

Impact of Assessment on Nutrition Knowledge among ICDS Workers in Sivagangai District

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ABSTRACT

Background: Nowadays, most studies have been intense on the Nutritional and health status of the beneficiaries of ICDS. It focuses less on assessing the knowledge and attentiveness among Anganwadi workers regarding the recommended ICDS programme, who are the foremost resource persons.

Methods: First, we were focused on the block kallar for the pilot study. This study assessed the knowledge of Anganwadi workers in the Kallar block in the Sivagangai District.

Results: A cross-sectional study was undertaken among 1500 Anganwadi workers in health centres in 12 blocks of Sivagangai District. For the Anganwadi worker's knowledge assessment, a scoring system was developed. Each Anganwadi worker has the knowledge assessment score form calculated based on the response to a questionnaire containing 90 questions.

Conclusion: One of the ignored characteristics among ICDS staff was knowledge quality. ICDS employees are the essential individuals who will promote excellent practice in ICDS-related services to improve mothers' and children's health and nutritional status; thus, they should be prepared with improved knowledge through a regular and quality training plan.

Key-words: Anganwadi workers, Knowledge, ICDS workers, Nutrition

INTRODUCTION

The Anganwadi workers are the community-based voluntary front-line workers of the ICDS programme selected from the community^[1,2]. They assume a pivoted role due to close and continuous contact with the beneficiaries, and the educational level is related to the performance in Anganwadi centres. The output of the ICDS scheme largely depends on the profile key functionary specializing in experience, skills, attitude, training etc.^[3]. In rural areas, ICDS work is where people get together to discuss, meet and socialize.

Anganwadi centre (AWC) network is based on a courtyard play centre. It provides integrated services comprising supplementary nutrition, breastfeeding, immunization, health check-up, reference services, pre-school education & health, and nutrition education^[4,5]. All the way through, the government is spending a lot of money on ICDS programme. Most of the study has an impoverished impact on the nutritional health status of the beneficiary of ICDS^[6,7]. The recommended ICDS programmes are less focused on assessing the knowledge and awareness among Anganwadi workers^[8]. According to the World Health Organization, malnutrition is the leading contributor to child mortality and is more common in India and other developing countries. The limitations of malnutrition are designed and to learn capacity^[9,10]. The Nandi Foundation study is based on surveying six statuses of more than one lakh children in India. It has been found that 42% of under-

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five are severely or moderately underweight and 59% suffer from moderate to severe standing in 2013.

MATERIALS AND METHODS

Selection of Sample and Size- A size of ICDS workers reported to the training centres was procured at the time of the study was randomly selected. A noted number of 100 ICDS workers were chosen for the study with equal representation from the kallal block in the Sivagangai District.

Selection of Area- This study focussed on Six Panchayat in Sivagangai District and the convenience of the researcher choosing panchayat names-Natarajapuram, Alangudi, Aranmanipatti, Pannangudi, Muthupatti, Pillar, Sengani, T. Puthur, Thambipatti.

Study Tools- Questionnaire: An interview schedule was formulated by the researcher to collect socio-economic & demographic profiles and knowledge about the various ICDS services like breastfeeding, health education, immunization, Supplementary nutrition, growth monitoring and nutritional programmes.

Subsequent Analysis- The obtained raw data was coded; classified, tabulated and subsequent analysis is conducted using SPSS software. Descriptive statistics such as frequency, percentage and standard deviation were used for analysing social-economic profile & nutritional knowledge assessment practice. s

RESULTS

Socio-Economic Profile of ICDS workers- Table 1 shows over and done with the data contains 22% of ICDS workers is aged 30-35 years, over 35-40 years include 35%, 40-43 years over 30% respondents and only 13% of respondent had 45 age groups & above the age group. Finally, the result determined that 46% of ICDS workers had attained 9th and 10th standard, nearly 45% of ICDS workers achieved 12th standard, and only 7% of ICDS workers studied undergraduate. Kuppuswamy's socio-economic status revised scale was used to classify the economic status of the participants.

