**Scholars Journal of Applied Medical Sciences (SJAMS)** **ISSN 2320-6691 (Online)**
**Sch. J. App. Med. Sci., 2017; 5(6D):2350-2354** **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2017.v05i06.056

Original Research Article

# Assessment of knowledge, attitude and practices among Anganwadi workers regarding proper child growth monitoring

**Dr. Ashish Wasudeo Khobragade[1], Tisa Rose John[2], Dr. K. Rajan[3]**
[1]Assistant Professor, Department of Community Medicine, Jubilee Mission Medical College & Research Institute, Thrissur, Kerala, India
[2]Intern, Jubilee Mission Medical College & Research Institute, Thrissur, Kerala, India
[3]Professor and HOD, Department of Community Medicine, Jubilee Mission Medical College & Research Institute, Thrissur, Kerala, India

***Corresponding author**
Dr. Ashish Wasudeo Khobragade
Email: aw_k2008@rediffmail.com

**Abstract:** The output of Integrated child development scheme(ICDS)is to a great extent depends on the profile of Anganwadi worker (AWW) i.e., her qualification, experience, skills, knowledge, attitude and training. Growth monitoring (GM) is an excellent tool for assessing the growth of a child so as to detect the growth faltering at the earliest and do intervention at right time. The objective of the study was to assess the knowledge, attitude and practices (KAP) among AWWs regarding proper child growth monitoring. The study was conducted among 142 AWWs of the Ollukara ICDS block in Thrissur district of Kerala to assess their knowledge, attitude and practices for the proper growth monitoring. Face to face interview was conducted. There was significant association between educational status of AWWs and knowledge score. Regular induction training of AWWs should be conducted.
**Keywords:** Anganwadi workers, KAP, growth monitoring, ICDS.

## INTRODUCTION:

"Childhood is the most beautiful of all life's seasons".

Children in the age group 0-6 years constitute around 13.12% of the total population of India [1]. Prevalence of underweight children is highest in India and it is nearly double than that of Sub Saharan Africa. According to national family health survey-IV (NFHS) conducted among under 5 children in 2015-2016, 35.7% are underweight, 38.4% stunted, 7.5% severely wasted and 21% are wasted [2].

Infant Mortality Rates (IMR) of India is about 37/1000 live births [3] and Under 5 Mortality Rate is 50/1000 live births[2]. The predisposing factors are shortcomings in the Infant and Young Child Feeding practices (IYCF), growth monitoring activities and poor immunization practices. Children should be first on agenda of human resource development not because they are the most vulnerable but they are the valuable future assets.

## OBJECTIVE:

The objective of the study was to assess the knowledge, attitude and practices among AWWs regarding proper child growth monitoring.

## MATERIALS AND METHODS:

The present study was conducted in Ollukara ICDS Block, in Thrissur District of Kerala from July to August 2015.

### Study Design and Sampling:

The study was cross-sectional and observational in nature. The sampling technique used was universal sampling. Total numbers of AWC in this block are 157. So, the expected sample size was 157 but the observed sample size was about 142. 15 AWWs were not willing to participate in the study.

### Inclusion criteria:

All AWWs from Ollukara ICDS block in Thrissur district of Kerala.

**Exclusion criteria:**

Those who were not willing to take part in the study.

**Methodology:**

The study was conducted after getting clearance from the Institutional Research and Ethics Committee. Permission was also taken from Child Development Project Officer (CDPO) of ICDS Block, Ollukara.

The data was collected by face to face interview using pre-designed and pre- tested Performa in local language (Malayalam). The nature and purpose of the study was explained to the AWWs. The study was carried out after obtaining informed consent from each AWW. The data was collected from AWWs during their monthly sector meetings conducted on last week of July/August 2015. Ollukara ICDS block is divided into 4 sectors with 38-42 AWC in each sector. The investigator visited these four sectors and collected the data. Questionnaire was so designed to obtain the socio-demographic profile of the AWWs such as name, age, religion, caste, socio-economic status, educational status, marital status and work experience and number of training sessions attended by them.

