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"A study to evaluate the effectiveness of self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers at selected schools, Vadodara Gujrat"

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Primary school teachers, knowledge,self-instructional module (SIM), the early identification and management of conduct disorder in children.

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ABSTRACT

conduct disorder as groups of repetitive and persistent behaviors, including aggression to people or animals, destruction of property, deceitfulness or theft, and serious violation of rules in children and adolescents aged under 18 years. Conduct disorder is widespread among school especially elementary schools. The prevalence of conduct disorder in male estimated that 12%, while in female equivalent 7.1% in the United States. **Objective:** 1) To assess the level of knowledge primary school teachers regarding early identification and management of conduct disorder in children. 2) To find out the difference between the mean pre-test and post-test knowledge scores of primary school teachers regarding early identification and management of conduct disorder in children. 3) To determine the association between the mean pre-test knowledge level of primary school teachers regarding early identification and management of conduct disorder in children with their selected socio demographic variables.

Methods: A quantitative pre-experimental, one-group pre-test post-test design was conducted at Parul schools Vadodara Gujrat with 50 primary school teachers using non-probability purposive sampling. A self-structured knowledge questionnaire was administered before and after the teaching intervention. Data were analyzed using descriptive statistics, paired t-test, and chi- square test.

Results: The overall mean pre -test and post- test knowledge scores of primary school teachers from selected school of the city which reveals that post -test mean knowledge score was higher 10.80 with SD of ±2.75 when compared with mean pre- test knowledge score which was 8.60 with SD of ±245. The statistical Student's paired t test implies that the difference in the pre -test and post -test knowledge among primary school teachers was found to be T-value 2.010 and P-value 11.55. which is statistically significant at 0.05% level of significance. Hence it is statistically interpreted that self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers was effective. **Conclusion:** The study revealed with the assumption of the study that the knowledge level of primary school teachers the early identification and management of conduct disorder in children is high.

Introduction: - The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5-TR) defines conduct disorder as groups of repetitive and persistent behaviours, including aggression to people or animals, destruction of property, deceitfulness or theft, and serious violation of rules in children and adolescents aged under 18 years.[1] Children or adolescents who suffering from conduct disorder will exhibit aggressive behaviour. On the other hand, it was reported that the symptoms of aggression are more apparent in boys than girls in form of physical aggression and criminal behaviours while, girls appear bullying emotionally, engaging in sexual activity, and substance abuse.[2] Conduct disorder is widespread among school especially elementary schools. The

prevalence of conduct disorder in male estimated that 12 %, while in female equivalent 7.1% in the United States (4). The worldwide prevalence of conduct disorder among children and adolescent which aged 6-18 years is 3.2%

(5). The prevalence of conduct disorder in Saudi Arabia occurs between ages 2 - 17 years and the estimated rate is 20%. On the other hand, the prevalence rate in the Middle East is estimated by 32.9% among Iranian and 25.3% among Egyptian children between ages 6-12 -year-old.[3]

Objectives: 1. To assess the level of knowledge primary school teachers regarding early identification and management of conduct disorder in children. **2.** To find out the difference between the mean pre-test and post-test knowledge scores of primary school teachers regarding early identification and management of conduct disorder in children. **3.** To determine the association between the mean pre-test knowledge level of primary school teachers regarding early identification and management of conduct disorder in children with their selected socio demographic variables.

Hypothesis: - H1-: - There will be significant difference between the mean pre-test and post- test knowledge scores of primary school teachers regarding early identification and management of conduct disorder in children.

H2- There will be significant association between the mean pre-test knowledge level of primary school teachers regarding early identification and management of conduct disorder in children with their selected socio-demographic variables.

Material and method: - The present study sample comprised of 50 primary school teachers who were working in the of selected schools at Vadodara Gujrat, selected through non- probability purposive sampling technique. The purpose of the study was explained to the respondents and informed consent was obtained. Confidentiality was assured to all the subjects to get their cooperation. A pre-test was conducted using structured knowledge questionnaire to assess the Knowledge of 50 primary school teachers who were working in the of selected schools at Vadodara Gujrat. The structured knowledge questioner was given to each respondent to answer the questions as per their knowledge for the pre-test. Time taken by the primary school teachers for solving the questionnaire was 20-25 minutes, then self-instructional module (SIM) was taken on the same day and then post-test was administered on the 7th day by using the same questionnaire. The time required by the primary school teachers for solving questionnaire in post-test was 15-20 minutes. Data were analyzed using descriptive statistics to summarize demographic data, a paired t-test to compare pre- and post-test knowledge scores, and the chi-square test to examine the association between pre-test knowledge scores and selected demographic variables.

