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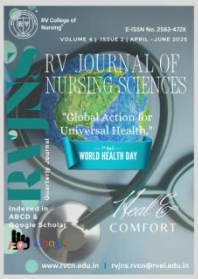

"A study to assess the effectiveness of structured teaching programme on Knowledge regarding effect of caffeinated food on fetus among Antenatal mothers in Shri. Chamarajendra Hospital, Hassan."

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ABSTRACT

Background: Good eating habits during pregnancy will also result into giving birth to healthy baby. What one eats during pregnancy does affect one's health, as well as the way an unborn baby grows and develops. [1, 2] But many mothers are wonder about presence of caffeine in a cup of coffee or tea. So she must aware of caffeinated food which she consumes knowingly or unknowingly. [3]
Methods: One group pre-test and post- test Pre-experimental design, with purposive sampling method was used. Information was collected from 50 antenatal mothers, using the structured knowledge questionnaire. STP was implemented and post-test was conducted after 7 days to find the effectiveness. Data was analysed by using descriptive and inferential statistical techniques.
Results:
The findings of the study revealed that, the overall mean knowledge score in the pre-test was 48.5 % and 84.3 % in the post test with enhancement of 35.8 % and it was significant at 5% level. Analysis of socio-demographic variables showed significant association between residential area with knowledge score at 5% level (P>0.05).
Interpretation and Conclusion:
This study concluded that the Structured Teaching Programme was effective to improve the knowledge of antenatal mothers on effect of caffeinated food on fetus.

Introduction:

The widespread use of caffeinated food and drinks such as chocolate, coffee, tea, green tea, soft drinks , chocolate flavoured deserts etc are potential to harm both developing baby and mother. Women and children's body have more limited capability to detoxify caffeine content, hence experience more of its harmful effects3,4

Need for the study:

Studies have found that the high consumption of caffeinated food by pregnant mothers can lead to increased risk of miscarriage, preterm birth, still birth, anaemia, intrauterine growth restriction, low birth weight, foetal distress, sudden infant death syndrome, congenital anomalies, decreased level of iron and calcium absorption etc. 5, 6

Objectives of The Study:

i) To assess the knowledge regarding effect of caffeinated food on foetus among antenatal mothers.
ii) To evaluate the effectiveness of structured teaching programme on effect of caffeinated food on foetus among antenatal mothers.
iii) To find the association between the pre test knowledge score and selected demographic variables.

Hypotheses:

The hypotheses will be tested at 0.05 level:
H1: There will be a significant difference between pre test and post test knowledge score among antenatal mothers.
H2: There will be significant association between level of knowledge regarding effect of caffeinated food on foetus among antenatal mothers and their selected demographic variables.

Research approach :

Quantitative research approach is considered appropriate for the present study.

Research Design :

Pre experimental one group pre test post test design.

Variables:

Independent variable-

In this study the independent variable is the structured teaching programme on effect of caffeinated food on fetus.

Dependent variable-

In this study dependent variable is knowledge of antenatal mothers on effect of caffeinated food on fetus.

Extraneous variable-

In this study the variables such as age, religion, education, occupation, annual income, residential area and sources of information are treated as extraneous variables.

Setting of the study:

This study was conducted in ANC ward and OPD at Shri Chamarajendra Hospital, Hassan. The average antenatal OPD cases are nearly 200 per day.

Population:

The population of the study consists of all the antenatal mothers.

Sample and Sample Size:

The sample for the present study were antenatal mothers who are available in ANC ward and OPD at Shri Chamarajendra Hospital, Hassan. The sample size for the present study comprised of 50 antenatal mothers.

Sampling Technique:

Purposive Sampling Technique was found appropriate for the present study.

Criteria for the Selection of the Sample:

Inclusion Criteria:

- Antenatal mothers who are available in antenatal OPD and ward in S.C hospital, Hassan.
- Those who are willing to participate in the study.
- Those who can understand Kannada / English.

Exclusion Criteria:

- Antenatal mothers who are in labour pain.
- Those who are not willing to participate in the study.

Selection and Development of Tool:

- The tool constructed to collect the data consisted of two parts:
- **Part I**-Baseline characteristics.
- **Part II**-Knowledge questionnaire on effect of caffeinated food on foetus .
- **Section A-** General information on caffeinated food during pregnancy.
- **Section B-** Effect of caffeinated food in pregnancy.
- **Section C-** Prevention and management of caffeine addiction.

Reliability of the tool:

The internal consistency was computed using Spearman's Brown Prophecy formula with split half technique. Reliability co-efficient was found to be 0.72. The tool was found to be reliable.

Process of data collection:

The data was collected through self administered structured questionnaire; it was prepared to assess the knowledge regarding effect of caffeinated food on foetus during pregnancy from antenatal mothers at Shri Chamarajendra Hospital, Hassan.

RESULTS

Table 1: Pre test level of knowledge Score of Respondents on effect of caffeinated food on fetus.

Grading	Scores (%)	Pre-test	
		frequency	frequency%
Adequate	76-100	0	0
Moderate	51-75	6	12
Inadequate	0-50	44	88

Data in table-1 shows that the pre test level of knowledge of majority of Respondents (88%) regarding effect of caffeinated food on fetus was inadequate.

Table 2: Post test knowledge score of Respondents on effect of caffeinated food on fetus.

