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Original Research Article

A Cross Sectional Study to Assess the Functionality of Gram Arogya Kendra in Bhopal District, Madhya Pradesh

Pradeep Dohre[1], Anand Kumar Patidar[2], Vikash Sharma[3], Manju Toppo[4], Rama Lodha[5], Mahesh Gupta[6]

[1]Demonstrator, Department of Community Medicine, Shivpuri, India
[2,6]Assistant Professor, Department of Community Medicine, Government Medical College Ratlam, Ratlam, M.P., India
[3]Demonstrator, Department of Community Medicine, Government Medical College Ratlam, Ratlam, M.P., India
[4,5]Associate Professor, Department of Community Medicine, GMC Bhopal, M.P., India

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Corresponding author: Dr Mahesh Gupta
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Abstract

Background: The civilization of India has its roots in the villages and 83.3 crore of the population live in villages (Census 2011). Government of Madhya Pradesh implements various components of the NRHM throughout the state. This is being sought to be achieved through the establishment of Anganwadi-cum-Gram Arogya Kendra in each village.

Objective: To assess the functionality of selected Gram Arogya Kendra of Bhopal District.

Methodology: This cross sectional study was conducted among 50 randomly selected GAKs (Rural=22 & Urban=28) of Bhopal district conducted in one year period from 2017 to 2018. All selected Gram Arogya Kendra where both ASHA and ANM was present, were included and where either post of ASHA or ANM was vacant were excluded from the study. A standard Checklist was used for the assessment of Gram Arogya Kendra. Availability of each of the 57 parameters are checked as per supervision checklist and marked as 1 if available and mark as 0 if not available. Data collected was entered in MS Excel compiled and analyzed using epi Info-7.2.5.

Results: About 64% Gram Arogya Kendra had their own building, where as 18% of them was running in panchayat bhawan. About 28% i.e. 14 GAKs were categorized as grade A, 34% i.e. 17 GAKs were categorized as Grade B and 38% i.e. 19 GAKs were categorized as Grade C as per standard supervision checklist assessment.

Conclusions: Major of the GAK had their own building for the delivery of the services. There is need to give more emphasis on keeping the proper and detailed documentation required as per guidelines. Drugs that are listed as per guidelines should be provided to all centers so that the minor ailments can be deal at GAK level.

Keywords: Assessment, Gram Arogya Kendra (GAKs), Anganwadi Kendra.

Introduction

The civilization of India has its roots in the villages and 83.3 crore of the population live in villages (Census 2011) [1]. They are the mainstay for all round social and economic development of the country and are the real wealth of the nation. Unfortunately 21.9 percent of them still live below poverty line (Census 2011) [1]. Poverty in them leads to sickness. Relation of poverty to sickness is "People are sick because they are poor & become poorer because they are sick [2].

Their general welfare including health has been very much neglected in the past. Even today, health services are beyond the reach of majority of rural population although the doctor to population ratio in the country has reached 1:2545 (Census -2011) [1]. Moreover, when-ever a doctor who could provide health care is available in rural area, he is busy in providing medical relief at the PHC and has limited time and interest in prevention and promotional health care. Organized health services in India provide only 10 percent of the medical care, another 10 per cent of it is provided by qualified physicians and the balance is split between home medical care and indigenous practices [2].

The Department of Public Health and Family Welfare of the Government of Madhya Pradesh implements various components of the NRHM throughout the state. The innovation brought in has been in actively promoting the convergence of health and ICDS and also in strengthening community ownership of programs at the village level. This is being sought to be achieved through the establishment of Anganwadi-cum-Gram Arogya Kendra(GAK)/Village Health Centre in each village [3].

The main objective in opening these health centre's is to make the community aware of their health and environment, increase community ownership of village level programs, and ensure proper delivery of health and nutrition services through the involvement of, and supervision by the community.

The two main areas of focus of activities are – treatment of minor ailments and early referral for more serious illness; as well as health education towards a healthy lifestyle. It is also an initiative to improve convergence between the health and ICDS services at the village level [3]. The GAK are currently graded according to the presence or absence of records, infrastructure and drugs available, on 57 parameters and are being graded into categories A, B & C for implementation & monitoring purposes. Total Score (Out of 57), Grade A (above 80%)= Green, B (61-80 %)= Yellow, C(<61%)= Red.

Government aims to establish a fully equipped and functional separate GAK or Village level Health Centre at every village for improved access and better delivery of integrated essential health care services. So a cross sectional study was planned to assess the functionality of Gram Arogya Kendra of Bhopal district to know the current status of GAKs.

