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A Study on the Knowledge of *Anganwadi* Workers of Uttarkashi District in Uttarakhand about Integrated Child Development Services (ICDS)

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ABSTRACT The present study was carried out on the socio-economic and demographic profiles of the 30 *Anganwadi* workers as well as their knowledge about various ICDS services in Uttarkashi district of Uttarakhand. A maximum of these workers (50%) were in the age group of 36-45 years and the majority (97%) were married. Forty-three percent of the AWWs were graduates. Study of their experience and training undergone revealed that around three percent AWWs only had an experience of more than 10 years and sixty percent of the AWWs were untrained. A 33.33 percent of AWWs had the correct knowledge regarding the amount of nutrients that should be given to a child and the age to start growth monitoring. A 23.33 percent AWWs had the correct knowledge regarding the purpose of weight monitoring during pregnancy. The study recommended that more training should be conducted for the AWWs to update their knowledge. Study on the problems faced by AWW while implementing ICDS programmes indicated that around eighty-three percent of them found excessive record maintenance to be a major problem and 56.66 percent reported that they were overworked. From the study it may be concluded that training of the AWWs regarding the objective of the scheme, knowledge about the ICDS programme and appropriate measures for the challenges faced by the AWWs is very much needed for successful implementation of the ICDS services through AWC.

INTRODUCTION

Integrated Child Development Services (ICDS) scheme is one of the world's largest and most unique programmes of Early Childhood Care and Development (ECCD). The programme adopts a multi-sectoral approach to child development, incorporating health, early education and nutrition interventions. The main objective of this programme is to cater to the needs of the development of children in the age group of 0-6 years. ICDS services are provided through a vast network of ICDS centres, it is known as "*Anganwadi*". Network of *Anganwadi* Centre (AWC) literally is a courtyard play centre that provides integrated services comprising supplementary nutrition, immunization, health check up, referral services, pre-school education, health and nutrition education. It is a childcare centre located within the village or the slum area itself. At present in India, ICDS has a network of more than 7072 projects and 13,46,186 AWC are operational across 36 states/UTs, covering 1022.33 lakh beneficiaries under supplementary nutrition and 365.44 lakh 3-6 years children under pre-school component . Integrated Child Development Services scheme covers all the 105 ICDS blocks of Uttarakahnd. As of March 2017, a total of 20,067 *Anganwadi* Centres (AWCs) were sanctioned in the state and out of which 19,649 (97%) were optional. In Uttarkashi, under the scheme, a total number of 1052 *Anganwadi* Centres (AWCs) were sanctioned and 36,960 eligible children (0-6 years) and 7036 pregnant and lactating women are getting benefits for various services (Uttarakhand Evaluation Report on ICDS 2017). But in spite of the ongoing direct nutrition interventions like ICDS, India still contributes to about twenty-one percent of the global burden of child deaths before their fifth birthday (UNICEF 2007). Thakare et al. (2011) revealed that *anganwadi* workers are the community based voluntary frontline workers of the ICDS programme. She assumes a pivotal role due to her close and continuous contact with the beneficiaries. Not only does she have to reach to variety of beneficiary groups, she also has to provide them with different services which include nutrition and health education, pre-school education, supplementary nutrition etc.

Her function also includes community survey and enlisting community support for *anganwadi* functions, organizing women's group and maintenance of record and register (Athira and Maneesh 2016). Nutrition knowledge was the most powerful determinant of performance followed by guidance from the supervisors or health functionaries and their education level (Gujral et al.1992).

A study conducted (Gupta et al. 2004) to assess the level of child malnutrition in India, found that the poor northern states with high level of child malnutrition and nearly half of India's population have the lowest programme coverage. Although much of the research has been done on the nutritional status of the beneficiaries of ICDS, and evaluation of nutrition and health services rendered by *anganwadi* centres but very less focus has been shifted over to knowledge and awareness among the *anganwadi* workers, who are actually the main resource person of the programme and whose knowledge and skills do have a direct impact on the implementation of the programme (Manhas and Dogra 2012).

