

Research Article

A Pre-Experimental Study to Assess the Effectiveness of Basic Training Programme in Terms of Knowledge and Practice regarding Care of Young Children among Day Care Workers Working in Selected Day Care Centers of New Delhi

Meena Kumari¹, Urmila D Bhardwaj², Anjali Kaushik³

¹M.Sc. Nursing (Child Health Nursing) Student, ²Principal, ³Nursing Tutor, Rufaida College of Nursing, Jamia Hamdard, New Delhi, India.

DOI: <https://doi.org/10.24321/2455.9318.202022>

I N F O

Corresponding Author:

Meena Kumari, Rufaida College of Nursing, Jamia Hamdard, New Delhi, India.

E-mail Id:

meenakoushal3580@gmail.com

Orcid Id:

<https://orcid.org/0000-0002-3378-8979>

How to cite this article:

Kumari M, Bhardwaj UD, Kaushik A. A Pre-Experimental Study to Assess the Effectiveness of Basic Training Programme in Terms of Knowledge and Practice regarding Care of Young Children among Day Care Workers Working in Selected Day Care Centers of New Delhi. *Int J Nurs Midwif Res* 2020; 7(3): 24-30.

Date of Submission: 2020-06-09

Date of Acceptance: 2021-01-06

A B S T R A C T

A day care is a childcare center where care is provided by adults who are not their parents. Day care workers should have adequate knowledge regarding the care of young children. The study aimed to assess the knowledge and practice regarding care of young children in day care centers. Quantitative descriptive research approach was adopted for the study with one group pre-test post-test pre-experimental research design. The study included 30 day care workers working in a day care centre of New Delhi, using purposive sampling. Structured knowledge questionnaire and observation checklists were used for data collection and data was analysed using descriptive and inferential statistics. Results showed that before administration of basic training programmes, 18 (60%) of day care workers had average knowledge scores, 9 (30%) had good knowledge scores and 3 (10%) of day care workers had poor knowledge regarding care of young children. After the administration of the basic training programme, 30 (100%) were having good knowledge. It can be concluded that participants ranked highest (I) in knowledge score of 'Prevention of infections knowledge' followed by rank II of 'Growth and development of child', rank III of 'Nutrition for a child', rank IV 'Personal hygiene', rank V of 'Safety and security' followed by rank VI - 'Qualities of personnel in day care center'. In terms of practice before administration of basic training programme 23 (77%) of study subjects had average practice scores, 4 (13%) had good practice scores and 3 (10%) of day care workers had poor practice scores regarding care of young children. After the administration of the basic training programme, 27(90%) were having good practice and 3 (10%) were having average practice. There was no significant association found between the knowledge and practice score with demographic variables of day care workers.

Keywords: Day Care Workers, Day Care Center, Basic training Programme, Knowledge, Practice

Introduction

A day care or nursery is a childcare center where care is provided by adults who are not their parents. With the increase in the number of nuclear families and working parents, Day care centers is being used by many parents.¹ where babies, toddlers, and young children are cared for in a safe and stimulating surrounding. Crèches mostly cater to the children of parents with full-time or part-time jobs. With the increase in the number of nuclear families and working parents, crèches and Day care centres are being used by many parents.²

Needs of young children are security, stability, consistency, emotional support, love, home, education, and positive role models. Kids must feel safe and sound, with their basic survival needs met. Day care workers should have adequate knowledge regarding the care of young children, importance of knowledge in day care workers to understand overall development of the child.³

Home is a protected environment and a safe place for your child but not exposing him to rowdy environmental conditions may not be good for your child's immunity. Daycare centre is a place where your kid would be interacting with many children. More the child gets exposed to various strains of flu and cold, better it is for his immunity.⁴

The rapid increase in maternal employment over the past 25 years has led to an increase in reliance on child care for young children. This increase represents a dramatic shift in child rearing styles, and has prompted concerns as to whether child care poses any risks to healthy child development.⁵

Four questions have driven research on child care over the past ten years. Chief among them is whether extensive child care in the first year of life disrupts the mother-child attachment relationship. For example, theorists hypothesized that daily separations might cause infants to lose confidence in the availability and responsiveness of their parents and reduce opportunities for interactions. The second area of inquiry concerns the impact of variations in child care quality on children's development, especially with respect to school readiness skills. The third question focuses on hours in care as a risk factor for behavior problems, such as aggression. The fourth area of inquiry concerns the effects of the types of care that have been examined.⁵

There are very limited studies focused in this area especially in Indian setting. Therefore the study aimed at assessing the knowledge of the day care workers in giving the care to young children how much is their knowledge regarding the care of young children and their practice and will provide the basic training programme among the day care workers related to care of young children in selected day care centers of New Delhi. The findings of present study will

help to plan and implement better care to the children in day care center.