Objective

To assess the functionality of selected Gram Arogya Kendra of Bhopal District.

Methodology

Ethical approval was obtained from institution ethical committee before commencement of this research study. This community based cross sectional study was conducted among 50 selected (i.e. 22 in rural and 28 in urban areas) Gram Arogya Kendra of Bhopal district. This study had been conducted in a one year period from April 2017 to March 2018. All selected Gram Arogya Kendra where both ASHA and ANM was present, were included in the study. The Gram Arogya Kendra where either post of ASHA or ANM was vacant were excluded from the study. A recently updated standard Checklist for the supervision obtained from

NHM was used for the assessment of Gram Arogya Kendra. List of Gram Arogya Kendra of Bhopal district was obtained from NRHM Official website of Bhopal district which comprised of 437 Gram Arogya Kendra. Sample of 10% of total GAKs was selected randomly using random number table (N=50 GAKs) so, total of 50 GAK were selected out. Visit of selected gram Arogya Kendra was planned especially either on VHND or on immunization days so that both ANM and ASHA would be present at GAK. At GAK purpose of study was explained to the ASHA and ANM and verbal consent was obtained from them. Assessment of the concerned GAK was done by using 57 item checklist. On the basis of individual score of checklist, GAK was divided in different categories. Data collected was entered in MS Excel, compiled and analyzed using epi Info (version 7.2.5.0).

