Workers, Sarpanchs, Accredited Social Health Activists, Gram Panchayat members, and others. A significant association was found between the KAP score of members with their education, designation in VHSNC, and background. ($p < 0.05$) **Conclusion:** The Communitisation across the district, as indicated by the KAP score of members, was found to be unsatisfactory. Thus, efforts through the capacity-building program for the members of VHSNC will be beneficial.

Keywords: Village Health Sanitation and Nutrition Committee, communitization, KAP

Introduction

One of the key elements of the National Health Mission (NHM) is the communitization, and the Village Health Sanitation and Nutrition Committee (VHSNC) is the key institution architect. This committee is envisaged to take leadership in providing a platform for improving health awareness and access to the community for health services, addressing specific local needs, and serving as a mechanism for community-based planning and monitoring[(1)]. NHM had encouraged the establishment of VHSNCs at every revenue village. About 4,21,892 VHSNCs have been constituted across the country at the village level[(2)]. In the Pune district, 1825 VHSNCs are established across 13 blocks[(3)].

One of the reasons for the non-improvement of people's health-seeking behavior was the community's lack of ownership. To address this issue, communitization is the answer, i.e., peoples' participation. It allows them to actively and regularly monitor the progress of the NHM interventions in their areas. It also results in communities participating in and contributing to strengthening health services, thereby, bringing the 'Public' into 'Public Health'[(4)].

Health policymakers of India visualized the VHSNC as an important tool and measure of communitization and decentralization to deliver health care. VHSNC comprises members from various folds of the community and their good knowledge, attitude, and practice will ultimately reflect in the effective communitization. There is a need to assess the extent of communitization as per the guidelines of NHM. An assessment study of VHSNCs would help to understand the grass root scenario and the impact of our nation's health policies. Hence this study would provide inputs for improvisation of rural health scenarios. Thus, the study is planned with the following objective.

Objective

To assess the communitization through knowledge, attitude and practices (KAP) status of members of VHSNCs in the Pune district

Material and Methods

Study setting

This study was conducted in the Pune district. Pune district is located in western Maharashtra, having 13 administrative blocks[5].

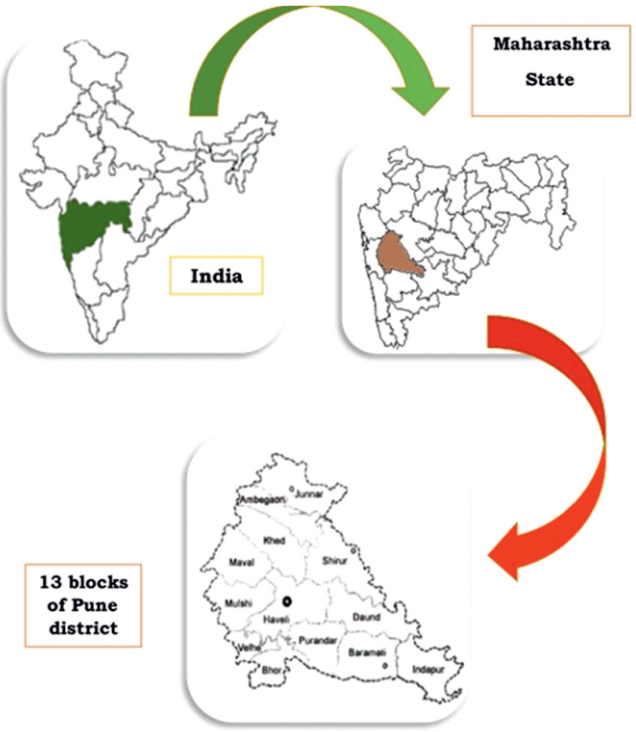

Figure 1: 13 Blocks of Pune District

Study Design

This study was an observational, cross-sectional study.

Sample size estimation

Considering the prevalence of VHSNC functioning as 77%[6] and 10% non-response rate for sample size estimation, the sample size of 33 VHSNCs was calculated.

