Research Article

Effectiveness of Structured Teaching Program on Knowledge among the Anganwadi Workers Regarding Behavioral Problems of Pre-schoolers

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ABSTRACT

Aim and Objectives: The objective of this study was to assess the effectiveness of structured teaching program on knowledge among the Anganwadi workers (AWWs) regarding behavioral problems of pre-schoolers. The present study was carried out assess the knowledge among AWWs related to behavioral problems of pre-schoolers in selected rural areas and the effectiveness of structured teaching program among the AWWs regarding behavioral problems of pre-schoolers in selected rural areas along with its association. **Materials and Methods:** A total 100 AWWs were selected. The data were collected using structured knowledge questionnaires. The structured teaching program was administered on the day 1 followed the pre-test. On the 7th day, post-test was conducted to assess the gain in knowledge using the same structured knowledge questionnaire. **Results:** Findings revealed that highest percentage 34% of the sample are age between 41 and 50 year, 40% had completed higher secondary education, and majority of the AWWs 48% of the samples had work experience which is between 9 and 16 years. In the present study, the highest percentage 46% of the AWWs interaction with preschoolers was 7–8 times in a month. The pre-test knowledge score of AWWs revealed that majority 61% of AWWs had good (11–15) knowledge about behavioral problems of pre-schoolers. In post-test, majority of the AWWs 49% of AWWs had very good (16–20) and 49% of excellent (21–25) knowledge about behavioral problems in pre-schoolers. Findings show that the pre-test knowledge mean score was 12.13 and post-test mean score was 20.33, after structured teaching program. **Conclusion:** The present study shown that significant difference in the pre-test and post-test knowledge score of AWWs, which shows structured teaching program was effective.

Keywords: Anganwadi workers, Behavioral problems, Breschoolers

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Introduction

Early childhood is the crucial period in behavior formation. During this period, the child is most malleable, and it is then that many barriers to normal development are erected

significant emotional or behavioral problems are often not detected until affected children being school. Moreover, even in moderately severe cases, children with emotional and behavioral problems may not revive appropriate screening and intervention until they have been in school for several years. Hence, early recognition can prevent problem behaviors from becoming the standard.[1] As these little ones enter the milestone phase of preschool, they experience a sense of increased independence. However, along with that feeling of independence, came a whole lot of behavioral problems. Parent of pre-schoolers become all too familiar with temper tantrums, disobedience, defiance, and other such issues.[2] All children will at some developmental stage display repetitive behaviors, but whether they may be considered as disorders depends on their frequency and persistence and the effect they have on physical, emotional

and social functioning. These habit behaviors may arise originally from intentional movements which become repeated and then incorporated into the child's customary behavior.[3] Some habits arise in imitation of adult behavior. Other habits such as hair pulling or head banging develop as a means of providing a form of sensory input and comfort when the child is alone.[4]

The "Anganwadi" literally means a courtyard play center. It is a childcare center located within the village or the slum area. She is assisted by a helper local woman, other frontline workers, including the gram sevikas, primary school teacher, local women's group, Mahila Mandals, youth clubs, local organizations, Panchayat Samitis, and Balvikas Mahila Samiti members. They provide support to the Anganwadi worker (AWW) who in turn provides integrated services and improved linkages with the health system, thus increasing the capacity of community and mothers for childcare, survival, and development.[5] Preschool children are of paramount importance in determining the future behaviors of children. Preschool behavior problems are now being recognized as clear indicator of difficulties that may persist into later childhood.[6]

According to Indian Council of Medical Research (2009), overall prevalence of mental and behavioral disorder in Indian children to be 12.5%. Studies conducted in rural and urban areas of different parts of India suggest prevalence of behavior disorder ranges from 1.6% to 41.3%.[7]

There are very few studies on behavioral problems in pre-schoolers. The investigator has not come across this type of study on AWWs. They are the future teachers going to teach 4–6 years. of children. Hence, there is a growing expectation that AWWs should not only act as educators by delivering the national curriculum, but also more involved as tier one mental health professionals. In this role, they are expected to assume some responsibility in the early identification of children's mental health problems and to refer these children for appropriate metal support. Hence, this is to provide necessary information to the AWWs keeping in view the changing trends in the behavioral problems in pre-schoolers. Hence, the investigator has felt the need for providing structured teaching program which will helps to identifying common behavioral problems among pre-schoolers to provide sufficient information to the target group AWWs.[8]

The AWWs are actively involved in achieving the objectives of the Anganwadi health program. They impart health education in the academic sense, play a role influencing the daily behavior of their students and intervene directly and indirectly in minor and major health problems. Since AWWs are influential member of the community, they create a bridge between children, parents, and also involved in the health care of Anganwadi children.[9]

Thus, in the present study, effectiveness of structured teaching program on knowledge among the AWWs regarding behavioral problems of pre-schoolers in selected rural areas was assessed.

