Politicindia Media & Research

People's Dialogue on Education
Vol. – 13, Number – 1, January 2021

ISSN(L)-0974-5955

Peer Reviewed Journal

http://journal.politicindia.com

A Study of the Nutritional Health Status of the Children at the Anganwadis

Madhu Smita Singh

Abstract

Anganwadis in Bihar function under the Social Welfare Department according to the guidelines provided by Integrated Child Development Services ICDS). An urge for holistic development of the child raised the need for Early Childhood Care and Education (ECCE) programme which integrated both pre-school education and health component under the aegis of Integrated Child Development Scheme (ICDS). In the present study, a random selection of 50 Anganwadi Centres from the three districts of Bihar, 250 children, and 100 parents were done to constitute the sample of the study. The present study aimed to explore the facts related to the current health status of the children at the Anganwadis, methods used by them to improve the health condition of the children and to analyze the actual attainment of health services by the beneficiaries. Self-constructed Questionnaire for Anganwadi workers, Observation Schedule for Anganwadi Centres, and Interview Schedule for parents were used by the investigators to collect data and was further interpreted in light of the stipulated objectives.

Introduction

Anganwadi is a term used for a child care centre providing care for mothers and young children. It was started in 1975 as a part of the Integrated Child Development Services (ICDS) Programme, to combat child hunger, malnutrition, morbidity, and mortality. Today Anganwadi is like a second home to the children. It provides not only non-formal pre-primary education to the children in the age group of 3 to 6 years but also takes care of their nutritional health standards during the prenatal and post-natal stages. The lactating mothers are also the beneficiaries until their children reach the age of 6 years.

ICDS, which functions under the ambit of the Social Welfare Department (SWD), runs this largest welfare programme in the state of Bihar. It encompasses children up to the age of 6 years, pregnant women, and new mothers (and now adolescent girls too). ICDS also provides essential nutrition, health, and other related services to the target population. In Bihar, the ICDS programme today reaches out to more than 6.5 million children under six years of age, around one million adolescent girls, and the same number of pregnant and nursing mothers. Of these, nearly 3 million children between the ages of three to six years also participate in centre-based pre-school educational activities. The targeted population is reached, through around 91,000 Anganwadi Centres. Each Anganwadi Centre (AWC) has a trained, community-based Anganwadi Worker (AWW) and an equal number of Anganwadi Helpers (AWH). The Anganwadi Centres are managed through the ICDS programme in Bihar consisting of a hierarchy of 544 projects under 38 districts covering all community development blocks (administrative units) in the state of Bihar. The key services provided by the Anganwadi centres in Bihar are in line with the National programme of ICDS (ICDS, GoB).

Rationale of the Study

The implication of the findings of the present study will help the Anganwadi workers, Helpers, parents and others associated with the Anganwadi centre to understand the nutritional health standards of the children coming to the centre and to improve their health conditions, and also to equip Anganwadis with the basic health facilities.

Scope of the study

The findings of the present study will help the Anganwadi workers to find out the ways of betterment in the current situation of the health status of the children. The study will also help the Anganwadi workers and other functionaries to understand the effectiveness of the methods used for the improvement of the health status and to evolve the better ways of working.

Delimitations of the study

The present study is a descriptive survey of exploratory nature which undertakes 50 Anganwadi centres from Jehanabad, Vaishali, and Patna district as a sample. This study only ascertains findings related to the health status of the children and the methods used to improve their conditions. The current study aimed to identify the problems faced by the Anganwadi Workers in the execution of the health services provided at the Anganwadi centres.

Review of literature

The sources were explored by the researcher such as government reports, research journals, books, manuals, etc, which were directly or indirectly related to the present study. A review of few relevant studies is presented below.

According to Rekha et al., (1980), a significant improvement in the knowledge regarding various aspects of health and nutrition components was noted after a training programme among the Anganwadi workers. It was therefore suggested by them that more frequent and on the job training should be given to these workers and their performance should also be constantly monitored.

Planning Commission, GOI (2011), stated in the report that since the inception of ICDS in 1975, it has expanded remarkably in its scope and coverage, and today it covers around 7.6 million expectant and nursing mothers and over 36 million children less than six years of age. The programme provides a well-integrated package of services through a network of community-level Anganwadi centres (AWC).

Kapil et al., (1992), enquired about the weaknesses in the knowledge of Anganwadi Workers about maternal, child health, and nutrition in a rural ICDS project of Haryana so that realistic training can be imparted to them. The Anganwadi workers have abstract knowledge about the nutritive value of common foods, dietary beliefs during the antenatal and Post Pregnancy Period, and since they are the immediate resource persons between the public health services and the rural population, these Anganwadi workers should be trained at regular intervals. Through which their knowledge can be upgraded.

