International Journal of Community Medicine and Public Health
Zalavadiya DI et al. Int J Community Med Public Health. 2017 Aug;4(8):2853-2858
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20173334

Original Research Article

Experience of anganwadi workers running VCNC under 'Misssion Balam Sukham' in a tribal area of Gujarat, India

Dhara I. Zalavadiya[1]*, Suraj I. Kuriya[2], Vihang S. Mazumdar[2], Sangita V. Patel[2]

Department of Community Medicine, [1]Parul institute of medical sciences and research, Post Limda, [2]Medical College Baroda, Vadodara, Gujarat, India

Received: 14 June 2017
Accepted: 10 July 2017

***Correspondence:**
Dr. Dhara I. Zalavadiya,
E-mail: drdhara11@gmail.com

ABSTRACT

Background: State Government has started a programme "Mission Balam Sukham" to combat the malnutrition with 3 tier approach including Village Child Nutrition Center (VCNC), Child Malnutrition Treatment Center (CMTC) and Nutrition Rehabilitation Center (NRC). Present study was conducted with the objectives to compare the availability of articles present at anganwadies and VCNCs and to know the experience of anganwadi workers running VCNC.
Methods: Ten VCNCs from Naswadi block were selected by systemic random sampling and compared with 10 anganwadies as control group from nearby block Sankheda to check the availability of necessary articles. Ten anganwadi workers who ran the VCNCs for 1 month were interviewed about their experience of running VCNC.
Results: There were not major differences in availability of articles like weight machine, MUAC tap, IMNCI (Integrated management of neonatal and childhood illnesses) chart, utensils for cooking, soap and water supply, common medicines and food articles between control anganwadies and VCNCs. Some of the articles like referral slips and thermometer were lacking at control anganwadies as well as VCNCs. Anganwadi workers (AWW) did not get enough medicines and functioning weighing scales and proper training before starting the VCNCs.
Conclusions: VCNC needs to supply proper medicine stocks, functional weighing scale and other necessary articles to make the programme successful. AWWs also need the proper training to identify and treat the malnutrition at anganwadi centres.

Keywords: Malnutrition, Village child nutrition centre, Anganwadi, Mission Balam Sukham

INTRODUCTION

Nutrition has been recognized as a basic pillar for socio-economic development. According to NFHS 2015-16 in India, children under 5 years who are underweight (weight-for-age) are 35.2% (29.1% in urban and 38.3% in rural area). According to NFHS 2015-16 in Gujarat, Children under 5 years who are underweight (weight-for-age) are 39.3% (32% in urban and 44.2% in rural area).[1,2]

In Gujarat state on-going interventions to tackle the problem of malnutrition are mainly runs through anganwadi centres under the "Integrated Child Development Services" ICDS scheme. Malnourished children are provided 800 kilocalories and 20-25 grams of protein per day according to ICDS norms. Government of Gujarat has started "Mission Balam Sukham" to combat the malnutrition in which integrated management of malnourished children is done through – 3 tier approach including village child nutrition centre

(VCNC), child malnutrition treatment centre (CMTC), nutrition rehabilitation centre (NRC).[3]

At village level VCNC runs at anganwadi centres managed by anganwadi worker (AWW), anganwadi helper (AWH) and accredited social health activists (ASHA). Severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) children aged 6 months to 6 years without any medical complications are enrolled for 30 days. Nutrition supplements are given as per standard protocol including micronutrients like Vitamin-A, Iron, folic acid and Zinc. Malnourished children are provided 5 meals per day including 2 ICDS meals containing total 1000 kcal and 30 grams of proteins for 6 to 36 months age and 1270 kcal and 40 grams of proteins for 3-6 years of children. Parents of malnourished children are also taught home based care, health and sanitation.[3]

The present study was undertaken with the following objectives:

1. Comparison of availability of articles present at anganwadies and VCNCs.
2. To know the experience of anganwadi workers running VCNC.

METHODS

It was a cross sectional study (quantitative data supplemented by qualitative data) conducted during 2014, in a tribal area of Gujarat as the programme was initiated in tribal area.

Sample size

Anganwadi and VCNC list was taken from District Panchayat ICDS programme officer. Ten VCNCs from Naswadi block were selected by systemic random sampling and compared with 10 anganwadie centres (AWC) from nearby block Sankheda to check the availability of necessary articles. The programme was initiated in phased manner from tribal areas. In Sankheda block it was not started at that time, so anganwadies are taken from it as a control. 10 anganwadi workers who ran the VCNCs for 1 month were interviewed about their experience of running VCNC.

VCNCs under Mission Balam Sukham work thrice in a year for 1 month every time in anganwadies. After that anganwadies continue to work as guideline under ICDS. So in VCNC group, VCNC food and medicines were provided for 1 month only. After that VCNC group was provided food and services as anganwadies under ICDS.