Objective of the Study

The key objective of the study is to assess the correct knowledge among AWWs about Integrated Child Development Services. Specific objectives are as follows:

- To assess the socio-economic profile of *anganwadi* workers their training and service condition.
- Knowledge of *anganwadi* Workers related to health and nutrition and problems faced by AWWs while working in rural ICDS blocks of Uttarkashi district in Uttarakhand.

METHODOLOGY

The present study was conducted in rural area of Chinyali block of Uttarkashi district during the year of 2016-2017.

Sample Size

The project had 30 *anganwadi* workers as respondents, one each from 30 *anganwadi* centres.

Sampling Technique

Multistage sampling technique was adopted for sample selection. Samples were randomly selected for the purpose.

Tools Applied

A self-devised interview schedule and structured questionnaire was used as a tool for data collection with various questions framed on the knowledge among *anganwadi* workers regarding the service of ICDS. The major content of the interview schedule were socio- economic and demographic profiles of AWWs, knowledge about various ICDS services (immunization, preschool education, nutrition and health education, referral service, supplementary nutrition, growth monitoring) and problems faced by AWW while implementing ICDS programmes. Questions were also framed on the importance of maintenance and preparation of growth chart and nutrition education teaching material.

Data Collection

Data were collected personally by making visits to *anganwadi* centres and during on campus training/awareness programme for *anganwadi* workers at KVK Chinyalisaur. The data obtained were compiled and tabulated.

Data Analysis

Analysis of the data was done qualitatively and quantitatively using frequency distribution and percentage.

RESULTS AND DISCUSSION

The *anganwadi* workers play an important role due to their close and continuous contact with the people of community, especially the children and women. Various studies in recent past clearly highlighted the importance of socio-economic and demographic characteristics of AWWs in implementing the ICDS programme (Davey and Dutta 2004). In the present study 30 *anganwadi* workers were interviewed.

Socio-demographic characteristics of *Anganwadi* workers

Age of Respondent

The present study shows that 36.66 percent of *anganwadi* workers were in the age group of 25-35 years, fifty percent of workers were in the age group of 36-45 years and 13.33 percent were

46 years and above. Table 1 reveals that majority of AWWs belongs to the age group of 30-40 years, which is a very suitable age for effective functioning of the *anganwadi* workers at the *anganwadi* centres. It is generally considered that age of *anganwadi* worker is important for effective functioning of the *anganwadi* centers; hence, age was included as one of the parameters in the present study. In other studies (Baliga and Walvekar 2017; Jena 2013) it has also been reported that major portion of AWWs belongs to age group of 30-40 years.

Marital Status of Respondents

The marital status of the AWWs may have an influence on effectiveness of the ICDS programme in rural society. The AWWs is supposed to look after the health of children and nutrition of the children. The experiences of married women, especially those having children may positively affect awareness about the needs of children (Kular 2015). Hence, marital status of the AWWs was included as a variable in the study. While distributing the respondents by marital status it was found that about 96.66 percent of the workers were married and 3.33 percent of the workers were widowed. So, a major portion of workers were married. Kular (2015) revealed that majority 86.66 percent of AWWs were married, merely ten percent AWWs were widowed. The *anganwadi* worker is supposed to look after the health and nutrition of the children.

Caste of Respondents

It was found that the majority (73.33%) of *anganwadi* workers belonged to OBC background. The rest of the workers were from SC (26.66%) communities.

Education of Respondents

In the present study 30 *anganwadi* workers were interviewed and it is evident from the Table 1 that 43.33 percent were educated up to graduation level. 26.66 percent of the *anganwadi* workers had post graduate degree, 16.66 percent of the AWWs had higher secondary education and only 13.33 percent of AWWs were educated up to matriculation. It can be concluded that more than half, seventy percent AWWs had good academic level that is, graduation or post graduation; the results of the study are in conformity with the finding of Arya and Maurya (2016).

