

Impact of educational intervention on knowledge regarding assessment and management of dehydration among mothers of infant.

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Abstract

Dehydration is a condition caused by excessive loss of body water and electrolytes. Vomiting and diarrhoea are the most common causes of dehydration in children. Treating children with dehydration remains a significant global challenge, particularly in resource limited settings. Present study aimed to assess the knowledge regarding assessment and management of dehydration and effect of planned teaching on knowledge. **Methodology:** A quantitative approach with pre -experimental one group pretest post-test design was used to conduct the study. 70 Mothers of infants were selected as per inclusion criteria as sample. Non-Probability Purposive sampling technique was used to select the samples. Data was collected using a structured questionnaire, which had two sections which was demographic variables and Knowledge questionnaire with 20 multiple questions. Reliability of the tool was done by using test-retest method. Ethical permission was taken from institutional ethics committee. **Result:** In pretest most of the mothers 53(75.72%) had Average knowledge, 17(24.28%) had Poor knowledge and No one mother have good knowledge regarding assessment and management regarding dehydration. But in post-test majority of the mothers 59 (84.29%) had average knowledge, 11 (15.71%) had good knowledge and no one mother had poor knowledge regarding assessment and management of dehydration. In comparison it showed that there is statistical difference in knowledge score between pretest and post- test. Study findings showed that there is need of teaching programs related to dehydration assessment and management in children especially in community as it can reduce the morbidity and mortality.

Key words: Dehydration, Infant, Assessment, Management

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Introduction

Dehydration caused by excessive loss of body water and electrolytes. Major cause is diarrhoea and vomiting. Treating children with dehydration is a global challenge, particularly in under-five children¹ Severe dehydration due to acute infectious diarrhoea is the leading cause of death among young children globally² survival of child with severe dehydration depends on the recognition, early treatment and prevention of hypovolemic shock.³ Patients with mild dehydration may only exhibit decreased urine output without other signs and symptoms. Dry oral mucosa, decreased skin turgor, prolonged capillary refill, tachycardia, and irritability are the common presentation of moderate dehydration. Children with severe dehydration appear extremely ill, with skin mottling and altered sensorium. Hypotension and shock are late signs

indicating poor organ perfusion⁴Managing diarrhoea at home is quite common among rural mothers. But their level of knowledge is poor. Perception regarding the seriousness of diarrhoea or other health-related conditions is a critical factor for proper health care.⁵ The improper knowledge, poor practice and negative attitudes of mothers and their misdirected approach during diarrhoea leads to a high degree of severe dehydration and finally death.⁶ Mothers are the primary caregiver for children at home during any illness, They should be knowledgeable about the assessment so that they will be able to recognize and can take their child to hospital for further management.⁷ This study was undertaken with same purpose.

Research Methodology

A quantitative pre- experimental one group pretest post-test design was used to conduct the study. 70

mothers of infant who can understand and read Marathi or English were selected for the study by using non probability purposive sampling method. Dependant variable was knowledge regarding dehydration and independent variable was planned teaching. Study conducted in selected urban areas. Data collected by using structured questionnaire which included demographic variables and 20 multiple-choice questions for assessing knowledge regarding dehydration. Tool validity was done by Pré test and post-test assessment. Paired t-test used for finding out the effectiveness of planned teaching.

experts in the field and reliability done by using test-retest method and calculated r was 0.81 and found to be reliable. Pilot study didn't show any major difficulties so no correction made in the research methodology. Pre-test conducted after getting written consent from mothers of infant followed by planned teaching. Post-test conducted on 8th day using same data collection tool. Frequency and percentage calculated for demographic variables,

Result

Analysis of the data done and categorized under four sections

Table No. 1:
Frequency and percentage distribution of demographic variables.
n = 70

Sr. No	Demographic variable		Frequency	Percentage (%)
1.	Age (in Year)	18-24	21	30
		25-29	30	42.85
		30-35	14	20
		36 -40	5	7.15
2.	Family	Nuclear	36	51.42
		Joint	34	48.58
		Primary Education	44	62.86
		Graduate	22	31.43
		Post Graduate	4	5.71
4.	Monthly Income (in Rs)	5,000-10,000	7	10
		10,000-15,000	4	5.71
		15,000-20,000	19	27.14
		20,000- above	40	57.15

Table no I show the frequency and percentage distribution of demographic variables. Maximum percentage (42.85%) were in age group of 25-29 years and 48.58 % were from joint family and 51.42 % was females. In educational status 62.86 % had primary education and 57.15% has monthly income more than 20000/-.

