

A Study to assess the Efficacy of selected Nutritional intervention among among Under five Children at selected Villages of Indore city.

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Introduction

Tomorrow's citizens are today's children. We cannot ensure future healthy citizens unless the nutritional needs of children are adequately met. Around 8% of the world's population is malnourished, and statistics show that more than 160 million under-five children are malnourished. Today, child malnutrition affects 7% of children under the age of five in China, 28% in Sub-Saharan Africa, and 43% in India. Undernutrition is most prevalent in rural areas, with 27-28 percent of children being underweight. Malnutrition is a major paediatric issue that causes a high rate of morbidity and mortality. Malnutrition-related mortality accounted for 58 percent of total mortality in India in 2006. Every year, approximately 500,000 infants and children die in India as a result of severe malnutrition. Malnutrition affects approximately 75 to 80 percent of hospitalised children. Malnutrition is a major issue in developing countries. In India, the death rate is highest among children aged 0 to 4 years. Malnutrition and infection are to blame. The goal of this study was to see how mixed cereal porridge affected malnutrition in children under the age of five in selected villages in Indore City.

Methodology

For the study, a quasi experimental design was chosen. The study's conceptual framework was based on Modified Wiedenbach's Helping Art of Clinical Nursing (1964) A structured interview schedule was used to assess demographic information. The sample consisted of 60 children under the age of five, 30 in the experimental group and 30 in the control group from various villages in Indore City. To test the hypothesis, the data were analysed using descriptive and inferential statistics, as well as the independent 't' test and chi-square. The hypothesis was tested at the p0.001 level of significance.

Results

The study's main findings include

- In the experimental group, 46.7 percent were between the ages of 3.6-4 years, 68 percent were female, 69 percent were at home, 91.5 percent were non vegetarian, 51.6 percent were second order of birth, and 64.2 percent belonged to a nuclear family.
- In the control group, 36.9 percent were 2.6-3 years old, 55.7 percent were male, 56.8 percent were at home, 86 percent were non vegetarian, 48 percent were first in birth order, and 86.7 percent belonged to nuclear family.
- In the experimental group, 56.1 percent of fathers had finished primary school, 33.1 percent of mothers had finished primary school, 51 percent of fathers were unskilled 66workers, 73.3 percent of mothers were unemployed, and 43.1 percent of the children's family monthly income was between Rs.4893-2936.
- In the control group, 53.3 percent of fathers had finished primary school, 48.1 percent of mothers had finished primary school, 33.9 percent of fathers were unskilled workers, 71.3 percent of mothers were unemployed, and 38 percent of the children's family monthly income ranged from Rs.4893 to 2936.
- In the experimental group, the mean pretest weight was 10.841.02, whereas in the control group, the mean pretest weight was 10.801.02, revealing a 0.4 difference.
- The mean pre-test weight in the experimental group was 10.84 1.02, while the mean post-test weight was 13.18 1, revealing a difference of 2.34.

However, in the control group, the mean pretest weight was 11.811.29 and the post test weight was 11.821.22, indicating a 0.01 difference.

- The mean post test score in the experimental group was 12.121, while the mean post test score in the control group was 11.791.42, with a 't' value of 2.4. Which was greater than the table value at the 0.05 level. As a result, there was a significant difference in the posttest mean weight of under five children between the experimental and control groups (P0.05).

- There was no significant association between the weight of children under the age of five and their selected demographic variables in either the experimental or control groups ($P>0.05$), with the exception of age ($p0.05$).

- There was a significant association between the weight of under five children and selected demographic variables of parents in both the experimental and control groups ($p0.05$), with the exception of education level of father and occupation of mother in the control group, where no significant association was found ($p>0.05$). Thus, hypothesis (H2) was accepted with post test weight of under five children and selected demographic variables of parents in Experimental and Control groups, with the exception of education level of father and occupation of mother in Control group, which were rejected.

Discussion

Distribution of children under the age of five based on demographic variables In the experimental group, 46.7 percent were between the ages of 3.6-4 years, 68 percent were female, 69 percent were at home, 91.5 percent were non vegetarian, 51.6 percent were second order of birth, and 64.2 percent belonged to a nuclear family.

