

Original Research Article

Awareness and perception of mothers regarding Integrated child development services scheme for children in an urban area of Kerala

Ruth Abraham*

Department of Community Medicine, Sree Narayana Institute of Medical College, Ernakulam, Kerala, India

Received: 11 April 2022

Accepted: 17 June 2022

*Correspondence:

Dr. Ruth Abraham,

E-mail: ruthabraham0923@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Integrated child development services (ICDS) scheme was launched in India to improve the nutritional and health status of children. Perception of beneficiaries about ICDS services provided by Anganwadi centres had not being sufficiently explored. Hence the objective of this study was to assess the awareness and perception of mothers regarding Anganwadi services for children in an urban area of Kerala.

Methods: A cross-sectional study was conducted in an urban area of central Kerala. Study participants were mothers having pediatric children, who were residing in the urban areas of central Kerala for at least the past one year. A total of 70 mothers were interviewed using a pre-designed semi-structured questionnaire after obtaining informed consent. Data were analyzed by SPSS software version 18.

Results: Mean age of the study participants was 31.7 ± 5.8 years. But 24.3% of children of the study participant never attended Anganwadi. The majority of study participants were aware of supplementary nutrition services (97%) provided by ICDS. Immunization services (58.6%) were the least aware service in ICDS. The perception of participants regarding adequate quantity and quality of supplementary nutrition from Anganwadi was only 58.6% and 62.9%. Only 57.1% felt that preschool non-formal education was beneficial, even though 90% were aware of this service from the Anganwadi centre.

Conclusions: The participants were aware of ICDS services, but their perception regarding Anganwadi services was poor. Reasons for poor perception regarding ICDS services need to be assessed by focus group discussions and in-depth interviews with beneficiaries.

Keywords: ICDS, Anganwadi, Awareness, Perception, Mother, Children

INTRODUCTION

Integrated child development services (ICDS) scheme was launched in India with the main objective to improve the health and nutritional status of children aged between 0-6 years.¹ Under ICDS scheme, a package of services are provided through Anganwadi centres to children. These consist of supplementary nutrition, growth monitoring, non-formal preschool education, immunization, health check-up, and referral services.

The extent of utilization of ICDS services depends on many factors including awareness, perception of the mothers, infrastructure, and availability of resources in Anganwadi. Under the ICDS scheme, mothers are thought to be important clients, as they play a significant role in improving the nutrition, growth, health, and development of their children. Better awareness and perception of mothers with respect to Anganwadi services will lead to positive impact utilization of the services.²

In addition between March 2015 and 2017, the number of children receiving non-formal education decreased from 3.7 crore to 3.4 crore. On the other hand, the number of children (6 months to 6 years) receiving supplementary nutrition decreased by 4% from 8.3 crore to 8 crore. The decrease in the utilization may be due to poor perception of ICDS services which needs to be explored. Many studies are mainly concerned with the evaluation and utilization of Anganwadi but views of beneficiaries about ICDS scheme have been largely overlooked.^{3,4} Thus the present study was aimed at assessing the awareness and perception of mothers regarding ICDS scheme for children in an urban area of Kerala. This study was done in an urban area of Kerala where ICDS services are available yet under-utilized.

METHODS

A cross-sectional study was designed to understand the awareness and perception of mothers regarding ICDS scheme for children. Data was collected during September to October 2017 from an urban corporation area of Thrissur, Kerala. This study was a pilot study of a larger research study for which Institutional ethical clearance was obtained.

The sample size was calculated using the formula;

$$n = Z^2pq \div d^2.$$

The sample size was calculated as 68.4.⁵ A total of 70 eligible study participants were included in the study. Mothers having at least one child aged 10 years or less who were residing in the urban area of Thrissur corporation for at least the past one year were invited to participate in the study. Migrants were not included in the study. Those who were serious physical or mental illness and those unwilling to participate were also excluded from the study. Information was collected using a pre-designed semi-structured interview schedule using a questionnaire.

A purposive sampling technique was done. The questionnaire was initially formed in English language and then translated into the local language, Malayalam. Permission was obtained from the concerned authorities. After establishing a rapport, informed consent was obtained from all the study participants. Information obtained was used for the purpose of the study only and strict confidentiality was maintained throughout. A questionnaire was developed to collect information on socio-demographic characteristics, awareness, perception, and opinion of mothers regarding ICDS services. The initial part of questionnaire contained general information including age, religion, education, occupation, and type of family. The next session had questions regarding awareness about various Anganwadi services for children, perception regarding the ICDS services, and opinion regarding Anganwadi infrastructure.

