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To evaluate the effectiveness of information booklet on knowledge and attitude regarding importance of nutrition and weight gain during second trimester among primigravida women at selected hospitals of Kalaburagi

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Abstract

Background: While being pregnant is undoubtedly an exciting time, a woman's body is under a lot of physiological stress as she takes care of her developing foetus. Numerous physiological, metabolic, and hormonal changes that occur in the mother's body throughout foetal development affect both the organism's need for nutrients and how well it uses them. The foundational element of human life is nutrition.

Objective: To evaluate the effectiveness of Information Booklet on knowledge and attitude regarding nutrition and weight gain during second trimester among primigravida women in selected hospitals at Kalaburagi.

Methodology: An evaluative approach with one group pre-test post-test design was adopted for the study. The samples from the selected hospitals were selected using convenient sampling technique. The sample consisted of 50 primigravida women. The tools used for data collection was structured knowledge and attitude scale and Information Booklet was prepared for intervention.

Results: With regard to knowledge in pre-test it shows that, maximum 23 (46%) respondents were having average knowledge, 16 (32%) respondents were having poor knowledge and remaining 11 (22%) respondents were having good knowledge. During post-test maximum 28 (56%) of respondents were having good knowledge, 22 (44%) of respondents were having average knowledge and remaining 2(4%) were had poor knowledge regarding nutrition and weight gain during second trimester. With regard to attitude in pre-test it shows that, maximum 23(46%) respondents were having non favorable attitude, 20 (40%) respondents were having favorable attitude and remaining 07 (14%) respondents were having positive attitude. During post-test maximum 32 (64%) of respondents were having favorable attitude 14 (28%) were had favorable attitude and remaining 4 (8%) of respondents were having non favorable attitude regarding nutrition and weight gain during second trimester. The statistical paired 't' implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired 't' value of 10.88. The statistical paired 't' implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired 't' value of 9.89 There exists a statistical significance in the difference of knowledge score indicating the positive impact of information booklet.

Conclusion: The findings revealed that, Knowledge and attitude of primigravida women regarding nutrition and weight gain during second trimester during pretest was moderate and favorable respectively and are increased as good and positive after teaching program Information.

Keywords: Nutrition and weight gain during second trimester, primigravida women, knowledge, attitude, information booklet

Introduction

According to the World Health Organisation, a woman's pregnancy and childbirth are unique experiences for her and her family. There can be a lot of hope and happy expectation at this time. Pregnancy carries some hazards to a woman's health and survival as well as that of the unborn child, even though it is a normal natural process rather than an illness. These hazards exist in all environments and in all societies. Since every pregnant woman needs to take extra care during her pregnancy and childbirth, they have mostly been conquered in industrialised

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nations. Due to a lack of access to care, many women in underdeveloped nations view pregnancy as a voyage into the unknown from which they will never return.

According to the World Health Organisation, for every 100,000 live births, there are 430 maternal fatalities worldwide. For every 100,000 live births, there are 480 maternal fatalities in underdeveloped nations. For every 100,000 live births, there are 27 maternal fatalities in affluent nations.

While being pregnant is undoubtedly an exciting time, a woman's body is under a lot of physiological stress as she takes care of her developing foetus. Numerous physiological, metabolic, and hormonal changes that occur in the mother's body throughout foetal development affect both the organism's need for nutrients and how well it uses them. The foundational element of human life is nutrition.

For each human bodily system to operate as intended, a balanced intake of nutrients is required. It is commonly known that poor nutrition increases the likelihood of unfavourable outcomes such as intrauterine growth restriction (IUGR), low birth weight (LBW), premature delivery, and prenatal and intranatal death. Furthermore, consuming too many nutrients during pregnancy increases the risk of problems such as dystocia, macrosomia, GDM, PET, and an increased frequency of caesarean sections.

Therefore, poor or overnutrition during pregnancy has detrimental effects on both the expectant mother and the unborn child, both immediately and over time.

It has been suggested that pregnancy is a crucial time for the development of obesity and overweight in both the mother and the child. Pregnancy problems such as caesarean delivery, large-for-gestational-age newborns, and postpartum weight retention have been linked to excessive weight gain during pregnancy.

The majority of moms in India lack enough understanding about prenatal, intranatal, and postnatal care. Their lack of access to communication and transportation, poverty, and illiteracy expose them to grave repercussions. In most parts of the world, women are denied the fundamental right to health care, despite the fact that they are the primary carers within the family and are essential to human development and wellbeing. Since the family cannot fill the role of a mother, the loss of the mother raises the risk to the survival of her young children. Maternal mortality is a serious concern in India. In Karnataka, there are 460 maternal deaths for every 100,000 live births.