Sampling Technique

The study used a two-stage sampling technique. In the first stage, depending on the proportion of the total number of VHSNCs in each block, 2-3 VHSNCs were selected through systematic random sampling from each block. A Primary Health Centre (PHC) and Sub-centre-wise (SC) list of all villages with VHSNCs in the Pune district was obtained and arranged in alphabetical order, and the proportionate number of VHSNCs was selected from each block. In the second stage, seven members per VHSNC, i.e., approximately 50% of the minimum membership of VHSNC, were selected. Out of seven members, four were chosen purposively, i.e., The Sarpanch (The Chairperson & Representative of Panchayati Raj Institution), Anganwadi Worker (AWW) (The secretary & Convener), Auxiliary Nurse Midwife (ANM) (Frontline staff from the health department), Accredited Social Health Activist (ASHA); while remaining three members were chosen randomly from the list of members of VHSNC. It comprised Gram Panchayat Members (Representative of Panchayat Raj Institution), common villagers, Multi-Purpose Workers (MPWs), teachers, Antenatal Care (ANC) mothers, hand pump mechanics, etc.

Study tool

Prestructured and pretested proforma for assessment of the KAP of members were used. It included a section for socio-demographic information viz age, sex, education, social category, background, designation in VHSNC, etc., and a questionnaire comprising 30 questions regarding KAP based on the guidelines extended for the VHSNC by the health ministry[7,8]. Out of the total 30 questions, 17 were for assessment of the knowledge, six were for assessment of attitude, and the remaining seven were for assessment of Practice aspects.

Data collection

The study was conducted in the year 2015 – 2017. Before visiting the selected VHSNC, the cooperation of the Medical officer of the PHC of that area was sought. The AWW, and the secretary of VHSNC, were conveyed in advance, and a meeting was arranged on a specified date convenient to VHSNC members of that village. All the study subjects were informed thoroughly regarding the study. They were provided with an information sheet regarding the study, and their written consent was taken. Study subjects were given to fill a self-administered proforma. Assistance was offered to fill the self-administered form for the illiterate participant or those who needed help in understanding the questions. A KAP score was calculated based on their responses.

Scoring System

Marks allotted to the answers were considered as the score. The minimum score allotted was zero for all questions, and the maximum was one for 14 questions, two for one question, and three for 15 questions, respectively. A score of zero was given for wrong or no answer. While scores of one, two, and three were given for single correct, two correct, and three or more correct answers, respectively. Thus, for knowledge assessment, minimum and maximum scores were 0 and 31, for attitude assessment, minimum and maximum scores were 0 and 14; and for practice assessment, minimum and maximum scores were 0 and 16, respectively. Total KAP scores ranged from 0 to 61. Finally, it was calculated against 100, as percentage. The aggregate percentage of KAP scores of all members above 50 % was considered as satisfactory communitization.

Data Analysis

Qualitative data variables were expressed by using frequency and percentages. Association between KAP scores and socio-demographic characteristics was assessed using Chi-square

tests (95% CI). Statistical Package for Social Sciences (SPSS) was used for analysis.

Ethical considerations

Clearance of Institutional Ethics Committee and due permission from Mission Director, National Health Mission, Mumbai were taken prior to initiation of the study.

Results

Socio-demographic profile

Out of a total of 231 participants, maximum, i.e., 83 (35.9%) study subjects were found between the age of 31 to 40 years, followed by 79 (34.9%) in the 41 to 50 years age group. The mean age was found to be 40.77 ± 9.30 years. The majority, i.e., 76 %, were females, approximately triple the number of males. The majority of study participants, i.e., 211 (91.3%), were Hindu by religion, followed by Muslims 14 (6.06%) and Buddhists 6 (2.5%) respectively. The present study found that SC/ST were 47 (20%) and 44 (19%) were OBC among study participants. The majority, i.e., 80 (34.6%) study participants, were educated up to secondary education, followed by higher secondary, i.e., 52 (22.5%), and primary education, i.e., 50 (21.6%). Only one illiterate study participant was found among all. Most study participants were Sarpanchs and Gram Panchayat members, i.e., 79 (34.1%).