Working Experience of Respondents

The number of years of experience as AWWs is considered as job experience here. Job experi-

Table 1: Socio-personal profile of the respondents N=30

S. No.	*Variable*	*Category*	*Frequency*	*Percentage*
1.	*Age Group (Years)*	25-35 years	11	36.66
		36-45 years	15	50
		46+ years	4	13.33
2.	*Marital Status*	Married	29	96.66
		Widow	1	3.33
3.	*Caste*	OBC	22	73.33
		SC	8	26.66
4.	*Education Status*	Matriculation	4	13.33
		Higher secondary	5	16.66
		Graduation	13	43.33
		Post-graduation	8	26.66
5.	*Work Experience*	<5 years	2	6.66
		5-10 years	22	73.33
		10-15 years	1	3.33
		>15 years	5	16.66
6.	*Training Status*	In-service training	6	20
		Job and refresher training	4	13.33
		Special training	2	6.66
		No training	18	60
7.	*Job Satisfaction*	Low	10	33.33
		Medium	13	43.33
		High	6	20
		No satisfaction	1	3.33

ence can contribute to work efficiency and improvement of skills. Based on the length of service, AWWs were divided into four group *viz.*, less than 5 years, 10-15 years and above 15 years. A view of the Table 1 pertaining to work experience indicates that about 6.66 percent of AWWs had experience service below 5 years, 73.33 percent of AWWs had experience of 5-10 years, some 16.66 percent had service experience above 15 years and merely 3.33 percent of the AWWs had experience between 10-15 years. Similar findings have also been reported by Sandhyarani and Rao (2013), with regards to the work experience. A very less number of respondents that is, two percent had more than 30 years of work experience in their career.

Training and Refresher Training

Training for the job as AWW generally includes equipping the trainees with necessary skill to perform their work effectively. As far as training status of the *anganwadi* workers was concerned, it was found that sixty percent of *anganwadi* workers did not receive any training, twenty percent of the AWWs received in-service training and only thirteen percent of them attended job and refresher training. Merely seven percent received special training. The finding of Kular (2014) also suggested that refresher training is very important after one and half years, in order to update their knowledge and skill. It was shocking to find from the study that about 53.33 percent of AWWs did not receive any refresher training periodically.

Job Satisfaction of Anganwadi Workers

The present study shows that only 3.33 percent of the AWWs were not satisfied with their job, about twenty percent had high job satisfaction; forty-three percent AWWs had medium job satisfaction, and the rest 33.33 percent AWWs had low job satisfaction. Thus the data of the study indicate that only a small percentage of the AWWs were found to be having no satisfaction from their job.

Problems Faced by *Anganwadi* Workers

As per the Government guideline the minimum qualification for AWWs is 10^{th} pass, but she is expected to perform all these job responsibilities. Community participation, co-ordination with the superiors, beneficiaries and helper are important parts of her daily work. Results suggest that 56.66 percent AWWs complained of inadequate salary while 46.66 percent complained of lack of logistic supply related problem (Table 2). About half that is, 53.33 percent of the AWWs complained that they have infrastructure related problem like inadequate space for displaying non-formal preschool education (NFPSE) posters or other posters related to nutrition and health education and space is not available for conducting fun activities like outdoor activities. It was found that forty percent workers complained they were overworked and 83.33 percent complained regarding excessive record maintenance. In agreement with the study, Jena (2013) reported that majority of the AWWs complained that they have inadequate salary (56.7%) followed by infrastructure related problem (50%) and work overload related problem (46.66%).