Results

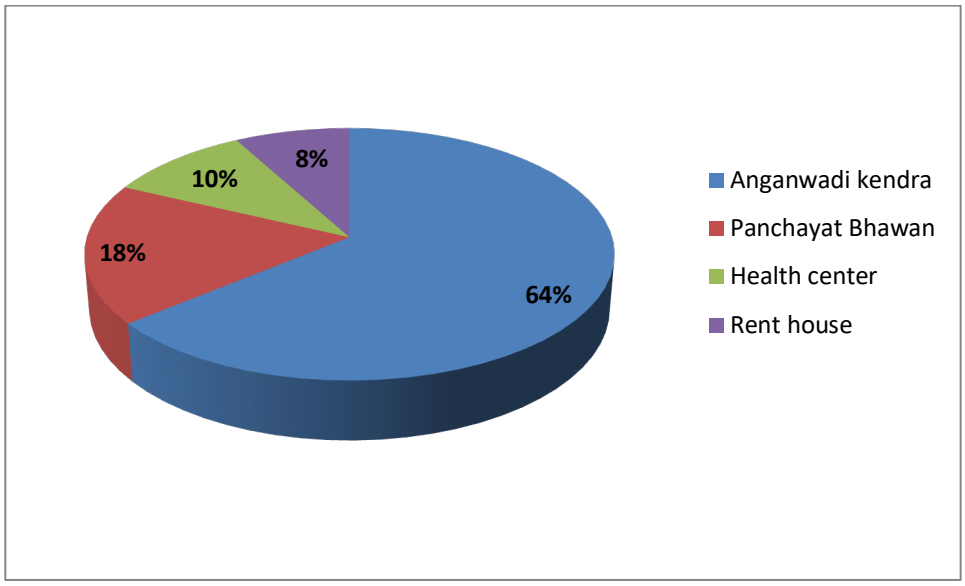

Figure 1: Places allotted to Anganwadi cum Gram Arogya Kendra

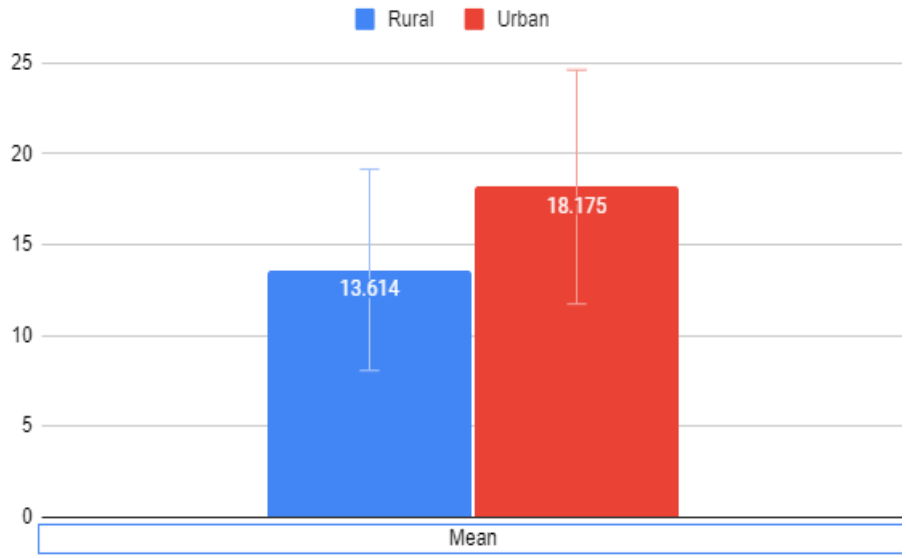

Figure 2: Assessment of status of GAKs (N= 50)

For Rural- Mean= 13.614, SD= 5.541, & for Urban -Mean= 18.175, SD= 6.439

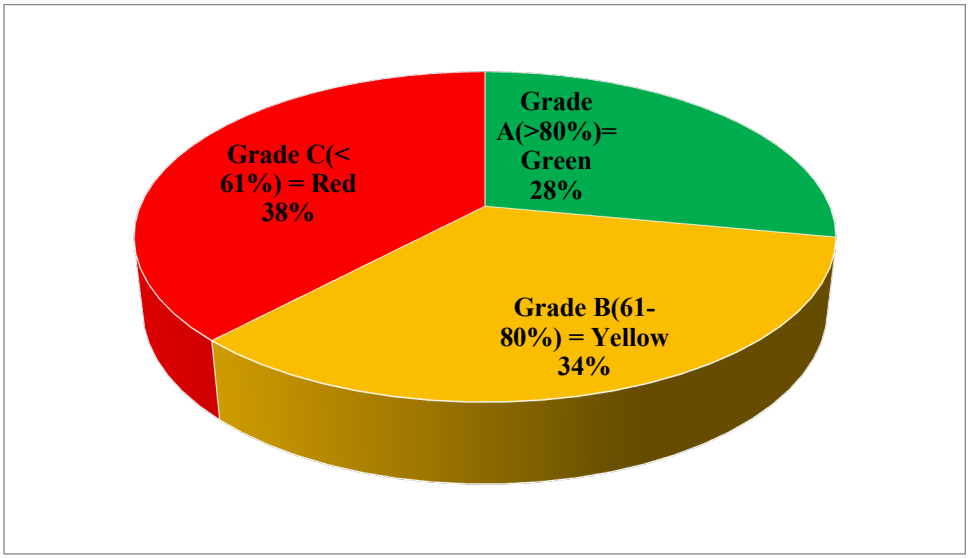

Figure 3: Grading of GAKs based on checklist score (N=50)

Table 1: Assessment of GAKs (N=50) by using standard supervision checklist

S. N.	Infrastructure and Basic amenities	Rural GAKs (22)	Urban GAKs (28)
1	Basic information about the village is available (Village map, area, population)	11	16
2	Village health plan is available	13	15
3	The VHC has details of the information about the funds received from health department, women & child development department and its expenditure	21	26
4	Names and services provided by ASHA, AWW and Sahayika are available	19	25
5	Information about the village health committee available	22	21
6	List of temporary methods of family planning	17	22
7	Details of the information of health services provided by ANM & MPW and their visits available	21	24
8	Details and lists of immunization, TB, Leprosy, Diarrhea, Malaria patients available	12	11
9	Details of mid day meal scheme group	18	15
10	Information about married & target couples, pregnant women, newborns, under five children, malnourished children, children registered in AWC available	10	13
11	Birth, Death & Marriage registration details available	11	13
12	Details of Self Help Group, Mothers Help Committee available	9	16

