



Effectiveness of Structured Teaching Programme on the Knowledge of Mothers Regarding the use of Zinc Supplementation in the Management of Diarrhea among the under Five Children in Selected Rural Areas of Indore, MP

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The present study was semi exploratory survey type of study. The data was gathered using a pretest and post test approach. Subjects or mothers were selected using purposive sampling technique method. 40 samples were selected for the present study. The survey was done by the researcher to evaluate the information especially with respect to the advantages of zinc supplementation and to get organized information and to provide a structured teaching program regarding the benefits of zinc in the diarrheal disease. The mean pre test score of the study was around 11.95 which were increased to 20.33 in the posttest. This reveals the effectiveness of structured teaching programme. The difference between the pre test and post test was found to be very highly significant, which was evident by the paired t test value 13.60. The chi square was test also done to find out the significant association between the socio demographic characteristics and the knowledge score. There was no significant association between the demographic characteristics and the knowledge score when compared with age, number of kids, occupation,

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monthly family income, and religion. Significant association was found especially between the instructive status of mothers and the knowledge score 9.95. The findings of the present study concludes that the structured teaching programme with respect to the zinc supplementation in the pre test was very less which was improved drastically in the posttest. Structured teaching programme was found to be really very effective which is evident by the post test score. The findings of the data also reveals that the structured teaching programme is viable system of providing data and helps in the improvement in the knowledge of the mothers.

Keywords: Structured teaching programe; effectiveness; knowledge; zinc supplementation; diarrheal disease.

1. INTRODUCTION

Each child is unique and precious to very family. Children are the future of the Nation Diarrhea is a common ailment among children. Each of us has probably had diarrhea at some point in our lives. Zinc is a miracle medication, and supplementing with it is highly recommended for all gastrointestinal problems. The purpose of this study was to determine whether zinc supplementation is one of the effective therapies for diarrheal illness [1]. Life has changed, and zinc supplementation has proven to be beneficial in the treatment of severe intestinal illnesses. Diarrhea is a highly frequent and widespread ailment among Indian youngsters. Children account for around 39% of the Indian population. Data relating to children's national policies has been a crucial and important aspect of the development of the national interest. Parents all throughout the world hold their children in high regard. Parents devote their entire lives to the care and education of their children. Children occupy a unique position in households [2]. Children's sickness is a very distressing scenario that causes concern, anxiety, and tension among family members. Any sickness or sudden loss in the family can cause major disruptions. Children's diarrhea is a relatively prevalent ailment. In their lifetime, every youngster is likely to experience at least one bout of diarrhea. Mothers must be well-versed in the treatment of diarrheal illness. Developing countries, such as India, have a plethora of challenges that its families must deal with [3]. Children's diarrhea is caused by a variety of factors including overcrowding, poor living conditions, hunger, and inadequate sanitation. Diarrhea may be a primary cause of mortality in children if not appropriately controlled.

Diarrhea has spread throughout the planet. Every child passes through a period of diarrhea at some point in their lives. Children under the age of five years account for 9% of all child deaths [4]. This is an extremely alarming statistic,

with 1400 young children dying per day, or 5.26000 children every year. As a result, health professionals should be quite worried about these findings. Diarrhea may be readily controlled with easy home cures and therapy. Developing nations such as India, Bangladesh, the Democratic Republic of Congo, Ethiopia, Kenya, Nigeria, Pakistan, Tanzania, and Uganda account for more than 60% of diarrheal mortality. Only a small percentage of youngsters receive adequate care. ORS and zinc supplements are advised for diarrhea therapy. In reality, just two out of every five children with diarrhea will receive adequate therapy, which includes ORS and zinc supplements. The median coverage of zinc supplementation is just 1% across the 49 nations for which statistics and figures are available [5].