Objectives of the Study

- To assess and evaluate the knowledge and practice related to care of young children among day care workers before and after the administration of the basic training programme in selected Day Care centers of New Delhi.
- To prepare the basic training programme related to the care of young children among day care workers.
- To find out the association between knowledge score of day care workers with selected demographic variables i.e. age, education, work experience, previous training regarding care of young children.
- To find out the association between practice score of day care workers with selected demographic variables i.e. age, education, work experience, previous training regarding care of young children.

Materials and Methods

A quantitative research approach was used to assess the effectiveness of basic training programme in terms of knowledge and practice regarding care of young children in day care center among day care workers in selected day care centers of New Delhi. One group pretest-posttest/pre-experimental research design was used. After getting ethical approval from the Institutional Ethical Committee of Jamia Hamdard pilot study and final study were conducted from 16th October 2019 to 8th November 2019. A purposive sampling technique was used to select 30 day care workers working in selected day care centers, who were available during data collection period and were willing to participate in the study were included. The purpose and confidentiality of responses and the anonymity were explained to them. After obtaining their willingness to participate in the study day care workers were observed for the child care practice with the help of structured observation checklist and structured knowledge questionnaire to assess the knowledge. After pre-test administered the basic training programme regarding care of young children in day care centres where contents were included i.e. Qualities of personnel in day care center, personal hygiene, prevention of infections, growth and development of child, nutrition for a child and safety & security. 7 days after administration of basic training programme, post-test with structured knowledge questionnaire and structured observation checklist were used to check the effectiveness of basic training programme, and to find out the association of knowledge and practice with the selected demographic variables (age, gender, language known, education, working experience, any previous training). Descriptive and inferential statistics were used for data analysis.

Result

The findings of the present study were divided into the following sections:

Findings related to Demographic Characteristics of Day Care Workers

Frequency distribution and percentage of the day care workers were computed by their age, gender, language, education, experience, and any awareness programme related to care of young children attended (Table 1 and Figure 1).

Table I. Frequency and percentage distribution of demographic characteristics of day care workers

(n=30)

S. No.	Sample characteristics	Frequency (f)	Percentage (%)
1.	Age (in years)		
	<30	8	26
	31-40	11	37
	40 and above	11	37
2.	Gender		
	Male	-	-
	Female	30	100
	Transgender	-	-
3.	Language known		
	Hindi	17	57

	English	-	-
	Both Hindi and English	13	43
4.	Education		
	Up to Matriculation	14	47
	Higher secondary	3	10
	Graduation and above	13	43
5.	Working experience (in years)		
	<1	2	6
	1-5	14	47
	>5	14	47
6.	Any awareness programme related to care of young children attended		
	Yes	22	73
	No	8	27

The data presented in Table 2 and Figure 2, shows that mean post-test knowledge score (35.43) is higher than mean pre-test knowledge score (27.20) with mean difference of 8.33, This obtained mean difference is found to be statistically significant as evident from 't' value (7.989). Thus, the difference obtained in the mean pre-test and post-test knowledge score is a true difference and not by chance. Standard deviation of posttest (2.063) is indicative of more homogenous score in post- test than the pre-test (5.880).