13	Contact information of DC, CMHO, DPM, BMO, CDPO, Janani express etc is available	16	27
For Rural (Mean 15.38, SD = 4.611) & For Urban (Mean = 18.76, SD = 5.570)			
Availability of Instruments and Furniture			
14	Spirit lamp	5	7
15	Test tubes	9	13
16	Weighing machine for baby	20	22
17	Weighing machine for children	15	20
18	Weighing machine for adult	16	20
19	Glass	21	27
20	Water tank	11	17
21	Box	21	28
22	Almirah	22	26
23	Torch	9	18
24	Slides	13	16
25	Thermometer	12	23
26	Hub cutter	13	14
27	Functional B.P. Instrument	17	19
28	Fetoscope	1	2
29	Curtains	9	22
30	Stethoscope	7	9
31	Haemoglobinometer	15	23
32	Infantometer for newborn	3	7
33	Foot step/ Stool for ANC	8	14
34	ANC table	9	17
35	Bench	11	24
36	Table	19	23
37	Chair	18	25
For Rural (Mean13.61, SD = 4.611) & For Urban(Mean = 19.739, SD = 6.0394)			
Availability of medicines & consumables			
38	All vaccines with diluents	14	23
39	ORS	16	20
40	IFA tablets - small & large	19	18
41	Cotrimoxazole tablets	9	11
42	Gention violet	15	16
43	Zinc sulphate dispersible tablets	18	19
44	Paracetamol tablet (500 mg)	16	22
45	Methyl ergomentrine tablets	8	9
46	Albendazole tablets (400 mg)	11	17
47	Dicyclomine tablets (10 mg)	7	13
48	Povidon Iodine ointment	14	24
49	Cotton bandage	16	19
50	Absorbant cotton	17	21
For Rural (Mean = 13.846, SD = 3.891) & For Urban(Mean = 17.846, SD = 4.579)			
Availability of details of additional information at GAKs			
51	Village health register	21	27

52	Death related information	21	22
53	Register for village health committee meetings	13	25
54	Register for other activities being done at the GAK	6	9
For Rural (Mean = 15.25, SD = 7.228) & For Urban-Mean (20.75, SD = 8.098)			
Details of information displayed at the GAKs			
55	Sign board for AWC and GAK	22	28
56	Notice board for displaying information outside the centre	8	9
57	Description of village health plan displayed outside	1	4
For Rural (Mean=10.333, SD=10.692) & for Urban (Mean =13.666, SD=12.662)			

The supervision checklist for the assessment of the selected GAKs had a total of 57 parameters sub-grouped into five areas. The first section includes infrastructure and basic amenities (13 parameters), the second was about availability of instruments and furniture (24 parameters), the third was about availability of medicines and consumables (13 parameters), fourth one includes details of additional information(04 parameters) and last section includes details of information displayed at GAKs (03 parameters). Availability of each of the 57 parameters are checked as per supervision checklist and marked as 1 if available and mark as 0 if not available. And thus total score out of 57 parameters are find out at the 50 selected GAK.

The table no.1 showed that status of availability for the parameters like details of the information about the funds received from health department, women & child development department and its expenditure, information about the names and services provided by ASHA, AWW and Sahayika, Information about the village health committee, Detailed information of health services provided by ANM & MPW and their visits etc, were found good. Whereas the status of parameters like Basic information about the village, Village health plan and Details and lists of immunization, TB, Leprosy, Diarrhea, Malaria patients etc were found relatively low. Table also shows that availability of Instruments and Furniture like Weighing machine for baby, Glasses, boxes, tables, chairs etc was good whereas fetoscope, spirit lamp, stethoscope and infantometer was found poor. The table depicts that availability Cotrimaxazole tablets, Albendazole tablets, Dicyclomine tablets and Methylergometrine was found very poor while availability of medicines like IFA tablets small & large, Povidine iodine ointment, Paracetamol (500 mg), Zinc sulfate, ORS etc was found relatively good. This table depicts that Village health register, Information related to death and Sign board for AWC and GAK was available at most of the gram arogya Kendra while Register for other activities, Notice board and Description of village health plan was not available at most of the gram arogya Kendra.

In fig-3, it is observed that on the basis of 57 parameters of supervision checklist, assessment of 50 selected Gram arogya kendra of Bhopal district was done in this study. About 28% i.e. 14 GAKs were categorized as grade A, 34% i.e. 17 GAKs were categorized as Grade B and 38% i.e. 19 GAKs were categorized as Grade C which contributes maximum.

Discussion

The Gram Arogya Kendra is a unique concept to promote village based health and nutrition activities, and for involving the community in their own health. By co-locating the AWC and GAK, all women and child-related services are made available in one place, and the community can more easily understand the links between health and its determinants like nutrition, water and sanitation. It is also in line

with the 12th Plan priorities for system strengthening through decentralization, community involvement, and by improving inter-departmental co-ordination. The Anganwadi-cum-Gram Arogya Kendra is a new initiative under the "Health for all" campaign to provide essential health and nutrition services at the village level and hence the GAK is equipped with the following instruments and medicines procured from the untied fund of Rs.10000 with the gram sabha swastha gram tadarth samiti [3]. Therefore this study was conducted for the assessment of their functionality by checking the availability of 57 parameters as per the supervision checklist.