According to Mathai M, there are typically 420 maternal deaths for every 100,000 live births in India. Complications include haemorrhage (29%), anaemia (19%), sepsis (16%), obstructed labour (10%), unsafe abortion (9%) and hypertensive disorders of pregnancy (8%), account for the majority of maternal deaths in India. It may be possible to prevent all of them. Maternal mortality cannot be prevented by vaccination, and there is no one quick fix to lower maternal mortality.

The condition of women during their pregnancies, deliveries, and postpartum periods is referred to as maternal health. Even though being a mother is frequently a happy and rewarding experience, for far too many women, it is also linked to pain, illness, and even death. Global health systems continue to face significant challenges due to infant mortality. Compared to affluent countries, the risk of dying on IUGR in developing countries is significantly higher due to low weight increase in pregnant moms. Women who are

aware of the significance of weight increase in the second trimester can seek appropriate prenatal care, which can lower the morbidity and death rates for both mothers and infants.

Objectives

1. To assess the existing knowledge and attitude of Importance of nutrition and weight gain during second trimester among primigravida women as measured by pre-test scores.
2. To find out the effectiveness of information booklet regarding Importance of nutrition and weight gain during second trimester among primigravida women.
3. To find the association between pretest knowledge scores and socio demographic variables of primigravida women.
4. To find the association between pretest attitude scores and socio demographic variables of primigravida women.

Hypotheses

The following hypotheses are formulated for the study and will be used at 0.05 level of significance.

H₁: There will be a significant difference between the mean pre-test and post-test knowledge scores regarding nutrition and weight gain during second trimester of pregnancy among primigravida women.

H₂: There will be a significant difference between the mean pre-test and post-test attitude scores regarding nutrition and weight gain during second trimester of pregnancy among primigravida women.

H₃: There will be a significant association between the pre-test knowledge scores with selected demographic variables.

H₄: There will be a significant association between the pre-test attitude scores with selected demographic variables.

Methodology

- **Research Approach:** Evaluative Research Approach.
- **Research Design:** Pre experimental one group pre-test and post-test design study.
- **Sampling technique:** Non-Probability purposive Sampling Technique.
- **Sample size:** 50.
- **Setting of study:** Selected hospitals of Kalaburagi district, Karnataka.
- **Population:** Primigravida Women.

Tool used for data collection

Section A: Socio-demographic variables

It included the demographic data which contains, Age, Educational status, Occupation, Income, Religion, years of working experience, history of breast cancer in family and source of health information.

Section B: Structured knowledge questionnaire

Through the thorough review of literature structured knowledge questionnaire was prepared for the present study which consists of 20 questions.

Section C: Structured attitude scale

A modified Likert type attitude scale was prepared after extensive review of literature. There were fifteen (15)

statements regarding attitude of primigravida women towards nutrition and weight gain during second trimester.

Procedure of data collection

Formal administrative permission was obtained from principals in the selected hospitals, Kalaburagi. 50 samples were selected as per sampling criteria. A written consent was obtained from the participants. On day1, knowledge and attitude regarding nutrition and weight gain during second trimester were pretested through the structured

knowledge and attitude scale. Following this, information booklet was administered to participants. On day 8 post-tests was conducted to participants by using the same structured knowledge and attitude scales. The data collection process was terminated by after thanking each respondent for their participation.

Results

Section I: Demographic Profile

Table 1: Frequency & percentage distribution of respondents according to their socio demographic variables. N=50

Samples Characteristics	Frequency (f)	Percentage (%)
Age in years		
18-25	24	48
26-30	19	38
31-35	7	14
Religion		
Hindu	25	50
Christian	15	30
Muslim	10	20
Educational Status		
≤ Lower primary school	11	22
High school	14	28
PUC	5	10
≥ Diploma and Degree	20	40
Occupational Status		
Agriculture	5	10
Housewife	22	44
Govt / Private Job	9	18
Health care sector	2	04
Others	12	24
Area of residence		
Rural	9	18
Semi urban	15	30
Urban	26	52
Source of Information		
Parents / Family members	12	24
Mass media	16	32
Health care workers	12	24
Friends	10	20
Weeks of Gestation		
Upto 12 weeks	17	34
13-24 weeks	22	44
25 and above weeks	11	22
Previous exposure to classes		
Yes	02	04
No	48	96
Exposure To Mass Media		
Yes	28	56
No	22	44

