

Effectiveness of Self Instructional Module on Knowledge Regarding Balanced Diet Among Mothers of Toddler in Selected Rural Areas: A Quasi Experimental Study

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Abstract—Balanced diet is necessary for normal activities that are performed in life. The nutritional status of children is an indicator for the economic development. Children are more prone to suffer from nutritional deficiencies and problems. Malnutrition is a condition which develops as a result of insufficient food nutrients supplied to the body; these nutrients include minerals, vitamins, proteins, fat, and carbohydrate which are necessary for maintaining healthy tissues and organ functions. Malnutrition is an underlying cause of mortality and morbidity of children under 5 years of age. It was estimated that malnutrition was responsible for 60% of 10.9 million deaths annually, either directly or indirectly among children under 5 years of age. In Saudi Arabia, the prevalence of being moderate to severe underweight was 6.9% and 1.3%, respectively, and it was found that the prevalence rate of malnutrition among children was higher than that of other countries with less economic sources. The symptoms that might be experienced in malnutrition include breathing difficulties, higher risk of hypothermia, weight loss, and higher susceptibility to diseases. There are several risk factors and they should be identified to avoid the bad consequence of malnutrition, and thus to promote health and prevent diseases. These factors include larger family size, maternal illiteracy, low monthly income, and paternal literacy. The main risk factors reported was low maternal education. Mother is the person responsible for taking care of child, so it is very important for mothers to have enough knowledge regarding nutrition of the child. Mothers who have more knowledge about nutrition can bring up their children in healthy way. There was no previous study in Saudi Arabia which was conducted to investigate the knowledge of mothers about malnutrition and maternal associated factors; hence, this study was performed

I. INTRODUCTION

Balanced and sufficient nutritional intake is most essential for children to promote optimal growth and development, to protect and maintain health, to prevent nutritional deficiency condition and various illness and to preserve for starvation and dietary stress. Nutrition may be "defined as the science of food and its relationship to health". Lack of adequate nutrients will lead to malnutrition in children.

Despite India's substantial progress in human development since its independence in 1947, almost half of its children under four years of age are moderately or severely malnourished. Even though repeated surveys since 1978 have indicated some improvement in the nutritional status, the situation is far from satisfactory and could seriously retard improvement in human development and further reduction of child hood mortality. Malnutrition is directly or indirectly responsible for more than half of deaths of under fives

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II. BACKGROUND OF STUDY

Balanced diet is essential for normal activities of life. Since there is enough food available, it can be improved through proper education and awareness. Good nutrition and proper feeding programs prevent illness and disabilities. Malnutrition continues to be an underlying cause of morbidity and mortality in children under five years of age. Children are more vulnerable to suffer from nutritional deficiencies. More than 3.5 million children fewer than five die unnecessarily each year in Asia due to the underlying cause of under nutrition and millions more are permanently disabled by the physical and mental effects of a poor dietary intake in the earliest months of life. By the time children reach their second birthday, if undernourished, they could suffer irreversible physical and cognitive damage, impacting their future health, economic wellbeing, and welfare. The consequences of insufficient nourishment continue into adulthood and are passed on to the next

generation as undernourished girls and women have children of their own.¹

Under nutrition is caused by a poor dietary intake that may not provide sufficient nutrients, and/or by common infectious diseases, such as diarrhea. These conditions are most significant in the first two years of life,

Nutrition outcomes among young children in Nigeria are among the worse globally. Mother's limited knowledge about food choices, feeding, and health care seeking practices contributes significantly to negative nutrition outcomes for children in most developing countries. Much less is known about the relationship between mother's nutrition-related knowledge and child nutritional outcomes in rural Nigeria. This paper investigates therefore: (i) the association of mother's nutrition-related knowledge with nutrition outcomes of young children living in rural Nigeria, where access to education is limited, and (ii) whether mother's education has a complementary effect on such knowledge in producing positive child nutrition outcomes in such settings.⁶

Objectives

- I. To assess the effectiveness of self-instructional module on knowledge regarding balanced diet among mothers of toddler in selected rural areas.

III. MATERIALS AND METHODS

A quasi experimental research approach was adopted and one group pre-test posttest quasi experimental design was used for this study. The study was carried out in the quasi The period of data collection was three weeks. has obtained formal permission from authorities concerned selected rural areas: a quasi-experimental study.to conduct research study. Purposive sampling technique was used to select the knowledge regarding balanced diet among mothers of toddler in selected rural areas a quasi-experimental study Written consent was obtained from the samples and pretest has been assessed for all sample consisted of 70 mothers of toddler residing in selected rural areas of the city using demographic and Structured interview schedule for assessing knowledge. Self-Instructional Module on knowledge regarding Balanced Diet among mothers of toddler in selected rural areas the pre-test was conducted. After 7 days, the post test was taken and the data was analyzed. Statistical Analysis The data was analyzed by

descriptive and inferential statistics. Demographic data was analyzed using frequency and percentage, data from the questionnaire before and after health education administered was also analyzed using

frequency, percentage and ‘t’ test. The association between knowledge findings and demographic variables was found by using t test and one way ANOVA.