Definition of variables

The occupation was categorized as professional, semi-professional, skilled, semiskilled, unskilled and housewife. Professionals included persons involved in the decision-making process, making policies and executing them. This included doctors, senior administrative officers, senior lectures, advocates, and bank managers. The semi-professional group consists of occupations that require college education like teachers, lecturers, and engineers. Skilled workers included shopkeepers, accountants, clerks, and saleswomen. These workers had received training in arithmetic, writing, and reading. Semiskilled workers had some amount of training to do their routine work. Semiskilled workers included factory or workshop labourers, laboratory or library attendants. Unskilled workers included those who were doing work that involves neither education nor training. For example watchmen, peons, domestic servants, etc.

Statistical analysis

Data was entered in MS Excel and statistical analysis was done by the SPSS software (version 18). The categorical variables like education, occupation, religion, awareness among the mothers regarding ICDS scheme were expressed using frequency and percentages. The quantitative data like the age of the study participants were expressed in means and standard deviation. The qualitative data like the perception of mothers regarding ICDS scheme, the opinion of mothers regarding Anganwadi infrastructure was summarized using frequency and percentages.

RESULTS

The study was conducted among 70 mothers in an urban area of Central Kerala. The mean age of the study participants was 31.7 ± 5.8 years and more than two-thirds were not employed (Figure 1).

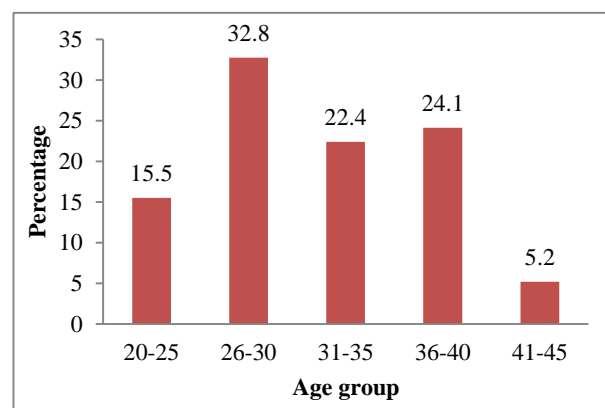


Figure 1: Distribution of study participants based on age group.

All the study participants were literate. The mean age of their children was 6.1 ± 2.5 years and 44.3% were boys. 17

(24.3%) children had never attended Anganwadi in the past. Socio-demographic details are given in (Table 1).

Table 1: Socio-demographic characteristics of study participants.

Socio-demographic characteristics	N (%)
Age (years) (mean±SD)	31.7±5.8
Religion	
Christian	29 (41.4)
Hindu	31 (44.3)
Muslim	10 (14.3)
Education	
Post graduation and above	3 (4.3)
Graduation	20 (28.6)
Pre university courses	20 (28.6)
Middle & high school	25 (35.7)
Primary	2 (2.8)
Occupation	
Professional	4 (5.7)
Skilled	7 (10)
Semiskilled	5 (7.1)
Unskilled	3 (4.3)
Housewife	51 (72.9)

Under the ICDS scheme, services provided to children below 6 years consisting of supplementary nutrition, growth monitoring, non-formal preschool education, immunization, health check-up and referral services. The majority of study participants were aware of supplementary nutrition services (97%) provided by ICDS. Immunization services (58.6%) were the least aware service in Anganwadi. The awareness and perception of each of the services are mentioned separately (Table 2-3).

Table 2: Awareness among study participants regarding ICDS services (n=70).*

Awareness	N (%)
Supplementary nutrition	68 (97.1)
Preschool non formal education	63 (90)
Growth monitoring	58 (82.9)
Immunization services	41 (58.6)
Deworming services	49 (70)
Health check up	55 (78.6)
Referral services	47 (67.1)

*Table contains multiple responses.

Even though most of the participants were aware of supplementary nutrition services (97.1%), only 58.6% informed the quantity of supplementary nutrition was adequate. 37.1% of mothers were informed that the supplementary nutrition was of poor quality. 9 (12.9%) mothers informed that their child had diarrhoea after consumption of supplementary nutrition from Anganwadi. This shows a big gap between the awareness and perception of supplementary nutritional services from

Anganwadi centres (AWCs). 90% of study participants were aware of preschool non-formal educational services from AWCs. But only around half the study participants perceived any benefit from the same. 82.9% were aware of growth monitoring services from Anganwadi. But 30% informed growth chart was discussed. Only 5% informed that it was marked in MCP (mother and child protection) card.