To assess the knowledge, attitude and practices of AWWs 30 questions were designed. Questions regarding the functions and services rendered such as how frequently they monitor the weight of child, plot the growth charts to assess the growth status, identify reasons for growth faltering, counselling of care giver on better child care and breast feeding practices, immunization services, complementary feeding, supplementary nutrition, referral services, nutrition and health education to the care givers were included.

Scoring system was developed to assess the knowledge of AWWs. One mark was assigned for a correct response while no mark was given for wrong response and unanswered questions. The knowledge of each AWW was scored out of ten. To assess the attitude and practices percentage score was taken.

**Statistical analysis:**

The data was entered in Microsoft Excel and analysed using SPSS Software Version 20. Mean and Chi –Square test value calculated. P value < 0.05 was considered significant.

**RESULTS:**

The study findings highlighted that 70.43% of AWWs were in the age group of 30-50 years, 37.3% were matriculate, and 73.23% had work experience of more than 10 years as shown in Table No.1. Five and more training sessions were attended only by 35 (23.95%) of AWWs.

**Table- 1: Socio-demographic information of AWWs**

| Socio-demographic characteristics | Frequency (%) (n=142) |
|---|---|
| **Age group (Years)** | |
| 20-30 | 3 (2.1) |
| 30-40 | 44 (31.0) |
| 40-50 | 56 (39.4) |
| >50 | 39 (27.5) |
| **Educational status** | |
| Primary school | 6 (4.2) |
| Middle school | 41 (28.9) |
| Secondary school | 53 (37.3) |
| Higher secondary | 30 (21.1) |
| Graduate | 12 (8.5) |
| **Training sessions attended** | |
| 1-2 | 35 (24.6) |
| 3-4 | 73 (51.4) |
| 5 and more | 34 (24.0) |
| **Work experience (Years)** | |
| < 5 | 8 (5.6) |
| 5-10 | 30 (21.1) |
| 10-15 | 57 (40.1) |
| 15-20 | 22 (15.5) |
| >20 | 25 (17.6) |

Depending on the response to questionnaire most of the AWWs were found to have very well (>80%) knowledge about growth charts, weight measurement, nutrition and health education and management of malnutrition.(Refer Table No.2) The attitude and practices of AWWs were also found to be good. Almost all (99.3%) of AWWs conducted Village Health Nutrition Day (VHND) in their AWC. It is because of the lack of community participation the AWWs could not detect the early cases of malnutrition and thereby preventing the occurrence of severe malnutrition.

**Table-2: Assessment of knowledge, attitude and practices of AWWs (n=142)**

| Question asked on | Knowledge | Attitude | Practices |
|---|---|---|---|
| Growth chart | 115 (81) | 140 (98.6) | 141 (99.3) |
| Regularly Weighing | 123 (86.6) | 139 (97.9) | 141 (99.3) |
| De-worming | 101 (71.1) | 112 (78.9) | 130 (91.5) |
| Breast feeding | 87 (61.3) | 123 (86.6) | 142 (100) |
| Complementary feeding | 126 (88.7) | 101 (71.1) | 134 (94.3) |
| Supplementary feeding | 96 (67.6) | 121 (85.2) | 138 (97.2) |
| Immunization | 124 (87.3) | 125 (88) | 80 (56.3) |
| Vitamin A | 67 (47.2) | 91 (64.1) | 140 (98.6) |
| VHND | 126 (88.7) | 129 (90.8) | 141 (99.3) |
| Management | 117 (82.4) | 137 (96.5) | 37 (26) |

**Table-3: Association between educational status of AWWs and knowledge score (n=142)**

| Educational status of AWWs | Knowledge Score | |
|---|---|---|
| | <=5 | >5 |
| Primary School | 6 | 0 |
| Middle School | 13 | 28 |
| Secondary School | 22 | 31 |
| Higher Secondary | 13 | 17 |
| Graduate | 5 | 7 |

$\varkappa^2$= 10.16 d.f. =4 p=0.039

There was significant association between total knowledge score and educational status (P=.039) as shown in table No.3.