Section II

A. Distribution of pre-test and post-test knowledge and attitude scores of respondents

I. Distribution of pre-test and post-test knowledge scores of respondents

Table 2: Mean, median, mode, standard deviation and range of pre-test and post-test knowledge scores of Respondents regarding nutrition and weight gain during second trimester. n = 50

Area of Knowledge	Mean	Median	Mode	Standard deviation	Range
Pre-test	10.20	11.50	6	4.47	3-18
Post-test	14.10	15	16	3.22	6-19

Table 2 reveals pre-test and post-test knowledge score of respondents regarding nutrition and weight gain during second trimester-During pretest knowledge score, respondents mean was 10.20, median was 11.50, mode was

6 with standard deviation 4.47 and score range was 3-18. During post-test knowledge score, respondents mean was 14.10, median was 15, mode was 16 with standard deviation 3.22 and score range was 6-19.

II. Distribution of pre-test and post-test attitude scores of respondents

Table 3: Mean, median, mode, standard deviation and range of pre-test and post-test attitude scores of Respondents regarding nutrition and weight gain during second trimester. N = 50

Area of Attitude	Mean	Median	Mode	Standard deviation	Range
Pre-test	38.34	36.50	26	13.25	15-65
Post-test	46.88	45.50	42	9.63	26-65

Table 2 reveals pre-test and post-test attitude score of respondents regarding nutrition and weight gain during second trimester -During pretest attitude score, respondents mean was 38.34, median was 36.50, mode was 26 with standard deviation 13.25 and score range was 15-65. During post-test attitude score, respondents mean was 46.88,

median was 45.50, mode was 42 with standard deviation 9.63 and score range was 26-65.

B. Distribution respondent’s pretest and post-test scores according to their level of knowledge and attitude

Table 4: Frequency and Percentage distribution of respondents according to level of Knowledge and attitude regarding nutrition and weight gain during second trimester n=50

Level of Knowledge					
Pre-test			Post-test		
Poor f (%)	Average f (%)	Good f (%)	Poor f (%)	Average f (%)	Good f (%)
16 (32%)	23 (46%)	11 (22%)	2 (4%)	22 (44%)	28 (56%)
Level of Attitude					
Pre-test			Post-test		
Non favorable f (%)	Favorable f (%)	Positive f (%)	Non favorable f (%)	Favorable f (%)	Positive f (%)
23 (46%)	20 (40%)	07 (14%)	4 (8%)	32 (64%)	14 (28%)

The data presented in the Table 4 depicts the respondent’s level of knowledge and attitude during pretest and post-test regarding nutrition and weight gain during second trimester;

nutrition and weight gain during second trimester.

Knowledge

With regard to knowledge in pre-test it shows that, maximum 23 (46%) respondents were having average knowledge, 16 (32%) respondents were having poor knowledge and remaining 11 (22%) respondents were having good knowledge. During post-test maximum 28 (56%) of respondents were having good knowledge, 22 (44%) of respondents were having average knowledge and remaining 2 (4%) were had poor knowledge regarding

Attitude

With regard to attitude in pre-test it shows that, maximum 23 (46%) respondents were having non favorable attitude, 20 (40%) respondents were having favorable attitude and remaining 07(14%) respondents were having positive attitude.

During post-test maximum 32 (64%) of respondents were having favorable attitude 14 (28%) were had favorable attitude and remaining 4 (8%) of respondents were having non favorable attitude regarding nutrition and weight gain during second trimester.



Fig 1: Pre-test and post-test level of knowledge of respondents regarding nutrition and weight gain during second trimester

