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Anganwadi workers' knowledge regarding child rearing Practices in Haryana

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Abstract

The Anganwadi services, a keystone of India's Integrated Child Development Services (ICDS), works towards in combating of malnutrition and child hunger through a network of centres providing health, nutrition, and early education services by employing anganwadi workers as community helpers. Study explores the knowledge of Anganwadi workers (AWWs) in Haryana regarding various child-rearing practices and the socio-economic factors affecting their level of knowledge. Data for the study was collected from two cultural zones, Bagar and Nardak, focusing on Hisar and Panchkula districts with sample size of 300 respondents, equally representing both urban and rural areas of districts. Analysis of data was done by using descriptive statistics and chi-square tests. From the findings of study it was revealed that urban AWWs had slightly higher knowledge levels in feeding, weaning, toilet training, and discipline practices compared to their rural counterparts, although both groups showed high knowledge in immunization and growth monitoring. Study revealed that factors such as age, caste, education, family income, material possession, extension contacts, social participation, and mass media exposure significantly influenced the knowledge levels of AWWs. The study emphasizes the importance of targeted training and addressing socio-economic differences to enhance the effectiveness of AWWs in implementing child development programs across the state and nation.

Keywords: ICDS, malnutrition, urban and rural, immunization, growth monitoring, training

Introduction

Children are most important assets in all societies. Children's development is as important as the development of material resources. The development of nation depends on the children's well- being and health. The responsibilities of child health and their well -being depends on the country. All national programs or human resource development programs should have a prominent place for child health programme. Early years of childhood provide a unique opportunity to give children the best start to life, especially the first 1,000 days (from conception to 24 months), in which the foundation for optimum health, growth and brain development across the lifespan can be established. Hence, investing in these early years is a practical and effective strategy towards building human capital that will eventually lead to growing and diversifying the economy. Investment in human resource development is a prerequisite for any nation's economic development and Children are the future human resource of the country. In India children of 0-6 years of age group constitutes around 158 million of total population (census 2011) [1]. It's this period when the foundations are laid for the cognitive, social, emotional, and physical/mental development of the child. Ministry of Women and Child Development is also implementing various schemes for children's welfare, development and protection of children. In India, integrated child development scheme (ICDS) is currently the most significant government intervention for reducing maternal and childhood malnutrition (Gotarkar and Ingole, 2018) [3].

India had adopted the Integrated Child Development Services (ICDS) Scheme in 1975, a flagship early childhood care and development programme, to address malnutrition among children and women of reproductive age. It had formed the backbone of early childhood development. Through a village-level network of Anganwadi Centres (AWCs), ICDS has provided health and nutrition security to millions of children. Currently, there are more than 13 lakh AWCs operational in the country.

The Anganwadi Workers (AWWs) are a front line community health worker assigned to work for identifying the children with disabilities in the community and creating awareness among the public about the various rehabilitation facilities along with discharging the ICDS services.

The successful implementation of any developmental program largely depends upon the knowledge, attitude and practice among functionaries. In the opinion of some research scholars the achievement of ICDS program goals depends heavily upon the effectiveness of the Anganwadi workers, which in turn largely depends upon their knowledge, attitude and practice. In the earlier studies focus was more on the nutritional status of the beneficiaries of ICDS, and evaluation of nutrition and health services rendered by AWWs centres, but very less focus has been shifted over to knowledge and awareness among the AWWs

who are the main resource person and whose knowledge and skills have a direct impact on the implementation of the ICDS programme

The trained Anganwadi workers are able to perform better in providing the basic services regularly, properly and effectively. A study by Thakare, *et al*. (2011) [11], most of the AWWs in Urban ICDS Block, Aurangabad were from age group 41-50 years, matriculate, experienced, having knowledge of more than 50% in their daily functions at AWCs. Knowledge of anganwadi workers can get affected by factors like their age, educational level, the effectiveness of training, lack of continuing education, and years of experience (Sondankar 2015) [10]. One of the studies (Mathur, *et al*. 1995) [8] concluded that AWW can help in early detection developmental delay and appropriate management of incipient and preventable disabilities among children in their early stages of life. The Anganwadi worker assumes an important role, since she is in close and continuous contact with the beneficiaries (Thakare, et.al. 2011) [11]. Young children, especially from rural and urban slum areas spend their precious time in Anganwadi Centre with AWWs. The following objectives have been incorporated into the design of this study by taking care of significant factors.