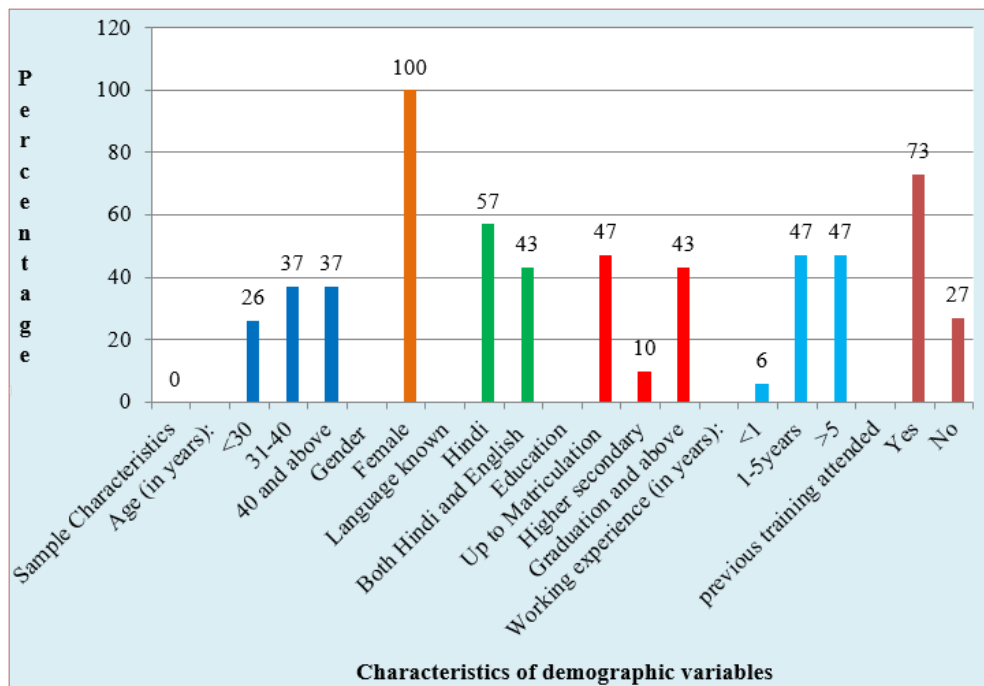


Figure 1. Bar diagram showing the percentage distribution of day care workers with their demographic variables

Table 2. Mean, mean difference, median, standard error of mean difference, standard deviation, range and 't' value of mean pre-test and post -test, knowledge score obtained by day care workers

(n=30)

Knowledge test	Range of obtained score	Mean	Means difference	Median	SD.ED	Standard Deviation	't'	P-value
Pre-test	9-32	27.20	8.33	28.00	1.043	5.880	7.989	0.000*
Post test	31-40	35.43		36.00		2.063		

*significant at 0.000 level of significance.

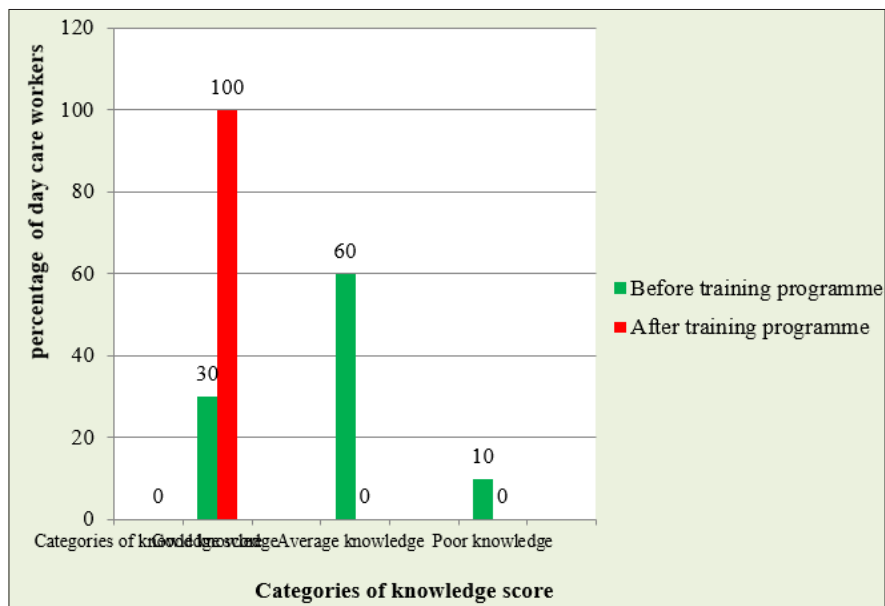


Figure 2. Bar diagram showing the percentage distribution of pre-test and post-test knowledge score of day care workers