Table No. 2:
Pre-test level of knowledge score

n= 70		
Level of knowledge	Frequency	Percentage (%)

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Good [15 To 20]	0	0
Average [7 To 14]	53	75.72
Poor [0 To 6]	17	24.28

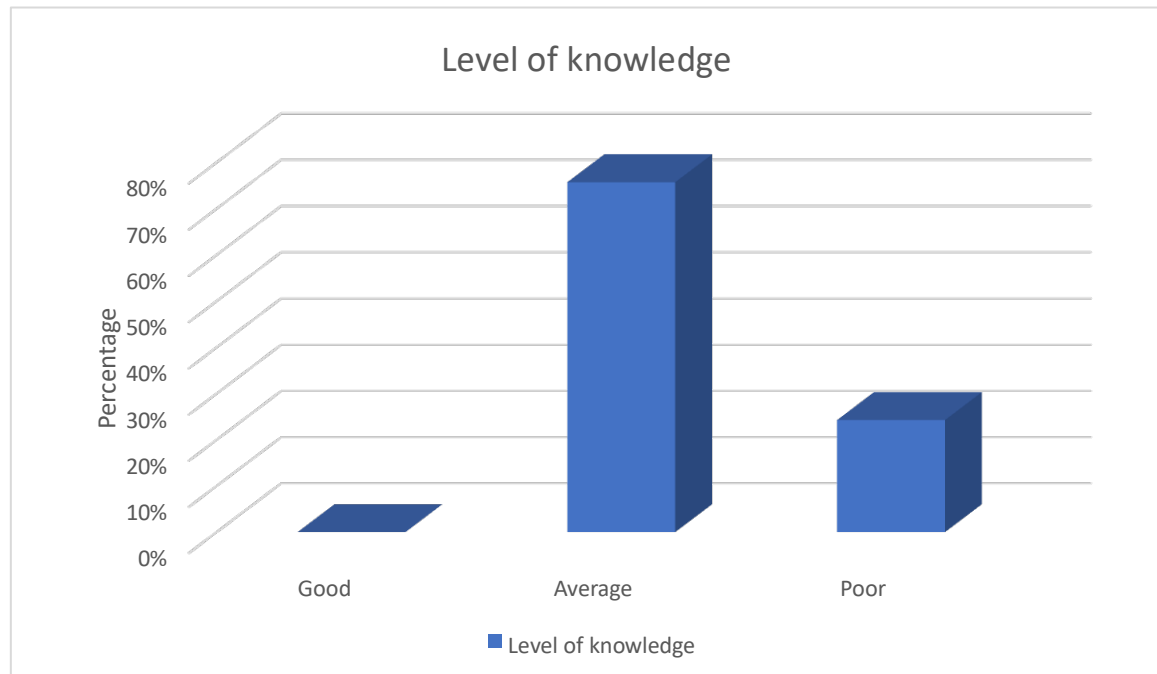


Figure no. 2

Pre-test level of knowledge

Above table and figure shows that in pre- test 75.72% had average knowledge and remaining were in poor category. No one was in the good category.

Table No. 3

Post-test level of knowledge score

n= 70

Level of knowledge	Frequency	Percentage (%)
Good [15 to 20]	11	15.71
Average [7 to14]	59	84.29