Objectives of the research

1. To assess the knowledge of anganwadi workers regarding various child rearing practices.
2. To know the socio-economic factors affecting knowledge level of Anganwadi workers.

Methodology

The study was conducted in the state of Haryana, focusing specifically on two out of five cultural zones i.e Nardak and Bagar. These were selected randomly for the purpose of this research. For further selection process one district from each chosen cultural zone was randomly selected. The process resulted in the inclusion of Hisar district from the Bagar zone and Panchkula district from the Nardak zone. To have a thorough understanding of both urban and rural areas within these districts, further selections were made at the block and village levels. From the Hisar district, Hisar-I and Hisar-II blocks were chosen, while in the Panchkula district, Pinjore and Barwala blocks were selected. Out of these blocks, a few villages were identified to represent the rural segment of the study. The selection of respondents was designed to ensure an equal representation from both urban and rural areas. From each selected district, 75 respondents were chosen from urban areas and another 75 from rural areas, making a total of 150 respondents per district. Same approach was used in both Hisar and Panchkula districts, leading to an overall sample size of 300 respondents for the study. The collected data was coded and tabulated. Statistical analysis was then performed to interpret the data according to the objectives of study. Descriptive statistical measures such as frequency, percentage chi- square and mean.

Results

1. Socio-economic profile of Anganwadi workers selected for the study

Table 1, outlines the socio-economic profile of 300 Anganwadi workers, evenly selected for rural and urban areas study. Out of all most of the rural workers fell in the 35 to 45 years age category (30%), while the smallest category was aged 45 to 55 years (22%). Whereas in urban areas, the highest age group is 45 to 55 years (30%), with the lowest above 55 years (16%).Regarding caste, both in rural and urban areas have the highest percentage in the general category (42%), and the lowest in the Scheduled Castes (19.3% rural, 18% urban).Data clearly revealed that majority of both rural (78%) and urban (76%) workers are married, with widowed being the smallest group (22% rural, 24% urban).

As per family type urban workers predominantly lived in nuclear families (72.7%), whereas rural workers were mostly in joint families (54%). The smallest family size category in both areas is large families, with rural at 8% and urban at 5.33%. In terms of education, level was higher in urban areas, with the majority having an undergraduate degree (50%). The least educated group in both areas are those with secondary education (20% rural, 8% urban). Regarding Land holding, data showed most urban workers were landless (71.3%), while the smallest group in rural areas held medium-sized land (8%). Table revealed Income levels, where the highest percentage of urban workers earned between ₹1,50,001 and ₹3,00,000 annually (59.3%), with the lowest earned up to ₹1,50,000 (14%). Rural workers had similar trends, with 42% earned ₹1,50,001 to ₹3,00,000 and 16% earned up to ₹1,50,000. When assessed material possessions, it was higher in urban areas, with 56% in the low category and only 4% in the high category. The smallest group in rural areas was in the high category (14%).

Among the respondents mass media exposure was predominantly medium for both rural (76%) and urban (82%) workers, with the lowest being high exposure in rural areas (8%). Regarding extension contacts, the majority of both rural (72%) and urban (64%) workers had medium level of extension contact, with the least being high contacts for rural workers. It was also found that social participation in any organization was highest among urban workers with one organization (64%), and the lowest in rural areas with no participation at all (28%). Lastly, socio-economic status exhibited that nearly half of urban workers were in the medium category (50.7%), with the smallest group in the high category (11.3%). A little less than half of the respondents were highest in percentage to have low socio-economic status (48%).