Data Collection Procedure: Ethical approval obtained. Pre-test conducted using the questionnaire. Self-instructional module (SIM), delivered. Post-test administered after one week.

Data Analysis: Descriptive statistics for demographic data. Paired t-test for knowledge score comparison. Chi-square test for association with demographic variables.

Ethical Considerations: - Approval obtained from institutional ethics committee. Informed consent taken. Confidentiality maintained.

DATA ANALYSIS AND INTERPRETATION- The analysis and interpretation of the observations are given in the following section:

•**Section A:** Distribution of primary school teachers with regards to demographic variables.

•**Section B:** Assessment of pre-test and post-test knowledge regarding early identification and management of conduct disorder in children among primary school teachers.

•**Section C:** Analysis of effectiveness of self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers.

•**Section D:** Association of pre-test and post-test knowledge score the early identification and management of conduct disorder in children among primary school teachers with selected demographic variables.

Result:

The result showed the frequency and percentage wise distribution of primary school teachers from selected school of the city according to pre-test level of knowledge early identification and management of conduct disorder in children the levels of knowledge were seen into 3 categories, poor, average, good. 60% of primary school teachers in pre-test had poor level of knowledge score, 30% had average, and 10% had good level of knowledge score. Mean Pre- test knowledge score of the primary school teachers was 8.60 ± 2.45. shows the frequency and percentage wise distribution of primary school teachers from selected school of the city according to post-test level of knowledge early identification and management of conduct disorder. The levels of knowledge were seen into 3 categories, poor, average, good. 16% of primary school teachers in post-test had poor knowledge, 56% had average knowledge and 28% had good level of knowledge score. Mean Post -test knowledge score of the primary school teachers was 10.80 ± 2.75. The statistical Student's paired t test implies that the difference in the pre -test and post -test knowledge among primary school teachers was found to be T-value 2.010 and P-value 11.55. which is statistically significant at 0.05% level of significance. shows that x2 values computed between the level of knowledge scores of pre- tests, post-tests and selected demographic variables. Variables such as age, gender, religion, types of family, family monthly income, experience as teacher, source of information were significant at 0.05 level. Variables were significant at 0.05 level therefor the hypothesis stated there will be an association between post- test knowledge score of primary school teachers with the selected demographic variable is associated.

SECTION A

Table 1: Percentage wise distribution of primary school teachers according to their demographic characteristics.

N=50

Demographic Variables	Frequency	Percentage
Age in years		
20-30 yrs	15	30%
31-40 yrs	18	36%
41-50 yrs	12	24%
51-60 yrs	5	10%
Gender		
Male	20	40%
Female	30	60%
Religion		
Hindu	28	56%
Muslim	12	24%
Christian	5	10%
Others	5	10%
Types of family		
Nuclear family	15	30%
Joint family	35	70%
Monthly family income (Rs)		
5000-10000 Rs	08	16%
10001-15000 Rs	12	24%
15001-20000 Rs	20	40%
>20001Rs	10	20%
Experience as teacher		
< 1 year	03	6%
1-5 years	25	50%
5-10 years	13	26%
> 10 years	09	18%
Sources of information		
Mass media	0	0
Nil / No	50	100 %

The above table 1 depicts frequency and percentage wise distribution of primary school teachers according to them according to their age, gender, religion, types of family, family monthly income, experience as teacher, source of information.

Section B: Assessment of pre-test and post test knowledge of primary school teachers with regards to level of pre-test knowledge regarding early identification and management of conduct disorder in children at Vadodara Gujrat.

Table 2: Distribution of primary school teachers with regards to level of pre-test knowledge regarding early identification and management of conduct disorder in children.

Level of knowledge score	Score Range	Level of Pre-test Knowledge Score	
		Frequency	Percentage
Poor	1-8	30	60%
Average	9-16	15	30%
Good	17-25	5	10%
Means			8.60 ± 2.45
Range			03 to 23

The above table no 2 shows the frequency and percentage wise distribution of primary school teachers from selected school of the city according to pre-test level of knowledge early identification and management of conduct disorder in children the levels of knowledge were seen into 3 categories, poor, average, good. 60% of primary school teachers in pre-test had poor level of knowledge score, 30% had average, and 10% had good level of knowledge score. Mean Pre-test knowledge score of the primary school teachers was 8.60 ± 2.45

Table 3: Distribution of primary school teachers with regards to level of post-test knowledge early identification and management of conduct disorder.