Research Design

In this study, a one group pre-test and post-test (pre experimental) design was used to observe the effectiveness of structured teaching program on knowledge among AWWs regarding behavioral problems of pre-schoolers in selected rural areas.

Setting of the study

The study was conducted in the selected area of the rural community of the city which comes under Panchayat Samiti of the selected city. The approval for the study was granted by the Child Development Project Officer (CDPO) of the selected area. The setting was selected due to availability of samples, feasibility of conducting study, and ethical clearance.

Variables

In the present study, the dependent variable is the knowledge of AWWs regarding behavioral problems of pre-schoolers, whereas structured teaching program on behavioral problems of pre-schoolers is the independent variable.

Sampling technique

The samples for the study were AWWs working in selected area. Only those who fulfilled the inclusion criteria were selected for the study. In present study, probability, systematic random sample technique was used to select 100 AWWs from selected rural area. Group of 100 samples selected from the population of 500 AWWs. All the AWWs placed in a list and starting point selected by random selection, the list is formed, by selecting every 5th person on the list chosen as a participant, since 500/100 = 5.

Sample selection

Inclusion criteria

AWWs who are:
a. Willing to participate in the study.
b. Age group between 18 and 65 years.
c. Available in the time of study.
d. Able to understand Marathi language.

Exclusion criteria

AWWs who are:
a. Not willing to participate.
b. Unavailability during structured teaching program.
c. AWWs who have already received the training on behavioral problems in pre-schoolers in the past 6 months.

Pilot study

The pilot study was conducted in one of the selected rural area from 23 October 2019 to 29 October 2019. The pilot study was conducted on 10 subjects. Confidentiality was assured to all the subjects and written consent was obtained from them. They were selected for the pilot study using systematic random sampling technique. A questionnaire on knowledge among AWWs regarding behavioral problems of pre-schoolers in selected rural area of the city was prepared. Pre-test was done on day 1st on each sample. On day 7th, post-test was done. The data analyzed which showed a difference between pre-intervention and post-intervention. In the pilot study, tool was found satisfactory in terms of simplicity, clarity, and feasible to conduct the main study.

Data collection

Before the actual data collection, the following formalities were completed:
1. Approval from the research committee member and written permission from head of institution to conduct research.
2. The investigator introduced self, explained the study of the purpose to the CDPO and Anganwadi supervisors.

The data were collected from 18/11/2019 to 28/11/2018. Prior the data collection permission was obtained from the authorities from Mr. Ravindra Talpe, CDPO and Anganwadi supervisors.

Semi structured questionnaire on behavioral problems of pre-schoolers to obtain pre-test score and structured teaching program on behavioral problems of pre-schoolers as intervention from 18/11/2019 to 24/11/2019 later post-test was conducted from 25/11/2019 onward with the same questionnaire. The total 100 AWWs were divided in to four groups according to their working area. Each group consisted of 25 staff nurses from respective area. One the day, one pre-test and structured teaching program was administered, and on day 7th, post-test was conducted.

- Group 1 – Pre-test and structured teaching program – 18/11/2019 and post-test on 25/11/2019.
- Group 2 – Pre-test and structured teaching program – 19/11/2019 and post-test on 26/11/2019.
- Group 3 – Pre-test and structured teaching program – 20/11/2019 and post-test on 27/11/2019.
- Group 4 – Pre-test and structured teaching program – 21/11/2019 and post-test on 28/11/2019.

Data analysis

Data were analyzed by descriptive analysis (frequency, percentage, mean, and standard deviation) and inferential statics (paired t-test and Chi-square test).

Result/interpretation of data

General information related to the demographic variables

Table 1 deals with the analysis of the demographic data of selected variables such as age, education, work experience, and AWWs monthly interaction with parents.

