

An Assessment of the Integrated Child Development Services Programme in an Urban Area of Ludhiana, Punjab

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Abstract: The Integrated Child Development Services (ICDS) scheme was launched in 1975, to provide holistic development of children through a package of services aimed at reduction of child malnutrition, morbidity and mortality. Anganwadi Centres (AWCs) functioning in about 20,000 population of an urban area of Ludhiana were studied, to assess facilities available and services provided to the beneficiaries under the Programme. The ICDS Programme in the study area was found to have several short-comings, with inadequate facilities and infrastructure. The AWCs lacked essential equipment, and growth monitoring of the children was non-existent. The coverage of the services and attendance in the AWCs was low for children and nil for pregnant women, lactating mothers and adolescent girls. Immunization records were absent, and provision of supplementary nutrition to the beneficiaries was inadequate. 71.9% of the under-5 years old present in the AWCs were malnourished. There exists a wide gap between policy and implementation of the ICDS Programme. Periodic assessment of the Programme by independent agencies to identify and correct the Programme weaknesses and obstacles, regular in-service refresher courses for Anganwadi Workers (AWWs) to develop and reinforce their skills, and better co-ordination between the health sector and ICDS would go a long way to improve the functioning of the Programme.

Keywords: Anganwadi Center, Integrated Child Development Services, Urban slum.

I. Introduction

India is home to the largest child population in the world. According to the 2011 census, India has around 164.5 million children below the age of 6 years, constituting 13.6% of the population.^[1] Forty three percent children under 5 years of age in India are underweight.^[2] The ICDS Scheme was launched by the Government of India in 1975, in response to the challenge of providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity and mortality on the other hand. ICDS provides opportunities for holistic development of children and child bearing women from vulnerable backgrounds. Even after 35 years of implementation, the success of ICDS in tackling childhood and maternal problems remains a matter of concern. The present study proposes to assess the functioning of the ICDS Programme with regard to the services provided, in anganwadis of an urban area of Ludhiana.

II. Methods

2.1 Design & Settings: Descriptive study, in an urban area of Ludhiana.

2.2 Participants & sampling: All the AWCs in the area in 2011, catering to about 20,000 population, were studied. Participants included the AWWs, and the beneficiaries attending the AWCs.

2.3 Measures and measurements: Each AWC was visited by the investigator and the Multi-purpose Health Worker (MPHW) of that area. Information was obtained from the AWWs in each AWC under study, and from the records maintained in the AWC, on a pre-designed questionnaire, after obtaining consent from the respondent AWW. The infrastructure of these AWCs was observed and recorded. The children present in the AWC at the time of the study were weighed on a Salter scale, and the nutritional status of the children assessed through weight-for-age according to the Growth Monitoring Chart used in the ICDS Programme.

2.4 Ethics: Institutional Ethics Committee approval was obtained before commencement of the study. Written informed consent was also obtained from the AWWs.

2.5 Statistical analysis: Data analysis included proportions, and Chi-square test was applied where appropriate to determine statistical significance.

III. Results

3.1 Infrastructure: Out of 9 AWCs studied, 8 were functioning in rented rooms and 1 in a school building. Three AWCs had piped water supply, while in the remaining six the drinking water was stored in containers. Five AWCs were adequately ventilated and lighted. All the AWCs received regular ration supply. The records and registers were not regularly maintained in any AWC. None of the AWCs had referral slips and only 2 AWCs had complete medicine kits. In all the AWCs the nutrition and health education training material was available but used only in four AWCs. None of the AWCs had Salter's scales. Consequently, while all the AWCs had Growth Chart Registers, none of them maintained growth monitoring of the children. All the AWCs had playing kits for the children. Supplementary nutrition was provided to the children for 24 days (average for all 9 AWCs studied) in the last one month in which it was given. Monthly medical check-up was done in 4 AWCs (44.4%) by the Auxiliary Nurse Midwives (ANMs) of the nearby health Centers.

3.2 Registration and Attendance of Beneficiaries: While 826 children 0-6 years old were registered in the AWCs, only 93 (11.3%) were found to be attending the Center. Attendance of the 0-1 year old was 3.4%, of the 1-3 years old 8.4% and of the 3-6 years old 15.9%. The total number of pregnant women, lactating mothers and adolescent girls registered were 97, 78 and 659, respectively, but none of them were found present in any of the AWCs.