In 2004, the World Health Organization (WHO) and the United Nations Children's Emergency Fund (UNICEF) advocated a suitable combined articulation and care of diarrhea, particularly a joint articulation of extreme looseness of the intestine linked disorders in developing countries. The main proposition that was considered was based on good organic and epidemiological evidence. This study concluded that zinc supplementation combined with ORS therapy can be a game changer in the treatment of diarrheal illness and the prevention of recurrence [6-7].

2. MATERIALS AND METHODS

Prior to the data collection, each member or mother's consent was obtained. The moms were given a thorough orientation and were fully told about the study's goals and objectives. The study's goal and the questionnaire utilized were both perfectly appropriate. Adequate attention was taken in the correct creation of research instruments, and every precaution was made to safeguard the volunteers from any potential danger that may arise throughout the study. The

subjects' confidentiality, security, and identification were all respected.

The study's main subjects were mothers. The moms for this study were chosen using a targeted sampling strategy. A total of 10 to 15 moms were chosen for data collection each day. The study's goal was disclosed before data was gathered.

First, a pre-test was conducted using a structured knowledge questionnaire on the use of zinc supplementation in the treatment of diarrhoea. Following the pre-test, a structured teaching programme was implemented. After an 8-day interval, a post-test was conducted utilising the same structured knowledge questionnaire. During the data collecting phase, the study subjects or moms cooperated fully. The data was tabulated, processed, and graphed, as well as descriptive and inferential statistics.

3. RESULTS AND DISCUSSION

The results of the study were presented in the following order:

- Socio demographic data was analyzed in terms of frequency and percentage.
- Pre test knowledge score of mothers regarding zinc supplementation in the management of diarrhea.
- Post test knowledge score of mothers after the administration of structured teaching programme.
- Compare the effectiveness of structured teaching programme.
- Association was done to find out the significant association between the socio-demographic characteristics and the pre test knowledge score.

Table 1. Distribution of sample based on demographic characteristics (N=40)

S. No	Demographic characteristics	Frequency	%
1	Age in years		
	18-23	2	5
	24-29	21	52.5
	30-35	13	32.5
2	Above 36 years	4	10
	Number of children		
	1	20	50
	2	16	40
3	3	3	7.5
	More than 3	1	2.5
	Education		
	Primary	12	30
4	High school	9	22.5
	Pre university	8	20
	Diploma, graduate and above	11	27.5
	Occupation		
5	Homemaker	29	72.5
	Unskilled worker	2	5
	Skilled worker	3	7.5
	Professionals	6	15
6	Monthly family income		
	Rs.5000-10000	26	65.0
	Rs.10001-15000	2	5.0
	Rs.15001-20000	7	17.5
7	Rs. 20001	5	12.5
	Religion		
	Hindus	20	50.0
	Muslim	16	40.0
7.	Christian	4	10.0
	Previous information regarding zinc supplementation		
	Yes	20	50.0
	No	20	50.0

Table 2. Distribution of samples based on their knowledge level (N=4)

Level of knowledge score	Range	%	Number	%	Number	%
Inadequate	0-8	0-30	11	27.5	0	0.0
Moderate	9-17	31-65	22	55.0	7	17.5
Adequate	18-26	66-100	7	17.5	33	82.5

Maximum score is 26

Table 3. Distribution of samples based on range, mean Sd and mean % of and post test knowledge scores

Areas	Range	Mean	Sd	Mean %	Mean difference
Pre-test	3-22	11.95	5.01	45.96	00
Post-test	11-25	20.33	3.05	78.2	8.38

