

THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME AMONG PRIMIGRAVIDA REGARDING MATERNAL NUTRITION AND ITS EFFECT ON FETAL HEALTH

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Abstract

Poor Maternal Nutrition may be caused by past health condition that keeps your body from digesting (breaking down) or absorbing nutrients improperly. Your body may also lose nutrients because of diarrhea, bleeding and other problems, Radhakrishna, R (2008) Poor Maternal Nutrition is one of the most serious and large scale health problems facing India in general and Madhya Pradesh in particular. Poor Maternal Nutrition constitutes 22% of the country's disease burden because it severely weakens a child's immune system, raising their mortality rates from common disease such as pneumonia, malaria, measles and diarrhea A recent report estimated that 37deaths registered between 0 to 4 years in Madhya Pradesh weredue to chronic hunger and Poor Maternal Nutrition. It is found that backward classes especially scheduled castes (SC) and scheduled tribe (ST) are the worst affected in the state .Tribal communities in the M.Pare the most rural and marginalized communities in the country, having almost zero access to any health services and also the worst development indicators in the country. Scheduled caste is another major part of state's population, as a collective, have history indigence and marginalization – both precipitating conditions for Poor Maternal Nutrition. Evaluative approach was assimilating. Quasi experimental, non-randomized control group design was selected as the research design for the present study. The experimental group, the pre-test score was minimum 14 and maximum 26 Mean and SD was 20.33 and 4.08 respectively. The post-test score was minimum 16 and maximum 33 Mean and SD was 24.53 and 3.25 respectively. The obtained' value for the experimental group is 5.95 i.e. statistically significant 0.05 level. So research hypothesis H1 is accepted.

Introduction

Degree of physical work during pregnancy may also affect the health of the mother and the outcome of pregnancy. Several investigations demonstrate that pregnancy weight gain and pregnancy outcome (birth weight) improve if a women maintains energy balance by reducing

physical work to counter- balance reduced dietary energy intake. However, most systematic data are required to determine if changes in physical activity have an effect on pregnancy outcome when dietary intake is adequate. In other words, the effect of physical activity on pregnancy weight gain and outcome throughout the range of dietary intakes is not understood.

The most common causes are anemia are dietary intake deficiencies, mal absorption defects, blood losses, infections and infestations, and in certain areas, hemoglobin apathies. In general, iron deficiency is the commonest cause of anemia. In pregnant women folate deficiency is also an important cause.

Severe anemia in pregnant women is associated with an increased risk of premature delivery and maternal morbidity and mortality. Mild to moderate anemia (small reductions in hemoglobin) caused by severe iron deficiency has been shown to decrease performance in maximum or near maximum exercise in humans and alter mitochondrial energy metabolism and hormonal balance in animals. There is also some evidence that mild to moderate anemia may limit performance of tasks involved in daily occupations. Lastly, there is some experimental evidence that iron deficiency anemia may be related to reduced resistance to infection and impaired immunity. However, current findings are not conclusive, and the subjects require further controlled study.

Iron and folate supplementation have been shown to effectively increase the hemoglobin concentration of pregnant women in Israel, Burma, and India. The Narangwal studies in Punjab suggest that maternal iron and folate supplementation of pregnant women contributed to a decrease in perinatal mortality.

Review of Literature

Dwyer CM(2011)³conduct a study on the effect of gestational under nutrition on maternal weight changes and fetal weight in lines of mice selected for different growth characteristics. Analysis that genetic growth characteristics of a mother influences her mother ability to partition nutrients to develop offspring. A total 61 pregnant mice three selected lines were used: fast

growing , relatively , relatively lean and normal growth, relatively lean on day 1 pregnancy , mice were given either and libitum access to food or pair –fed at 80% of C intake feed intake and dam weight were measured daily.

Nowicki E (2011)⁴conduct a study on predictors of measurement error in energy intake during pregnancy. Nutrition plays role in maternal and fetal health. The authors analyzed data on 8 women living in central North Carolina with singleton pregnancies during 2001 – 2005 .second trimester diet was assessed by food frequency questionnaire.. unbelievable values for daily energy intake were composed using confidence limit of agreement for energy intake /estimated energy requirement .prevalence of low energy reporting (LER) and high energy reporting (HER) were 32.8 % and 12 % respectively. In a multivariable analysis, pre-gravid body mass index was related to LER and HER; LER was higher in both overweight and obese women than in normal weight counterparts. HER was higher among subjects who are underweight, African American, and less educated and subjects who had higher depressive symptom scores. LER(low energy reporting) and HER are prevalent during pregnancy.

Objectives

Objectives of the study were to assess the effectiveness of planned teaching program (PTP) about maternal nutrition and its effect on fetal health among primigravida in experimental group, compare the knowledge scores regarding maternal nutrition and its effect on fetal health in experimental group and control group

Research methodology

Evaluative approach was assimilating. Quasi experimental, non-randomized control group design was selected as the research design for the present study. The design select for the study is as follows-

GROUP	PRE-TEST (DAY 1)	INTERVENTION	POST-TEST (DAY 7)
EXPERIMENTAL GROUP	01	X	07
CONTROL GROUP	02	-	07

The present study was conducted on sample of 60 reproductive primigravida women of selected area Gwalior (M.P.). Non probability convenient sampling technique was used for selection of samples.