IV. RESULTS

Table 1: Percentage wise distribution of schools children according to their demographic characteristics n=126

Demographic Variables	Mothers of toddler	Percentage (%)
Age(yrs)		frequency
20-24 yrs	53	75.7
25-29 yrs	16	22.9
30-34 yrs	1	1.4
≥35 yrs	0	0
Education		frequency
Primary	1	1.4
Secondary	2	2.9
Higher Secondary	9	12.9
Graduation	49	70.0
PG	9	12.9
Other	0	0

Occupation of family	Frequency	Percentage (%)
Govt. Service	1	1.4
Pvt. Service	2	2.9
Housewife	54	77.1
Self Employed	11	15.7
Labourer	1	1.4
Other	1	1.4
Monthly Family Income(Rs)		Frequency
Below 10000 Rs	7	10.0
10001-15000 Rs	27	38.6
15001-20000 Rs	31	44.3
>20000	5	7.1
Religion		
Hindu	50	71.4
Muslim	3	4.5
Christian	8	11.4
Buddhist	5	7.1
Others	4	5.7
Type of family		
Nuclear	21	30.0
Joint	46	65.7
Extended	3	4.3
Number of children		
One	15	21.4
Two	42	60.0
Three and more	13	18.6

Table 2: Significance of difference between knowledge scores in pre and post test of mothers of toddler regarding balanced diet

Overall	Mean	SD	Mean Difference	Calculated t-value	DF	Table value	p-value
Pre Test	7.90	2.42	4.38±2.87	12.78	69	2.45	0.0001 S _p <0.05
Post Test	12.28						

Above table shows that overall mean pre test and post test knowledge scores of mothers of toddler from selected rural areas of the city which reveals that post test mean knowledge score was higher 12.28 with SD of 3.57 when compared with mean pre test knowledge score which was 7.90 with SD of 2.42. The statistical Student's paired, "t" test implies that the difference in the pre test and post test knowledge among mothers of toddler from selected rural areas found to be 12.78 which is statistically significant at 0.05% level of significance. Tabulated value for n=70 i.e. 69 degree of freedom was found to be 2.45.. Hence it is statistically interpreted that Self instructional module on knowledge regarding balanced diet among mothers of toddler was effective. Thus, H1 is accepted and H0 is rejected.

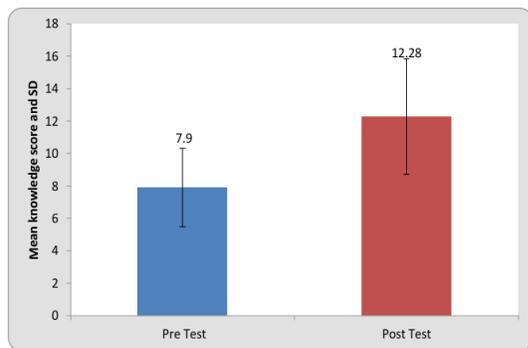


Fig. 2.1 : Simple bar diagram representing significance of difference between knowledge scores in pre and post test of mothers of toddler regarding balanced diet.

V. DISCUSSION

The finding of the study was discussed with reference to the objectives and the findings of the other studies in this section. The present study was undertaken to assess the effectiveness of self instructional module knowledge regarding balanced diet among the mothers of toddler in selected rural areas of the city., 17.5% of the children had poor knowledge, 27.8% had average knowledge, and 54.8% had good knowledge. However, after the intervention, the children showed significant improvement, with In the present study

post-test knowledge score of mothers of toddler was higher than pre-test. It shows that 35.71% of the mothers of toddler had average level of knowledge score, 48.57% of the mothers of toddler had good level of knowledge score, 14.29 % of the mothers of toddler had very good level of knowledge score and 1.43% of mothers had excellent level of post test knowledge score. The mean and standard deviation of the result reveals that mean score is 7.90 and SD is 2.42 in pre test and mean score is 12.28 and SD 3.57 in post test.

VI. CONCLUSION

After the detailed analysis, this study leads to the following conclusion: The mothers of toddler have good and very good level of knowledge regarding Balanced diet There was a significant increase in knowledge of mothers of toddler after introduction of Self Instructional module. To find the effectiveness of self instructional module paired "t" test was applied and post test score was significantly higher at 0.05 level than that of pre-test score. It reveals that 62.86% of the mothers of toddler had good level of knowledge score and 17.14% of the mothers of toddler had very good level of knowledge score. Thus, it was concluded that self instructional module on knowledge regarding Balanced diet among mothers of toddler in selected rural areas of the city was found to be effective as a teaching strategy. Hence, based on the above cited findings, it was concluded undoubtedly that the educational intervention by the investigator in the form of self instructional module helped the mothers of toddler to increase knowledge regarding Balanced Diet

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