

Basic Health Evaluation of Community Health Workers in Field Practice Area of Urban Health Training Centre of a Medical College in Western Maharashtra

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ABSTRACT

Introduction: Community health workers (CHWs) are the primary field-level frontline workers who come into direct contact with the population. They provide promotive, preventive, curative, and rehabilitative health-care services to their own community and are vital to improving access to primary healthcare. It is necessary to evaluate the general health status of CHWs to improve their efficiency in providing basic healthcare services to society and make necessary changes in the future. **Aim and Objectives:** The study aimed to the basic health evaluation of CHWs in the field practice area of the Urban Health Training Center (UHTC) of a Medical College in Western Maharashtra. **Materials and Methods:** A cross-sectional study was done using convenience sampling. Data were collected from all CHWs in the field practice area of UHTC a Medical College in Western Maharashtra. The sample size was 49. The current health status of CHWs was assessed by a pre-tested, structured questionnaire, and basic health investigations were done. Data analysis was done using MS Excel. **Results:** Out of the total 49 CHWs, 34.69% belonged to the age group of 36–40 years, and 40.81% completed high school. The general health status of CHWs was good. 67.34% had hemoglobin above 11 g%. 53.1% of CHWs had a high body mass index. 18.36% suffered from hypertension and 6.12% had diabetes mellitus. Despite knowing the positive benefits of PAP smear, only 8% had undergone screening for Cervical Cancer, which shows hesitancy. **Conclusion:** The study shows, there is a need to educate the CHWs about chronic diseases and the benefits of regular screening and exercise.

Keywords: Community health workers, evaluation, health status


INTRODUCTION

Community health workers (CHWs) became prominent with the Alma Ata declaration in 1978,

which recognized primary health care as a key element for improving community health.^[1]

According to the WHO, CHWs are members of the community, selected by and answerable to the community they work for, and supported by the health system but with shorter training than professional health-care workers. Article VII of the declaration recognized CHWs as being vital to improving access to primary health care.^[2]

In the rural healthcare delivery system of India, Anganwadi workers (AWWs) Accredited social health activists (ASHA workers), and auxiliary nurse midwives, are primary field-level frontline officials who come into direct contact with the population. They provide

Access this article online	
Website: themmj.in	Quick Response Code 
DOI: 10.15713/ins.mmj.96	

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promotive, preventive, curative, and rehabilitative health-care services. They are also responsible for achieving enhanced neonatal and maternal health and development of children and adolescents.^[3,4]

According to a study by Ignoffo *et al.*, CHWs have a great impact on improving health outcomes and are essential for achieving health equity.^[4]

Being primary health-care providers for a large population health check-up of CHWs are essential. In addition, they have a busy lifestyle and are also mothers, wives, and sisters. Stressed CHWs are likely to be unhealthy, poorly motivated, less productive, and less efficient.^[5]

As they conduct health promotion activities in the community, their own health parameters should be known by them; hence, awareness about their own health is necessary by assessing a few general parameters that are usually overlooked on but should be of utmost importance to them.^[5,6]

Thus, it is necessary to evaluate the general health status of CHWs, to improve their efficiency in providing basic health-care services to society and make necessary changes in the future.^[3]

Aims and Objectives

The study aimed to the basic health evaluation of CHWs in the field practice area of an Urban Health Training Centre (UHTC) of Medical College in Western Maharashtra.

MATERIALS AND METHODS

Study Type

This was a cross-sectional study.

Sampling Technique

The study was a convenience sampling

Sample Size

Data were collected on all CHWs of all Anganwadis and Primary Health Centers in the field practice area of the UHTC.

Projected Sample Size

The sample size was Around 50 CHWs.

Data Collection

All CHWs in the field practice area of UHTC were included in study. After ethical approval, from the institutional ethics committee, a detailed clinical assessment was done for all the participants at UHTC. This was followed by investigations of blood sugar level, hemoglobin (Hb), urine routine, PAP Smear (if applicable), breast examination (if applicable), and oral health examination. The current health status of CHWs was assessed by a pre-tested, structured questionnaire.