Maximum score 26

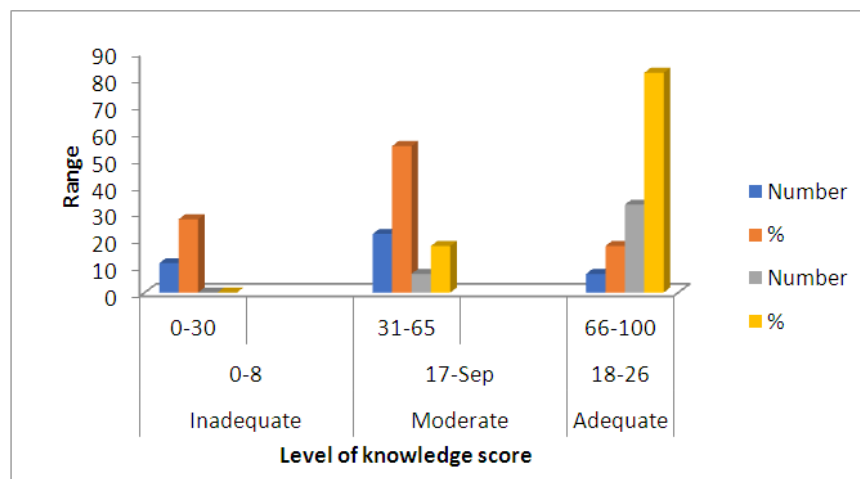


Fig. 1. Distribution of samples based on their knowledge level (N=4)

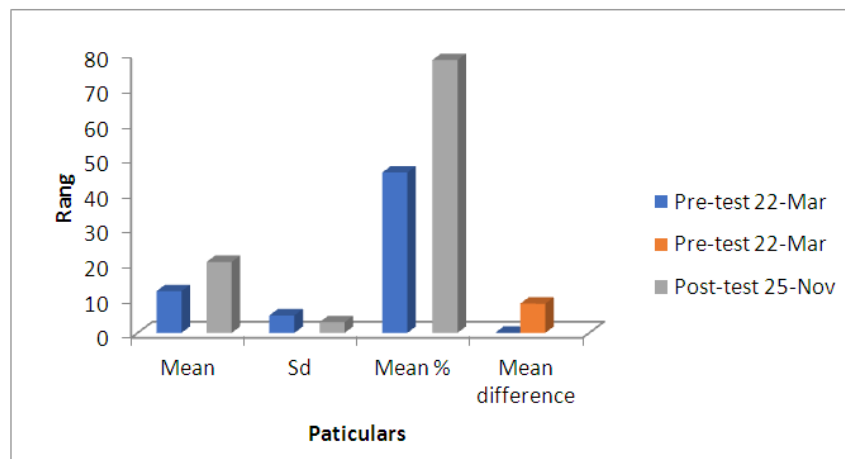


Fig. 2. Distribution of samples based on range, mean Sd and mean % of and post test knowledge scores

The major findings of the study:

- The mean pre test knowledge was 11.95%

and in the post test it was found to be 20.33 which were very highly significant.

- Structured teaching was found to be very effective in improving the knowledge score of mothers.

4. CONCLUSION

Diarrhea is a serious killer illness that kills one out of every five children in India, making it a major public health issue. Diarrhea causes excessive zinc losses in the stool, and zinc shortage contributed to the diarrhea's persistence. Diarrhea is one of the most prevalent symptoms of disease in children and newborns. In compared to the individual's regular stool pattern, it is characterized by an increase in fluidity, frequency, volume, and sometimes changes in facial colour. Diarrhea is a sign of a wide range of illnesses, and it is one of the leading causes of morbidity and death in babies and children across the world. Both children and caregivers have proven that zinc and low osmolality are tolerable. Zinc with a low osmolality is affordable, safe, and simple to administer, and it has the potential to reduce diarrhea morbidity and mortality significantly. Large-scale projects in Bangladesh and India have shown that working together may reduce needless antibiotic usage, revive community diarrhea management while keeping costs reasonable and treatment acceptable to both children and caregivers, and, most importantly, save lives. Community-based diarrhea control should be a top global health priority since the medicines available today are safe, effective, and economical. Nurses have a unique opportunity to help the mothers to examine their children, recognize the risk and potential areas of change, advice on a focused individualized plan and facilitate the accomplishment of the goal.

5. RECOMMENDATIONS

- A similar study can be done with large sample size.
- Parents can be or fathers can be included in the study

CONSENT

As per international standard, parental written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

A signed approval from the Block Medical Officer, Indore, was obtained for the data collection in this study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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