Table 1: Socio-Economic profile of respondent

	Variations	Classification	Percentage (%)
Socio-economic profile of respondent	Age	30-35 Years	22
		35-40 Years	35
		40-45 Years	30
		45 & above Years	13
		9 th standard	3
	Education	10 th standard	46
	Qualification	12 th standard	45
		UG	7

Instruments handling knowledge of ICDS workers- Table 2 shows that 96% of respondents used a first aid box and medicine kit, and only 4% did not. 100% of respondents use the baby weighting scale in the Anganwadi centres, 83% of respondents know only the weighting scale usage and 17% of respondents do not know about the knowledge, 89% of respondents know about the stadiometer usage, but 11% respondents did not have the knowledge about, 88% Anganwadi centres have indoor playing equipment and 12% Anganwadi workers did not have the adequate knowledge.

Table 2: Instruments handling knowledge of ICDS worker

Category	Percentage (%)
First aid box / Medicine kit	
Yes	96
No	4
Baby Weighting Scale	
Yes	100
No	-
Adult Weighting Scale	
Yes	83
No	17
Stadiometer	
Yes	89
No	11
Indoor Playing equipment in Anganwadi Centre	
Yes	88
No	12

Knowledge of the nutritional program- Table 3 shows that 75% of ICDS respondents know about the related knowledge of the healthy program, 20% of respondents know about the kishorishakthi Yojana Programme, but only 5% of ICDS respondents know about the noon meal program.

Table 3: Knowledge on nutritional programme

ICDS Nutritional programme	Percentage (%)
Poshan Abiyan	75
Kishorisharakthi Yojana	20
Noon Meal Programme	5

Immunization & health check-up knowledge on ICDS workers- Table 4 shows that 21% of respondents answered Infants vaccine TT1, TT2, TT booster and 79% answered the pregnant women vaccinated TT1, TT-2, and TT. The BCG, Pentavalent, ralevinues, and measles/MR doses are vaccinated in 90% of infants 6% of pregnant women, but not indeed 4% present to vaccinated. The DPT booster 2 was given to children i.e. 63% of children immunized to the age 5-6 years, 13% of children vaccinated 8-10 to the age years & not indeed 25% of children answering ICDS workers.

Table 4: Immunization & health check-up knowledge on ICDS workers

TT-1, TT-2, TT booster vaccine	Percentage (%)
Infants	21
Pregnant Women	79
BCG, Pentavalent, revenues, measles/MR dose	
Infants	90
Pregnant Women	6
Not sure	4
DPT booster 2 is given to the children	
5-6 Years	63
8-10 Years	13
Not sure	25

Breastfeeding-related Knowledge on ICDS Workers- Table 5 based on breastfeeding awareness. The time initiation of breastfeeding knowledge respondents 70%, given the latter of 20% of respondents, not sure

knowledge of 3% of respondents, and 10% of respondents present. Colostrums are given to the baby, answering 62% but not answered merely 20% present. Colostrums secreted answered 1-3 day 60%, 17%, respondents answered 7-10 days and not sure is answered 3%. The baby feeding responded to 55%, 25% of respondents answered 6 months breastfeeding is essential, and 20% answered unsure.

Table 5: Breastfeeding-related Knowledge on ICDS Workers

Time of initiation of breast feeding	Percentage (%)
As early as possible.	70
Giver latter	20
Not sure	10
Colostrum is given to the baby	
Yes	80
No	12
Not sure	8
Colostrum is secreted for how many days after delivery	
1-3 days	60
7-10 days	17
Not sure	3
Age up to the child should be breastfed exclusively	
3 months	55
6 months	25
Not sure	20

Assessment of nutritional knowledge on ICDS worker- Table 6 indicates that 72% of respondents answered Vitamin D helps in the absorption of calcium, 20% of respondents answered phosphorous and 8% answered both a & b. 80% of respondents answered that Vitamin C helps in the absorption body; 10% of respondents answered about calcium.