Findings Related to Area Wise Rank Order in Pre-test and Post-test Knowledge Score of Day Care Workers

Table 3. Area wise mean, modified mean, modified mean percentage, modified mean percentage gain and rank order in pre-test and post-test knowledge score of the study subjects

(n=30)

Areas of knowledge	Maximum score	Pre-test			Post-test			Modified mean (%) gain	Rank order of modified mean (%) gain
		Mean	Modified mean	Modified mean (%)	Mean	Modified mean	Modified mean (%)		
Qualities of personnel in day care center	5	3.9	0.78	78	4.56	0.9	90	12	VI
Growth and development of child	4	2.3	0.575	57.5	3.26	0.815	81.5	24	II
Personal hygiene	5	3.5	0.7	70	4.633	0.926	92.6	22.6	IV
Nutrition for a child	8	4.9	0.612	61.25	6.7	0.837	83.75	22.5	III
Prevention of infections	5	2.8	0.56	56	4.06	0.812	81.2	25	I
Safety and security	13	9.5	0.73	73	12.2	0.93	93	20	V

The data presented in Table 3, it can be concluded that participants ranked highest (I) in knowledge score of -'Prevention of infections knowledge' with modified mean (%)gain value(25) and participants ranked the least for their

knowledge scores of rank VI - 'Qualities of personnel in day care center' with modified mean (%) value (12) as per their modified mean percentage gain.

Findings Related to Practice Score of Day Care Workers before and After Administration of Basic Training Programme

Table 4. Mean, mean difference, median, standard error of mean difference, standard deviation, range and 't' value of practice score before training and practice score after training obtained by day care workers

(n=30)

Observation test	Range of obtained score	Mean	Means difference	Median	Sd.Ed	Standard Deviation	't'	P-value
Practice score before training	14-28	19.46	5.63	19.50	0.497	3.082	11.33	0.000*
Practice score after training	17-29	25.10		25.00		2.339		

*significant at 0.00 level of significance.