Level of knowledge score	Score Range	Level of Post-test Knowledge Score	
		Frequency	Percentage
Poor	1-8	08	16%
Average	9-16	28	56%
Good	17-25	14	28%
Mean±SD			10.80 ± 2.75
Range			05 to 25

The above table no 3 shows the frequency and percentage wise distribution of primary school teachers from selected school of the city according to post-test level of knowledge early identification and management of conduct disorder. The levels of knowledge were seen into 3

categories, poor, average, good. 16% of primary school teachers in post-test had poor knowledge, 56% had average knowledge and 28% had good level of knowledge score. Mean Post -test knowledge score of the primary school teachers was 10.80 ± 2.75.

SECTION C: -Analysis of effectiveness of self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers at selected schools, Vadodara Gujrat.

Table 4: Significance of difference between knowledge scores in pre and post-test of primary school teachers regarding early identification and management of conduct disorder in children.

Overall	Mean	SD	Mean & SD Difference	T-value	P-value
Pre-Test	8.60	2.45	2.2 ±0.30	2.010	11.55 S*
Post Test	10.80	2.75			

*S- Significant

Table no 4 depicts the overall mean pre -test and post- test knowledge scores of primary school teachers from selected school of the city which reveals that post -test mean knowledge score was higher 10.80 with SD of ±2.75 when compared with mean pre- test knowledge score which was 8.60 with SD of ±2.45. The statistical Student's paired t test implies that the difference in the pre -test and post -test knowledge among primary school teachers was found to be T-value 2.010 and P-value 11.55. which is statistically significant at 0.05% level of significance. Hence it is statistically interpreted that self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers was effective. Thus, H1 is accepted.

SECTION D: - Association between pre-test and post test knowledge regarding early

identification and management of conduct disorder in children primary school teachers in selected schools at Vadodara Gujrat with selected demographic variables.

Table 5: Association between pre-test of knowledge score with selected demographic variables.

Demographic variables	Knowledge score			DF	T-value	P-value	Remark
	Poor (0-8)	Average (9-16)	Good (17-25)				

Age	20-30 yrs	8	5	2	6	12.59	14.20	S
	31-40 yrs	10	3	1				
	41-50 yrs	7	5	1				
	51-60 yrs	5	2	1				
Gender	Male	10	7	2	2	5.99	7.20	S
	Female	20	8	3				
Religion	Hindu	21	8	2	6	12.59	13.30	S
	Muslim	6	4	1				
	Christian	2	2	1				
	Others	1	1	1				
Types of family	Nuclear family	8	5	2	2	5.99	6.80	S
	Joint family	22	10	3				
Family monthly income	5000-1000 rs	5	3	1	6	12.59	12.85	S
	10001-15000 rs	5	4	1				
	15001-20001 rs	15	5	2				
	>20001	5	3	1				
Experience as teacher	< 1 year	1	1	1	6	12.59	14.33	S
	1-5 years	20	6	2				
	5-10 years	5	5	1				
	> 10 years	4	3	1				
Source of information	Mass media	0	0	0	2	5.99	6.80	S
	Nil / No	30	15	5				

Table 6: Association between post-test of knowledge score with selected demographic variables.

Demographic variables		Knowledge score			DF	T-value	P-value	Remark
		Poor (0-8)	Average (9-16)	Good (17-25)				
Age	20-30 yrs	3	8	4	6	12.59	13.15	S
	31-40 yrs	2	10	6				
	41-50 yrs	2	7	2				
	51-60 yrs	1	3	2				
Gender	Male	4	8	6	2	5.99	6.20	S
	Female	4	20	8				
Religion	Hindu	2	20	6	6	12.59	14.55	S
	Muslim	2	5	5				
	Christian	2	1	2				
	Others	2	2	1				
Types of family	Nuclear family	5	5	5	2	5.99	7.60	S
	Joint family	3	23	9				
	5000-1000 rs	2	4	2				

Family monthly income	10001-15000 rs	3	6	
	15001-20001 rs	2	13	
	>20001	1	5	
Experience as teacher	< 1 year	1	1	
	1-5 years	3	18	
	5-10 years	2	7	
	> 10 years	2	2	
Source of information	Mass media	0	0	
	Nil / No	08	28	

This table 5 shows that x2 values computed between the level of knowledge scores of pre-tests and selected demographic variables. Variables such as age, gender, religion, types of family, family monthly income, experience as teacher, source of information were significant at 0.05 level. Therefor the hypothesis stated there will be an association between pre- test knowledge score of primary school teachers with the selected demographic variable is associated. Thus, H2 is accepted. This table 6 shows that x2 values computed between the level of knowledge scores of post-tests and selected demographic variables. Variables such as age, gender, religion, types of family, family monthly income, experience as teacher, source of information were significant at 0.05 level. Variables were significant at 0.05 level therefor the hypothesis stated there will be an association between post- test knowledge score of primary school teachers with the selected demographic variable is associated.