Table 6: Assessment of nutritional knowledge of ICDS worker

Vitamin D helps in the absorption	Percentage (%)
Calcium	72
Phosphorous	20
Both a & b	8

Vitamin C help in the absorption of

Iron	80
Calcium	10
None of the above	-

Deficiency of which vitamin caused bleeding gums, loosening of teeth

Vitamin D	65
Vitamin K	35
Vitamin C	5

Ragi is very good source of

Calcium	72
Fat	18
Vitamin C	10

Egg white is rich in Carbohydrates

Minerals	10
Proteins	90

A total 65% of respondents answered vitamin D deficiency causes bleeding gums and loosening of teeth, 35% of respondents answered vitamin K, and 5% answered vitamin C causes bleeding gums and loosening of teeth. Ragi is an excellent source; 72% of respondents answered the correct solution of calcium and 18 % answered about fat. Still, only 10% of respondents answered Vitamin C. Egg white is rich in Carbohydrates 90% of respondents answered for proteins and only 10% of respondents answered for minerals.

DISCUSSION

The ICDS nutrition intervention interventions increased target population coverage (pre-school children, pregnant women, and breastfeeding mothers) since nutritional supplements were given to these individuals as a component of an entire set that included primary health care, primary school, nutrition, and health educational services, and (2) the integrated nutrition interventions resulted in a significant decrease in inadequate nourishment between pre-school children in the ICDS populations when compared with non-ICDS categories which received nutrition, health education, and other services. Healthcare and education services are provided via distinct programmes [11-13]. Numerous health and nutrition programmes are underway in India, like supplemental nutrition interventions, nutrient anaemia management, and disease prevention. Vitamin A deficiency, immunization, and diarrhoea Disease

control functions autonomously and with little coordination.

The World Bank's nutrition programme in Tamil Nadu, in south India, did not encompass the ICDS programming regarding health care and educational components. In this work, we have concentrated on just one of the ICDS's effects, namely the acceleration of dietary treatments; further advantages have been evident in the rate of births, mortality and morbidity numbers, and immunization coverage [14]. This paper has concentrated on one of the ICDS's advantages, namely the acceleration of nutrition treatments; other advantages can be seen in the birth rate, mortality and morbidity rates, and immunization coverage. The information is collected from a countrywide programme carried out via the government's educational, health, and welfare network and has been in place for over ten years.

The advantages of ICDS-based nutrition treatments for mothers and pre-school children via primary medical care, as reported here and in previously published publications [15] might inspire other developing countries to implement integrated programmes with local adjustments. International organizations and national governments should work to incorporate nutritional services into primary health care and child development projects due to the better outcomes for child survival and growth for the vertical strategy for nutrition, diarrheal illness management, and immunization [16,17]. Participation in the community and developing self-sufficiency is a vital component of primary health care. However, since we have not discussed endeavours to provide information on the entire ICDS package in our work, we did not focus on this component [18,19].

Furthermore, integration of nutrition services with essential medical assistance is required at the site of delivery, i.e., at the very bottom of the medical pyramid, like is being achieved in the ICDS system, instead of the apex, which relates to the degree of education, planning and administration are two aspects of the job. Nutrition treatments should be used in primary health care, according to experts. Because epidemiological and operational benefits can increase programme effectiveness and efficiency [20] primary healthcare strategy is essential [21]. The previous work of ICDS indicates that combining dietary treatments with primary health care is possible and successful over time, especially in big national projects. In terms of cost, the ICDS combined the many components of vertical programmes like nutrition, health care services, and

education into a single package^[21]. As an outcome, the ICDS budget groups all the services in the box that would have been split in other situations.

CONCLUSIONS

In Kallal block, the age group of 40-45 years, they are studied 10th standard. Their nutritional knowledge is moderate well, and trained healthy courses are provided. They also improve the nutritional lowdown. Knowledge assessment score increases as the experience of years grows. This review reveals that the knowledge of Anganwadi workers (ICDS) regarding nutrition ranges from poor to outstanding in different aspects. The quality of knowledge was one of the neglected features among ICDS workers. ICDS workers are the key people, who will promote the excellent practice of services related to ICDS to enhance the health and nutritional status of mothers and children; hence, they should be equipped with better knowledge through regular and quality training programmes.