Shyam, A (2008), probed into the reasons for the failure of rural health centres. Several other factors were found to be accountable for the poor performance of NRHM, amongst which failure of decentralization, lack of inter-sectoral coordination, undermining of traditional health support, and underfit health workers and their poor pay is the most prominent one. ASHA is the most accredited health worker who takes care of pregnant ladies and sends them to the local PHC hospitals. They work in coordination with the Anganwadi Workers. Anganwadi workers look at the ASHA as some kind of adversary in the same field of work.

Hence after reviewing the above studies it was found that studies were mostly related to the lapses on the part of the Anganwadi Workers, their role and responsibilities, execution of the multifaceted task, and such other areas. The importance of maintaining the health standards in the children at the Anganwadi centre and the methods used to improve their conditions have to be looked into in the light of their actual attainment.

Objectives of the study

1. To find out the current health status of the children at the Anganwadis
2. To find out the methods used by the Anganwadis to improve the health condition of the children
3. To analyze the actual attainment of health services by the beneficiaries

Research methodology

Research approach: Quantitative
Design**:** Descriptive survey design

Location of the Study, Sample, and Sampling of the study

The present study was conducted in and around the area of 100 km from Patna, Bihar. The target population of this study consists of Anganwadi workers and Children between the age group of 3 to 6 years coming to the Anganwadi centres with their Parents.

The basic sample frame of this study consists of:

- Anganwadi centres
- Anganwadi workers
- Children
- Parents of these children

The sample includes 50 Anganwadi Centres having 50 Anganwadi Workers. From these centres, 250 Anganwadi children and 100 parents of children coming to the Anganwadi centre form the sample (450 in total).

Table 1 : Distribution of sample

Number	Sample under consideration
50	Anganwadi Centres
50	Anganwadi Workers
100	Parents
250	Anganwadi children

50 Anganwadi centres were selected by random sampling. Anganwadi worker of the each centre constituted the sample of 50 Anganwadi workers. Five children in the age group of 3-6 were randomly selected from each of the sample Anganwadi centre thus a total of 250 children were randomly selected from 50 Anganwadi centres who constituted the sample of children. Out of five children, a parent (mother/father) of two children who used to visit the Aganwadi centre was selected and thus 100 parents were selected who constituted parents sample for the study.

For the selection of Anganwadi centres, firstly Keeping Patna at the centre, the districts were identified which fall under its 100 km radius. Eleven districts were found to be included within a 100 km range i.e. Patna, Saran, Muzaffarpur, Bhojpur, Jehanabad, Nalanda, Sheikhpura, Nawada, Begusarai, Vaishali, and Samastipur. Out of these, three districts were randomly selected. The selected districts were Patna, Jehanabad, and Vaishali.

Secondly, number of Blocks under each district were enlisted. In Jehanabad district there are 7 blocks, Patna

district 23 blocks, and in Vaishali district 16 blocks. To get an equal representation of blocks 10% of the total number of blocks were taken by the researcher. Two blocks from both Patna and Jehanabad district and one block from Vaishali district were randomly selected. The name of the blocks chosen are:

- Patna: Patna Sadar and Masaurhi
- Jehanabad: Makdumpur and Jehanabad
- Vaishali: Hazipur

Table 2 : Representation of Blocks

District	Number of blocks	10% of blocks (rounded to nearest integers)	randomly selected Blocks
Patna	23	2	2
Jehanabad	16	2	2
Vaishali	7	1	1

Lastly, the total number of Anganwadi Centres were listed under each Block. An equal number of 10 Anganwadi Centres were randomly selected from each block of Patna, Jehanabad, and Vaishali districts.

Patna 1) Patna Sadar -10 out of 657 centres

2) Masaurhi -10 out of 219 centres

Jehanabad 1) Makdumpur – 10 out of 83 centres

2) Jehanabad - 10 out of 208 centres

Vaishali 1) Hazipur – 10 out of 355 centres

The selection of Anganwadi centres through Multi-Stage Sampling can be shown with the help of the following flow chart:

The selection procedure of 250 children was systematically done using random sampling. At each AWC there were 40 children enrolled, out of which 5 were selected by choosing every 8th roll No. Out of these five children, two children were selected by lottery method, and their parents (either father or mother) who came to the centre were chosen, for the interview who came at the centre. Altogether 100 parents were interviewed.

Tools of the study

Observation Schedule for the Anganwadi centre, Questionnaire for the Anganwadi Workers, and Interview Schedule for the Anganwadi parents were prepared by the investigators for collecting the primary data of the study.