Grading	Scores (%)	Post-test	
		frequency	frequency%
Adequate	76-100	45	90
Moderate	51-75	5	10
Inadequate	0-50	0	0

Data in table-2 shows that the post test level of knowledge of 90% of Respondents was adequate and of the remaining 10% of Respondents was moderate.

1. **Area wise Pre test and Post test knowledge status of the Respondents regarding specific aspects of Effect of caffeinated food on fetus.**

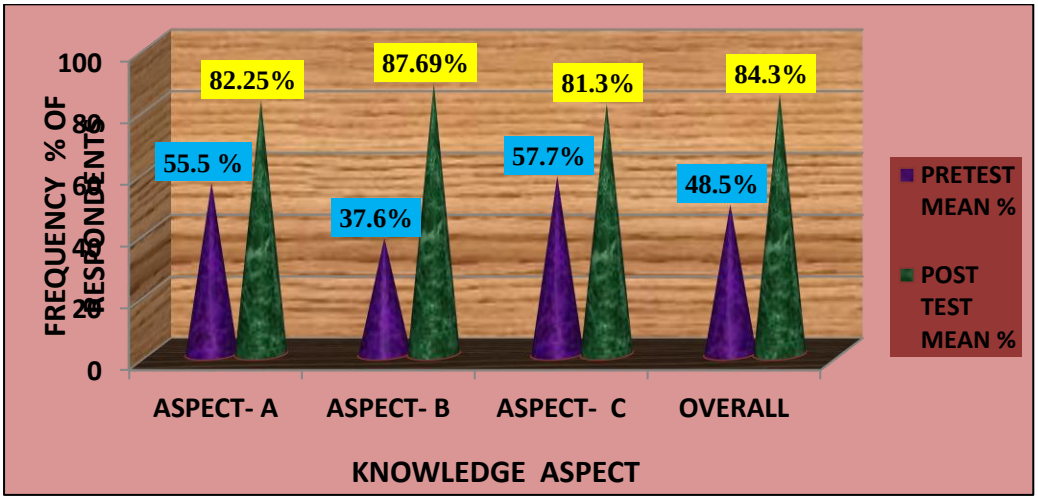

Fig.1: Comparison of Percentages of Mean Knowledge Scores of Respondents in Pre test and Post-test, in various aspects of Effect of caffeinated food.

2. Effectiveness of Structured Teaching Programme in terms of Knowledge gain and Hypothesis testing.

H_1: There will be significant difference between mean pre-test and post- test knowledge scores.

Table 3: Mean ,mean differences, standard deviation of Overall pre-test, post-test and enhancement knowledge scores of Respondents in different areas on Effects of caffeinated foods on fetus. N=50

Aspects	Mean	SD	M%	SD%	Paired t - Test
Pre test	14.7	1.64	49	5.46	21.5 (S)
Post test	25.3	1.99	84.3	6.63	
Enhancement	10.6	1.87	35.3	6.23	

- **(S) = significant at 0.05 level.**
- **Table value t= 1.96 at p<0.05 (df=49)**

3. Association Between Post Test Level Of Knowledge Of Respondents And Selected Demographic Variables.

- H_2: There will be a significant association between post-test knowledge score and selected demographic variables.

Table: 4 : Association between post test knowledge level of Respondents and selected demographic variables. N=50

Sl. No	Characteristics	Category	Knowledge level			chi-square value
			Inadequate	Moderate	Adequate	
1	**Age**	Less than 20	0	1	8	0.617 (NS)
		21-30	0	4	32	
		More than 31	0	0	5	
2	**Religion**	Hindu	0	4	34	0.357 (NS)
		Muslim	0	1	8	
		Christian	0	0	3	
3	**Education**	Primary & Secondary	0	2	5	3.119 (NS)
		PUC	0	3	40	
		Graduate & Post Graduate	0	0	0	
4	**Residential Area**	Rural	0	4	10	7.451 **(S)**
		Urban	0	1	35	

Note: S-Significant at 5% level (p0.05) ; NS- Not significant at 5% level (p>0.05)

The data presented in table 4 shows that χ^2 values, calculated to determine the association between the post test knowledge level and four of the selected demographic variables viz age, religion, education, were less than the table value under respective degrees of freedom. Therefore the hypothesis (H_2) was rejected in case of the above said demographic variables and concluded that there is no significant association between these variables and the post test level of knowledge.

The calculated χ^2 values with regard to **residential area** (χ^2= 7.451) was more than the table value at 0.05 level of significance at df 1 and it was statistically significant. Hence, the research hypothesis **H_2** is accepted with regard to this selected socio-demographic variable.

Discussion

- According to the study findings the pre test mean knowledge score is 14.7 with a mean percentage of 49 % with a SD of 1.64 with SD % is 5.46%.
- The post test mean score is 25.3 with a mean percentage of 84.3 with a SD of 1.99 with SD % is 6.63.
- The calculated t- value for the post test is 21.5 significant at 0.05 level. It shows that calculated value is more than the table value [t= 1.96 at p<0.05 (df=49)], So that there is significant mean difference between the pre test and post test score. Hence the H_1 hypothesis is accepted.

Recommendations:

1. A replication of present study can be conducted with a larger population.
2. This study can be conducted in different settings in rural and urban areas and then due results can be compared.

Conclusion:

According to the results of the study the antenatal mothers who received STP on effect of caffeinated food on fetus had statistically significant increase in mean knowledge score. Hence the researcher conclude that STP was effective in increasing knowledge level of antenatal mothers in selected rural area..

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