



EFFECTIVENESS OF SELF INSTRUCTION MODULE ON KNOWLEDGE REGARDING PREVENTION OF GASTROENTERITIS AMONG MOTHERS OF UNDER FIVE CHILDREN IN SELECTED URBAN AREAS OF HASSAN, KARNATAKA

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ABSTRACT:

Introduction: Gastroenteritis is a common preventable illness among under-five children and remains a major cause of morbidity in developing countries. Mothers play a crucial role in preventing gastroenteritis through appropriate hygiene, safe feeding practices and early home management. However, lack of adequate knowledge often increases the risk of infection and complications. Hence, this study aims to evaluate the effectiveness of a self-instruction module on knowledge regarding prevention of gastroenteritis among mothers of under-five children in selected urban areas of Hassan, Karnataka. Objective: The main objective of the study was to evaluate the effectiveness of Self-Instructional Module regarding prevention of Gastroenteritis among mothers of under five children. Methodology: A quantitative research approach was used. The design adopted for the study was Quasi-experimental with one group pre and posttest design. Simple Random sampling technique was used to select 60 mothers of under-five children. Results: The overall mean knowledge score in the pre-test was 52.5%, which increased to 83.9% in the post-test, showing an enhancement of 31.4%. and it is significant at 5% level. Among demographic variables analyzed in the study it was inferred that there was a significant association between knowledge score and the selected demographic variables regarding prevention of Gastroenteritis among mothers of under five children knowledge scores at 5% level. Conclusion: The study findings revealed that the self-instruction module was in improving the knowledge of mothers of under five children regarding prevention of Gastroenteritis.

Keywords: *Self-instruction module, Knowledge, Gastroenteritis, child health, demographic variables, safe feeding practices.*

INTRODUCTION:

Gastroenteritis is one of the leading causes of illness among under-five children and continues to be a significant public health concern, especially in developing regions. It is characterized by diarrhea and vomiting, which can rapidly lead to dehydration and serious complications if not managed properly. Poor sanitation, unsafe drinking water, and inadequate personal hygiene are major contributing factors to the occurrence of gastroenteritis. Young children are particularly vulnerable due to their developing immune systems.

Mothers are the primary caregivers and play a vital role in maintaining the health and nutrition of under-five children. Their knowledge and practices regarding hand hygiene, safe food preparation, breastfeeding and early recognition of danger signs are essential in preventing gastroenteritis. However, limited awareness and improper practices among mothers can increase the risk of repeated infections.

Health education is an effective strategy to improve maternal knowledge and promote preventive behaviors. A self-instruction module serves as a simple, cost-effective and learner-centered method of health education.

Therefore, this study aims to assess the effectiveness of a self-instruction module on knowledge regarding prevention of gastroenteritis among mothers of under-five children in selected urban areas of Hassan, Karnataka.



REVIEW OF LITERATURE

Gastroenteritis remains one of the leading causes of morbidity and mortality among under-five children, particularly in developing countries like India. According to the World Health Organization, diarrheal diseases contribute significantly to childhood illness and are largely preventable through improved hygiene practices, safe drinking water, and appropriate feeding methods. Mothers, being the primary caregivers, play a pivotal role in the prevention and early management of gastroenteritis among young children.

Several studies have emphasized the importance of maternal knowledge in preventing gastroenteritis. Gupta, Kumar, and Singh (2022) conducted a cross-sectional study to assess the knowledge and practices of mothers regarding prevention of diarrheal diseases among under-five children. The findings revealed that inadequate maternal knowledge regarding hand hygiene, food safety, and sanitation was strongly associated with increased incidence of diarrheal episodes in children. The study highlighted the need for structured educational interventions to enhance maternal awareness.

A study by Rani, Lakshmi, and Devi (2021) evaluated the effectiveness of health education programmes on prevention of gastroenteritis among mothers of under-five children. The results demonstrated a significant improvement in post-test knowledge scores, indicating that planned educational strategies are effective in enhancing maternal knowledge and preventive practices. The study also emphasized that continuous health education is essential to sustain preventive behaviours.

Patel et al. (2020) conducted a quasi-experimental study to evaluate the impact of self-instructional modules on maternal knowledge regarding childhood diarrheal diseases. The study reported a statistically significant increase in post-test knowledge scores following the intervention. The researchers concluded that self-instructional modules are cost-effective, easy to administer, and suitable for community-based health education, especially in resource-limited settings.

Similarly, a study by Sharma and Kaur (2019) assessed mothers' awareness regarding home management and prevention of gastroenteritis among under-five children. The findings indicated that mothers who received structured educational materials showed better understanding of oral rehydration therapy, hand hygiene, and food safety practices compared to those who did not receive any intervention.

Another study conducted by Joseph et al. (2018) focused on the association between maternal education and occurrence of gastroenteritis among under-five children. The study found that higher maternal education levels were significantly associated with better preventive practices and reduced incidence of gastroenteritis, reinforcing the importance of targeted educational interventions for mothers.

World Health Organization (2017) emphasized that educating caregivers about preventive measures such as exclusive breastfeeding, safe water usage, sanitation, and early recognition of dehydration can substantially reduce the burden of gastroenteritis in children. Community-based educational strategies, including self-learning materials, are recommended to improve maternal knowledge and practices.