Data Analysis

Data, thus obtained were compiled in MS Office Excel spreadsheet. It was summarized using means, standard deviation, and percentages.

Study Duration

The study duration was 2 months for data collection, analysis, and report preparation.

Study Set Up

The questionnaire used in the study was based on similar studies done earlier.^[11,12]

The questionnaire was validated by conducting a pilot study before actual data collection for the study.

Participants were informed about the study and written informed consent was taken from all subjects before taking the survey.

Participants were given sufficient time to fill out the questionnaire.

After the survey, the basic health profile was assessed using parameters like blood pressure, blood sugar level, Hb, urine routine, PAP Smear (if applicable), breast examination (if applicable), and oral health examination.

Health education regarding these was delivered in view of increasing their awareness to create improvement in their practices.

Inclusion Criteria

All CHWs, who gave their consent, were included in the study.

Exclusion Criteria

All community workers who did not wish to participate were excluded from the study.

RESULTS

A pilot study was carried out initially to validate the questionnaire. As far as Demographic details were concerned, the age of CHWs ranged from a minimum of 25 years to a maximum of 65 years.

Out of a total of 49, CHWs, a maximum of 17 (34.69%) belonged to the age group of 36–40 years. As regards, income, only 2 CHWs had a monthly family income of more than 50,000, the rest all had a monthly income below 50,000 rupees. 20 CHWs had a monthly income between 11,000 and 20,000.

The above Table 1 shows the category of health workers working in the community. The maximum are ASHA workers (20), followed by AWWs (19).

In most of the households (40), the husband was head of the family.

Table 2 shows that most of the CHWs have completed their high school certificate (40.81%).

Most of the CHWs had 4–6 members in their family (20), 10 CHWs had 1–3 members in the family, and 3 of them had 7–9 members in their family.

As per study protocol, sufficient time was given to fill up personal information. After that, the basic health profile of CHWs was assessed using parameters like blood pressure, blood sugar level, Hb, urine routine, PAP Smear (if applicable), breast examination (if applicable), and oral health examination. The results are summarized as under:

Table 3 shows that the majority of CHWs did not fall into the category of normal body mass index (BMI). 14 were overweight, 9 had Grade 1 obesity and 2 had Grade 2 obesity.

Out of 49, one is a known case of hypertension, one is a known case of thyroid, and two are known cases of diabetes.

Although there was only one known case of hypertension, when BP was taken 8 more had a BP higher than 130/80 mmHg. Hence, they were unaware of their hypertensive status.

Out of 49, 35 CHWs had good dental status.

Above Table 4, shows that most of CHW's (28) exercised 3 days or less in a week.

Table 5 shows the Hb status of CHWs. Out of 49 CHWs, 5 CHWs had Mild Anemia; i.e. their Hb was in the range of 9–11 g/dL. 33 had normal Hb i.e. Hb was

Table 1: Category of health workers.

Cadre	Numbers
AWW	19
ANM	3
ASHA	21
GNM	1
AWH	3
Other	2

The above table shows Category of health workers working in Community. Maximum are ASHA (Accredited Social Health Activist) workers (21), followed by Anganwadi workers (19)

Table 2: Educational status of CHWs

Education of CHWs	Number
Upto 8 th standard	1
Upto 10 th standard	16
Upto 12 th standard	20
UG	9
PG	3
Total	49

CHW: Community health workers

Table 3: BMI (kg/sq.mtr) of the CHWs

BMI (kg/sq.mtr)	Total no. of. CHWs
>18.5 (Underweight)	1
18.5–22.9 (Normal)	23
23–24.9 (Overweight)	14
25–29.99 (Obese 1)	9
>30–34.99 (Obese 2)	2

CHW: Community health workers, BMI: Body mass index

Table 4: No. of days of exercise

Exercise days in a week	Number
0	2
1	0
2	6
3	28
4	10
5	1
6	2

Table 5: Hemoglobin estimation

Hemoglobin	Total no. of community health workers
>6 g/dL	0
7–9 g/dL	1
9–11g/dL	15
>11 g/dL	33

more than 11 g/dL and one had moderate Hb i.e. Hb in the range of 7–9 g/dL.