Table 2: Problems faced by *anganwadi* workers

S. No.	*Type of problem*	*Number of AWWs with the problem*
1.	Inadequate salary	17 (56.66)
2.	Infrastructure related	16 (53.33)
3.	Logistic supply related	14 (46.66)
4.	Work overload	12 (40)
5.	Excessive record maintenance	25 (83.33)
6.	Total (N)	30

Note: A figure in parentheses indicates percentage

Nutritional knowledge was the most powerful determinant of performance, followed by guidance from the supervisors or health functionaries and education level (Gujral et al. 1992; Manhas et al. 2012). 33.33 percent of AWWs were aware about the amount of protein and nutrients that must be given to a child through supplementary food. It was found that twenty percent of *anganwadi* workers had the correct knowledge regarding the amount of calories and protein a pregnant woman should receive from *anganwadi* centre. Similarly, when enquired about the malnourished child's requirement for calorie and protein while distributing the supplementary nutrition in *anganwadi* centre, thirty percent had the correct knowledge. About 16.66 percent *anganwadi* workers did not respond to questions which assessed their knowledge regarding nutrient requirements of the child

and mother while distributing supplementary nutrition (Table 3).

It was found that only 36.66 percent *anganwadi* workers were aware about the age from which growth monitoring of preschool child should start and twenty percent were clear about the flattened growth line on growth and growth card of the child. In terms of the growth monitoring of the child, 26.66 percent of *anganwadi* workers were aware of the average weight of the 1 year old child (Table 4). On the basis of growth monitoring, this study reveals that the AWWs were not aware of the method applied for assessment. They were not clear with the basic concepts of their working.

Children are considered fully immunized, if they receive DPT (Diphtherias, Peruses, Tetanus) and one measles vaccine. In the present investigation 36.66 percent of the AWWs had the correct knowledge about the age in which measles vaccine should be given to a child and 16.66 percent were aware about the gap of two successive doses and booster dose of DPT. In case of booster dose of DPT, 16.66 percent had the correct knowledge. Table 5 clearly indicates that twenty percent of the AWWs knew the number of tetanus toxoid a pregnant woman should receive, and merely ten percent knew the type of vaccination given at five years of age to a child. The study suggests that quality training on immunization is being provided to AWWs at training centres, so knowledge of AWWs significantly improved after the training.

In the health perspective, as far as assessment of nutritional status of pregnant women was concerned, 23.33 percent *anganwadi* worker were aware of the purpose of weight monitoring in pregnant women whereas only 13.33 per-

Table 3: Awareness regarding the nutrient requirement of mother and child through supplementary nutrition

S. No.	*Questions*	*Correct responses of respondents*	
		Frequency	*Percentage*
1.	What amount of calories and proteins should be given to each child through supplementary nutrition?	10	33.33
2.	How many calories and proteins a pregnant woman should receive from *Anganwadi* centre?	6	20
3.	What amount of calories and proteins should be given to grade 4 malnourished children through supplementary nutrition?	9	30
4.	No response	5	16.66
5.	Total	30	100

Table 4: Assessment of growth monitoring in children

S. No.	*Questions*	*Correct responses of respondents*	
		Frequency	*Percentage*
1.	Growth monitoring should start from	11	36.66
2.	Flattened growth line on growth card means	6	20
3.	What is the average weight of a 1 year old child?	8	26.66
4.	No response	5	16.66

Table 5: Assessment of knowledge regarding immunization in a child

S. No.	*Questions*	*Correct responses of respondents*	
		Frequency	*Percentage*
1.	What is the gap between 2 successive doses of DPT vaccine?	5	16.66
2.	At what age measles vaccine is given to a child?	11	36.66
3.	At what age booster dose of DPT given to a child?	5	16.66
4.	What number of tetanus toxoids should a pregnant woman receive?	6	20
5.	What type of vaccines is given at 5 years of age?	3	10

cent had correct knowledge regarding the minimum health check up of pregnant women. There were only 6.66 percent respondents who had the correct knowledge regarding the number of iron and folic acid tablets that should be given to the pregnant women. Awareness regarding the provision of referral services in high risk pregnancies was observed in 16.66 percent workers however; about forty percent of AWWs were not clear with the basic concept of their working. Although AWWs responded to the query but the responses were not satisfactory as expected from a well-trained resource person (Table 6).