Inclusion, exclusion criteria

All the anganwadi workers form selected list and given the consent to take part in the study were included.

Data questionnaire

Data was collected by using semi structured questionnaires for availability of articles at the centres. All the information was collected from anganwadi workers. Questionnaire included checking the availability of articles listed in state VCNC guidelines including food articles, toys, medicines, educational articles, washing facilities etc.

In depth interview was conducted using open ended semi structured study instrument. The interviews were conducted at respective anganwadi centres which were comfortable place for AWWs. The interviews were conducted after completion of 1 month of VCNC. The interviews were started after taking written consent and explaining the confidentiality of the information collected.

Main topics covered in the in-depth interviews were following:

- Training for VCNC
- Stock and supply
- Support from the staff
- Support from community
- Problem in grading and enrolment
- Problem in reporting and use of report formats
- Benefits of VCNC
- Problems in running VCNC
- Suggestions for improvement

Consent

At the time of data collection, the purpose of the study was clearly explained to the anganwadi workers and their written consent was taken.

Data management and statistical analysis

The quantitative data collected was entered and analysed in Microsoft excel worksheet.

The Qualitative data from the in-depth interviews of AWWs were obtained in form of field notes in vernacular language. Note expansion was done in the same language and then analysis was done manually by giving codes to common responses to the questions and then translated into English. Verbatim were used as they were.

RESULTS

Comparisons of availability of articles at VCNC and control group AWC

The first objective of the study was to evaluate and compare the availability of food and articles in anganwadies under ICDS and anganwadies working as

VCNCs. Article list was taken from State VCNC guideline.

In this study, most of the articles like WHO growth charts, utensils for serving, books and toys were 100% available at VCNCs and control anganwadies. As per guideline under VCNC, thermometer should be available at VCNC but it was not available at any VCNC or control anganwadi. There were not much differences in availability of articles like weight machine, MUAC tap, IMNCI (Integrated management of neonatal and childhood illnesses) chart, Utensils for cooking, soap and water supply. There was a major difference in availability of referral slip which was used to refer the sick and malnourished children to CMTC (Child malnutrition treatment centres) or NRC (nutritional rehabilitation centres). No control anganwadi had referral slip. Even anganwadies not working as VCNC still supposed to have referral slip to refer the needful children to higher centres or CMTC (child malnutrition treatment centre) (Table 1).

Table 1: Availability of articles in VCNCs and anganwadies (control group).

Article	VCNC (n=10)	Anganwadi (n=10)
Functional weight machine	9	7
MUAC tape	10	7
Thermometer	0	0
MAMTA Card	2	0
WHO growth chart	10	10
IMNCI chart	9	9
Referral slip	6	0
Utensils for cooking	7	7
Utensils for serving	10	10
Soap	6	7
Tape water supply	4	7
Books	10	10
Toys	10	10

Table 2: Availability of food articles in VCNCs and anganwadies (control group).

Food article	VCNC (n=10)	Anganwadi (n=10)
Rice	10	2
Wheat	10	10
Green gram	9	0
Ground nut	10	10
Tal	9	10
Oil	10	9
Jaggary/Sugar	10	10
Pauva	6	0
Chana Dal	8	7
Tuver Dal	9	9

As per VCNC guideline AWWs were provided money to purchase food articles listed above so most of the food articles were available at VCNCs as compared to control anganwadies. Under ICDS, anganwadies are provided food articles from higher offices so Some food articles were not available at control anganwadies. Wheat, ground nuts, tal, jaggary/sugar, Chana dal/ Tuver dal were available at all control anganwadies and VCNCs. Some of the food articles like rice, green gram, pauva were not available at control anganwadies because they were not provided (Table 2).

ICDS medicine kit was provided by government to all anganwadies containing PCM, Gential violet solution, GBHC, albendazole, povidone iodine, chloramphenicol eye ointment and dressing materials. ICDS medicine kit was present in 100% of VCNCs while in 80% of control anganwadies.

Table 3: Availability of medicines in VCNCs and Anganwadies (control group).

Medicine	VCNC (n=10)	Anganwadi (n=10)
ICDS Medicine kit	10	8
Iron tablet/ syrup	6	1
Folic acid	6	1
Vitamin-A	7	1
Zinc	3	0
Calcium	0	1
Clotrimoxazole	0	0
ORS	2	2

Drugs like Iron folic acid, vitamin A, zinc, calcium, clotrimoxazole, ORS should be present at all anganwadies for treatment according to IMNCI. All these drugs also recommended under VCNC guideline for all malnourished children. All VCNCs were supposed to be supplied all these medicine from higher centres. Still all VCNCs were not provided all the medicines in adequate amount. Condition was not so good in control anganwadies. In control group, anganwadies had even lesser drugs availability. Vitamin-A was available in 7 VCNCs as compared to 1 control anganwadi (Table 3). There was not much difference for Iron folic acid, Zinc, ORS availability at VCNCs and control anganwadies.