In spite of knowing the benefits of PAP smear and advising other women in the community to do it, Out of 49, only 4 CHWs had done PAP Smear.

Random blood sugar levels were done and most of the CHWs had their blood sugar in normal range. Only 3 CHWs had a blood sugar of more than 126 mg/dL.

DISCUSSION

A basic health evaluation of 49 CHWs was done to make them aware of their own health parameters.

In a study by Joshi *et al.*,^[7] the study participants' mean age was 40.94 ± 9.03 years which was similar to our study and also to a study conducted by Datta *et al.*^[8] in which mean age of AWWs was 42.64 ± 7.19 years.

In our study, 49.5% of AWWs were studied up to secondary level education, 17.8% up to higher secondary level, 12.9% graduate and above, and 19.8% up to primary level.

In our study, 32.61% of health workers studied up to the 10th standard, 40.81% completed their 12th standard, and 18.36% had completed graduation, which was different to study by Joshi *et al.*, in which, 49.5% of AWWs studied up to secondary level education, 17.8% up to higher secondary level, 12.9% graduate and above, and 19.8% up to primary level. Most of them, that is, 20, (40.81%) had a family income between 11,000 and 20,000 Rupees/month.

Height and weight of CHWs were taken and BMI was calculated using the formula- weight in kg/height in metre² only 24, (46.9%) had normal BMI the rest i.e. 53.1% were either overweight or obese; i.e. more than half CHWs were overweight or obese. This is in contrast to a study by Mohanan *et al.*,^[6] in which the majority of CHWs had Normal or lower than normal BMI. Only one reported having thyroid disease.

The blood pressure of all participants was taken with the help of a mercury sphygmomanometer. Initially, only one CHW was aware of being hypertensive and later 8 more CHWs were found to have hypertension; i.e. 18.36% of CHWs were hypertensive which is almost similar to the study by Mohanan *et al.*,^[6] which almost 11% CHWs were found to have Hypertension. Random blood sugar levels were done by using a blood glucose meter and most of the CHWs had their blood sugar in normal range. Only 3 CHWs had a blood sugar of more than 126 mg/dL.

Hence, in our study, chronic diseases were not commonly seen in CHWs who were screened. One of the reasons for this could be due to the fact that most of the CHWs were below the age of 40 years. In contrast, chronic diseases were reported as one of the challenges faced by the CHWs during their work in a study by Majee *et al.*^[9]

More than half 26 (53.06%) of CHWs had a high BMI, and this may be due to lack of regular exercise as only 3 (6.12%) exercised regularly i.e. more than 5 times a week. 67.34% of the participants had Hb above 11 g% which was a positive finding.

Screening for cervical cancer with a PAP smear was very poor among CHWs despite knowing the benefits of the test. Only 8% of the women had undergone screening with PAP smear. This indicates some degree of hesitancy in doing a PAP smear; which needs to be addressed. Similarly, In a study by Nyaaba and Akurugu, in spite of knowing about PAP smear, 64.89% had never been screened.^[10]

CONCLUSION

Out of the total 49, CHWs, 17 (34.69%) belonged to the age group of 36–40 years, and 40.81% were educated up to high school level. The general health of CHWs was good. 67.34% had Hb above 11 g%. 53.1% of CHWs were overweight or obese. 18.36% suffered from Hypertension and 6.12% had diabetes mellitus. Despite knowing the positive benefits of PAP smear, only 8% had undergone screening for cervical cancer, which shows there is some degree of hesitancy. Thus, the study shows the need to educate CHWs about chronic diseases and the benefits of regular screening and exercise to counteract lifestyle disorders.

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How to cite: Pandey AN, Dandekar A, Agrawal O. Basic Health Evaluation of Community Health Workers in Field Practice Area of Urban Health Training Centre of a Medical College in Western Maharashtra. *MIMER Med J* 2024;8(1):3-7.

Source of Support: Nil. **Conflicts of Interest:** None declared.

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