Knowledge, attitude, and practice Status of VHSNC members

KAP scores of 231 study participants were obtained in all three domains, i.e., knowledge, attitude, and practice. The minimum score for the knowledge domain was two and a maximum of 26. The minimum score for the attitude domain was 0 and the maximum 11. The minimum score for the practice domain was 0 and the maximum 10. Mean knowledge, attitude, and practice scores were 14.11 (±6.86), 5.53 (±2.96), and 4.21 (±3.08), respectively. Median scores were 13, 5, and 4 for knowledge, attitude, and practice, respectively. The combined KAP score for all members was 39.05%. (Table 1)

Table 1: The details of KAP scores in percentage

Detail of KAP score	Values
Minimum Score	6.56
Maximum Score	72.13
Mean score	39.05
Standard deviation	19.68
Median	34.43

Table 2: KAP score and background of study subjects

Background	Number of Study Subjects (N) (%)	Mean KAP Score
Sarpanch	33 (14.29)	48.58
AWW	34 (14.72)	54.05
ANM	33 (14.29)	52.06
ASHA	31 (13.42)	36.01
MPW	11 (4.76)	50.07
GP Member	46 (19.91)	27.94
Villager	27 (11.69)	19.55
Others	16 (6.92)	24.49
Total	231 (100)	39.05

The Highest KAP score was found among AWWs, followed by ANMs and MPWs. (Table 2)

Association of socio-demographic variables with KAP percentile score

KAP percentile score was classified into three groups viz. below 50th percentile, between 50 to 75, and above. Socio-demographic variables like age, sex, and social category were not associated with the KAP percentile score ($p > 0.05$). But, the members' education status, background, and designation were associated with the KAP percentile score ($p < 0.05$) (Table 3).

Discussion

The VHSNCs are anticipated as the crucial vehicle for the involvement of the people in the planning and implementation of National Rural Health Mission (NRHM) at the local level. The members of VHSNCs are supposed to know the objectives and various functions of VHSNCs. They should understand the purpose of the VHSNCs. Rather they should be practicing the community action for health. Thirty questions were designed to assess their existing knowledge about VHSNC, their attitude towards VHSNC, and their practicing status. This study considered purposive selection of approximately 50% of members of VHSNC as the participants. The chairperson (Sarpanch), and the secretary, i.e., AWW, ANM and ASHA, were the participants representing various institutions like Panchayat Raj, Integrated Child Development Services (ICDS), and Health Department, respectively. Other members were common villagers, teachers, hand pump mechanics, ANC mothers, representatives of Mahila Bachat Gat, etc. Such diverse membership is supposed to be much more active in every sense to make communitization positively possible and efficiently working. So, their KAP status can reflect the effectiveness of communitization.

Table 3: Association of socio-demographic variables with KAP percentile score

Socio-demographic variables	KAP Percentile Score			Total No. (%)	P-value
	elow 50 No. (%)	50 to 75 No. (%)	Above 75 No. (%)		
Age group (years)					
≤ 30	17 (50)	8 (23.53)	9 (26.47)	34(100)	0.512
31 – 40	48 (57.83)	15 (18.07)	20 (24.10)	83(100)	
41 – 50	38 (48.10)	23 (29.11)	18 (22.79)	79(100)	
≥ 51	14(40)	12(34.29)	9(25.71)	35(100)	
Sex group					
Male	32 (57.14)	9 (16.07 %)	15 (26.79)	56(100)	0.199
Female	85 (48.57)	49 (28)	41 (23.43)	175(100)	
Social Category					
General	67 (47.86)	34 (24.29)	39 (27.85)	140 (100)	0.529
Other Backward Class (OBC)	24 (54.55)	13 (29.55)	7 (15.90)	44 (100)	
Scheduled Caste (SC) & (ST) Scheduled Tribe	26 (55.32)	11 (23.40)	10 (21.28)	47 (100)	
Designation in the VHSNC					
Chairperson & Secretary	11(16.67)	29(43.94)	26(39.39)	66(100)	0.001
Member	106 (64.24)	29 (17.58)	30 (18.18)	165(100)	
Background					
Sarpanch & Gram Panchayat Member	48 (60.76)	13 (16.46)	18 (22.78)	79 (100)	0.001
AWW, ANM, ASHA, MPW	29 (26.61)	43 (39.45)	37 (33.94)	109 (100)	
Villagers (lay persons) & Others	40 (93.02)	2 (4.65)	1 (2.33)	43 (100)	
Education Level					
Illiterate & Primary	40 (78.43)	6 (11.76)	5 (9.81)	51 (100)	0.001
Secondary	39 (48.75)	26 (32.50)	15 (18.75)	80 (100)	
Higher secondary & Diploma	25 (40.32)	12 (19.36)	25 (40.32)	62 (100)	
Graduation & Post-graduation	13 (34.21)	14 (36.84)	11 (28.95)	38 (100)	