Tools: The tool consists of four sections:

Section-A: Includes items related to demographic variable.

Section-B: This section consists of structured questionnaire on maternal nutrition during pregnancy.

Section-C: This section contains structured questionnaire on maternal nutrition and its effect on mother.

Section-D: This section contains structured questionnaire on maternal nutrition and its effect on fetal health.

A plan teaching program was developed to educate the reproductive age group women the content of the planned teaching program are Definition, Importance of good nutrition during pregnancy, Nutritional needs during pregnancy, Balanced diet and Nutritional requirements during pregnancy, Maternal nutritional deficiency and its effect on mother, Maternal nutritional deficiency and its effect on fetus. A plan teaching program was developed to educate the reproductive age group women the content of the planned teaching program are:

Validity and Reliability

The entire section of tool was validated by expert nursing personnel. The reliability of a measuring tool can be assessed in the aspects of stability, internal consistency, and equivalence depending on the nature of the instrument and aspects of the reliability concept. The r value in the pilot study was $r = 0.7$ and it is found by split half method.

- ❖ **Descriptive statistics** Percentage, Mean standard deviation and percentage was used to evaluate the knowledge level of primigravida regarding maternal nutrition and its effect on fetal health for both the experimental group and control group, using paired t test
- Inferential Statistics** Chi-square test was used to find out the relationship between demographic variables and knowledge level of primigravida regarding maternal nutrition and its effect on fetal health.

Result and Discussion analysis of observation scores is given for both the experimental and control group. There was administration of structured teaching to the primigravida for the experimental group. A planned teaching program (PTP) was given for 45 minutes with visual aids. Post-test was conducted with the same questionnaire on the 7th day.

The experimental group, the pre-test score was minimum 14 and maximum 26, Mean and SD was 20.33 and 4.08 respectively. The post-test score was minimum 16 and maximum 33, Mean and SD was 24.53 and 3.25 respectively. The obtained 't' value for the experimental group is 5.95 i.e. statistically significant 0.05 level. So **research hypothesis H1 is accepted.**

Bloomfield F H (2010)¹ conduct a study to assess the effectiveness of SIM on maternal nutrition related to preterm birth. They found that there was significant increase of 20.8% in participant mean knowledge score in the post test ($m=60.9\%$, $SD=12\%$). This study concluded that SIM regarding the maternal nutrition related to preterm birth for pregnant women was

effective in increasing knowledge of maternal nutrition the study also suggested more and depth independent study programme preterm birth.

Pre-test and posttest mean knowledge scores of respondent regarding maternal nutrition and its effect on fetal health for the experimental group and control group. For experimental group, the total enhancement of the respondent in section-B was 15%, section-C was 20% and section-D was 46.67%. The overall enhancement was 12% from pre-test to post-test. For the control group, the total enhancement of the respondent in section-B was 7.5%, section-C was 2.86% and section-D was 0.84%. The overall enhancement was only 2.77% from pre-test to post-test. Hence, it was concluded that there was significant difference between the knowledge scores of experimental group and control group. association with the knowledge and some have not association with the knowledge. Such as age, education, duration of pregnancy, type of diet were not significant and some like religion, monthly income is highly significant $P < 0.01$. **Here, H2 research hypothesis is accepted under the demographic variables such as religion and monthly income.**

Cochrane database syst Rev (2011)² conduct a study on vitamin supplementation for preventing miscarriage No significant differences were seen between women taking any vitamins as compared with controls for fetal loss relative risk 1.04 (95%)confidence interval 0.95 to 1.1 , early or late miscarriage or still birth and most of the other primary outcome, using fixed effect models.

CONCLUSION

The pre-test findings showed that the knowledge of primigravida regarding maternal nutrition and its effect on fetal health was inadequate in both groups that is experimental and control group. In experimental group, administration of planned teaching program (PTP) helped them to understand more about maternal nutrition and its importance during pregnancy. Most of them were having good level of knowledge after introducing the teaching. The planned teaching program (PTP) is proved to be very effective method of transforming information.

NURSING IMPLICATIONS

NURSING PRACTICE: Provide adequate knowledge to parents, family members and relatives so that they will come to know about the importance of maternal diet and its consequences.

NURSING EDUCATION: Nursing curriculum should take initiative to publish book and articles in journal regarding maternal nutrition and its effect on fetal health. They should also motivate students to do many projects regarding maternal nutrition and its effect on fetal health in rural areas by including all adolescents' girls of rural areas.

NURSING ADMINISTRATION: The nurse administrator can conduct and organize educational program in order to enhance nurses knowledge and keep them aware of the latest data or articles or current scenario about the malnourishment and its consequences in the country.

NURSING RESEARCH: The study throws light on reproductive age group of primigravida knowledge regarding maternal nutrition and its effect on fetal health.

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