

# “Evaluate the Effectiveness of Self Instructional Module on Knowledge Regarding Diarrhoea & It’s Prevention Among Mothers of Under Five Children Residing in Selected Rural Areas of Udaipur, Rajasthan.”

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**Abstract:** A pre experimental study to evaluate the effectiveness of self instructional module on knowledge regarding diarrhoea & its prevention among mothers of under five children. The sample consisting of 120 mothers of under five children. Mothers were selected by using convenient sampling. The tool comprised of structured self administered questionnaire. The post was conducted after one week. The data obtained were analyzed by using descriptive and inferential statistics. The mean score of post test knowledge 9.88 (35%) was apparently higher than the mean score of pre test knowledge score 22.79 (81.39%), suggesting that the self instructional module was effective in increasing the knowledge of the mothers of under five children regarding diarrhoea & its prevention. The mean difference 12.91 between pre test and post test knowledge score of the mothers of under five children was found to be significant.

**Key words:** diarrhoea & its prevention, mothers of under five children, pre experimental study.

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## I. Introduction

Diarrheal disease is the second leading cause of death in children under five years old, and is responsible for killing 1.5 million children every year. Diarrhoea can last several days, and can leave the body without the water and salts that are necessary for survival. Most people who die from diarrhoea actually die from severe dehydration and fluid loss. Children who are malnourished or have impaired immunity are most at risk of life-threatening diarrhoea.

Diarrhoea is the passage of 3 or more loose or liquid stools per day, or more frequently than is normal for the individual. It is usually a symptom of gastrointestinal infection, which can be caused by a variety of bacterial, viral and parasitic organisms. Infection is spread through contaminated food or drinking-water, or from person to person as a result of poor hygiene.

Severe diarrhoea leads to fluid loss, and may be life-threatening, particularly in young children and people who are malnourished or have impaired immunity.

The most severe threat posed by diarrhoea is dehydration. During a diarrhoeal episode, water and electrolytes (sodium, chloride, potassium and bicarbonate) are lost through liquid stools, vomit, sweat, urine and breathing. Dehydration occurs when these losses are not replaced.<sup>1</sup>

An epidemiological survey of diarrhoea conducted among children in the Karnataka region of kaveri basin showed that Incidence of diarrhoea was significantly higher among 1-3 years male children. The source of drinking water did not influence the incidence of diarrhoea. Low (12.7 percent) ORS use rate was reported. 31 percent of mothers stopped breast feeding and 15 percent of mothers stopped oral fluid during diarrhoea. The overall under five mortality rate in the area was 6.5 per 1000 children and of these one third deaths could be attributed due to dehydration.<sup>2</sup>

## II. Research Elaborations

### Statement of the problem

Evaluate the effectiveness of self instructional module on knowledge regarding diarrhoea & it’s prevention among mothers of under five children residing in selected rural areas of Udaipur, Rajasthan.

### III. Objectives

- To assess the pre-test knowledge score regarding diarrhoea & it's prevention among mothers of under five children.
- To evaluate the effectiveness of self instructional module regarding diarrhoea & it's prevention among mothers of under five children.
- To find out the association between the pre-test knowledge scores of mothers of under five children regarding diarrhoea & it's prevention with selected socio-demographic variables.
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### IV. Hypothesis

- **H<sub>1</sub>**: There is a significant difference between the pre test and post test knowledge score among mothers of under five children.
- **H<sub>2</sub>**: There is significant association between the pre test knowledge score of mothers of under five children regarding diarrhoea & its prevention with their selected socio-demographic variables.

### V. Material and methods

**Population** - mothers of under five children

**Sample** – mothers of under five children residing at selected rural areas of Udaipur.

**Sample size**- 120 mothers of under five children.

**Setting**- Nela, Savina, Upla fala rural areas in Udaipur.

The conceptual framework for the study was developed on the bases of modified kings goal attainment model.

### VI. Research design

The research design selected for the present study was a pre experimental one group pre-test post-test research design.