2. Knowledge of Anganwadi workers regarding child rearing practices in rural and urban areas based on correct responses on each practice:

Results from Table 2 shows the knowledge indices of anganwadi workers related to various child-rearing practices in rural and urban areas of the selected districts in Haryana. The indices represent the percentage score of knowledge levels for each practice among the anganwadi workers. Regarding feeding and weaning urban area workers exhibits relatively higher knowledge (71.52) as compared to rural workers (66.00), which indicates moderate level of knowledge. Immunization scores are same and perfect in both areas at 100.0, representing high knowledge. Bathing practices found to have nearly similar scores in both areas,

with rural at 72.80 and urban at 72.40, demonstrating high knowledge levels. About toilet training knowledge is higher in urban areas (84.33) as compared to rural areas (77.00), both falling into the category of high knowledge. Knowledge about sleeping practices is relatively low, with urban areas at 54.50 and rural areas at 50.00. To some extent rural workers score s higher (81.00) than urban workers (78.00), both indicating high knowledge regarding clothing.

Table 1: Socio-economic profile of Anganwadi workers selected for the study (n= 300)

S. No.	Characteristics	Rural (n = 150)		Urban (n = 150)	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	**Age**				
	Up to 35 years	36	24.00	42	28.00
	35^{+}- 45 years	45	30.00	39	26.00
	45^{+} -55 years	33	22.00	45	30.00
	Above 55 years	36	24.00	24	16.00
2.	**Caste Category**				
	General	63	42.00	63	42.00
	B.C.	58	34.70	60	40.00
	S.C.	29	19.30	27	18.00
3.	**Marital status**				
	Married	117	78.00	114	76.00
	Widowed	33	22.00	36	24.00
4.	**Family type**				
	Nuclear	69	46.00	109	72.70
	Joint	81	54.00	41	27.30
5.	**Family size**				
	Small (up to 4 members)	54	36.00	79	52.70
	Medium (5-8 members)	84	56.00	63	42.00
	Large (Above 8 members)	12	8.00	8	5.33
5.	**Education**				
	Secondary	30	20.00	12	8.00
	Senior Secondary	48	32.00	45	30.00
	Under-graduation	63	42.00	75	50.00
	Post-graduation	9	6.00	18	12.00
6.	**Land holding**				
	Landless	89	59.30	107	71.30
	Marginal (< 2.5 acre)	24	16.00	19	12.70
	Small (2.5-5 acre)	13	8.70	18	12.00
	Medium (5-10 acre)	12	8.00	06	4.00
	Large (> 10 acre)	12	8.00	00	0.00
7.	**Income**				
	Up to 1,50,000	24	16.00	21	14.00
	1,50,001 – 3,00,000	63	42.00	89	59.30
	Above 3,00,000	63	42.00	40	26.70
8.	**Material possession**				
	Low (6-10)	72	48.00	84	56.00
	Medium (11-14)	57	38.00	60	40.00
	High (15-18)	21	14.00	06	04.00
9.	**Mass media exposure**				
	Low (6-10)	24	16.00	12	8.00
	Medium (11-14)	114	76.00	123	82.00
	High (15-18)	12	08.00	15	10.00
10.	**Extension contacts**				
	Low (5-10)	42	28.00	30	20.00
	Medium (11-16)	108	72.00	96	64.00
	High (16-20)	00	00.00	24	16.00
11.	**Social Participation**				
	Nil	42	28.00	54	36.00
	One organisation	75	50.00	96	64.00
	Two organisation	33	22.00	0	00.00
12.	**Socio-economic status**				
	Low (6-10)	72	48.00	57	38.00
	Medium (11-15)	48	32.00	76	50.70
	High (16-21)	30	20.00	17	11.30

*Figures in parentheses indicate percentage.