The reliability and validity of the tool were established by conducting pilot studies at the Anganwadi centre. The pilot test showed the construct to be both valid and reliable while giving the opportunity to insert refinements to the research tool. It helped the investigator in modification, alteration addition, or deletion of certain items. After this, the final draft of the observation schedule was prepared.

Data Collection

Data from the Anganwadi Workers were taken during the working hours exempting the date of THR (Take Home Ration) distribution day. Anganwadi Centres were also observed for the same duration. Parents were interviewed at the time of dispersal.

Findings of the study

Findings of the study are reported under following subheads from I to viii.

i) Current health status of the children at the Anganwadis

The health and nutritional aspect of a child's growth are also one of the major concerns of Anganwadis. It is important for the holistic development of children. The Preschool stage is an important phase of a child's life where nutrition plays an important role and has long-lasting effects in the later years of life. ICDS recommends regular monitoring of a child's physical growth and has an eye on the malnourished children so that early detection can be made and treatment can be rendered.

Table 3 : Underweight children at the Anganwadi Centre

Age	0 - 6 months	6-12 months	1-3 years	3- 6 years
Number of children marked with Red (Severely malnourished)	**76**	**39**	**22**	**3**
Number of children marked with Yellow (Moderately malnourished)	**111**	**72**	**43**	**13**

As shown in Table 3 the number of children who were registered as underweight and marked in red in the weighing chart in the 0-6 months of age group was 76. From 6 months to 1 year of age, 39 children were marked in red. In the age group of 1-3 years, there were 22 children and in 3 to 6 years there were only 3 children who were marked in the severe malnourished category (RED). The malnutrition in the age group of 0-6 months in the present study can easily be attributed to inappropriate feeding practices. Malnourishment in the age group of 6 months to 1 year may be due to the lack of knowledge about supplementary feeding among the nursing mothers. Irregular demonstration of supplementary feeding by the Anganwadi Workers for the mothers may also attribute to the present condition of the malnourishment. In the age group of 1-3 years, the condition of malnourishment may be due to the insufficient THR received by their parents from the Anganwadi centres.

This does not show a satisfactory condition of health component of the children who come under the Anganwadi Centre.

ii) Average Weight of the children coming to the centre

Table- 4 : Average weight of the Anganwadi children in different age groups

Age groups	3-4 years	4-5 years	5-6 years
The average weight of the children coming to the centre	12.16 kg	13.88 kg	15.68G

As depicted in Table 4, the average weight of the children in the age group of 3-4 years was 12.16 kg, of 4-5 years 13.88 kg, and of 5-6 years was 15.68 kg. Anganwadi workers regularly monitor the weight of the children as recommended by ICDS. On average with every passing year children are showing a gain of 1k.g in their weight. This shows the positive aspect of the nutritional component of the ICDS.

iii) Immunization at the Anganwadi Centre

By the completion of one year of age children are immunized for BCG, DPT, Hep B1, OPV, Hep B 2, Measles, and 5AE Booster. Children who are given all the vaccines are recorded as fully immunized. Anganwadi Workers along with ANM have to immunize all the children who are registered at the centre and also who are not registered but comes under the ambit of their prescribed area.

As per the data, the number of children altogether at 50 Anganwadi centres who were fully immunized by one year of age by the Anganwadi workers with the help of ANM within six months. Anganwadi Workers motivate the parents to get their children immunized for their age-specific vaccines.

iv) Methods used by the Anganwadis to improve the health condition of the children

Anganwadi Workers are recommended to keep regular records of the services provided by them which ensures the betterment of the health of children in their early years of growth (0-6 years). It includes weight monitoring, immunization, health check-up, deworming, and other health-related referral services. Meeting with the ANM to execute health-related services and supplementary nutrition according to the requirement of the child are few methods applied by Anganwadi Workers to improve the health conditions of children.

v) Weighing of children at the Anganwadi centre

Table 5 : Weighing children at the Anganwadi centre

No. of times the children are weighed by the Anganwadi worker in the last 6 months	2 Times	3 Times	4 Times	5 Times	6 Times
Anganwadi Centres (%)	6	14	12	50	18

As shown above in Table 5, only 18% of Anganwadi centres' children were weighed 6 times within the last six months from the month of investigation. This shows that the methods recommended by the ICDS to have a close check on the nutritional standards of the child are not being applied by all the Anganwadi Centres. The reason behind this irregularity may be the availability of the faulty weighing machine, the short working duration of Anganwadi Centres, unawareness among the parents of the children who are below the age of 3 years, etc.