Experience of anganwadi workers running VCNCs

According to 2rd objective 10 Anganwadi workers from VCNC group were interviewed to know their experience of running VCNC.

Training for VCNC

- Most of the AWWs found the training very informative to learn about supplementary nutrition, anthropometric measurement, malnutrition and how to do reporting.

- Few of the AWWs found the training time less. They need the training to be longer about 3-4 days with more hours/day.
- One AWW found the need for refresher training because her training was done before 1 year and so was difficult for her remember without practice.
- One AWW who had not undergone the training said, "I have not been trained. Since anganwadi-2 refused, it was started here. Supervisor said it has to be started."
- One of the AWWs found the training useless. She was not satisfied with training because she found the trainer wrong in many things which herself had to correct.

Stock and supply for VCNC

- All of the AWWs said that stock needed for VCNC was purchased by them so, they bought the stock of good quality and quantity.
- Most of the AWWs complained about the medicine stock. They were trained to give iron-folic acid, Vit-A, albendazole and multivitamin but they did not get the medicine stock till the end of VCNC month or got the stock late.
- One AWW said about medicine stock that, "After weighing on 14th day, I informed sir that without medicines how can be increase in children weight? Then sir came and gave the medicines."
- Some of the AWWs said that they did not have the working weighing scale. All the time they had to bring it from nearby AWC to weight the children.
- One of the AWW said, "What to be said if there is not anganwadi building? Also there is no weighing scale"

Support from the staff

- All of the AWWs found the good support from AWH and supervisor.
- Most of the AWWs were happy with the support from nutritional counsellor volunteer (NCV). Except two AWW who said, NCV after interview was not ready to do the job.
- Most of the AWWs said that they did not get the good support from ASHA worker said, "I called ASHA but she did not come even after saying yes."
- Some of the AWWs had good support from ASHA said, "ASHA also comes from time to time."

Problem in grading and enrolment

- All of the AWWs did not have any problem in grading the malnutrition according to WHO growth chart.
- Most of the AWWs had difficulties in grading the children according to SAM and MAM criteria.
- They said it was newer technique for them to take height and MUAC for grading malnutrition so it was somewhat difficult.
- For few of them it was difficult to compare grade according to growth chart and MUAC said, "According to tape fewer children come in red, according to growth chart more children come in red."
- Most of the AWWs did not find any problem in enrolment of children.
- One AWW said that it was difficult to enrol all children because all people were not ready to send their child due to caste issues.

Support from the community

- Most of the AWWs got good support from the community. They said that parents of malnourished children were happy with the programme.
- One of the AWWs said that people were ready to send their children even for second month. People were happy about the care provided to their children by AWC and Government.
- Few of the AWWs said that few parents were not ready to sit with their children. It was difficult to care and feed small children without their parents.
- One of the AWW said that, "Village people say that we have no time. We will go after feeding the child. If they come taking their children, they insist on taking meal/snack back home. They don't feed the child at anganwadi."

Problem in reporting and use of reports

- Most of the AWWs did not experience any problem in reporting because they were taught about reporting in training and also got support from supervisor.
- Few of the AWWs did not understand some columns in report like IMNCI grading, SAM with complication, SAM without complication etc.
- Most of AWWs complained about the billing part in reporting. One of them said, "A bill per day, 30 bills for 30 days. Provision store keeper also doesn't give them. Even from them no bill should be more than 500 Rs."
- All of the AWWs used the reports to compare the children's malnutrition status before and after. They advised the parents to take more care in case of severe malnutrition and also tried to find out reason if any for not improvement.

Benefits of VCNC

- All AWWs said that many children had gained weight and improved malnutrition status.
- Most of the AWWs said that there was marked increase in attendance due to VCNC.
- Some of the AWWs said that children and their mothers learned good hygienic practices while attending VCNC.
- Few of the AWWs said that there has been marked decrease in less nutritious junk food like 'Kurkure' and 'Gopal' in children. Instead of that children started to take nutritious food. They also said VCNC

was also useful to decrease disease occurrences among malnourished children.

Problems in running VCNC

- Most of the AWWs complained about the timing of VCNC. They said it was difficult for them and children both to sit there from 9 to 5 without any recess. All the time children ran away after break-fast and have to be called for next meal.
- Some of the AWWs had problem in managing money to run VCNC. They were given not enough money to buy all stock before starting VCNC month. They had to buy the stock from their own money.
- Few of the AWWs had difficulty to make the sick children sit without proper treatment. Said, "Children had cough and cold but still we made them sit after giving paracetamol. Children also need medicines with food."
- One AWW said that they did not have toilet facility and they had to take children to the field every time.