Table 2 shows that among 100 samples, age of the samples 10% of the samples age between 21 and 30 years, 28% of

Table 1: Demographic data of selected variables n= 100

Presentation of demographic variables		
Demographic variables	Frequency	Percentage
Age in years		
21–30	10	10.0
31–40	28	28.0
41–50	34	34.0
51–60	20	20.0
61 and above	8	8.0
Education		
Secondary education	0	0.0
Higher secondary	13	13.0
Graduation	40	40.0
Others	35	35.0
Work experience in years		
1–8 years	15	15.0
9–16 years	48	48.0
17–24 years	10	10.0
25–32 years	17	17.0
33 and above	10	10.0
Anganwadi workers monthly interactions with parent in times		
1–2 times	0	0.0
3–4 times	29	29.0
5–6 times	25	25.0
7–8 times	46	46.0

Table 2: Distribution of Anganwadi workers according to age n= 100

Demographic variables	Frequency	Percentage
Age in years		
21–30	10	10.0
31–40	28	28.0
41–50	34	34.0
51–60	20	20.0
61 and above	8	8.0
Total	100	100.0

Table 3: Distribution of Anganwadi workers according to education n= 100

Demographic variables	Frequency	Percentage
Education		
Primary education	0	0.0
Secondary education	13	13.0
Higher secondary	40	40.0
Graduation	35	35.0
Others	12	12.0
Total	100	100.0

the samples age between 31 and 40 years, 34% of the sample age between 41 and 50 years, and 20% of the samples age between 51 and 60 years and 8% of the samples are among age 61 and above.

Table 3 shows that 13% AWWs had completed secondary education, while 40% had completed higher secondary education and 35% had completed graduation and 12% had completed other educations such as diploma or basic course.

Table 4 shows that 15% of the samples had work experience which is between 1 and 8 years, 48% of the samples had work experience which is between 9 and 16 `years, 10% of the samples had work experience which is between 17 and 24 years, 17% of the samples had work experience which is between 25 and 32 years, and 10% of the samples had work experience of 33 years and above.

Table 5 shows that AWWs monthly interaction shows that almost 29% of the samples monthly interaction with parents is up to 3–4 times, 25% of the samples monthly interaction with parents is up to 5–6 times, and highest percentage, that is, 46% of the AWWs monthly interacted 7–8 times.

Table 6 shows pre-test knowledge score projects that 1% AWWs had poor knowledge, 27% had average knowledge, 61% had good knowledge, 9% had very good knowledge, and 2% had excellent knowledge.

In Table 7, pre-test projected that 1% of AWWs had poor (0–5) knowledge about behavioral problems in pre-schoolers. About 27% of AWWs had average (6–10) knowledge, 61% of AWWs had good (11–15) knowledge, and 9% had very good knowledge, whereas 2% of AWWs had excellent (21–25) knowledge about behavioral problems in pre-schoolers (0–5). While, in post-test, 1% of the AWWs had Average knowledge (6–10), as well as good knowledge (11–15) about behavioral problems in pre-schoolers, whereas 49% of AWWs had very good (16–20) and excellent (21–25) knowledge about behavioral problems in pre-schoolers, respectively. This indicates that knowledge of the AWWs improved significantly after giving structured teaching program, as planned for study.

Table 8 shows that, since $P < 0.001$, the difference between the pre-test and post-test scores is highly significant at 1% level of significance. This shows that the structured teaching program regarding behavioral problems of pre-schoolers is effective on AWWs.

In Table 9, as $P < 0.001$, the difference between the pre-test and pst-test scores is highly significant at 1% level of significance. This shows that the structured teaching program regarding behavioral problems of pre-schoolers is effective on AWWs.

In Table 10, paired t-test was applied. Average pre-test score was 12.13 which increased to 20.33 in post-test.

Table 11 shows association between study findings with selected demographic variables of AWWs. Since all the P-value is large (greater than 0.05), none of the demographic variables were found to have significant association with knowledge of AWWs.