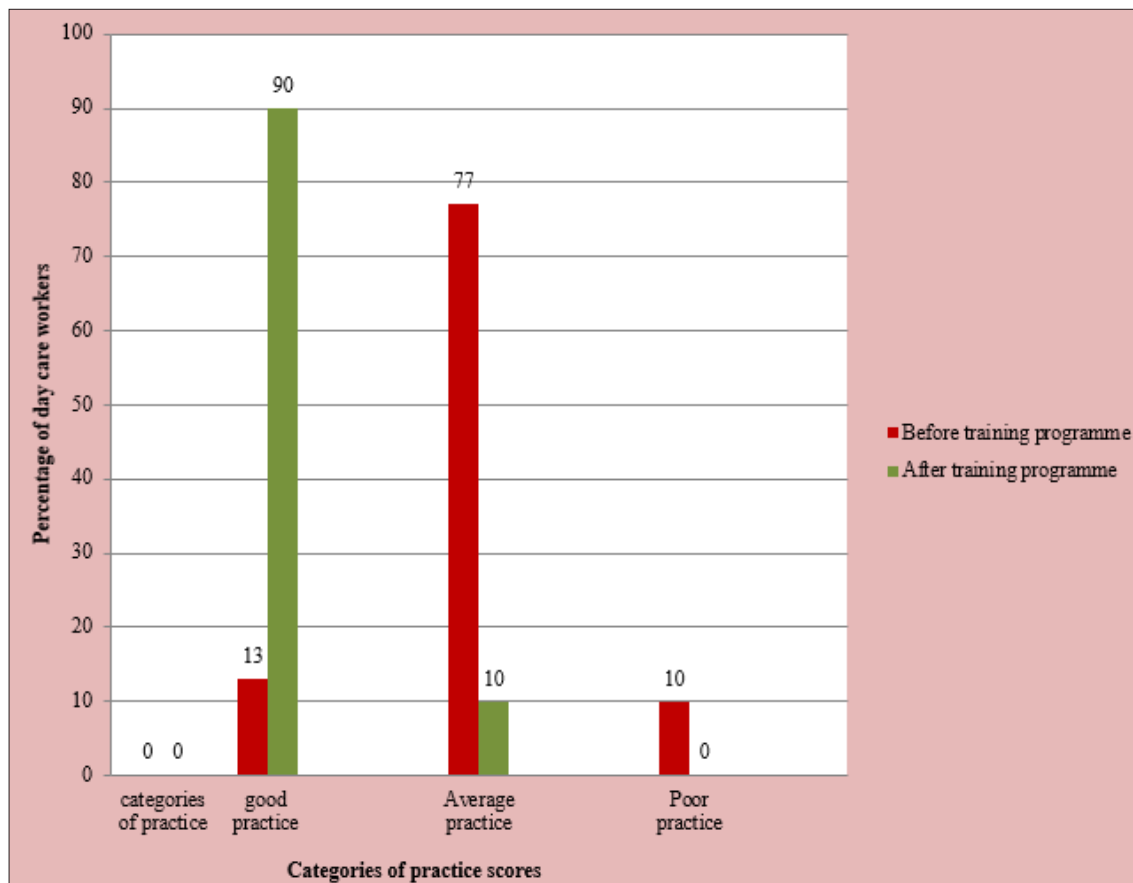


Figure 3. Bar diagram showing the percentage distribution of practice score before training programme and after training programme to day care workers

The data presented in Table 4, shows that mean practice score after training (25.10) is higher than mean practice score before training (19.46) with mean difference of 5.63, this obtained mean difference is found to be statistically significant as evident from 't' value (11.33). Thus, the

difference obtained in the mean practice score before and after training is a true difference and not by chance. Standard deviation of practice score after training (2.339) is indicative of more homogenous score in practice score after training than the practice score before training (3.082).

Findings Related to Association between Pre-test with Selected Demographic Variable i.e. Age, Education, Working Experience and Previous Training

Table 5. Association of knowledge score of day care workers with selected demographic variables i.e. age, education, working experience and previous training

(n=30)

Selected variables	Knowledge score		P-value by using Fisher's exact test
	Below mean	Above mean	
Age (in years)			
<30	5	3	0.58
31-40	4	5	
>4	5	8	
Education qualification			
Up to matriculation	8	6	0.57
Higher secondary	1	2	
Graduate and above	5	8	
Working experience (in years)			
<1	1	1	0.18
1-5	9	5	
>5	4	10	
Attendance of any training programme regarding child care			
Yes	10	12	1.0
No	4	4	

$p > 0.05$, hence not significant at 0.05 level of significance.

Table 5, describes the association of knowledge score of day care workers with selected demographic variables. The data was analyzed by using Fisher's Exact test with selected demographic variables i.e. age, education, working experience and attendance of any previous training regarding care of young children.

The data presented in Table 5, indicates that there is no significant association between the knowledge score and demographic variables of day care workers.

Findings related to Association between pre-test with Selected Demographic Variable i.e. Age, Education, Working Experience and Previous Training

Table 6 describes the association of practice score of day care workers with selected demographic variables. The data was analyzed by using Fisher's Exact test with selected demographic variables i.e. age, education, working experience and attendance of any previous training regarding care of young children.

The data in Table 6, indicates that there is no significant association between the practice score and demographic variables of day care workers.

Table 6. Association between practice score of day care workers before training related to care of young children with selected demographic variables

(n=30)

Selected variables	Observation score		P-value by using Fisher's Exact test
	Below mean	Above mean	
Age (in years)			
<30	4	4	0.42
31-40	3	6	
>40	8	5	
Education qualification			
Up to matriculation	7	7	1.0
Higher secondary	2	1	
Graduate and above	6	7	
Working experience (in years)			
<1	0	2	0.61
1-5	7	7	
>5	8	6	
Attendance of any training programme regarding child care			
Yes	12	10	0.68
No	3	5	

$p > 0.05$, hence not significant at 0.05 level of significance.

Discussion

The present study was aimed to assess the effectiveness of basic training programme in terms of knowledge and practice regarding care of young children in day care center among day care workers.