Urban workers have a higher knowledge index for discipline (78.00) as compared to rural workers (64.00), with urban workers showing high knowledge and rural workers moderate. Nutrition knowledge found to be slightly higher in rural areas (62.00) than in urban areas (59.60), both demonstrating moderate level of knowledge. Regarding growth monitoring scores were close as with rural area at 72.33 and urban at 73.00, which indicated high level of knowledge. Finally, oral hygiene knowledge scores were nearly the same, with rural anganwadi workers at 68.63 and urban workers at 70.03, showing moderate level of knowledge. Overall, the results highlights certain differences in knowledge levels between rural and urban areas. There were certain practices such as immunization and growth monitoring which showed uniform high knowledge, whilst practices like discipline and toilet training reveal gaps where targeted training could be beneficial for anganwadi workers. Overall urban entities showed higher incidence of knowledge across all domains except clothing and nutrition. The above present study finding is supported by another the research conducted by Kumari and Bharathi (2017) [6], It was observed that urban anganwadi worker scored better in knowledge test and were involved relatively higher than rural anganwadi workers. A motivated, skilled and satisfied worker is essential for improving the quality of ICDS services.

Table 2: Knowledge of Anganwadi workers regarding child rearing practices in rural and urban areas based on. (n=300)

S. No.	Practices	Knowledge Indices	
		Rural area (n=150)	Urban area (n=150)
1.	Feeding and weaning	66.00	71.52
2.	Immunization	100.0	100.0
3.	Bathing	72.80	72.90
4.	Toilet training	77.00	84.33
5.	Sleeping	50.00	54.50
6.	Clothing	81.00	78.00
7.	Discipline	64.00	78.00
8.	Nutrition	62.00	59.60
9.	Growth monitoring	72.33	73.00
10.	Oral hygiene	68.63	70.03

3. Association between socio-economic variables and knowledge level of *Anganwadi* workers: The Table 3, exhibits association between socio-economic variables and the knowledge level of Anganwadi workers. Age emerged as a highly significant factor, with a chi-square value of 27.683 at a 1 percent level of significance. It can be clearly seen that highest percentage of respondents with high knowledge levels were in the 45-55 years of age category (46.20%), followed by the age category of above 55 years (20.00%), while younger workers i.e. up to 35 years of age had the lowest percentage of high level of knowledge (26.90%). Similar results were reported by Jena (2013) [5], on Knowledge of Anganwadi Worker about Integrated Child Development Services (ICDS) in urban blocks in Sundargarh District of Odisha. The knowledge score was higher for older women as compared to the younger women. The mean knowledge score for women less than 30 years was about 12.30 which was lower than the knowledge score for 41+ years women (mean score 13.75). This evidence suggested that older women are much more aware about various ICDS services compared to 33 their younger counterpart. Caste also found to have significant association with a chi-square value of 9.327, with general caste (34.92%), having the highest percentage of high knowledge levels, followed by scheduled caste (32.014%), and backward class (23.73%). Marital status was not found to be significantly related to level of knowledge as married respondents at some extent higher percentage of high level of knowledge (29.87%) compared to that of widowed respondents (30.43%).

Family type had no significant association with knowledge level of respondents, as respondents from nuclear families had relatively higher percentage of high knowledge (31.46%) compared to those from joint families (27.87%). Similarly, family size was also not significantly associate, though workers from medium-sized families (5-6 members) had the highest percentage of high knowledge levels (32.65%), Education level was found to be highly significant, respondents with post-graduation (55.56%), under-graduation (34.78%), and senior secondary education (25.81%) had the highest level of knowledge. In similar study by Patrick (2019) [9] among 30 anganwadi workers of Azad Nager, Indore, that there was a statistically significant association between the education and the knowledge grade ($P<0.05$), which showed that the knowledge grade is dependent on the education level of workers.

Land holding having chi-square value of 15.497, was not significantly associated with level of knowledge, respondents with marginal land holdings had a higher percentage of high knowledge levels (34.88%). Family income was highly significant, with a chi-square value of 32.615 at a 1 percent level of significance, where respondents from families with an income between 1,50,000–3,00,000 (36.84%) and above 3,00,000 (24.27%) had the highest knowledge levels. Material possession also showed high significance as with respondents possessing high material goods having the highest knowledge levels (55.56%).