In present study it was observed that about 64% Gram Arogya Kendra or Anganwadi Kendra had their own building, where as 18% of them was running in panchayat Bhawan. 10% was running in health center and remaining 8% was running in rented house. Whereas in study of Thakur K *et al* [4]. 85% AWCs were on rented building, 8.3% were part of primary school and only 6.7% were having AW's own premises and in the study conducted by Vaijayanti *et al*. found that 85% of the AWCs were rented building and the study conducted by Anil *et al* found 82.5% AWCs were housed in rented accommodation and only 15% had their own building [5,6].

In the present study Instruments/Furniture like Almirah (96%), Weighing-machine for baby (84%), Table (84%), Chair (86%), weighing-machine for adult (78%), Haemoglobinometer (76%), Functional BP instrument(72%) and Thermometer (70%) was available at most of the GAKs.

Whereas availability of Hub-cutter (54%), ANC table (52%), Stethoscope (32%), Spirit lamp (24%), Infantometer (20%) and Fetoscope (6%) was found poor. In study conducted by MPTAST Team (April – March 2015) 22.2% of the GAKs have Thermometer 24.9% have Almira followed by 13.1% of the GAK have weight machine for newborn where as only 6% and 13.1% of the GAK have Fetoscope and infantometer for new born [7]. In study of Thakur K *et al*. Almirah/wooden boxes were available in 93% of AWCs and in all the AWCs there were chairs, tables, tools, mats, benches, medical kits, first aid boxes & weighing machines in AWCs. Displaying of posters & charts were also found in 98% of the AWCs [4].

In present study availability of Weighing-machine for baby, children and adults were 84%, 70% and 78% respectively. Whereas in study of Bartwal J *et al*. adult and Salter type weighing scale were available and functioning in 86.2% of AWCs [8]. According to Saha M *et al*. salter and adult type weighing scale was available at 100% and 70% AWCs respectively and Gill KPK *et al*. observed availability of weighing machine for adults and children in 38.2% AWCs, while Datta SS *et al*. revealed availability of Salter and bathroom scale in 27.27% and 81.86%AWCs located in urban areas respectively [9-11].

In present study medicines and consumables like Paracetamol tab (76%), Povidine iodine (76%), IFA tab (74%), Zinc tab(74%), Vaccines with diluents (74%) and ORS (72%) was available at most of the GAKs. Whereas availability of Albendazole tab (56%), Cotrimaxozole tab (40%), Dicyclomine tab (40%) and Methylergometrine tab (34%) was found poor. In study conducted by MPTAST Team (April – March 2015) 13.9% of the Gram Arogya Kendra have availability of IFA tablets small & large after that Povidine iodine ointment 26.5% and Paracetamol (500mg) 18.5%. Cotrimoxazol tablets, Dicyclomine tablets and Emergency contraception present only in 30.9% of the gram arogya Kendra followed by Albendazole was found in 16.2% of the Gram Arogya Kendra [5]. In study of Bartwal J *et al*. medicine kit was available at 51.7% AWCs while Saha M *et al*. found medicine kit at 90% and NITI Aayog reported at 77.5% AWCs [8,9-12].

In the present study Most of the Gram Arogya Kendra 38% belonged to category-C followed by 34% of the Gram Arogya Kendra falling in category-B and only 28% of the GAKs was in category-A. In study conducted by MPTAST Team (April – March 2015) found that only 19% to be in category-A, 28% in category-B and 53% in category-C [7]. In the Best Practice Document GRAM AROGYA, assessment of the 27619 GAKs based on the checklist was done and details of assessment was entered into ASHA software from BCMs at respective blocks and analysis was done at state level. In their findings 65% GAKs was in category A, 28% was in category B and only 7% in Category C [3].

Conclusion

This study concluded that major of the GAK had their own building for the delivery of the services. Most of GAKs were lacking in the proper and detailed documentation required as per guidelines. Many of the drugs that are listed as per guidelines were not available at most of GAKs.

On assessment of the availability of the 57 parameters as per supervision checklist about 28% GAK belongs to Grade A (>80%) color coded as Green, 34 % as Grade B (61%-80%) color coded as Yellow and 38% as Grade C (<61%) color coded as Red.

Recommendations

Separate buildings should be provided for each GAKs for their smooth and effective functioning. There is need to give more emphasis on keeping the proper and detailed documentation required as per guidelines. Drugs that are listed as per guidelines should be provided to all centers so that the minor ailments can be handled at the GAK level.

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