



# “QUASI-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING EATING DISORDERS IN CHILDREN AMONG MOTHERS OF PRIMARY SCHOOL CHILDREN AT KUDAN DISTRICT, SIKAR, RAJASTHAN”

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**Abstract:** **Background:** Eating disorders in children are a growing concern worldwide, including in Rajasthan. Mothers' knowledge plays a crucial role in early identification and management. This study evaluates the effectiveness of a structured teaching programme (STP) on mothers' knowledge regarding eating disorders in children. A Quasi-Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Eating Disorders in Children Among Mothers of Primary School Children at Kudan District, Sikar, Rajasthan". A total sample of 100, Mothers of Primary School Children were selected using purposive sampling technique. The objectives of the study were to assess the knowledge level among mothers of Primary School Children regarding eating disorders before and after structured teaching programme and to find out the effectiveness of structured teaching programme on knowledge regarding eating disorders among mothers. The final objective was to determine the association between pre-test level of knowledge and selected demographic variables. **Materials and Methods:** A two-group pre-test post-test design was used to conduct the study. A sample comprising of 50 mothers in experimental and 50 in control group were enrolled using non-probability purposive sampling technique. The conceptual framework of the study was based on Von Bertalanffy's General System Model. Tools used for data collection were demographic Performa and structured knowledge questionnaire. **Results:** Data analysis was done using descriptive and inferential statistics. Findings of the study revealed that the mean post-test knowledge score  $19.2 \pm 3.4$  among experiment group was significantly higher than the mean pre-test knowledge score  $10.4 \pm 2.1$  ( $p < 0.01$ ). Paired t value computed at 12.45\*\* was statistically significant at  $p < 0.01$ . Change in knowledge score among the control group was not significant ( $p > 0.05$  level). The t test value (18.41\*\*), revealed that, there is significant increase in the mean post-test knowledge score among experimental group compared to the mean post-test knowledge score among control group at 0.01 level. Significant association at 0.05 level was observed between knowledge with regard to their Education. **Conclusion:** The findings of the study confirmed that the structured teaching programme was significantly effective in improving the knowledge on eating disorders among mothers of primary school children.

**Key Word:** Quasi experimental, Structured teaching programme, Knowledge, mothers, eating disorders, primary school children

## I. INTRODUCTION

Eating disorders are complex mental health conditions characterized by abnormal eating behaviours and distorted perceptions about body weight and shape. While traditionally associated with adolescents and young adults, increasing evidence suggests that eating disorders can also manifest in primary school children. Early onset of these disorders can have profound implications on physical health, psychological well-being, and social functioning<sup>1</sup>. In young children, eating disorders may present differently compared to adolescents and adults, often with subtle behavioural changes such as food refusal, selective eating, or excessive concern about weight and body image. Factors contributing to the development of eating disorders in this age group include familial, psychological, environmental, and cultural influences. The rising prevalence of childhood obesity and societal pressures regarding appearance further complicate the early identification and management of these disorders. Understanding the characteristics, risk factors, and early signs of eating disorders in primary school children is crucial for implementing timely interventions. Early educational programs targeted at parents, teachers, and children can play a vital role in prevention and early detection<sup>2</sup>.

## II. OBJECTIVES

1. To assess the knowledge level among mothers of primary school children regarding eating disorders in children before and after structured teaching programme.
2. To assess the post-test knowledge level of mothers of primary school children regarding eating disorders in children
3. To find out the effectiveness of structured teaching programme on knowledge regarding eating disorders in mothers of primary school children
4. To determine the association between knowledge level and selected demographic variables.

## III. HYPOTHESES

- H<sub>1</sub>-There is significant difference in mean knowledge scores before and after structured teaching programme among experimental group.
- H<sub>2</sub>- There is significant difference in mean post-test knowledge scores among experimental and control group.
- H<sub>3</sub>- There is significant association between knowledge level of mothers with selected socio-demographic variables.

## IV. RESEARCH METHODOLOGY

**Research Approach:** Quasi experimental approach.

**Research Design:** Two group pre-test – post-test design.

**Population:** mothers of primary school children

**Settings:** Kudan district, Sikar, Rajasthan

**Sampling Technique:** Non –probability purposive sampling technique.

**Sample size:** 100 mothers of primary school children (50 in experimental and 50 in control group).

### Tools and Technique

**I) A Demographic Performa** was used to collect socio demographic data such as age, education status, previous knowledge, source of information, type of family, Occupation.