Overall, the reviewed literature indicates that inadequate maternal knowledge is a major contributing factor to the high prevalence of gastroenteritis among under-five children. Educational interventions, particularly self-instructional modules, have been found to be effective in improving knowledge and promoting preventive practices. However, limited studies have been conducted in urban areas of Hassan, Karnataka, highlighting the need for the present study to assess the effectiveness of a self-instruction module on knowledge regarding prevention of gastroenteritis among mothers of under-five children.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of self-instructional module on knowledge regarding prevention of gastroenteritis among the mothers of under five children in selected Urban areas of Hassan, Karnataka.

OBJECTIVES

- To assess the pre- and post-test level of knowledge regarding prevention of Gastroenteritis among mothers of under five children.
- To evaluate the effectiveness of a self-instruction module on knowledge regarding prevention of Gastroenteritis among mothers of under five children.
- To associate the pre-test level of knowledge regarding prevention of Gastroenteritis among mothers of under five children with their selected demographic variables.



MATERIALS AND METHODS

STUDY DESIGN

Research design adopted for this study was Quasi experimental with one group pre and posttest design.

SAMPLE

Mothers of under-five children in urban areas of Hassan who fulfilled the inclusion criteria.

SAMPLE SIZE

Total sample size was 60 mothers of under-five children.

SAMPLING TECHNIQUE

Simple Random sampling technique was adopted for this study. Among the total population the investigator selected sixty (60) samples who met inclusion criteria.

STUDY SETTING

The study was conducted in urban areas of Hassan.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

1. Mothers of under-five children who are willing to participate in the study.
2. Mothers who are presently staying in Urban areas of Hassan
3. Mothers who are 18-45 years of age group

Exclusion Criteria

1. Mothers who were not willing to participate in the study.
2. Mothers who had attended any previous educational programme on prevention of Gastroenteritis.

DEVELOPMENT AND DESCRIPTION OF THE TOOL

The tool consisted of two sections:

Section A: Demographic data of the samples consisting of items such as Age in years, religion, family type, marital status, education, family monthly income, occupation and source of information on knowledge regarding prevention of Gastroenteritis.

Section B: Structured knowledge questionnaire was used to collect data regarding prevention and control of Gastroenteritis.

FINDINGS

S.NO	GROUP	LEVEL OF KNOWLEDGE			T- VALUE
		MEAN	Standard Deviation	Degree of freedom	
1.	PRETEST	52.5	7.6	59	22.89 S
2.	POST TEST	83.9	8.4		

The mean value of post-test knowledge after administration of the self-instruction module was 83.9, which was higher than the pre-test mean value of 52.5. The calculated paired t-test value was 22.89, indicating a significant difference in the effectiveness of the self-instruction module at $p < 0.05$ level. The difference between pre- and post-test scores showed that the self-instruction module was effective in improving knowledge regarding prevention of Gastroenteritis among mothers of under-five children. Hence, the research hypothesis stating that "There is a significant difference between the pre and posttest level of knowledge regarding prevention of Gastroenteritis among mothers of under-five children" was accepted.

CONCLUSION

Based on the findings, the investigator concluded that the self-instruction module was effective in improving the level of knowledge regarding the prevention of gastroenteritis among mothers of under-five children. A significant difference observed between the pre-test and post-test scores indicates that the module enhanced mothers' understanding of preventive measures, hygiene practices, and early management. Thus, the self-instruction module proved to be a useful educational tool in promoting knowledge related to the prevention of gastroenteritis in the study population.



REFERENCES

1. Gupta, M., Kumar, D., & Singh, J. V. (2022). Knowledge and practices of mothers regarding prevention of diarrheal diseases among under-five children. *Indian Journal of Community Health, 34*(3), 345–349.
2. Joseph, N., Naik, V. A., Mahantshetti, N. S., & Unnikrishnan, B. (2018). Knowledge, attitude and practices of mothers regarding prevention of diarrheal diseases in children. *Journal of Family Medicine and Primary Care, 7*(1), 145–150. https://doi.org/10.4103/jfmpc.jfmpc_291_17
3. Patel, R., Shah, V., & Mehta, S. (2020). Effectiveness of self-instructional module on knowledge regarding prevention of diarrheal diseases among mothers of under-five children. *International Journal of Nursing Education, 12*(4), 78–83.
4. Rani, S., Lakshmi, R., & Devi, K. S. (2021). Effectiveness of health education on prevention of gastroenteritis among mothers of under-five children. *International Journal of Community Medicine and Public Health, 8*(6), 2875–2879. <https://doi.org/10.18203/2394-6040.ijcmph20212123>
5. Sharma, P., & Kaur, S. (2019). Assessment of knowledge and practices regarding prevention of gastroenteritis among mothers of under-five children. *Nursing and Midwifery Research Journal, 15*(2), 98–104.
6. World Health Organization. (2017). *Diarrhoeal disease: Fact sheet*. World Health Organization.
7. World Health Organization & UNICEF. (2019). *Diarrhoea: Why children are still dying and what can be done*. World Health Organization Press.