The mean score of all the members was found to be 39.05. It was below the operational definition we had considered for effective and satisfactory communitization, which should have been at least 50. Scores were also not uniformly distributed. The present study noted that the KAP score was highest among AWWs (54.05), followed by ANMs, MPWs, Sarpanchs, ASHAs, Gram Panchayat members, and others in decreasing order. As the AWWs are the secretaries of VHSNCs, their knowledge about VHSNCs was on the higher side. ANMs and MPWs got some form of training. However, Gram Panchayat members, common villagers, and others were unaware of the functioning of VHSNCs and its guidelines. Most of them were unaware of the village health plan and calendar, and this also reflected in lacking the practice of preparing the same. Very few members could answer correctly about how many meetings VHSNC conduct per year; this predicts that VHSNCs do not conduct monthly meetings as per the guidelines. If the meetings are regularly conducted, there will be an effective dialogue amongst the members and stakeholders of the village, and effective monitoring of the health services, sanitation, and cleanliness of the village could have been possible. The current study also compared different socio-demographic variables vis-à-vis KAP score. A significant association was found between the KAP of study subjects and their education, designation in VHSNC, and professional background. It indicates that having educated members could improve effective communitization. But at the same time, KAP status was noted well of the members with designations like Chairpersons and secretaries; their professional backgrounds like Sarpanch, AWW, ANM, MPW, etc. It means that other members like common villagers, ANC mothers, and representatives of Mahila Bachat Gat had shown poor KAP status. This group's KAP should have been more to raise the effectiveness of communitization.

Similar findings were noted by the studies carried out in India. The study by Mohanty et al. in Orissa state noted that the awareness about Village Health and Sanitation Committee (VHSCs) was highest among ANMs, followed by ASHAs and Medical officers, Panchayati Raj Institutions (PRI) and Self-Help Group (SHG) members, and the least was the panchayat officials among all stakeholders[9]. Karnataka State Health System Resource Centre, Bangalore, carried out an exploratory study of VHSC and Arogya Raksha Samithi (ARS) functioning in Bagalkote and Chikmagalur districts of Karnataka state, where it was found that there was no awareness at all regarding Village Health Plan, Village Health Calendar, and Annual report[10]. Similarly, in this study also, many of the members, barring the secretary and the chairperson, were unaware of the essential components of VHSNC, i.e., planning and monitoring. Semwal et al. carried out a cross-sectional study in the Nainital district of Uttarakhand, where they found that there was very low awareness among the members about the role of the committee, and amongst them, high awareness was found among Gram Pradhans, ASHAs, and Ward members[11]. The study conducted by Singh et al. in the northwestern state of India also showed similar findings that most of the members were unaware of guidelines, and there was very low awareness among the members about the functions of the committee and low knowledge level related to activities and processes carried out by the VHSCs. None of the VHSCs selected for the study conducted any awareness campaign, did not prepare any Village Health Plan and did not do any budgeting for the future year. The monitoring, inspection, and evaluation part of the VHSCs were also very weak[12]. A significant association between knowledge and awareness about VHSC and stakeholders was observed in the study conducted by Malviya et al. in the Indore district of Madhya Pradesh[13]. The study conducted by Sah et al. in the Wardha district of Maharashtra state found that awareness about the objectives of VHNSC was highest among ANMs, followed by AWWs, and least among panchayat members, ASHAs, and SHG members. Most of the members were unaware of their roles and responsibilities so resulting in poor implementation showing poor practices like members not remaining present for monthly meetings and not participating in and preparing Village Health Plan[14].

The strength of the current study was that a representative sample of VHSNCs from all the blocks of the Pune district of Maharashtra state were included in the study, and existing guidelines of NHM were used for developing the study tool. However, one of the limitations was that all the members of the selected VHSNC were not included.

Conclusion

The present study noted that knowledge, attitude, and practice regarding VHSNCs were found highest among AWWs, followed by ANMs, MPWs, Sarpanchs, ASHAs, gram panchayat members, and others in descending order. A significant association was found between the KAP score of study subjects and their education and designation in VHSNC. Knowledge, attitude and practice status of the members of VHSNCs is the indicator of the effectiveness of communitization. Poor KAP status of members indicates unsatisfactory communitization. There must be effective and adequate communitization for any national program to be successful.