Table 3: Perception of study participant regarding ICDS services.

ICDS services	N (%)
Quantity of supplementary nutrition	41 (58.6)
Quality of supplementary nutrition	44 (62.9)
Benefited from preschool non formal education	40 (57.1)
Satisfied by preschool non formal education	38 (54.3)
Suitable playing materials/toys	37 (52.9)
Growth chart discussed	21 (30)
Growth chart upto date	4 (5.7)
Received advice regarding child feeding	32 (45.7)
Friendly behaviour of Anganwadi worker	60 (85.7)

Table 4: Opinion of study participants regarding Anganwadi infrastructure.

Anganwadi infrastructure	N (%)
Adequate indoor space	51 (72.9)
Adequate outdoor space	42 (60)
Good Kitchen facilities	58 (82.9)
Adequate storage facilities	53 (75.7)
Presence of boundary wall	49 (70)
Hygienic Toilet facilities	54 (77.1)
Availability of drinking water	56 (80)

The awareness about health check-ups and referral services were 78.6% and 67.1% among the study participants. But only 1 (1.4%) study participant had received referral slip from Anganwadi. The result indicates that perception regarding preschool education; growth monitoring and other Anganwadi services were poor.

The opinion of mothers regarding Anganwadi infrastructure is given in (Table 4). Around 27% of study participants felt that indoor space in Anganwadi was inadequate. Moreover, 40% felt outdoor space in Anganwadi was inadequate. 82.9% informed that the kitchen facilities were good, but around one of the fourth participants felt the storage facilities were inadequate.

DISCUSSION

This study was conducted in an urban area of central Kerala and all the participants were literate. The majority

of study participants were aware of supplementary nutrition services (97%) provided by ICDS. A similar finding of high awareness of supplementary nutrition services was found in the study done by Banerjee et al in West Bengal.⁵ The study done by Banerjee et al revealed 75% of mothers were aware of health check-up services, 57.1% about non-formal preschool education and only 48.2% were aware of referral services.⁵ Another study by Biswas et al in West Bengal found that only 21.7% and 31.1% of mothers were aware of non-formal preschool education and growth monitoring respectively.⁶ In the present study the awareness regarding preschool education, growth monitoring, health check-up services and referral services were much better than in previous studies. It could be because of the high proportion of literate in Kerala. The awareness regarding immunization services was much lower in this study than in a study done by Banerjee et al where most of the mothers (98.2%) were aware of immunisation services.⁵ This could be due to a lack of awareness of the Anganwadi centre as an outreach centre for immunization. In the present study perception regarding the quality of supplementary food was poor. Both quality and quantity of supplementary food affect the nutritional status of children. Inadequacies in nutrition can have adverse impacts on health, cognitive ability and school achievement.⁷⁻⁹ A similar finding was obtained from Bandana et al where 42% of participants were dissatisfied due to poor food quality and 45% due to insufficient amount.¹⁰ Sinha et al had done a rapid assessment of ICDS in Delhi.¹¹ It was found that the overall quality and nutrition content was not satisfactory. Their supplementary food was rich in carbohydrates and starch and had limited vegetables. There was a lack of other essential food groups including protein, vitamins, minerals and fibre. In a tribal area of Orissa, the poor quality of the food materials supplied to the centres sometimes kept the people away from the ICDS activities.¹² But in contrast to a study conducted in Jaipur by Rathore et al, the quality of supplementary nutrition was satisfactory in all the Anganwadi centres (AWCs) and it was acceptable to 98.1% of beneficiaries.¹³ Biswas et al had done a study at West Bengal where quality and quantity of the supplementary food from AWCs was acceptable to 72.7% and 88% of mothers respectively.⁶ The reasons for low perceptions regarding supplementary nutrition from Anganwadi in the present study need to be explored.