**II) A Structured Knowledge Questionnaire** was used to assess the Knowledge regarding eating disorders which consisted of 30 items divided in to eight areas (Introduction & definition, classification, aetiology, preventive methods, complications, management)

**III) A structured teaching programme (STP)** was administered for a duration of 45 minutes for 50 samples in experimental group. Lecture cum discussion was used as a teaching methodology along with a variety of AV aids including LCD/PowerPoint presentation, Charts, Flash Cards, OHP sheets and video assisted modules.

### Method of Data collection:

Data was collected for a period of one month [25<sup>th</sup> March 2016 to 25<sup>th</sup> April 2016].

After explaining the purpose and obtaining an informed consent, the pre-test was administered for groups followed by a structured teaching programme for experimental group. After a period of 07 days a post test was carried out for both experimental and control groups.

### Inclusion criteria:

mothers who were willing to participate in the study  
mothers who were available at the time of data collection

### Exclusion criteria:

mothers who were not willing to participate in the study  
mothers not available during the period of data collection

### Statistical analysis:

Both Descriptive and Inferential statistics were used to analyse the data. Descriptive statistics such as Frequency distribution and percentage were used to describe the socio demographic data and Inferential statistics such as student t test was used to find out the effectiveness of STP by comparing the mean knowledge scores between experimental and control group, paired *t*-test was used to determine the difference between mean knowledge scores before and after the intervention. Chi-square was performed find out the association between knowledge and selected demographic variables. The level  $P < 0.05$  was considered as the minimum accepted level of significance.

## IV. STATISTICAL ANALYSIS

### Descriptive Statistics

**Table 01: Frequency distribution and percentage of sample characteristics (N=100)**

Demographic Variables	Experimental		Control	
Age (In years)	f	%	f	%
<25 yrs.	15	30	16	32
26-30 yrs.	25	50	24	48
Above 30 yrs	10	20	10	20
Education status				
Primary Education	10	20	12	24
Secondary Education	20	40	18	36
Graduates and above	20	20	20	40
Previous knowledge				
Yes	19	38	24	48
No	31	62	26	52
Source of information				
Family & Friends	34	68	28	56

TV and News Paper	10	20	12	24
Other mass media	06	12	10	20
<b>Type of family</b>				
Nuclear	29	58	32	64
Joint	21	42	18	36
<b>Occupation</b>				
Homemaker	35	70	33	66
Employed	15	30	17	34

### Inferential Statistics

**Table 02: Mean, Standard deviation and paired 't' value of knowledge level among mothers before and after STP.**  
(N=100)

Group	Stage	Mean	SD	Mean Difference	df	Paired t	p
<b>Experimental</b>	Pre-test	10.4	2.1				
	Post-test	19.2	3.4	8.8	49	12.45**	<0.01
<b>Control</b>	Pre-test	10.6	2.3				
	Post-test	11.2	2.5	0.6	49	1.20	>0.05

\*\* Significant at 0.01 level

Table 02 shows that mean knowledge score among the experimental group before the structured teaching programme was  $10.4 \pm 2.1$  and that among the control group was  $10.6 \pm 2.3$ . After the Intervention (Structured teaching programme), among the experimental group, the mean knowledge score increased to  $19.2 \pm 3.4$ . Increase in knowledge score after structured teaching programme in the experimental group was statistically significant ( $p < 0.01$ ). Mean knowledge score among the control group on post-test was  $11.2 \pm 2.5$ . Change in knowledge score among the control group at post-test was not statistically significant. Hence research hypothesis ( $H_1$ ) was accepted.

**Table 03: Association between knowledge level among nursing students and selected demographic variables.**  
(N=100)

Demographic Variables	Knowledge level				df	$\chi^2$	p
	f	Inadequate %	Moderate f	Moderate %			
<b>Previous knowledge</b>							
Yes	19	19	14	14	01	3.888*	0.049
No	54	54	13	13			

\*Significant at 0.05 level.