Discussion: - This chapter deals with the discussion in accordance with the objectives of the study and hypothesis. A pre-experimental approach is adapted to a study to evaluate the effectiveness of self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers at selected schools, Vadodara Gujrat.

The finding of study are discussed under: - The first objective of the study was to assess the level of knowledge primary school teachers regarding early identification and management of conduct disorder in children.- The above table no 2 shows the frequency and percentage wise distribution of primary school teachers from selected school of the city

according to pre-test level of knowledge early identification and management of conduct disorder in children the levels of knowledge were seen into 3 categories, poor, average, good. 60% of primary school teachers in pre-test had poor level of knowledge score, 30% had average, and 10% had good level of knowledge score. Mean Pre-test knowledge score of the primary school teachers was 8.60 ± 2.45. The findings were supported by Craig, Bell and Leschied (2011) conducted a pre-experimental study on pre-service teacher's knowledge and attitude regarding school-based bullying at Ontario University and reported that there was a major difference regarding the knowledge about bullying, its consequences and various intervening methods to quit the violence. The research findings concluded that it is very important to provide teachers with training regarding anti-violence strategies.

The second objective of the study was to

evaluate the effectiveness of self-instructional module (SIM) on knowledge regarding early identification and management of conduct disorder in children among primary school teachers.-Table no 4 depicts the overall mean pre -test and post-test knowledge scores of primary school teachers from selected school of the city which reveals that post -test mean knowledge score was higher 10.80 with SD of ±2.75 when compared with mean pre-test knowledge score which was 8.60 with SD of ±2.45. The statistical Student's paired t test implies that the difference in the pre -test and post -test knowledge among primary school teachers was found to be T-value 2.010 and P-value 11.55. which is statistically significant at 0.05% level of significance. The findings were supported by Bakkiyalakshmi, K (2010) who conducted a pre-experimental study to assess the effectiveness of structured teaching programme on knowledge of primary school teachers regarding conduct disorder among children at selected primary schools in Bangalore. 30 primary school teachers were selected using purposive sampling method and data were collected using structured knowledge questionnaire and results revealed that there was a significant improvement in the knowledge of teachers after attending the teaching programme.

The third objective of the study was to find out the association the knowledge score with selected demographic variable. This table 5 shows that x2 values computed between the level of knowledge scores of pre-tests and selected demographic variables. Variables such as age, gender, religion, types of family, family monthly income, experience as teacher, source of information were significant at 0.05 level. Therefor the hypothesis stated there will be an association between pre- test knowledge score of primary school teachers with the selected demographic variable is associated. Hence it is interpreted that age, gender, religion, types of family, family monthly income, experience as teacher, source of information of primary school teachers are statistically associated with their knowledge score. Thus, H2 is accepted. This table 6 shows that x2 values computed between the level of knowledge scores of post-tests and selected demographic variables. Variables such as age, gender, religion, types of family, family monthly income, experience as teacher, source of information were significant at 0.05 level. Variables were significant at 0.05 level therefor the hypothesis stated there will be an association between post- test knowledge score of primary school teachers with the selected demographic variable is associated.

Conclusion: - The tool was administered and the collect data was analysed and inserted according to objectives. Descriptive statistics were frequency, percentage, mean, and mean percent score, range, standard deviation and co-relation co-efficient, further inferential statistics like chi square test was included to test the hypothesis at 0.5 percent level of significance and the data obtained are presented in the graphical form.

Recommendations: - A similar study can be replicated on a large sample for wider generalization. A Pre-experimental study can be done to find out the knowledge regarding early identification and management of conduct disorder in children among primary school teachers at selected schools, Vadodara Gujrat. A similar study may be conducted to assess the knowledge, practice and awareness of knowledge regarding early identification and management of conduct disorder in children among primary school teachers at selected schools, Vadodara Gujrat.

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