3.3 Nutritional Status: The Growth Chart used for growth monitoring in the ICDS Programme is till 5 years of age. Because of this limitation, the nutritional status of 4 children aged 5-6 years present in the AWCs could not be assessed. Only 28.1% of the children were in the green zone (road-to-health), 30.3% in the yellow zone and 41.6% in the orange zone (severe malnutrition). 26.8% of the boys and 29.2% of the girls were in the green zone; 26.8% of the boys and 33.3% of the girls were in the yellow zone; 46.4% of the boys and 37.5% of the girls were in the orange zone ($p = 0.681$). All 4 infants attending the AWC were in the orange zone. In the 12-35 months old, 51.9% were in the green zone, 29.6% in the yellow zone and 18.5% in the orange zone. In the >35 months old, 18.9% were in the green zone, 32.8% in the yellow zone and 48.3% in the orange zone ($p = 0.002$).

3.4 Supplementary Nutrition: The ration for the supplementary nutrition was provided to the AWCs by the supervisor of that area, who did not have any criteria to select the beneficiaries. The present study showed that the supplementary nutrition was provided 6 days a week but no meals were given during the summer holidays (1 month). Only 3 adolescent girls were given supplementary nutrition. No standard measure was used to distribute the food to the children. In some AWCs due to lack of sufficient utensils, the AWW had to prepare the food at her house and then bring it to the center. Double diet is to be provided to the malnourished children according to the Programme guidelines, but this was not practised in the AWCs under study.

3.5 Growth Monitoring: None of the AWCs were monitoring the growth of the children. The AWCs did not have Salter's scales and the AWWs did not know how to weigh children using this scale. Only 55.6% knew how to plot the weight on the growth chart. The growth chart registers were available in all these AWCs but they were not maintained.

3.6 Health Services: None of the AWCs had any record of the immunization status of the children. The children of 3 out of the 9 AWCs were dewormed and provided Iron-folate tablets, but none of the AWCs provided vitamin-A supplements to the children because of lack of supply. Regular monthly health check-up of the children was done in 4 AWCs by the ANMs of the nearby dispensary/health center. However, referral forms were not available.

3.7 Health Education: 4 out of 9 AWCs organized meetings with mothers and pregnant women of their AWC area but not on a regular basis. Immunization and antenatal care were usually the topics of discussion.

3.8 Pre-school education: Most of the AWCs had pre-school timetable but none of them followed it. They had charts and pre-school education materials like slate and books but none of them made any use of them. In some AWCs, the AWWs taught alphabets and rhymes but most of the time the children were kept engaged with the toys and no pre-school education was imparted.

The knowledge of workers regarding child care components was minimal. None of the AWWs knew about the calorie and protein requirement of children, and to whom the therapeutic diet should be given. Seventy-five percent knew that exclusive breast feeding should be given till 6 months of age.

IV. Discussion

The present study carried out to evaluate the services provided by the AWCs in an urban area of Ludhiana shows that there is a big gap between the planned Programme and its implementation. Though it is recommended that AWCs should have an independent building, located in a convenient and accessible space, with a source of drinking water, toilet facilities and separate space for cooking,^[3] 88.9 % of AWCs under study were housed in rented single room with inadequate space as compared to 41% AWCs in Kerala.^[4] There were no toilet facilities in 11.1% of the AWCs and only 22.2% had piped water supply. Only 55.6% AWCs had proper lighting and ventilation. Other studies reported similar infrastructure deficiencies.^[5,6]

Most of the AWCs in the present study lacked medicine kit (66.7%) or had incomplete kits (11.1%). Studies in Madhya Pradesh,^[5] and in Jammu & Kashmir^[6] also found AWCs to be lacking in medicine supplies or facing short/inadequate supply. An AWW is required to maintain at least 12 different types of records.^[7] In all the AWCs the records and registers were either incomplete or not maintained at all. Moreover, none of the Centers had any record of immunization status of the children. A study in Jammu & Kashmir^[6] also showed that maintenance of records was poor and the information recorded regarding the attendance and immunization was grossly inaccurate.

ICDS provides six basic services to the beneficiaries attending the AWCs, and pre-school education is one of them. In the present study, though all the AWCs had the pre-school education material, none of them made use of it. A study conducted in Madhya Pradesh^[5] showed that only 24% AWCs were imparting pre-school education, whereas in Kerala^[4] 24.6% were doing so.