**Table 1:** Pre experimental one group pre-test post-test research design.

Group	Pre test	Intervention	Post test
Mothers of under five children	O <sub>1</sub>	X	O <sub>2</sub>
	Knowledge of mothers of under five children	Self instructional module regarding diarrhoea & its prevention	Knowledge of mothers of under five children

The interpretations of the symbol are as below:

O<sub>1</sub>- Administration of pre-test knowledge questionnaire

O<sub>2</sub>- Administration of post-test knowledge questionnaire

X- Intervention, (Independent variable) i.e. Self instructional module.

#### Ethical consideration

After obtaining permission from research committee of Geetanjali College of Nursing, prior permission was obtained from medical officer savina PHC. Udaipur (Raj.) India. Consent was taken from each participant who had participated in the study.

#### Description of the tool

The structured knowledge questionnaire consisted of two parts i.e. Part – I & II.

**Part - I:** consisted of 7 items on socio- demographic data such as Age in year, type of family, education of mother, family income per month, source of water, type of latrine used, dietary habit.

**Part - II:** consisted of 28 knowledge items. Each item was multiple choices in nature with 4 choices.

#### Scoring

The knowledge of mothers of under five children regarding the outcomes of diarrhoea was scored as follows,

one mark for each correct answer and zero marks for incorrect answer. The maximum score was 28, to interpret level of knowledge the score was distributed as follows;

Interpretation of knowledge:

Level	Range
Inadequate knowledge	<50 %
Moderate knowledge	51-75 %
Adequate knowledge	>75 %

An answer key was prepared for scoring answer to the structured knowledge questionnaire.

**Data collection and data analysis**

The data was presented under the following sections

Section-I: Description of socio-demographic variables of the respondents.

Section-II: Distribution of Respondents according pre-test and post-test level of knowledge score.

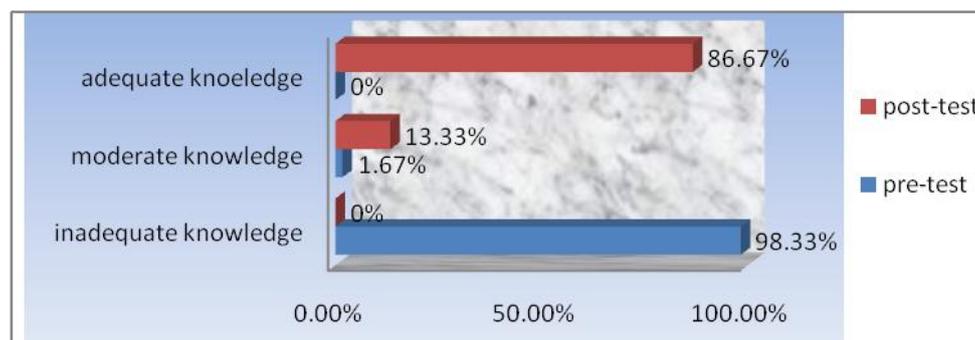
Section-III: Effectiveness of self instructional module on knowledge regarding diarrhea & its prevention among mother of under five children.

**VII. Result**

**Table 2:** Frequency and Percentage distribution of respondents to their level of knowledge score. N=120

Level of knowledge	Score	Respodents			
		Pre-test		Post-test	
		frequency	Percent (%)	frequency	Percent (%)
Inadequate knowledge	<50%	118	98.33	0	0
Moderately knowledge	51-75%	2	1.67	16	13.33
Adequate knowledge	>75%	0	0	104	86.67
total		120	100	120	100

**Table 2:** The result showed that, in pre-test 98.33% of the respondents had inadequate knowledge, 1.67% of the respondents had moderate knowledge and none of the respondents had adequate knowledge and in post-test 86.67% of the respondents had adequate knowledge and 13.33% of the respondents had moderate knowledge and none of the respondents had inadequate knowledge regarding diarrhoea & its prevention.



**Figure 1:** Frequency and Percentage distribution of respondents to their level of knowledge score.

**SECTION: III**

**Effectiveness of self instructional module on knowledge regarding diarrhea & its prevention among mother of under five children.**

The 'Z' value was computed to determine the effectiveness of self instructional module on knowledge regarding diarrhoea & its prevention among mothers of under five children.

The following research hypothesis was stated

**H<sub>1</sub>:** There is a significant difference between the pre test and post test knowledge score among mothers of under five children.

**H<sub>2</sub>:** There is significant association between the pre test knowledge score of mothers of under five children regarding diarrhoea & its prevention with their selected socio-demographic variables.