**DISCUSSION:**

Maximum numbers (37.3%) of AWWs were educated up to secondary school and 8.5% were graduates. Education norm for selection of AWW is minimum 8$^{th}$ standard but in the present study, except 4.2% (primary school), all others were having minimum high school qualification. Similar to the present study, in the studies by Kapil et al, Ghogra et al maximum workers are matriculate [4,5]. Menial et al observed that 53 to 57% of AWWs are matriculate which is consistent with many other studies[6].A report published by National Institute of Public cooperation and Child development (NIPCCD) in 2005 observed that 43.2% are matriculate, 23.3% high school pass and 10% are graduate[7].

Most of the AWWs (51.4%) attended 3-4 training sessions. Only 24% AWWs attended more than 5 sessions. In a study by Kapil et al 88.5% and 67.5% have undergone pre-placement and in service training respectively [8]. Study by Davey et al showed that most of the AWWs have undergone reorientation training for more than once also there is a significant association because AWWs who have attended training more than once have better knowledge [9]. Gupta et al observed that in service training is mostly neglected [10].

In this study, 73.23% of AWWs had work experience of more than 10 years. Meenal et al also stated that maximum AWWs have over 10 years of experience [6]. Researchers have reported that 70 % of AWWs have worked in ICDS for more than 10 years.

Most of the AWW's residence was at a distance of 5.2 km. Similarly in another study only 11 % AWWs live in the village they work. 89% have to travel 2-8 km daily to their workplace. So their rapport with the local community will be less and the functioning of AWC would be suboptimal.

As per the findings of the study, most of the AWWs (88.7%) had better knowledge about

complementary feeding, nutritional health education while their knowledge about immunization (87.3%) and weight measurement using Salter's scale (86.6%) was also good but, they had least knowledge about vitamin A (47.2%) and supplementary nutrition (67.6%). Meenal et al has found that AWWs have good knowledge about nutrition and health education (NHE) (77%) but, only 24.46% have adequate knowledge about supplementary nutrition [6].

81% of AWWs had adequate knowledge about growth charts. In the study conducted by Kapil et al about 100 % AWWs could interpret correctly that descending growth curve indicates decline in nutritional status and the flatten growth curve after the attack of measles indicate growth faltering due to infection[11]. According to another study by Barua et al 94% of AWWs understand the direction of growth curve[12]. Basinet al reported that 99% AWWs have adequate knowledge about the significance of growth chart which indicates different grades of nutritional status. However only 45% of AWWs have the knowledge that growth monitoring can be started for a child at any age below 6 years and 37% have wrong knowledge that assessment of correct age is not required for growth monitoring [13].

Chattopadhay et al found that 90% AWWs correctly know about the stages of Vitamin A deficiency and dosage schedule for children [14]. while in the present study AWWs had least knowledge about the same (47.2%). In the same study knowledge among the AWWs about exclusive breastfeeding is only 17.6%, while in our study it was about 61.3%. In a study by Prachi et al maximum (43.3%) AWWs have an average knowledge score[15]. In this study mean knowledge score was 5.4 out of 10.

86.6% of AWWs opined that it was necessary to initiate breast feeding immediately after birth; in contrary to this only 14.83% AWWs have adequate knowledge about breastfeeding in a study by Prachi et a l [15.

All the AWWs (100%) adjusted the Salter's scale to zero before weighing but in a study done by Baruaet al only 71.1% have done the same [12]. 99.3% of the AWWs plotted the growth chart immediately after weighing the child. Kapil et al observed that only 10% of AWWs follow the practice of plotting the growth chart after weighing the child. Nearly half of the AWWs plot weight incorrectly on growth chart. In another study 75 % of AWWs are not able to measure weight correctly with Salter's scale [8].

In this study all AWWs conducted breastfeeding counselling sessions but only56.3 % sessions were assisted by Auxiliary Nurse and Midwife(ANM). This shows that there was lack of intersect oral coordination between ICDS and health department. Intersect oral coordination is one of the pillars of primary health care which is essential for the success of any national health programmes [16]. About 99.3% of AWWs had conducted nutrition and health education in their area but Lal et al observed that majority of AWWs are not giving NHE with enthusiasm and dedication [17]. In our study most of the AWWs (97.2%) had given supplementary nutrition for more than 300 days in their centre. It is due to this lack of community involvement, workers could not regularly monitor the weight of all children in the community. But every coin has 2 sides. It could be due to lack of communication skills of AWWs for less community participation. Lack of community participation and intersect oral coordination were the main problems faced by the AWWs.