ICDS recommends for distribution of supplementary nutrition for those children who are under the age of 3 years and those who are in the severely and moderately malnourished category once every month.

vi) Arrangement of food and distribution of T.H.R.

The Anganwadi Workers give food in the form of Take Home Ration (T.H.R) to the children in the age group of 0-3 years. This is the prescribed nutritional standard to be maintained for these children. The children in 3-6 years age group, received cooked food according to the weekly menu as decided by the ICDS. Uniformity is maintained at all the centres as far as compliance to the guidelines regarding the procurement of food according to the weekly menu is concerned.

Table 6 : Supplementary nutrition provided at the Anganwadi centre

Time-> Days	10:30:10:45 a.m	% of Centres providing suppl. nutrition	12:00-12:30P.m	% of Centres providing suppl. nutrition	Recommended quantity/ child (in gm)	% of centres providing recom. quantity
Monday	Biscuit	65	Khichdi	100	160	15
Tuesday	Seasonal fruit	85	Rasiyaav	100	140	10
Wednesday	Seasonal fruit	90	Halwa	100	130	3
Thursday	Chana+Jaggery	100	Pulav	100	155	14
Friday	Biscuit	76	Khichdi	100	160	11
Saturday	Chana+Jaggery	100	Khichdi	100	160	5

As shown in Table 6, on Monday and Friday between 10:30-10:45a.m there is a provision of biscuits to the children as a morning snack. Biscuits are a rich source of carbohydrates, sodium, and calcium. It is served as a snack to the children and acts as a source of energy. About 65% of Anganwadi Centres on Monday and 76% on Wednesday served biscuits to the children. 35%Anganwadi centres (Monday) and 44% (Wednesday) did not serve biscuits as a morning snack. The children remain deprived of the nutrition obtained through these biscuits.

On Tuesday and Wednesday, seasonal fruit is recommended as a morning snack. Seasonal fruits (banana/orange/mango/apple/watermelon,etc) are rich source of iron,vitamins,carbohydrates,fibres,etc.85% Anganwadi centre on Tuesday and 90% on Wednesday served seasonal fruits.15% and 10% of children respectively could not get anything as they may have come late or at the scheduled time of lunch at the centre. Those children who could not receive fruits remain deprived of the nutrients of these fruits required to strengthen their immune system and physical growth.

On Thursday and Saturday at all the Anganwadi centres chana and jaggery were served to the children. Chana (chickpeas) mainly provides protein, and jaggery is a good source of vitamins and minerals (iron, zinc, phosphorous, copper, calcium, etc) and a source of energy. Its intake helps children in developing their immune system and prevents anaemia.

From 12:00 p.m to 12:30 p.m the meal served according to the weekly menu, was as follows: Monday Kichdi, Tuesday Rasiyav, Wednesday Halwa, Thursday Pulao, Friday Khichdi, and Saturday again khichdi.

Anganwadi Workers knew the quantity of food to be served to each child.15% of Anganwadi workers gave recommended quantity of food -160gm/child but 85% did not give the recommended food probably because they could not receive money sanctioned for the supplementary food material on time.

10% of Anganwadi workers gave the recommended 140gm/child on Tuesday whereas 90% did not provide this quantity.130gm/child as recommended on Wednesday by the ICDS were given by 3% of Anganwadi workers at their centres, but 97% were not providing the recommended quantity of food.155 gm/child on

Thursday were given by the 14% Anganwadi workers were as 86% were not giving the adequate quantity of food. On Friday recommended 160 gm /child was given by 11% of Anganwadi workers whereas 89 % were not providing an adequate quantity of food. On Saturday recommended 160 gm /child were given by only 5% Anganwadi centres but 95% were not providing the recommended quantity. Centres at which an adequate quantity of food was not served to the children would make the children prone to suffer from anaemia, slow physical growth, and diseases caused due to unavailability of a balanced diet.

The day-wise variation in the quantity of food given to the children is evident from the above data. The Anganwadi Workers do not adhere to the recommended guidelines of the ICDS in providing supplementary food to the children coming to the centre. Several factors may be accountable, for this negligence, in measuring the quantity of food per child by the Anganwadi Worker/Helper, unavailability of money on time to the Anganwadi Workers for buying food materials from the market, lack of utensils to cook food for the required number of children at a time, etc.

vii) Preparation of Food for the children at the Anganwadi centre

Table 7: Food prepared at the Anganwadi centre

Arrangement of food	Anganwadi Centres (%)
Separate Kitchen area	100
Washed hands before cooking	96
Neat and clean clothes by the person (cooking)	94
Sufficient utensils for cooking food	100
Sufficient cutlery for serving food	64

As shown in Table 7, at all the Anganwadi centres there was a kitchen area for a cooking meal for the children.