In the present study, only 57% felt preschool non-formal education was beneficial and 54.3% were satisfied with the same. A similar finding was found in the study by Banerjee et al.⁵ But in contrast, a study done by Pradhan et al in Punjab found that more than 90% were satisfied with non-formal preschool education from Anganwadi and 96% informed that it was beneficial.¹⁴ In the present study, 30% of mothers informed that child growth chart was discussed with them. This was higher than the study done by Biswas et al, where only 12.5% informed that the growth chart was discussed.⁶ In the study by Banerjee et

al, 55.4% received advice regarding child feeding.⁵ This was higher than the result in the present study.

Limitations

The limitation of the study was that the sample size was small. In addition, the perception of mothers regarding ICDS can be studied better by exploratory research methodology.

CONCLUSION

Awareness of the ICDS scheme was found to be higher in the present study. The perception of supplementary nutrition, preschool education and growth monitoring was poor. Hence, there is a disparity between awareness and perception of Anganwadi services by mothers in urban areas. Reasons for poor perception regarding ICDS services need to be assessed by focus group discussions and in-depth interviews with beneficiaries. The findings highlight the need for evaluating the AWCs and strengthening the ICDS scheme.

ACKNOWLEDGEMENTS

The author would like to express the gratitude to all respondents who agreed to participate in the study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Integrated Child Development Services (ICDS) Scheme. Available from: <http://wcd.nic.in/icds.htm>, 2015. Accessed on 20 June 2021.
2. Ram PV, Dasgupta A, Pal J, Parthasarathi R, Biswas R, Naiya S. A cross-sectional study on client satisfaction of Anganwadi centres under Integrated Child Development Services (ICDS) scheme in a slum of Kolkata. *Natl J Community Med*. 2014;5:88-92.
3. Francis PT, Paul N. Utilization of anganwadi services in a rural population of Kerala. *Indian Pediatr*. 2017; 54:65-6.
4. Asha KP. Efficiency of Anganwadi centres: a study in Thiruvananthapuram District, Kerala. *J Acad Ind Res*. 2014;3:132-6.
5. Banerjee S, Naskar S, Mitra K, Nandi C. Awareness and satisfaction of mothers of under six children residing in the urban field practice area of Burdwan Medical College and Hospital regarding the services rendered by Anganwadi centers: a cross sectional study. *Int J Community Med Public Heal*. 2018;5:769.
6. Biswas AB, Das DK, Roy RN, Saha I, Shrivastava P, Mitra K. Awareness and perception of mothers about functioning and different services of ICDS in

- two districts of West Bengal. *Indian J Public Health*. 2010; 54:33.
7. Viswanathan B. Household food security and Integrated Child Development Services in India. Available at: https://www.researchgate.net/publication/228765025_Household_Food_Security_and_Integrated_Child_Development_Services_in_India. Accessed on 20th June 2021.
 8. Saroj K. Adhikari CB. Moving towards an outcomes-oriented approach to nutrition program monitoring: The India ICDS program. Available at: https://www.researchgate.net/publication/228500811_Moving_Towards_An_Outcomes-Oriented_Approach_to_Nutrition_Program_Monitoring_The_India_ICDS_Program. Accessed on 20th June 2021.
 9. Deshpande M, Dasgupta R, Baru R, Mohanty A. The case for cooked meals concerns regarding the proposed policy shifts in the mid-day meal and ICDS programs. *Indian J Pediatr*. 2008;45:445-9.
 10. Bandana D, Narayan MR, Anurag S. Awareness, satisfaction and utilization of Integrated child development services by mothers in rural Orissa. *Indian J Matern Child Health*. 2012;14:2-9.
 11. Sinha A. Rapid assessment of integrated child development scheme in Delhi. Available at: http://www.ihdindia.org/hdidelhi/pdf/icds_report.pdf. Accessed on 20th June 2021.
 12. Panda P, Mohanty AK, Pradhan RC. ICDS in tribal Orissa: a case study. *IJSW*. 1987;39:1-12.
 13. Rathore MS, Vohra R, Sharma BN, Chaudhary RC, Bhardwaj SL, Vohra A. Evaluation of integrated child development services program in Rajasthan, India. *Int J Adv Med Heal Res*. 2015;2:95-101.
 14. Pradhan R, Tanwar S. Awareness and satisfaction of ICDS services availed by women beneficiaries of Raipurani block (Panchkula). *Int J Adv Res Dev*. 2017;2:418-21.

Cite this article as: Abraham R. Awareness and perception of mothers regarding Integrated child development services scheme for children in an urban area of Kerala. *Int J Community Med Public Health* 2022;9:2875-9.