**Table 3:** Area wise pre-test and post-test knowledge score N=120

Area of knowledge	Max. score	Pre-test			Post-test		
		Mean	Mean%	SD	Mean	Mean%	SD
Introduction & definition of diarrhea	01	0.52	51.67	0.50	0.78	78	0.41
Causes	02	0.75	37.50	0.64	1.57	78.5	0.53
Types	02	0.69	34.58	0.69	1.60	80	0.51
Risk factor	03	1.20	40	0.78	2.37	79	0.63
Sign & symptoms	06	2.17	36.11	0.84	4.85	80.83	0.71
Prevention	06	1.91	31.80	0.86	4.90	81.67	0.70
Management	08	2.64	33.02	1.06	6.80	85	0.88

**Table 3:** The result showed that the mean, mean percentage and standard deviation of pre-test and post-test knowledge score on different areas of diarrhea and its prevention.

In the area of introduction & definition of diarrhea, in the pre-test knowledge mean score 0.52 and SD 0.50 in the pre-test experimental group and mean value 0.78 and SD 0.41 in the post-test experimental group. In the area of causes of diarrhea, the mean score 0.75 and SD 0.64 in the pre-test experimental group and mean value 1.57 and SD 0.53 in the post-test experimental group. In the area of types of diarrhea mean score 0.69 and SD 0.69 in pre-test group and mean score 1.60 and SD 0.51 in post-test group. In the area of risk factor mean score 1.20 and SD 0.78 in pre-test group and mean score 2.37 and SD 0.63. In the area of sign & symptoms mean score 2.17 and SD 0.84 in the pre-test and mean score 4.85 and SD 0.71 in post-test group. In the area of prevention mean score 1.91 and SD 0.86 in pre-test group and mean score 4.90 and SD 0.70 in post-test group. In the area of management of diarrhea mean score 2.64 and SD 1.06 in pre-test group and mean score 6.80 and SD 0.88 in post-test group. Therefore, the results confirmed that the self instructional module was highly effective in improving the knowledge of mothers of under five children regarding diarrhea & its prevention.

**Table 4:** Effectiveness of self instructional module on knowledge regarding diarrhea and its prevention.

<b>N=120</b>						
Knowledge assessment	Mean	Mean difference	SD	df	Z value	Inference
Pre-test	9.88	12.91	2.01	119	53.36	<b>S*</b>
Post-test	22.79		1.71			

**Table 4:** The result showed that the mean post-test knowledge score (22.79) was higher than the mean pre-test score (9.88). The mean difference score (12.91) of knowledge was significant at 0.05 % level at the “Z” value = 53.36 \*P<0.05. Hence research hypothesis H<sub>1</sub> was accepted. This indicates that the self instructional module was effective in increasing the knowledge of mothers of under five children on diarrhea and its prevention.

**Table 5:** association between pre-test knowledge score of respondents with demographic variables.

S.N.	VARIABLES	Chi square	df	P value (0.05)	Inference
1	Age in year	3.75	3	7.82	NS
2	Type of family	2.19	1	5.99	NS
3	Education of mother	4.28	3	7.81	NS
4	Family income per month	4.50	3	7.81	NS
5	Source of water	8.41	3	7.81	S
6	Type of latrine used	1.78	2	5.99	NS
7	Dietary habit	1.14	1	5.84	NS

**Table 5:** There is a significant association between pre test knowledge of respondents and demographic variables such as source of water ( $\chi^2=8.41$ ), was found to be significant associated with pre-test knowledge score at 0.05 level and age in years ( $\chi^2=3.75$ ), type of family ( $\chi^2=2.19$ ), education of mother ( $\chi^2=4.28$ ), family income ( $\chi^2=4.50$ ), type of latrine used ( $\chi^2=1.78$ ), dietary habit ( $\chi^2=1.14$ ), were not found to be significant associated with pre-test knowledge score at 0.05. Hence research hypothesis H<sub>2</sub> is proved and accepted.

### VIII. Conclusion

The study aimed at testing the effectiveness of self instructional module on knowledge of mothers of under five children regarding diarrhea & its prevention. The results showed that the self instructional module was highly effective. So that the diarrhea and its prevention can be prevented.

### References

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