Recommendations

Capacity-building program for VHNSC members regarding the rationale of VHNSC and its role in healthcare delivery must be arranged. VHSNCs should be oriented with a clear mandate and provided with concrete guidelines. Literature related to VHSNCs should be provided to all VHSNCs.

Effective communitization in the true sense will boost the functioning of VHSNC. People's participation should be encouraged, and membership of the committee should be more inclusive. School teachers, self help group members, ANC mothers, youth representatives, and community health volunteers should be included more in number.

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References

1. Ministry of Health and Family Welfare. Village Health Sanitation and Nutrition Committee (VHSNC) - Government of India [Internet]. Available at: http://nhm.gov.in/communitisation/village-health-sanitation-nutrition-committee.html. Accessed on 5 August 2015.
2. Nongdrenkhomba HN, Prasad BM, Shome BK, Baishya AC. Community-based health committee initiatives in India: a descriptive analysis of village health sanitation and nutrition committee model. InBMC Proceedings 2012 Sep (Vol. 6, No. 5, pp. 1-2). BioMed Central. model. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3467471/pdf/1753-6561-6-S5-O29.pdf
3. List of VHNSCs Pune district 2014-15. Pune: Zilla Parishad; 2015.
4. Community Action for Health [Internet]. Available at: http://nrhmcommunityaction.org/about/. Accessed on 21 September 2018.
5. Pune District (Maharashtra State, India) [Internet]. Collector office, Pune. Available at: http://pune.nic.in/. Accessed on 5 August 2015.
6. State Health Resource Centre, Chhattisgarh. Village Health Sanitation and Nutrition Committees (VHSNCs) in Chhattisgarh: An assessment [Internet]. Raipur; 2013. Available at: http://www.shsrc.org/webupload/MITANIN_PROGRAMME_AND_COMMUNITY_PROCESPRO/VHSNC_CBM_AND_SPY_STUDIES/VHSNC_Assessment_Chhattisgarh_2012_Report.pdf.
7. Handbook for Members of the Village, Health, Sanitation and Nutrition Committee [Internet]. New Delhi: National Health Mission. Available at: http://nhm.gov.in/images/pdf/communitisation/vhsnc/Resources/Handbook_for_Members_of_VHSNC-English.pdf. Accessed on 9 August 2015.
8. Guidelines for Village Health Sanitation and Nutrition Committees (VHSNC) [Internet]. New Delhi, India: National Health Mission; Available at: http://www.pbnrhm.org/docs/vhsnc_guidelines.pdf.
9. Mohanty MK, Das S, Misro MM, Kumar P, Shivdasani JP, Nandan D. Rapid appraisal of functioning of village health and sanitation committees (VHSCs) under NRHM in Orissa. New Delhi: National Institute of Health and Family Welfare. 2008. Available at: http://nihfw.org/pdf/rahi-i reports/kalinga/kalinga.pdf. Accessed on 11 March 2016.
10. Karnataka State Health System Resource Centre. An exploratory study of VHSC and ARS functioning [Internet]. 2012. Available at: http://www.academia.edu/3555266/An_exploratory_study_of_VHSC_functioning_Karnataka_State_Health_Resource_Centre_March_2012. Accessed on 11 March 2016.
11. Semwal V, Jha SK, Rawat CM, Kumar S, Kaur A. Assessment of village health sanitation and nutrition committee under NRHM in Nainital district of Uttarakhand. Indian Journal of Community Health. 2013 Dec 31;25(4):472-9.
12. Singh R, Purohit B. Limitations in the functioning of village health and sanitation committees in a north western state in India. International Journal of Medicine and Public Health. 2012;2(3):39-46.
13. Malviya A, Dixit S, Bhagwat AK, Bansal SB, Khatri AK. Assessment of functioning of village health and sanitation committees (VHSCs) of Indore District. Online J Heal Allied Sci. 2013;12(4):1-5.
14. Sah PK, Raut AV, Maliye CH, Gupta SS, Mehendale AM, Garg BS, Sewagram W. Performance of village health, nutrition and sanitation committee: a qualitative study from rural Wardha, Maharashtra. The health agenda. 2013 Oct;1(4).