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Medicine

Quality of Infrastructure of Anganwadi Centres in a Rural Area of West Bengal: An Evaluation Study.

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ABSTRACT

Introduction: Anganwadi centres (AWCs) act as the focal point of providing comprehensive services to both children and women under Integrated Child Development Scheme (ICDS), which is now recognised as one of the world's largest programmes for early childhood development.

Objectives: To evaluate various aspects of AWCs such as physical infrastructure, logistics, manpower and services provided at AWCs.

Methods: A cross-sectional study was conducted in 23 ICDS centres in Sep– Oct 2016, in service area of Rural Health Unit and Training Center, Singur with the help of a predesigned, pretested and structured questionnaire and a checklist.

Results: This study revealed that the AWCs were not satisfactory in terms of infrastructure and materials. Only 39% of the centres were being operated in their own building, 21.8% did not have a signboard, 34.8% had improper ventilation, 39.1% had inadequate ventilation, 65.2% did not have any separate kitchen. Only 56.5% had toilet facility. On the day of data collection attendance of the registered beneficiaries were 52%, 44.8% and 28.4% among 3-4, 4-5 and 5-6 years of age respectively. Not a single adolescent received any service. Non-enhancement of honorarium even after years of service was a very important reason for dissatisfaction among these field level health staff.

Conclusion: This study provides an insight into the existing situation which is found to be far from satisfactory. Immediate steps should be taken to improve the working ambience of all ICDS centres at large.

KEYWORDS :

INTRODUCTION

Children in the age group 0–6 years constitute around 158 million (13.12%) of the population of India (2011 census). These children are the future resource of country. Child survival, growth and development have to be looked as a holistic approach and there have to be balanced linkages between education, health and nutrition for proper development of a child.(1) To provide these, Government of India launched the Integrated Child Development Scheme(ICDS) with Anganwadi centre(AWC) as the focal point for delivery of services. It is now recognized as one of the world's largest and unique programme for early childhood care and development.

ICDS scheme was launched in 1975 in experimental basis on 33 Blocks (Projects) with 4,891 AWCs, now it is expanded up to 7076 Projects and 13,42,285 AWCs till 2014.This program provides integrated services comprising supplementary nutrition (SN), immunization, health check-up, and referral services to children below six years of age and expectant and nursing mothers, Non-formal pre-school education (PSE) is imparted to children of the age group 3-6 years, and nutrition and health education day (NHED) conducted for women in the age group 15-45 years in a comprehensive and cost effective manner. (2)

It's been 40 years of ICDS scheme, there's been a lot of improvement in all aspects of implementation by making universal allocation of funds but still there is a discrepancy in expected outcome due to varied reasons like poor infrastructure of the anganwadi centers, poor logistics, inadequate knowledge, lack of proper and competent training, poor remuneration of AWWs.(3) NFHS – 4 showed that around 38.4%, 21% and 35.7% of children under five in India were stunted, wasted and underweight respectively. The main reason is the mismatch between administrative priorities and hierarchical authorities which leads to detrimental effects in the health and nutrition of beneficiaries.

Survey conducted by Accountability Initiative in 2015 showed only 42% of the centres had received the entitled annual grant in time, 14% of the AWCs surveyed reported shortfalls in grains. 16, 8% of AWWs and 7% of AWHs reported a delay of more than four months in receiving honorarium.(4) Another survey by Centre for Policy Research showed that **31%** of Child Development Project Officer (CDPO)/ and **30%** of supervisor posts were vacant across India. There is a reduction in number of malnourished ICDS beneficiaries (children) from **41% (2011) to 28% (2014)** in India. (5)

In West Bengal, children below six years of age was around 14.23% (11 million) of the total population.(2001 Census) There were 576 AWCS projects with 1,14,431 operational AWCs with approx. 8 million beneficiaries including 6 million children till 2014. (6) NFHS – 4 states that around 32.5% ,20.3% and 31.5% children under 5 years of age in West Bengal were stunted, wasted and underweight respectively.

Abundance of studies regarding satisfaction of beneficiaries regarding the quality of services provided by this programme, there is significant scarcity in studies regarding infrastructure and logistics of the centers. With this background the present study had been conducted to assess the quality of infrastructure and adequacy of material resources of the ICDS centers and the qualification, training profile and daily activity pattern and perception of AWWs regarding their work in a rural area of Kolkata.

METHODOLOGY

This was a facility based, observational, descriptive study conducted in cross sectional design in 23 ICDS centres, under RHU&TC, Singur, which is the rural field practice area of All India Institute of Hygiene & Public Health, Kolkata within 2 months (Sep and Oct,2016) duration. A checklist was used to assess the physical infrastructure of AWC (as observed by the researcher) and logistics (as perceived by the AWW)

and a pre designed, pre-tested, structured, schedule to elicit the socio demographic profile, years of service, training profile, different activities of AWWs and their perception regarding work. Face and content validity of each item had been checked by experts of All India Institute of Hygiene and Public Health, Kolkata. Ethical approval was obtained from the institutional ethical committee prior to the initiation of the study. To check the reliability it had been pretested in 3 ICDS centers which were not included in this study, to see the clarity, absence of ambiguity, objectivity and simplicity. Again necessary corrections were made and the final schedule was used for data collection. Descriptive statistics were performed.