Extension contacts, social participation, and mass media exposure were found to be highly significant, as with respondents having high extension contacts (37.50%), high social participation (27.27%), and high mass media exposure (44.44%) showed the highest level of knowledge. Socio-economic status was also another highly significant factor, with a chi-square value of 61.955 at a 1 percent level of significance, where respondents with high socio-economic status had the highest knowledge levels (25.54%). Job experience of anganwadi workers also had a highly significant association since them having 11-15 years of experience showed the highest level of knowledge (46.70%). Lastly, the number of trainings attended was also found to be highly significant, with a chi-square value of 56.403, where respondents who attended more than two trainings had the high level of knowledge (36.67%). These results highlights the significant impact of various socio-economic factors on the knowledge level of Anganwadi workers, focusing on the need of addressing these factors to enhance their knowledge and effectiveness in community work.

Table 3: Association between socio-economic variables and knowledge level of Anganwadi workers: (n=300)

Socio-economic variables		Knowledge Level			
1.	**Age (Years)**	**Low**	**Medium**	**High**	**Total**
i	Up to 35 years	24 (30.80)	33 (42.30)	21 (26.90)	78 (26.00)
ii	35^{+}- 45 years	24 (28.60)	39 (46.40)	21 (25.00)	84 (26.00)
iii	45^{+} -55 years	12 (15.40)	30 (38.50)	36 (46.20)	78 (20.00)
iv	Above 55 years	6 (10.00)	42 (70.00)	12 (20.00)	60 (28.00)
	Total	66 (22.00)	144 (48.00)	90 (30.00)	300 (100.0)
$\chi^2 = 27.683$**					
2.	**Caste**				
i	General	20 (15.87)	62 (49.21)	44 (34.92)	126 (42.00)
ii	B.C.	36 (30.51)	54 (45.76)	28 (23.73)	118 (39.33)
iii	S.C.	10 (17.86)	28 (50.00)	18 (32.014)	56 (18.67)
$\chi^2 = 9.327$*					
3.	**Marital status**				
i	Married	57 (24.68)	105 (45.45)	69 (29.87)	231 (77.00)
ii	Widowed	9 (13.04)	39 (56.52)	21 (30.43)	69 (23.00)
$\chi2 = 4.629$					
4.	**Family Type**				
i.	Nuclear	46 (25.84)	76 (42.70)	56 (31.46)	178 (59.33)
ii	Joint	20 (16.39)	68 (55.74)	34 (27.87)	122 (40.67)
$\chi2 = 5.814$					
5.	**Family size**				
i	Small	30 (22.56)	64 (48.12)	39 (29.32)	133 (44.33)
ii	Medium	34 (23.13)	65 (44.22)	48 (32.65)	147 (49.00)
iii	Large	2 (10.00)	15 (75.00)	3 (15.00)	20 (6.67)
	$\chi2 = 6.754$				
6.	**Education**				
i	Secondary	15 (35.71)	24 (15.14)	3 (7.14)	42 (14.00)
ii	Senior Secondary	30 (32.26)	39 (41.94)	24 (25.81)	93 (31.00)
iii	Under-graduation	21 (15.22)	69 (50.00)	48 (34.78)	138 (46.00)
iv	Post-graduation	0 (0.00)	12 (44.44)	15 (55.56)	27 (9.00)
	$\chi2 = 33.284$**				
7.	**Land holding**				
i	Landless	52 (26.53)	87 (44.39)	57 (29.08)	196 (65.33)
ii	Marginal (< 1 hectare)	10 (23.26)	18 (41.86)	15 (34.88)	43 (14.33)
iii	Small (1-2 hectare)	1 (3.23)	21 (67.74)	9 (29.03)	31 (10.33)
iv	Medium (2-5 hectare)	3 (16.67)	9 (50.00)	6 (33.33)	18 (6.00)
iii	Large (> 5 hectare)	0 (0.00)	9 (75.00)	3 (25.00)	12 (4.00)
$\chi2 = 15.497$					
8.	**Family Income**				
	Up to 1,50,000	18 (40.00)	18 (40.00)	9 (20.00)	45 (15.00)
	1,50,000– 3,00,000	39 (25.66)	57 (37.50)	56 (36.84)	152 (50.70)
	Above 3,00,000	9 (8.74)	69 (66.99)	25 (24.27)	103 (34.30)
$\chi2 = 32.615$**					
9.	**Material possession**				
i	Low	51 (32.69)	66 (42.31)	39 (25.00)	156 (52.000
ii	Medium	15 (12.82)	66 (56.41)	36 (30.77)	117 (39.00)
iii	High	0 (0.00)	12 (44.44)	15 (55.56)	27 (9.00)
$\chi2 = 28.57$**					
10.	**Extension contacts**				
i	Low	36 (50.00)	21 (29.17)	15 (20.83)	72 (24.00)
ii	Medium	30 (14.71)	108 (52.94)	66 (32.35)	204 (68.00)
iii	High	0 (0.00)	15 (62.50)	9 (37.50)	24 (8.00)
$\chi 2 = 46.124$**					
11.	**Social participation**				
	Low	30 (31.26)	39 (40.62)	27 (28.12)	96 (32.00)
	Medium	36 (21.50)	81 (47.37)	54 (31.58)	171 (57.00)
	High	0 (0.00)	24 (72.73)	9 (27.27)	33 (11.00)
$\chi2 = 16.705$**					
12.	**Mass media**				
	Low	24 (66.67)	9 (25.00)	3 (8.33)	36 (12.00)
	Medium	39 (16.46)	123 (51.90)	75 (31.65)	237 (79.00)
	High	3 (11.11)	12 (44.44)	12 (44.44)	27 (9.00)
	$\chi2 = 49.928$**				