Table 7 clearly indicates that only 16.66 percent of respondents knew till what age exclusive breastfeeding should be continued and 36.66 percent of *anganwadi* workers replied correctly about complementary feeding. In case of child deliveries, twenty percent of *anganwadi* workers knew the reason for promotion of institutional deliveries and 26.66 percent of them were aware about the age at which first dose of Vitamin A should be given to the child. Nutrition and health education for women has the long term goal of capacity building of women in the age group of 15-45 years so that they can look after their own health, nutrition and developments needs as well as that of their children and families. Nutrition and health education is delivered by *anganwadi* workers through inter-personal contacts and discussions at *anganwadi* centres.

It was found that the majority of *anganwadi* workers were preparing the teaching material in *anganwadi* centre for nutrition education and 43.33 percent were preparing charts related to nutrition and health education. 16.66 percent workers used charts of fruits and pulses for providing information to the beneficiaries of the *anganwadi* centre. Table 8 also indicates that twenty percent of *anganwadi* workers were imparting nutrition education without the use of

Table 6: Awareness regarding health check-up and referral services

S. No.	*Responses*	*Correct responses of respondents*	
		Frequency	*Percentage*
1.	The purpose of weight monitoring of pregnant women	7	23.33
2.	The minimum health check up one pregnant woman should get	4	13.33
3.	Minimum number of tablet of iron and folic acid that a pregnant woman should consume	2	6.66
4.	Mention any four high risk pregnancies which need a referral?	5	16.66
5.	No response	12	40

Table 7: Nutrition and health education among *anganwadi* workers

S. No.	*Responses*	*Correct responses of respondents*	
		Frequency	*Percentage*
1.	Exclusive breast feeding should be continued till?	5	16.66
2.	When complementary feeding should be started?	11	36.66
3.	When the first dose of Vitamin A should be given to the child?	8	26.66
4.	Why institutional delivery is promoted/ required?	6	20

Table 8: Preparation of teaching material in *anganwadi* centres for nutrition education

S. No.	*Responses*	*Correct responses of respondents*	
		Frequency	*Percentage*
1.	Fruit charts, *dal* chart	5	16.66
2.	Colors, *dal* and wooden pictures	4	13.33
3.	Charts related to nutrition and health education	13	43.33
4.	Charts related to the hospital facility	2	6.66
5.	No preparations	6	20

any teaching material. Similar findings have also been reported by Manhas and Dogra (2012).

CONCLUSION

The finding of the study clearly indicated that maximum numbers of workers (50%) were in the age group of 36-45 years, about 43.33 percent of AWWs were graduates and majority 96.66 percent of them were married. Only 3.33 percent AWWs had an experience of more than 10 years. On the whole it was found that 56.66 percent reported that they were overworked. Results suggest that forty percent AWWs complained of inadequate salary while 46.66 percent complained of lack of logistic supply related problems. In case of immunization component maximum correct responses (36.66%) was reported regarding the age to start measles vaccination and about the age for starting complementary food. The present study also suggested that the performance and awareness among *anganwadi* workers regarding the growth charts and growth monitoring were not satisfactory. The reasons they revealed were non availability of teaching material, non-cooperation of parents and building not in working condition which would help to lay foundation for proper functioning. The AWWs had provided most of the service but they were not reflective on them at the time of enquiry. Time to time orientation courses would keep them in touch with the latest knowledge. *Anganwadi* workers are the key person who will promote the best practices of services related to ICDS to enhance the health and nutritional status among mothers and children.

RECOMMENDATIONS

From the present experience it was felt that all the *anganwadis* should be given proper training /refresher courses and special training at regular time intervals about all component of ICDS scheme, thus refresher training programmes should regularly be conducted for improving the knowledge of grass-root level health workers to ensure provision of good quality services. Frequent interaction among AWWs and supervisors should be introduced for imparting information and awareness. Regular visits should be made by CDPOs or Health functionaries to the *anganwadi* centre for guiding and helping the *anganwadi* workers. The present study also suggests that liasoning with Krishi Vigyan Kendra can also be established for training of AWWs and infrastructure facilities also should be improved for better implementation of ICDS scheme.

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