At 96%Anganwadi centres the person responsible for cooking food washed their hands before cooking a meal but at 6% Anganwadi centres it was not done by them. Children at these (6%) centres do not get hygienic food which probably puts them at the risk of food-borne diseases caused by bacterial infection.

Wearing neat and clean clothes during the preparation of food is one of the guidelines of ICDS which assures food hygiene. At 94% of Anganwadi centres the person who cooked food wore neat clothes while preparing food but 6% were not found doing this. At these centres food hygiene could not be assured due to its exposure to dirt and germs by coming in contact with dirty clothes.

At all the Anganwadi centres an adequate number of utensils for cooking food were available. At 64% of Anganwadi centres cutlery for serving food was adequate and 16% of Anganwadi centres did not have an adequate number of cutleries to serve food to the children. To serve children at the scheduled time sufficient cutleries are required. In case of their unavailability, it becomes difficult for the Anganwadi Helpers/Workers to serve all of them at once.

viii) Drinking water facility at the Anganwadi Centre

Table 8: Facility of drinking water at the centre

Process of purification of drinking water	Boiling	Sedimentation	chlorine tablets	Purifier
Anganwadi Centres (%)	4	Nil	Nil	96

As shown in Table 8, at only 4% Anganwadi centres boiling process is used whereas at 96% Centres water purifier is used for purification of drinking water. Purifiers are provided by the ICDS to purify drinking water. At 4% Anganwadi Centres purifiers were not used. The unavailability or nonworking condition of water purifiers may be the probable reason for Anganwadi Workers not using purifiers. At all the Anganwadi Centres children get purified drinking water as per recommended guidelines of ICDS.

There were no centres that used sedimentation or chlorine tablets for the purification of water. Anganwadi Workers did not use different methods of purifying water.

The above findings of the study finally revealed that there is noncompliance to the growth monitoring of children as recommended by ICDS. Immunization of children was also at a low level. Anganwadi workers' compliance with the recommendation of the ICDS as per the supplementary feeding programme for the children (who attained the age of 6 months) was demonstrated at the Anganwadi Centre. The methods used by the Anganwadis to maintain the nutritional standard of the children above three years were found to be appropriate to their age (as per the weight records)

Conclusion and Educational Implications

Hence it can be concluded that Anganwadis play an important role in maintaining the nutritional health standards of the children but yet there are some areas that showed variations in the attainment of uniformity by all the Anganwadis.

The nutritional health standards of the children brought forth the fact that still at many centers children are malnourished which is a matter of great concern. There is a need to monitor the following by the programme coordinators-

1. Supply of food material and other assistance by the ICDS should reach the Anganwadi centres on time.
2. More counselling sessions should be organized by the Anagnwadi workers for the parents of the children so that they should be made aware of the development of their children and will come to know about the health and hygiene values in their nurturing.
3. Medical kits should also be provided on a regular basis so that deworming and vitamin A drop could be given at all the centres as recommended by the ICDS.

Suggestions for Future Research

The present study brought forth the nutritional health status of the children coming to the centre, however the nutritional status of children in the age group of 0-3 years who receive THR from the Anganwadi Centre can also be taken up for future study.

A study could also be taken on the comparison between beneficiaries and non-beneficiaries of the Integrated Child Development Services programme.

References

Integrated Child Development Services, Government of Bihar, (n.d.) About ICDS, Introduction. Retrieved on 18.08,2019 fromhttp://www.icdsbih.gov.in/Home.aspx

Rajavi, S. & Staab, S. (2010). Unpaid & overloaded : a cross national perspective oncare workers, International Labour Review. 149(4), 1-16. Retrieved from https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1564-913X.2010.00095.x

Planning Commission (2011), Government of India, Programme EvaluationOrganisation, Evaluation Report on Integrated Child Development Services, Vol. 1.Retrieved from http://planningcommission.nic.in/reports/ peoreport/ peoevalu/peo_icds_v1.pdf.

Shyam, A. (2008, September). The National Rural Health Mission- A stock taking. Economic And Political weekly. 43(37). Retrieved from https:// www. epw.in/journal/2008/37/commentary/national-rural-health-mission-stocktaking.html

Kapil U. K., Gaur D. R, Sood A. K. (1992, January). Nutritional Beliefs amongAnganwadi workers. Indian Journal of Pediatrics.

Author

Dr. Madhu Smita Singh is an Assistant Professor at the Department of Education, Patna Women's College(Autonomous), Patna University, Patna. E-Mail:madhus637@gmail.com