Suggestion for improvement

- Few of the AWWs suggested that VCNC menu should include some salty and spicy food. Children were bored of sweets 4 to 5 times a day.
- One AWW suggested that all AWW should be provided working weighing scale before starting of VCNC to get the correct idea about weight gain. She also suggested that children must be visited by doctor and ANM after enrolment.
- Half of the AWWs suggested there should be recess in between.
- Some of AWWs suggested that AWC should be provided outdoor toys like slides, swings and small merry-go-round for children because it would help to increase children's attendance and interest.
- Some of the AWWs said that they should be provided all stocks from higher office. Said, "It will be better if groundnuts and cereals will be given from higher office."

DISCUSSION

According to first objective of comparing articles at Anganwadies and VCNCs, most of the articles were present at both the groups like utensils for serving, WHO growth charts, books and toys. Some of the articles like referral slips and thermometer were lacking at control anganwadies as well as VCNCs. Many medicines and supplements necessary at both the places were not available in adequate quantity.

A study was conducted by NIPCCD Headquarters in 2002 to evaluate the extent of utilization of medicine kit provided to AWWs in the northern, southern, north eastern and central region ICDS projects. 16 projects which were in operation since 1996 were selected – 4 project each from northern, southern, north eastern and central region. A total of 640 AWCs were selected for the study. The availability of medicine kit was found to be very poor in all the four regions, and almost half the AWCs were without a medicine kit. Medicine kits were available in 48.7% AWCs in northern, 53.7% AWCs in southern, 36.3% AWCs in north eastern and 42.5% AWCs in central region respectively.[4]

A ICDS report (2009-2010) including 62 anganwadies of 4 districts of Gujarat showed that Weighing scale machines were available in 90% of AWCs which was comparable to this study result of 70% in anganwadies and 90% in VCNCs. The report results also conclude 54.84%, 67.74%, 30% and 38% availability of functional toys, medicine kit, water supply and cooking facilities respectively.[5]

A rapid assessment of ICDS in Bihar summary report result showed 27.9%, 84.4%, 41.3% availability of drinking water supply, weighting scale, growth chart respectively. Charts and toys were available in 54% and 69.4% anganwadies. Medicine kit was available in only 4% anganwadies.[6]

Regarding the experience of anganwadi workers running VCNC, most of the AWWs did not have enough medicine stocks and functioning weighing scales. Support from the other staff and community was good in most of the AWs. It was difficult to understand SAM, MAM and 15% weight increment charts for most of the AWWs. It was also difficult for them to make less than 2 year child to sit at AW without their parents/mothers from 9 am to 5 pm. According to most of the AWWs many malnourished children improved their grades rapidly by VCNC interventions.

Another objective of the study comparing growth progress among malnourished children attending anganwadi centre verses VCNCs resulted that VCNC intervention was not able to give sustained result over long period of time. VCNC intervention only gives short term benefits in improving malnutrition grades of borderline malnourished children.[7] This present study two objective results may answer the same and may help in future for success of the program.

CONCLUSION

AWWs needed more detailed and refresher training to run the VCNCs along with proper support from higher centres, funding and material supply in adequate quantity and quality. As the state programme was in initial phase, result may be change over a time or with greater sample size.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Approval of PG Scientific Review Committee and Ethical Committee (IECHR, Medical College Baroda & SSG Hospital) was taken before starting the data collection. Necessary permissions from ICDS program officer were also taken

REFERENCES

1. National Family Health Survey - 4, State Fact Sheet Gujarat.
2. National Family Health Survey - 4, India Fact Sheet.
3. Guidelines on Management of Bal Shaktim Kendra (Village Child Nutrition Center) at the level of Anganwadi. Health and family welfare department, Government of Gujarat; 2012.
4. Paul D. Evaluation of medicine kit provided to anganwadi worker. New Delhi: NIPCCD. 2003.
5. Status of Implementation of Food Schemes In Gujarat. Nov 2009-January 2010.
6. Rapid assessment of ICDS project in Bihar. Directerate department of social welfare Government of Bihar & UNICEF Bihar, 2007.
7. Zalavadiya DI, Kuriya SI, Mazumdar VS, Patel SV, Baxi RK. Evaluation of growth progress among malnourished children attending Village Child Nutrition Centre (VCNC) under the programme "Mission Balam Sukham" in a tribal area of western india. Int J Curr Res Rev. 2016;8(9):31–9.

Cite this article as: Zalavadiya DI, Kuriya SI, Mazumdar VS, Patel SV. Experience of anganwadi workers running VCNC under 'Misssion Balam Sukham' in a tribal area of Gujarat, India. Int J Community Med Public Health 2017;4:2853-8.