AWWs are required to organize meetings and counseling sessions in home craft, child care and nutrition with the women aged 15 -45years, to educate them to take care of themselves and their families. In the present study, only 44.4% anganwadis organized such sessions but not on a regular basis. Similarly a survey in Jammu & Kashmir^[6] revealed that the nutrition and health education (NHE) activity was quite irregular, discussions on growth promotion of children and their better nutrition were neglected. Moreover NHE was restricted to the women in the close vicinity of the AWC and when meetings were held, only 30% women attended such meetings regularly. In the present study none of the AWCs had weighing machine but all had growth registers, which is contrary to the findings in Madhya Pradesh^[5] where 14 % centers had weighing machines but none had growth registers. In a study in Kerala,^[8] all AWWs were able to handle Salter spring type weighing scales and to plot the weight on the growth charts whereas in the present study, none of the AWWs knew how to use Salter's scales and only 55.6% could correctly plot a child's weight on the growth chart. A study from West Bengal,^[9] cited the major reason for non-acceptability of food to be improper cooking (45.9%), followed by poor quality material (44.7%). In the ICDS III baseline/ ICDS II endline survey, the majority of AWCs reported that they had experienced disruptions in the food supply during a preceding three-month period.^[10] The National Institute of Public Co-operation and Child Development, New Delhi (NIPCCD) evaluation reported that food distribution had ceased for periods longer than 90 days in 27% of AWCs.^[11] Children often receive less than the recommended 300 kcal of food and, in some instances, food is also distributed to indigent adults. It is common practice for Anganwadi Helpers (AWHs), and occasionally AWWs, to take home the cooked food rations.^[12] In the present study the health checkups were irregular, none of the children were weighed, or given vitamin-A or iron-folate tablets. Only 2 AWCs had mebendazole tablets and in the rest, deworming was done only when the ANMs visited the Centers. A study in Jammu & Kashmir^[6] also showed poor coordination between the ICDS beneficiaries and the health departments.

71.9 % of the children in the AWCs under study were underweight with 41.6% being severely underweight. In a study in Rohtak, Haryana,^[12] 48.7% of the children were found to be underweight. All the four infants present in the AWCs studied were severely malnourished, which was statistically significant.

V. Conclusions

The ICDS Programme in the study area was found to have several short-comings. Not only were the facilities and infrastructure inadequate, but the AWCs also lacked essential equipment like Salter scales and medicine kits, rendering a vital activity like growth monitoring to be completely absent. The coverage of the services and attendance in the AWCs was low for children and nil for pregnant women, lactating mothers and adolescent girls. Immunization records were absent, and provision of supplementary nutrition to the beneficiaries was deficient. Periodic assessment of the Programme by independent agencies to identify and correct the weak links in the Programme, regular in-service refresher courses for Anganwadi Workers (AWWs) to develop and reinforce their skills, and better co-ordination between the health sector and ICDS through joint consultation would go a long way to improve the functioning of the Programme.

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Table 1: Registration and Attendance of Beneficiaries in AWCs

	Registered (in 9 AWCs)	Attending (present during the visit)
No. of children 0-6 yrs old	826	93 (11.3)
0 -1 yrs	117	4 (3.4)
1-3yrs	320	27 (8.4)
3-6yrs	389	62 (15.9)
No. of pregnant women	97	0
No. of lactating mothers	78	0
No. of adolescent girls	659	0

Figures in brackets indicate percentages

Table 2: Nutritional status of the children according to age

Age Group	Nutritional Grade Color*			
	Green	Yellow	Orange	Total
0 -11 months	0	0	4 (100)	4 (100)
12-35 months	14 (51.9)	8 (29.6)	5 (18.5)	27 (100)
36-60 months	11 (19.0)	19 (32.7)	28 (48.3)	58 (100)
Total	25 (28.1)	27 (30.3)	19 (41.6)	89** (100)

$X^2 = 16.96$, $df = 4$, $p = 0.002$ (33.3% cells have expected value <5)

Figures in brackets indicate percentages

Table 3: Nutritional status of the children according to sex

Sex	Nutritional Grade Color*			
	Green	Yellow	Orange	Total
Male	11 (26.8)	11 (26.8)	19 (46.4)	41 (100)
Female	14 (29.2)	16 (33.3)	18 (37.5)	48 (100)
Total	25 (28.1)	27 (30.3)	37 (41.6)	89** (100)

$X^2 = 77$, $df = 2$, $p = 0.681$

Figures in brackets indicate percentages

* The nutritional grade color classification is according to the ICDS growth charts, separate for boys and girls

** Excludes 4 children 5-6 years old whose nutritional grade could not be assessed because of the growth chart being limited to 0-5 years.