CONTRIBUTION OF AUTHORS

Research concept- R. Krishna Veni

Research design- R. Krishna Veni

Supervision- Dr. D. Sridevi

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REFERENCES

- [1] Ranjan R, Das M, Das S. Knowledge of anganwadi workers about integrated child development services: a study in Sitamarhi district of Bihar, India. *Int J Res Med Sci.*, 2019; 7(11): 4194-99.
- [2] Sharma B, Jain S. Impact of ICDS Trainings on Nutritional Knowledge of Anganwadi Workers. *Indian Res J Extension Educ.*, 2016; 15: 167-70.
- [3] Bhasin SK, Kumar R, Singh S, Dubey KK. Knowledge and attitudes of Anganwadi workers about infant feeding in Delhi. *Indian Pediatr.*, 1995; 33:346-50.
- [4] Grantham MS Cheung YB, Cueto S. The International Child Development Steering Group Developmental potential in the first 5 years for children in developing countries. *Lancet*, 2007; 369: 60-70.
- [5] World Health Organization. Report of the Division of Child Health and Development 1996–1997. WHO, Geneva, 1998.
- [6] Sharma A, Gupta S. Impact of ICDS on health and nutritional status of children. *Indian J Matern Child Health*, 1993; 4(1): 27-30.
- [7] Atun R, Jongh T, Secci F, Ohiri K, Adeyi O. A systematic review of the evidence on integration of targeted health interventions into health systems. *Health Policy Plann.*, 2010; 25(1): 1–14. doi: 10.1093/heapol/czp053.
- [8] Saibaba A, Ram MM, Rao GVR, Devi U, Syamala TS. Nutritional status of Adolescent girls of urban slums and the impact of IEC on their Nutritional Knowledge and practices. *Indian J Commu Med.*, 2020; 27(4): 151-56.
- [9] Sinha J, Kumar AR, Yadav N, Pravin K, Tripathi, et al. Nutritional Education among Adolescent Girls on Recipes using dehydrated Vegetables, An impact study of video and Booklet. *Int J Scienti Eng Res.*, 2012; 3(11): 284-91.
- [10] Supinya I, Tridsanum S, Boomy's M. The Effectiveness of school-based Nutritional Education Programme among obese Adolescents; A Randomize controlled study. *Int J Pediatr.*, 2012; 75.
- [11] Gupta N, Kochar G. Role of Nutritional Awareness among Adolescent Girls. *Internet J Nutr Wellness*, 2008; 7(1): 66-72.
- [12] Yadav K, Pandav CS. National Iodine Deficiency Disorders Control Programme: Current status & future strategy. *Indian J Med Res.*, 2018; 148(5): 503–10. doi: 10.4103/ijmr.IJMR_1717_18.
- [13] King C, Mancao HJ. Special supplemental nutrition programme for women, infants and children participation and unmet health care needs among young children. *Child Adolescent Mental Health*, 2022; 48(4): 552-57. doi: 10.1111/cch.12959.
- [14] National Programme for Prevention of Blindness. New Delhi, Ministry of Health and Family Welfare, 1996.
- [15] Mehta PL, Jaswal SS. Child labour and the law: myth and reality of welfare measures, 1996. Available at: <https://cir.nii.ac.jp/crid/1130282269536193152>.
- [16] Maulik PK, Darmstadt GL. Community-based interventions to optimize early childhood

- development in low resource settings, *J Perinatol.*, 2009; 29: 531-42.
- [17] Murray CJL, Lopez AD. The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020; WHO, Geneva, 1996.
- [18] Sarbjit S. A Study on Nutrition and Health Education Programme of ICDS Scheme for Nursing Women in Punjab. *Asian J Nur Edu Res.*, 2015; 5(2): 229-33.
- [19] Jellif DB. The assessment of nutritional status of the community, Geneva, World Health Organization, 1996 (Monograph Series, No. 53).
- [20] Swart R, Sanders D, McLachlan M. Nutrition: A Primary Health Care perspective: Primary Health Care: programme areas. 2008; 1: 129-47. Available at: <https://hdl.handle.net/10520/EJC35507>.
- [21] Ertem IO, Atay G, Bingoler BE, Dogan DG, Bayhan et al. Promoting child development at sick-child visits: a controlled trial. *Pediatrics*, 2006; 118: 124-31.

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