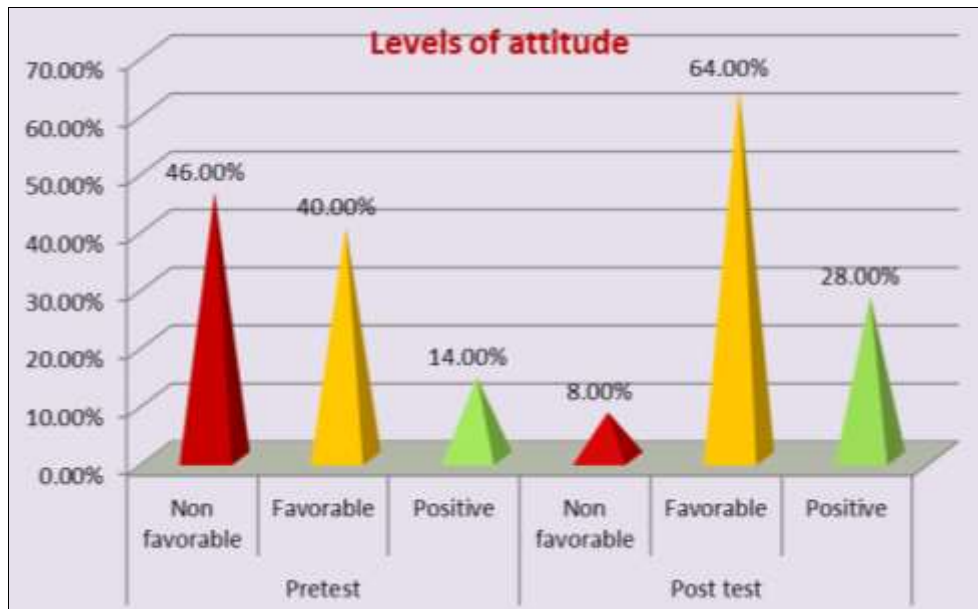


Fig 2: Pre-test and post-test level of attitude of respondents regarding nutrition and weight gain during second trimester

C. Effectiveness of information booklet

Table 5: Mean, standard deviation, standard error of difference and ‘t’ value of pre-test and post-test knowledge scores regarding nutrition and weight gain during second trimester N=50

Aspects	Mean	Sd	SEMD	Paired t Test
Pre-test	10.20	4.47	0.35	10.88*
Post-test	14.10	3.22		

* Significant at 5 % level

Table 5 indicates the overall mean knowledge scores of pre-test and post-test scores regarding nutrition and weight gain during second trimester among primigravida women.

The findings reveal that the post-test mean knowledge scores was found higher mean=14.10, SD of 3.22 when compared with pre-test mean knowledge score value which was 10.20 with SD of 4.47.

The statistical paired ‘t’ implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired ‘t’ value of 10.88. There exists a statistical significance in the difference of knowledge score indicating the positive impact of information booklet. Hence, the research hypothesis H_1 is supported. This indicates that the enhancement in knowledge is not by chance and the primigravida women who exposed to information booklet on nutrition and weight gain during second trimester, significantly improved in their knowledge.

Attitude

H₂: There will be a significant difference between the mean pre-test and post-test attitude scores regarding nutrition and weight gain during second trimester among primigravida women at 0.05 level of significance.

Table 6: Mean, standard deviation, standard error of difference and ‘t’ value of pre-test and post-test attitude scores regarding nutrition and weight gain during second trimester N=50

Aspects	Mean	Sd	SEMD	Paired t Test
Pre-test	38.34	13.25	0.68	9.89*
Post-test	46.88	9.63		

* Significant at 5 % level

Table 5 indicates the overall mean attitude scores of pre-test and post-test scores regarding nutrition and weight gain during second trimester among primigravida women.

The findings reveal that the post-test mean attitude scores was found higher mean=46.88, SD of 9.63 when compared with pre-test mean knowledge score value which was 38.34 with SD of 13.25.

The statistical paired ‘t’ implies that the difference in the pretest and post-test value was found statistically significant at 5% level ($p<0.05$) with a paired ‘t’ value of 9.89. There exists a statistical significance in the difference of attitude score indicating the positive impact of information booklet.

Hence, the research hypothesis H_1 is supported. This indicates that the enhancement in knowledge is not by chance and the primigravida women who exposed to information booklet on nutrition and weight gain during second trimester, significantly improved in their attitude.

D. Association between level of knowledge and attitude scores with selected socio demographic variables Knowledge

The computed Chi-square value for association between level of knowledge of primigravida women regarding nutrition and weight gain during second trimester and their selected demographic variables is not found to be statistically significant at 0.05 levels for any selected socio demographic variables. Therefore, the findings do not support the hypothesis H_4 , inferring that primigravida women level of knowledge regarding nutrition and weight gain during second trimester is not significantly associated any of the selected socio demographic variables.

Attitude

The computed Chi-square value for association between level of attitude of primigravida women regarding nutrition and weight gain during second trimester and their selected demographic variables is found to be statistically significant at 0.05 levels for their occupational status and is not found significant for other socio demographic variables. Therefore, the findings partially support the hypothesis H_5 , inferring that teacher’s level of attitude regarding nutrition and weight gain during second trimester is found

significantly associated with their occupational status.

Conclusion

Booklet was effective to enhance knowledge of primigravida women regarding nutrition and weight gain during second trimester. Since a very few studies have been conducted regarding this topic in India, so the nurse researcher can take further studies on the same topic.

Conflict of Interest

Not available

Financial Support

Not available

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