## CONCLUSIONS:

Regular practical reorientation training is crucial to strengthen the knowledge and communication skills of AWWs, which will increase their capabilities to take corrective and preventive action at appropriate time for optimum development of children.

**Acknowledgement**:

The authors are thankful to Indian Council of Medical Research (ICMR).

## REFERENCES:

1. Census data 2011. Available from: http://www.censusindia.gov.in
2. International Institute for Population Sciences (IIPS) and Ministry of health and family welfare. NFHS- IV, 2015- 16, India, Mumbai. Available from: http://rchiips.org/nfhs/
3. Registrar General of India. SRS bulletin. Sample Registration System, December 2016. Available from: http://www.censusindia.gov.in/vital_statistics/SRS_Bulletin_2015.pdf
4. Kapil U, Sood AK, Gaur DR. Nutritional beliefs amongst Anganwadi workers. Indian Journal of Paediatrics 1992 Jan; 29 (1): 67-71.
5. Ghoghra P K, Lala MK, Pirani SK. Evaluation of study of IMNCI Trained Anganwadi workers of Ahmedabad District. Indian Journal of Maternal and Child health 2011 Jan-Mar; 13(1):1-5.

6. Thakare Meenal M, Kuril BM, Doibale MK. Knowledge of anganwadi worker and their problems in an urban ICDS block. Journal of Medical College Chandigarh 2011; 1:15-19.
7. National Institute of Public cooperation and child development (NIPCCD). Three decades of ICDS: An appraisal, 2006, p-34. Available from: http://www.nipccd.nic.in/reports/eicds.pdf
8. Kapil U, Saxena N, Nayar D, Gunasekaran N.Status of growth monitoring activities in selected ICDS projects of Rajasthan. Indian Journal of Pediatrics 1996 Nov; 33(11):949-52.
9. Davey A, Davey S, Datta U. Role of reorientation training in enhancement of knowledge regarding growth monitoring activities by Anganwadi workers in the urban slums of Delhi. Indian Journal of Community Medicine 2008; 33(1): 47-49.
10. Gupta JP, Manchanda UK, Juyal RK.A Study of the functions of Anganwadi worker of ICDS, Juma Masjid ,Delhi (1979), NIHFW publication.
11. U Kapil, A K Sood, D Nayar. Assessment of knowledge and skills about growth monitoring amongst Medical Officers, Child Development Project Officers, Multi-Purpose Workers. Indian Journal of Paediatrics 1994 Jan; 31 (1): 43-6.
12. Barua K, Barua R. Application of growth monitoring charts by health care providers in Village Health and Nutrition Day (VHND) setting in rural Kamrup. Indian Journal of Community Health. 2014:26; Suppl S2:322-326.
13. Bhasin SK, Kumar R, Dubey KK, Kapil U. Knowledge of Anganwadi workers about Growth Monitoring in Delhi. Indian Journal of Paediatrics 1995Jan; 32 (1): 73-6.
14. Chattopadhyay D. Knowledge and Skills of Anganwadi workers in Hooghly District, West Bengal. Indian Journal of Community Medicine, Vol. XXIX, No.3, July-Sept 2004.
15. Prachi DS, Shubhlaxmi D Kotnis. Profile of Anganwadi workers and their knowledge regarding maternal and child health services in an urban area. Indian Journal of Medical Science and Public Health 2015 Dec; Vol. 4 (4):502-07.
16. Park K. Park's Textbook of Preventive and Social Medicine, 23rd edition. Jabalpur: Bhanot Publisher, 2015. P. 892.
17. Lal S .Nutrition and Health Education (NHE) – Inputs of personnel, material, techniques and methods at ICDS block Kathua, Haryana. Health Journal 1979; 10 (38): 27- 32.