- In the control group, 36.9 percent were 2.6-3 years old, 55.7 percent were male, 56.8 percent were at home, 86 percent were non vegetarian, 48 percent were first in birth order, and 86.7 percent belonged to nuclear family.

- In the experimental group, 56.1 percent of fathers had finished primary school, 33.1 percent of mothers had finished primary school, 51 percent of fathers were unskilled 66workers, 73.3 percent of mothers were unemployed, and 43.1 percent of the children's family monthly income was between Rs.4893-2936.

- In the control group, 53.3 percent of fathers had completed primary school, 48.1 percent of mothers had completed primary school, 33.9 percent of fathers were unskilled workers, 71.3 percent of mothers were unemployed, and 38 percent of the children's family monthly income ranged between Rs.4893 and 2936.

The findings were compared with a cross-sectional study conducted by Sapthika.V.S and Greeshma.C.P, (2008) to determine the prevalence of malnutrition and the factors associated with it. The findings regarding demographic variables revealed that the risk of malnutrition in children under the age of five from low socioeconomic status is nearly four times that of children from high socioeconomic status, and children from joint families were found to be more protective against stunting than children from nuclear families. It reveals that malnutrition is common among children under the age of five, and that it is more prevalent among the poor socioeconomic group.

Objective 1: To assess the nutritional status of children under the age of five in the experimental and control groups.

- In the experimental group, the mean pretest weight was 10.841.02, whereas in the control group, the mean pretest weight was 10.801.02, revealing a difference of 0.4 and a difference of 0.13. The National Family Health Survey (2005) conducted a study in Bihar to investigate the prevalence of malnutrition among children under the age of five. It was determined that 42.5 percent of children are underweight, 48 percent are stunted, and 19.8 percent are wasted. It was also discovered that the prevalence of underweight among children in India is among the highest in the world. Gowtham.V.P. and Gurung.K.K., (2007) conducted a cross-sectional study to determine the prevalence of undernutrition; the study's findings revealed that the prevalence of underweight, stunting, and wasting was 27 percent, 37 percent, and 11 percent, respectively. This study supports the fact that underweight is common among children under the age of five, and there is a need to take the necessary steps to reduce its impact on children's health.

Objective 2: To assess the effectiveness of mixed cereal porridge on malnutrition in children under the age of five in the experimental group. The mean pre-test weight in the experimental group was 10.84 1.02, while the mean post-test weight was 13.18 1, revealing a difference of 2.34. However, in the control group, the mean pretest weight was 11.811.29 and the post test weight was 11.821.22, indicating a 0.01 difference. A study conducted by Kasthoorba et al. (2008) to assess the effectiveness of mixed cereal porridge on malnourished

under five children in Uttar Pradesh supported these findings. For an 8-week period, 100 subjects were given 50 grammes of mixed cereal porridge. The study's findings revealed a significant difference of 0.21 in the weight of under five children after the intervention. The study's overall findings showed that oral supplementation of mixed cereal porridge was effective for malnourished under five children and resulted in minimal changes in body weight.

Objective 3: To correlate the nutritional status of under-five-year-old children in the experimental and control groups with their chosen demographic variables. There was no significant association between the weight of children under the age of five and their selected demographic variables in either the experimental or control groups ($P > 0.05$), with the exception of age ($p < 0.05$). As a result, hypothesis (H2) was rejected in relation to demographic variables of children ($P > 0.05$), with the exception of age ($P < 0.05$). According to the National Family Health Survey (2003), the mother's education level, father's occupation, monthly income, and age all have an impact on the nutritional status of children.

This demonstrates that age, father's education, mother's education, father's occupation, mother's occupation, and monthly income all have an impact on the nutritional status of malnourished children under the age of five.

Conclusion

A study was conducted to assess the effectiveness of a selected intervention on malnutrition among children under the age of five in selected villages in Indore City. The samples were chosen using the convenience sampling technique, and the sample size was 60, with 30 assigned to the experimental group and 30 assigned to the control group. The study's findings revealed that mixed cereal porridge was effective in improving the nutritional status of under-five malnourished children.

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