RESULTS

Among 23 AWCs, only 39% had their own building and 21.8% operated in school premises. 34.8% and 39.1% of AWCs had improper ventilation and inadequate lighting respectively, due to which the working time of AWC was reduced. Space constraint regarding sitting arrangement of children was present in 84.2% of AWCs. Space constraint leads overcrowding which in turn leads to unclean environment and facilitates spread of illness and low attendance in children.. In 69.6% of AWCs, drinking water was not stored because children brought their own water bottles. 73.9% of AWCs had toilet facility among which 17.4% AWCs were unutilized by the beneficiaries. (Table - 1&2)

Table 1: Physical infrastructure of AWCs (n=23)

Infrastructure	No. (%)	
Location of AWC	Own building Club house/ rented Government school	9 (39.1) 9 (39.1) 5 (21.8)
Status of building	Pucca Semi pucca	9 (39.1) 14 (60.9)
Signage	Absent	5 (21.8)
Signage	Not visible from road (n=18)	5 (27.8)
Register	Yes	23 (100)
Maintenance of register	Irregular	6 (26.1)
Ventilation	Improper	8 (34.8)
Lighting	Inadequate	9 (39.1)
Electricity	Absent	2 (8.7)
Condition of floor	Cracks present	7 (30.4)
Space constraint	Present	14 (84.2)
Separate kitchen	Absent	15 (65.2)
Space for playing	Absent	7 (30.4)
Space for storage	Absent	17 (73.9)
Storage of water	Open vessel Covered vessel Not stored	2 (8.7) 5 (21.7) 16 (69.6)
Cleanliness of ICDS centre	Poor	11 (47.8)

Table 2: Toilet facility in AWCs (n=23)

Characteristics		No.(%)
Toilet facility	Yes Yes but not used No	13 (56.5) 4 (17.4) 6 (26.1)
Type of toilet (n=17)	Sanitary latrine Both urinal and latrine	10 (58.8) 7 (41.2)
Soap and water facility	Absent	14 (82.4)
Cleanliness	Dirty	11(64.7)
Toilet cleaning materials	Inadequate Unavailable	5 (29.4) 12 (70.6)

Logistics like chairs, tables and boxes were adequate in more than 50% of AWCs. Weighing machines were inadequate in 34.8% and absent in 8.7% of AWCs. Not a single adolescent received any service in any of AWCs as per beneficiary register. No referral slips were available in any of AWCs. Immunization service was provided regularly at AWC with the help of Auxiliary Nurse Midwife. All AWWs had attended Village Health and Nutrition Day, which was conducted monthly. Only 52%, 44.8 % and 28.4% of children of age group 3-4, 4-6 and 5-6 years respectively were present on the day of visit among the registered beneficiaries. (Figure – 1&2)

Figure 1: Bar diagram showing logistics of AWCs in percentage (n=23)

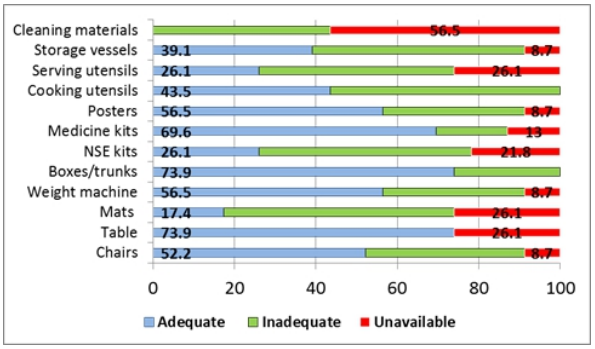
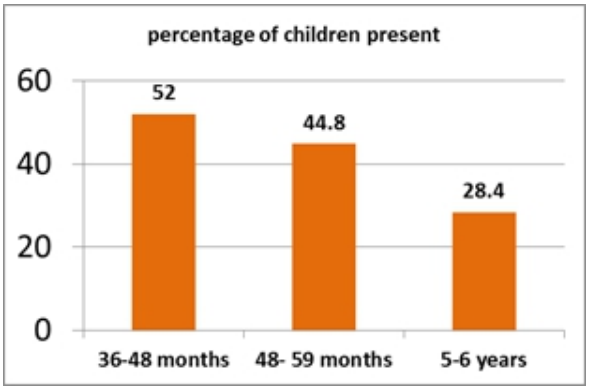


Figure 2: Bar diagram showing attendance of children on day of visit.