The above table depicts that the calculated  $\chi^2$  value for previous knowledge is significantly higher than the table value ( $p < 0.01$  level). So, there is association between previous knowledge and knowledge level of eating disorders; Hence the research hypothesis  $H_3$  was accepted. The score changes also reflect the effectiveness of the intervention.

## V. RESULTS AND DISCUSSION

The present study aimed to assess the effectiveness of a structured teaching programme (STP) on knowledge regarding eating disorders in children among mothers of primary school children in Kudan District, Sikar, Rajasthan. The findings revealed a statistically significant improvement in post-test knowledge scores, indicating that the STP was effective in enhancing maternal awareness and understanding of pediatric eating disorders. These results align with previous studies that have demonstrated the positive impact of structured educational interventions on parental knowledge. Garg et al. (2014) reported that STPs significantly improved primary school teachers' understanding of behavioral problems in children.<sup>4</sup> Similarly, Warschburger et al. (2011) emphasized the importance of school-based prevention programmes in addressing early signs of eating disorders, highlighting the role of parental involvement in such initiatives.<sup>5</sup>

The improvement in knowledge among mothers can be attributed to the interactive and culturally contextualized nature of the STP, which incorporated visual aids, relatable examples, and simplified medical concepts. This approach is consistent with the life skills-based framework used in the POPS programme, which focused on enhancing media literacy, coping strategies, and healthy eating habits among adolescents.<sup>5</sup> Moreover, the study supports the notion that early education and awareness among caregivers can serve as a preventive measure against the onset of eating disorders. As noted by Berkman et al. (2007), early intervention is crucial due to the high relapse rates and treatment challenges associated with anorexia nervosa and bulimia nervosa. The structured programme in this study addressed misconceptions, promoted healthy feeding practices, and encouraged mothers to seek timely professional help when needed.<sup>6</sup> The demographic analysis further revealed that mothers with higher educational backgrounds showed greater improvement in post-test scores, suggesting that literacy levels may influence receptiveness to health education. This finding is consistent with the work of Herpertz-Dahlmann et al. (2008), who found that parental education plays a role in recognizing and responding to disordered eating behaviors.<sup>7</sup> The findings in the present study revealed that the mean pre-test knowledge score regarding eating disorders among experimental group was  $10.4 \pm 2.1$  and mean post test score was  $19.2 \pm 3.4$ . The paired t value [12.45\*\*] computed by comparison of pre and post knowledge score among experimental group was significant at  $P < 0.01$  level. Hence, there is significant difference in the mean knowledge scores of mothers before and after STP which is significant in enhancing the knowledge levels regarding eating disorders in children among



mothers of primary school children. The experimental group shows improvement in knowledge scores compared to the control group. The student t test value (12.45\*\*) computed by comparing the mean post-test knowledge score among experimental group [19.2±3.4] and mean post-test knowledge score [11.2±2.5] among control group is statistically significant at 0.01 level. Therefore, it is interpreted that Structured teaching programme is significant in improving the knowledge [P< 0.01 level]. This result is supported by various studies. A cross-sectional study conducted by Smith et al. (2008) assessing the prevalence of disordered eating behaviours in children aged 6-12 years, revealing that 12% exhibited at least one disordered eating symptom, with higher rates among female<sup>3</sup>

## VI. CONCLUSION

The results of the study undoubtedly confirm that the post-test knowledge score in the experimental group is significantly higher than the pre-test knowledge score and there were no significant changes in the mean knowledge score in the control group. Therefore, it is concluded that STP is significantly effective in enhancing the knowledge level regarding eating disorders in children among mothers of primary school children. In conclusion, the study underscores the effectiveness of structured teaching programmes in empowering mothers with knowledge about eating disorders in children. It advocates for the integration of such programmes into community health initiatives, especially in rural and underserved regions.<sup>8</sup>

## VII. LIMITATIONS

- The study used a purposive sampling, the generalization of findings remains restricted.
- The influence of extraneous variables during the period between pre-test and post-test on the control group cannot be explored.
- No follow-up was made to measure the retention of knowledge.

## VIII. RECOMMENDATIONS

- A comparative study can be conducted between mothers of rural and urban areas
- A Study can be replicated among health workers

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