13.	**Socio-economic status**				
	Low	54 (41.86)	49 (37.98)	26 (20.16)	129 (43.00)
	Medium	12 (9.67)	60 (48.40)	52 (41.93)	124 (41.33)
	High	0 (0.00)	35 (74.46)	12 (25.54)	47 (15.66)
	$\chi2 = 61.955$**				
14.	**Job Experience**				
	Less than 5 years	21 (36.84)	24 (16.70)	12 (13.30)	57 (19.00)
	6-10 years	21 (29.17)	30 (20.80)	21 (23.30)	168 (24.00)
	11-15 years	15 (15.62)	39 (27.10)	42 (46.70)	65 (32.00)
	16-20 years	6 (3.33)	9 (6.30)	3 (3.30)	10 (6.00)
	21-25 years	21 (36.84)	24 (16.70)	12 (13.30)	57 (19.00)
	More than 25	21 (29.17)	30 (20.80)	21 (23.30)	168 (24.00)
	$\chi2 = 39.525$**				
15.	**No. of Trainings**				
	Only one	39 (46.43)	21 (25.00)	24 (28.57)	84 (28.00)
	Two training	18 (20.00)	39 (43.33)	33 (36.67)	90 (30.00)
	More than two	9 (7.14)	84 (66.67)	33 (26.19)	126 (42.00)
	$\chi2 = 56.403$**				

Figures in parentheses indicate percentage.
**Significant at 1 percent level of significance.
*Significant at 5 percent level of significance.

Conclusion

Research highlights the critical role of anganwadi workers in child development and the noteworthy impact of their socio-economic background on their knowledge levels. In general Urban AWWs exhibited higher knowledge in several child-rearing practices as compared to rural workers, though AWWs from both areas were well-informed about immunization and growth monitoring. Some key socio-economic factors such as age, caste, education, family income, and job experience that were also found to be significantly influencing their knowledge levels. Findings from study also suggest that enhancing the education and training of AWWs, along with improving their socio-economic conditions, could substantially improve their effectiveness in community health programs. To ensure the successful implementation of child health and development initiatives there is a need for continuous education and training programs tailored to the specific needs of AWWs in different socio-economic contexts. Such kind of investment in human resources is important for the overall development and economic growth of the nation as whole.

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