26% of AWWs were absent on day of visit. 52.2% of AWWs came late more than 30 minutes. In 21.8% of AWCs, there were no AWH. 56.5% of AWWs took more than 25 minutes to reach AWC and 60.9 % of AWWs came from another village. (Table - 3)

Table 3: Background characteristics of AWWs (n=23)

Characteristics		No.(%)
Age Mean- 44.3 Median - 46 Range - 26-62	26-35 36-45 46-55 56-65	8 (34.7) 4 (17.4) 5 (21.8) 6 (26.1)
Educational status	Secondary Higher secondary Graduate	3 (13) 14 (60.9) 6 (26.1)
Socio economic status (Mod. BG Prasad scale '16) Mean(S.D) : 3909(1230) Range: 2500-6500	 Class 1 Class 2 Class 3	3 (13) 11 (47.9) 9 (39.1)
Time to reach AWC	>25 mins	13 (56.5)
Residence	another village	14 (60.9)
Honorarium	<=4350 >4350	17(73.9) 6(26.1)
Service Mean:13.9 Range : 3-32 years	<1 years 10-20 years >20 years	12 (52.2) 4 (17.4) 7 (30.4)
Presence of AWH	No	6 (26.1)
Visit of supervisor	No monthly visit	10 (43.5)
Induction Training	Yes	23(100)
Refresher training	< 6 months	5(21.8)
VHND	Attended	23(100)

DISCUSSION:

`This study tried to evaluate the infrastructure and basic logistics of AWCs and to get the background and thoughts regarding their activity at AWCs. There are many monitoring and supervision bodies still there are lots of gaps unaddressed to get a clear cut solution. This was conducted in a rural area to get the exact scenario and the problems faced in providing services under one of the flagship programme for development of maternal and child health.

The present study showed 31.9% were operated in own building, where another study showed only 7.4% in slum of Kolkata(7) and

33.3% in Rajasthan(8) and 63.1% in Gujarat(8) and 81% in rural Bangalore(9) and it was 42.5% in national level (1). Present study showed 39.1% of AWCs in pucca building, whereas 81.5%, 82.3% and 61.9% in slum of Kolkata, Gujarat, Bangalore respectively. Still none of the AWCs operated in kutcha building. This was mainly due to urban-rural difference. Few AWCs were operated in school buildings, where the timing was from 7:30 to 10:30 am, so take home ration was practised. So, it could not be assured that whether the child took the food or taken by some other. As conducted in a class room, there was no separate storage place for food grains and logistics. Due to early timing and the temporary environment, there may be loss of beneficiaries and restricted service delivery.

Signage was absent in 21.8%, whereas no sign board in 96.3% and 46.2% in slum of Kolkata and Rajasthan. 65.2% had no separate kitchen, same as slum of Kolkata and Rajasthan and in National level, 45.4% of AWCs no adequate space for cooking. In this study 73.9% of AWCs had no separate storage space, at national level it was 42.5% and 62% in slum of Kolkata and Rajasthan.

Toilet facility was absent in 26.1% of AWCs, whereas in slum area, it was absent in 59.3% and 40.7% in Rajasthan. It was because of "Nirmal Bharat Abhiyan" scheme and the commitment of local bodies and community to provide toilet facility. Weighing machine was adequate in 56.5% wherein national level, it was 69%. Serving utensils were adequate in 26.1% whereas 49.5% in national level. PSE kits were adequate in 44% national level, but in this study only 26% AWCs had adequate kits. In most of the AWCs they kept the kits just for accounting and they were not used. Medicine kits were available in 69%, but these medicines were used rarely and they kept for long time. In 2 AWCs they kept expired medicines and AWWs were unaware of it. Government had provided 2 soaps for a year, as it was inadequate they were reluctant to use it.

In this study 26% of AWWs were graduates, it was 14.8% in slum of Kolkata and 31% in Rajasthan. 47.8% of AWWs had service of more than 10 years, 63% and 59.2% in slum of Kolkata and Gujarat respectively. In this study 21.8% of AWWs had refresher training, All AWWs had induction training whereas only 21.8% had refresher training within 6 months but it was 74.1% in slum of Kolkata, its 63% in Gujarat and 83.3% in Rajasthan. They felt that they were involved in more programme tasks, due to work burden (paperwork) and time constraint they were not able to provide services at a right pace. Non enhancement of honorarium even after years of service was a very important reason for dissatisfaction among AWWs and still they work in contractual basis. Sometimes, there were delay in provision of food materials and releasing of funds. In few AWCs, AWW were absent and some were late, in that case only supplementary nutrition was provided by AWHs, all other services were not provided.

The limitation of the study were sample size was small. As checklist was used, most of the information obtained was perceived self and according to AWWs. Attendance of registered beneficiaries varies day by day. But the data was collected only on the day of visit. Due to time constraint, detailed interview of AWWs was not taken.

CONCLUSION

Though the findings are restricted to a few AWCs, it provides an insight into the existing situation which is found to be far from satisfactory. Emphasis should be given to strengthen the basic infrastructure of AWCs which would further help in delivering quality services to the beneficiaries. Stringent programme monitoring system and guaranteeing job satisfaction of the AWWs (e.g. by increasing honorarium) would further help in ensuring quality service delivery. Proper coordination should also be maintained between all stakeholders of AWCs and this should be ensured with regular meetings amongst themselves and with the community to create awareness and get feedbacks. As malnutrition still remains a big threat, immediate steps should be taken to improve the overall ambience of all ICDS centres so that there will be optimal utilization of the services by the beneficiaries.

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