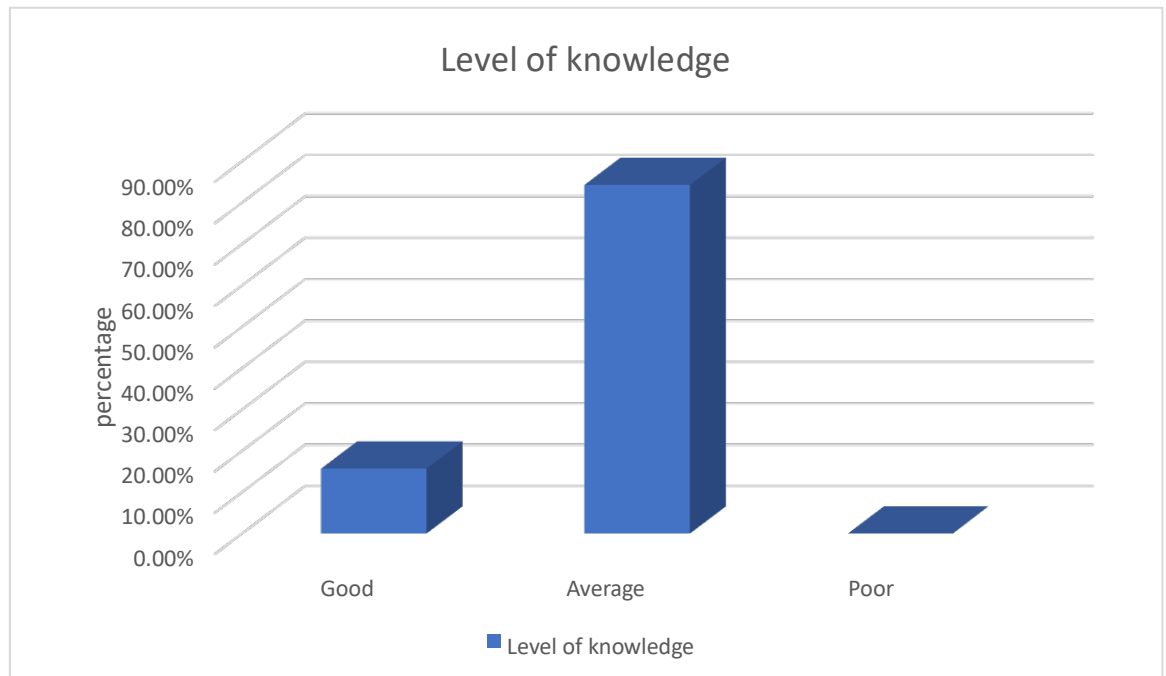


Figure No. 3

Post- test level of knowledge

Above table and figure shows that, majority of the mothers 59 (84.29%) had average knowledge, 11 (15.71%) had good knowledge and no one mother had poor knowledge regarding assessment and management of dehydration in mother of infants. This reveals that after the planned teaching program mothers level of knowledge has increased.

Table No. 4:

Comparison between the pre-test and post-test knowledge score

n=70

	Mean	S.D.	Paired t-test	p-value	Evaluation
Pre-test	7.94	2.06	17.60	0.00001 <0.05	Significant
Post-test	12.81	1.49			

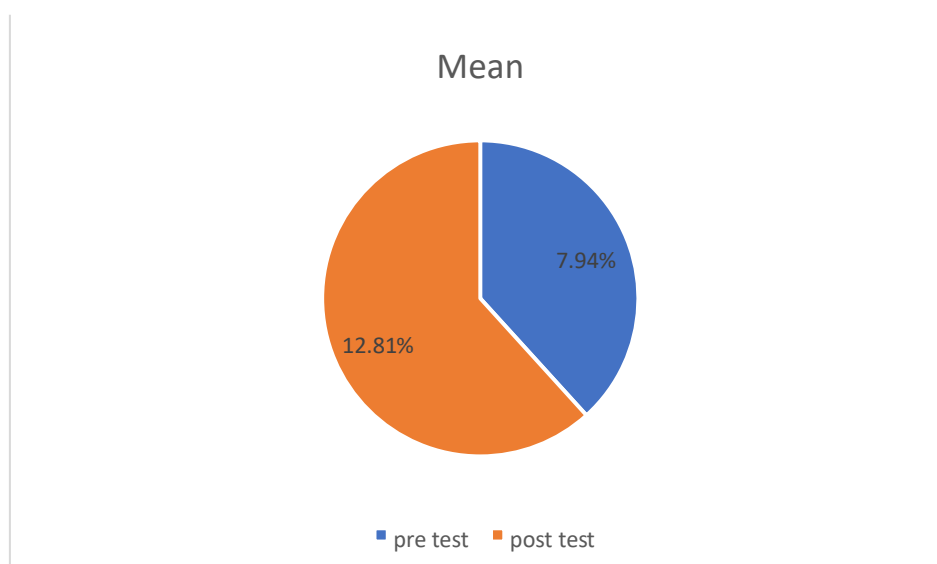


Figure No. 4

comparison of the pre-test and post-test mean score.

Above table and figure shows that, the mean score of knowledge before giving planned teaching programme was 7.95 and S.D. was 2.06 and the mean score of knowledge after giving planned teaching programme was 12.81 and S.D. was 1.49. The t – value is 17.60 and as the calculated p – value is 0.00001 which is less than 0.05. This reveals the planned teaching programme on knowledge assessment and management of dehydration among infants mother. So research hypothesis is accepted.

Discussion

A pre experimental one group pre-test post-test design was carried out to assess the effectiveness of planned teaching program to assess the knowledge regarding assessment and management of dehydration in infants ,The main objectives of the study was to assess the existing knowledge regarding assess knowledge regarding assessment and management of dehydration and to find out effectiveness of planned teaching program on knowledge regarding the assessment and management of dehydration among mothers of infants. In this study total 70 samples were selected as per the inclusion and exclusion criteria. In pr- test Most of the mothers 53(75.72%) had Average knowledge, 17(24.28%) had Poor knowledge and none had good knowledge regarding mothers of infants. In post-test 59 (84.29%) of samples had average knowledge, 11 (15.71%) had good knowledge and no one had poor knowledge regarding assessment and management of dehydration in mother of infants. In comparison the pre -test mean 7.94 with SD of 2.06 and post-test mean of 12.81 with SD of 1.49 and the p value 0.0001 which is less than 0.05. So the research hypothesis is accepted. This reveals that after the planned teaching program mothers' level of knowledge has increased.

Conclusion:

Study findings shows that there is need of education in aspects of dehydration as it is one of the major causes in morbidity and mortality in children. Mothers were not aware that dehydration in infants should be taken as seriously. They verbalised that we were not knowing how to assess the child and when to take the child to the hospital. It shows that our education to the community is not enough to fulfil the needs of the society, so more educational programmes need to be conducted in different aspect of health.

Ethical Consideration

Permission from institutional ethics committee taken .Written informed consent from the participants were obtained . Pariticipants were allowed to withdraw from the study at any point of time without giving any compensation .

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