Discussion

Behavior problems among children are a deviation from the accepted pattern of behaviors on the part of the children when they are exposed to an inconsistent social and cultural environment. However, these are not to be equated with the presence of psychiatric illness in the child as these are only the symptoms or reactions to emotional and environmental stress.[10] In the school environment, a teacher may be the first adult to witness a child having a convulsion. Each child's behavior will vary according to the type of convulsion; therefore, the teacher should have the basic knowledge about the management of convulsion to provide first and foremost care to the child to save its life.[3] The AWW is the community-based voluntary frontline worker. Selected from the community, she assumes a pivotal role due to her close and continuous contact with the beneficiaries. Her educational level and knowledge of nutrition plays an important role related to her performance in Anganwadis centers.[4]

The findings of the study are discussed with reference to the results obtained by another investigator. The study was pre-experimental in nature. It was conducted among AWWs in selected rural areas. The primary purpose of the study was to find out the effectiveness of structured teaching program on knowledge of AWWs regarding behavioral problems of pre-schoolers. The study was conducted during the period 18/11/2019 to 30/11/2019. The pre-test taken and structured teaching program carried out November 18, 2019– November 21, 2019. The post study done exactly on 7th day after pre-test, that is, from November 27, 2019 to November 30, 2019, respectively.

The present study was conducted with the purpose to assess the effectiveness of structured teaching program on knowledge among AWWs regarding behavioral problems of pre-schoolers. Score of 100 subjects included in the study and find out the effectiveness of structured teaching program on knowledge among AWWs regarding behavioral problems of pre-schoolers. Age shows that among 100 samples, age of the samples 10% (10) of the samples age between 21 and 30 years, 28% (28) of the samples age between 31 and 40 years, 34% (34) of the sample age between 41 and 50 years, and 20% (20) of the samples age between 51 and 60 years and 8% (8) of the samples are among age 61 and above. Educational distribution shows that 13% (13) had completed secondary education, while 40% (40) had completed higher secondary education and 35% (35) had completed graduation and 12% (12) had completed other educations such as diploma or basic course.

Table 4: Distribution of Anganwadi workers according to work experience *n*=100

Demographic variables	Frequency	Percentage
Work experience in years		
1–8 years	15	15.0
9–16 years	48	48.0
17–24 years	10	10.0
25–32 years	17	17.0
33 and above	10	10.0
Total	100	100.0

Table 5: Distribution of AWWs according to monthly interactions with parent in times *n*=100

Demographic variables	Frequency	Percentage
AWWs monthly interactions with parent in times		
1–2 times	0	0.0
3–4 times	29	29.0
5–6 times	25	25.0
7–8 times	46	46.0
Total	100	100.0

AWWs: Anganwadi workers

Table 6: Level of knowledge among Anganwadi workers regarding behavioral problems of pre-schoolers *n*=100

Knowledge	Pre-test	
	Frequency	Percentage
Poor	1	1.0
Average	27	27.0
Good	61	61.0
Very good	9	9.0
Excellent	2	2.0

Work experience shows that 15% (15) of the samples had work experience which is between 1 and 8 years, 48% (48) of the samples had work experience which is between 9 and 16 `years, 10% (10) of the samples had work experience which is between 17 and 24 years, 17% (17) of the samples had work experience which is between 25 and 32 years, and 10% (10) of the samples had work experience which is in 33 years and above. AWWs monthly interaction shows that almost 29% (29) of the samples monthly interaction with parents is up to 3–4 times, 25% (25) of the samples monthly interaction with parents is up to 5–6 times, and highest percentage, that is, 46% (46) of the AWWs monthly interacted 7–8 times.

Pre-test projected that 1% of AWWs had poor (0–5) knowledge about behavioral problems in pre-schoolers. About 27% of AWWs had Average (6–10) knowledge, 61% of AWWs had good (11–5) knowledge, and 9% had very good knowledge, whereas 2% of AWWs had excellent (21–25) knowledge about behavioral problems in pre-schoolers (0–5). While, in post-test, 1% of the AWWs had average (6–10) as well as good (11–15) knowledge about behavioral problems in pre-schoolers, whereas 49% of AWWs had very good (16–20) and excellent (21–25) knowledge about behavioral problems in pre-schoolers, respectively.

This indicates that knowledge of AWWs regarding behavioral problems in pre-schoolers increased after implementing structured teaching program on behavioral problems in pre-schoolers. The average knowledge score of AWWs in pre-test was 12.13 which increased to 20.33 in post-test.