In the present study findings of the study revealed that the day care workers working in a day care center had average level of knowledge and practice about care of young children before intervention. This could be due to the fact that they are not getting proper training regarding care of young children. And some of the workers are not much educated to pursue a special course regarding child care and they are involved in the maximum care given to children. Also there was no statistically significant association between knowledge and practice with demographic variables. This may be because of the fact that it takes time to change one's practice regarding care of young children as everybody can't handle the young child as it needs too much of love and affection and soft heart to care a child. While giving care

to a child or handle them we need to understand them by keeping ourselves at their level no matter at what age we are to make that relationship, bond and to gain their confidence. Similar study was conducted by Jayakody HG, Attygale DE.⁶ to assess knowledge, attitude and practice on child feeding and factors associated with knowledge and attitudes among child care providers of pre-schools in Nuwaeraeliya district result shows that there was a significant difference between the pre-test and post-test knowledge score of child care providers which are similar to the findings of the present study. In the same study statistically significant associations were observed between knowledge score with demographic variables like education, and attendance of in-service programme which are in contrast with the findings of the present study where no significant association was found with knowledge score and selected demographic variables.

A study conducted by Espinosa, Busch, Patterson,⁷ emphasized on evaluation of an in-service model to train child care providers home and centre based child caregivers were randomly assigned to training and control groups. Caregivers received training on inclusion, attended group meetings and observed either live or videotaped on-site demonstrations. Caregivers who received training scored significantly higher on an observation scale and self-rating questionnaire than control caregivers, but there were no significant differences between video versus live training presentations.

In a cross sectional study, 402 caregivers in 3 district in Alexandria Egypt were included.⁸ Data was collected on caregivers personal characteristics, knowledge about infectious disease and best infection control practices before and after training session and it was found that there was a significant difference in the post-test knowledge score regarding prevention of infection which is in line with the findings of the present study where post-test knowledge score regarding prevention of infection increased by 25%.

Standard basic training and well organized in-service training regarding child care are some of the factors which help in improving the knowledge and practice of day care workers regarding child care.

Conclusion

The conclusion drawn on the basis of study are:

1. Knowledge of day care workers working in day care centers regarding care of young children was found to be average before administration of basic training programme and post-test knowledge score was good.
2. Knowledge regarding qualities of personal in day care center was found in the lowest rank.
3. There was no statistically significant association between the knowledge scores with demographic variables at 0.05 level of significance.
4. There is a need for organizing the training programme regarding care of young children to the day care workers working in a day care center to update the knowledge regarding care of young children that needs to be followed by the demonstrations for healthy child care practices by the nursing students during their posting. So that the day care workers can improve their knowledge and practice regarding care of young children.
5. It should include regular training programme to the day care workers working in a day care center by the pediatric nurse during posting or by the well trained person.
6. In the findings of the present study was found that the administration of the basic training programme on care of young children in day care center was found effective in improving knowledge and practice among day care workers. There were significant difference found in the pre-test and post-test mean knowledge score of day care workers. Day care workers play an important role in providing the care to the young children and for that they should be adequately trained.

Conflicts of Interest: None

References

1. Choosing a crèche or a day care vs. hiring a household help. Available from: <https://www.babycenter.in/a1024035/choosing-a-cr%C3%A8che-or-a-daycare-vs-hiring-a-household-help>.
2. Baby centre, Available from internet <https://www.babycenter.in/a1024035/choosing-a-cr%C3%A8che-or-a-daycare-vs-hiring-a-household-help>
3. Harley R. Children's hospital Colorado, what every child needs. Available from: <https://www.childrenscolorado.org/conditions-and-advice/parenting/parenting-articles/what-children-need/>.
4. First cry parenting pros-cons of day care available from: <https://parenting.firstcry.com/articles/daycare-centre-for-children-pros-and-cons>
5. McCartney K. Current research on child care effects. Encyclopedia on early childhood development. Available from: <http://www.child-encyclopedia.com/child-care-early-childhood-education-and-care/according-experts/current-research-child-care-effects>. 2007.
6. Jayakody HG, Attygale DE. Knowledge, attitude and practice on child feeding and factors associated with knowledge and attitudes among child care providers. *Journal of the College of Community Physicians of Sri Lanka* 2015.
7. Espinosa, Busch, Patterson. Evaluation of an in-service model to train child care providers about inclusion. *Journal of Research in Childhood Education* 1998; 12(2): 130-142.
8. Tahoun M. Knowledge about infectious disease and best infection control practices. *Journal of Egyptian Public Health Association* 2019.