Table 7: Effectiveness of structured teaching program on knowledge among the Anganwadi workers regarding behavioral problems of pre-schoolers *n*=100

Knowledge	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Poor	1	1.0	0	0.0
Average	27	27.0	1	1.0
Good	61	61.0	1	1.0
Very good	9	9.0	49	49.0
Excellent	2	2.0	49	49.0

Table 8: Pre-test and post-test knowledge score of Anganwadi workers *n*=100

Paired sample statistics: Effectiveness of structured teaching program					
	Mean	Standard deviation	*t* value	*P* value	Significant level
Pre-test score	12.13	2.87	23.63	<0.001	Significant
Post-test score	20.33	2.25			

Table 9: Effectiveness of the structured teaching program on knowledge among AWWs regarding behavioral problems of pre-schoolers *n*=100

Score at	Number of samples	Knowledge score			*P*-value	Level of significance
		Mean	Standard deviation	df		
Pre	100	12.13	2.87	99	<0.001	Significant
Post	100	20.33	2.25			

Table 10: Effectiveness of structured teaching program on knowledge among AWWs about behavioral problems in pre-schoolers

Demographic variables	Frequency	Percentage	Pre-test						Post-test						
			Poor	Average	Good	Very good	Excellent	P-value	Poor	Average	Good	Very good	Excellent	P-value	Significance
Age															
21–30	10	10.0	0	1	8	1	0	0.670	0	0	0	6	4	0.590	Not Significant
31–40	28	28.0	0	8	18	2	0		0	0	0	13	15		
41–50	34	34.0	0	7	22	3	2		0	1	1	14	18		
51–60	20	20.0	1	8	9	21	0		0	0	0	9	11		
61 and above	8	8.0	0	3	4	9	0		0	0	0	7	1		
Education															
Secondary education	0	0.0	0	8	4	1	0	0.126	0	0	0	9	4	0.771	Not Significant
Higher secondary	13	13.0	1	12	24	3	0		1	1	1	18	20		
Graduation	40	40.0	0	4	26	4	1		0	0	0	16	19		
Others	35	35.0	0	3	7	1	1		0	0	0	6	6		
Work experience in years															
1–8 years	15	15.0	0	3	9	3	0	0.360	0	0	1	8	6	0.676	Not significant
9–16 years	48	48.0	0	12	33	3	0		0	1	0	21	26		
17–24 years	10	10.0	0	3	5	1	1		0	0	0	5	5		
25–32 years	17	17.0	1	6	9	1	0		0	0	0	8	9		
33 and above	10	10.0	0	3	5	1	1		0	0	0	7	3		
AWWs monthly interactions with parent in times															
1–2 times	0	0.0	0	0	0	0	0	0.326	0	0	0	0	0	0.885	Not significant
3–4 times	29	29.0	0	4	22	3	0		0	0	0	14	15		
5–6 times	25	25.0	0	8	16	1	0		0	1	0	15	10		
7–8 times	46	46.0	1	15	23	5	2		0	1	1	20	24		

AWWs: Anganwadi workers

Table 11: Association between study findings with selected demographic variables

Demographic variable	Frequency	Percentage	Pre-test		Post-test	
			Chi-Square	*P*-value	Chi-Square	*P*-value
Age in years						
21–30	10	10.0	13.04	0.670	9.79	The *P*-value is 0.590
31–40	28	28.0				The result is not significant at *P*<0.05
41–50	34	34.0				
51–60	20	20.0				
61 and above	8	8.0				
Education						
Secondary education	13	13.0	17.47	0.126	5.38	The *P*-value is 0.771
Higher secondary	40	40.0				The result is not significant at *P*<0.05
Graduation	35	35.0				
Others	12	12.0				
Work experience in years						
1–8 years	15	15.0	17.4	0.360	9.29	The *P*-value is 0.676
9–16 years	48	48.0				The result is not significant at *P*<0.05
17–24 years	10	10.0				
25–32 years	17	17.0				
Anganwadi workers monthly interactions with parent in times						
1–2 times	0	0.0	9.09	0.326	3.8	The *P*-value is 0.885
						The result is not significant at *P*<0.05

Conclusion

Structured teaching program was found to be significantly effective in increasing knowledge of AWWs regarding behavioral problems of pre-schoolers.

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