



### EVALUATE THE EFFECTIVENESS OF SELF- INSTRUCTIONAL MODULE REGARDING SELECTED FETAL WELL- BEING MEASURES AMONG STAFF NURSES IN A SELECTED MATERNITY HOSPITAL AT BENGALURU, KARNATAKA

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#### INTRODUCTION

Perinatal mortality and morbidity is a problem or serious dimension in all countries. Numerous factors are responsible for fetal death which may involve one or more complications in the mother during pregnancy or labour, in the placentas or in the fetus resulting from lack of knowledge of midwives about the advanced obstetric technologies and their implications.

The incidence of perinatal mortality accounts for about 90% of all fetal and infant mortality in the developed countries. In India, still births are seldom registered. The SRS estimates for perinatal mortality rate in India for the year 2006 is about 37/1000 total births, with about 41 for rural areas and 24 for urban areas. In Karnataka total perinatal mortality rate is estimated to about 34/1000 total births, with about 42 for rural areas and 80 for the urban areas.

Screening and monitoring in the pregnancy are the important strategies used to monitor the fetal well being and aids in preventing still births and also reduce perinatal morbidity and mortality. The main aims of fetal monitoring are:

1. Assuring satisfactory growth and well being of the fetus as well as the mother throughout the course of pregnancy.
2. Identify the development of factors which are likely to adversely affect maternal or fetal health and initiating steps to rectify the same.
3. Detecting early in pregnancy, congenital fetal anomalies and inborn errors of metabolism which are incompatible with life of lead to chronic ill health of the offspring.

Some of these tests include biochemical assays and biophysical assays. Biochemical assays include maternal; serum alpha protein testing or triple testing, amniocentesis, etc. Biophysical assays include fetal movement count, fetal heart rate monitoring, non stress test, etc.

#### OBJECTIVES OF THE STUDY

##### This study attempted

- To assess the existing knowledge of staff nurses regarding fetal well-being measures.
- To evaluate the effectiveness of self- instructional module regarding selected fetal well-being measures.
- To find the association between the post-test knowledge score and the selected demographic variables such as Age, Gender, Marital status, General education, Professional education, Type of family, Number of children, Clinical experience, Inservice- education and Source of Information.

##### Hypothesis

**H<sub>1</sub>** - There will be significant difference in pre test and post test knowledge scores on selected fetal well-being measures.

**H<sub>2</sub>** - There will be significant association between post test knowledge score and selected demographic variables.

##### Conceptual Framework

The Conceptual framework is based on critical thinking of Nursing Practice with Orem's Self Care Deficit Cognitive Theory, which emanates from four structural cognitive operations, that is diagnostic, prescriptive, regulatory and control operations/phases.

#### METHODOLOGY

The research design used in this study was Pre-experimental in nature. The study was conducted at

Vanivilas Women & Children Hospital, Bangalore. The target population consisted of registered staff nurses working in Vanivilas Women & Children Hospital, Bangalore. The samples included 40 staff nurses. Non-probability; purposive sampling was used for this study. The tool used for the research study was the structured Knowledge questionnaire consisting of Section I (demographic data) and Section II (consisting of 40 items relating to knowledge on selected fetal well-being measures). The distribution of items was based on three domains namely knowledge (21 items), comprehension (12) and application (07) covering all aspects of selected fetal well-being measures. The content validity of Structured knowledge questionnaire was ensured by submitting the tool to the experts in the field of OBG for content validation. Pilot study was done on 05 non-sample subjects (who were not included in the study) at Government Hajee Sir Ismail Seth Ghouseia Hospital, Shivajinagar, Bangalore.

**Major findings of the study were as follows:**

**A. Findings Related to Demographic Characteristics of the Subjects**

- Majority of the respondents (40%) were in the age group of 30-39 years.
- 100% respondents were females.
- 92.5% respondents were married.
- Majority of the respondents 52.5% were educated up to PUC.
- 100% respondents had GNM qualification.
- 37.5% of respondents have two children.
- Majority of respondents (60%) belongs to Nuclear family.
- 37.5% respondents had 10-15 years of clinical experience and 37.5% respondents had 16-20 years of clinical experience.
- 55% respondents have not undergone in-service education in Obstetrics / Pediatrics.
- 57.5% respondents get information through health personnel.

**B. Findings Related to the Pre test and Post test Knowledge Scores of Staff nurses regarding selected fetal well-being measures**

- Highest (66.1%) knowledge score in aspect wise pre test mean knowledge score on concept of fetal well-being measures.
- Highest knowledge score in aspect wise post test mean knowledge score on concept of fetal well-being measures (95.7%), Non stress test (79.3%) and Amniocentesis (76.7%).
- The post test mean knowledge score was found higher (95.7%) when compared with pre test mean knowledge score (66.1%).
- Aspect wise enhancement of mean knowledge scores was found higher (41.9%) in the aspect of Amniocentesis. The overall enhancement of knowledge score is 36.1%.
- The statistical paired 't' test indicates that enhancement in the mean knowledge scores found to

be significant at 0.05 level for all the aspects under the study.

**C. Findings Related to the Impact of Demographic Variables on Post-test Knowledge Scores**

The impact of demographic variables on the knowledge scores was computed by using Chi-Square ( $X^2$ ).

- There was significant impact of general education ( $x^2 = 4.61$ ,  $P < 0.05$ ), type of family ( $x^2 = 4.86$ ,  $P < 0.05$ ), in-service- education ( $x^2 = 6.83$ ,  $P < 0.05$ ). on knowledge scores.
- There was no significant impact of age ( $x^2 = 0.43$ ,  $P > 0.05$ ), marital status ( $x^2 = 0.01$ ,  $P < 0.05$ ), number of children ( $x^2 = 1.00$ ,  $P > 0.05$ ), clinical experience ( $x^2 = 0.04$ ,  $P > 0.05$ ), source of information ( $x^2 = 1.24$ ,  $P > 0.05$ ) on knowledge scores.

**Nursing Implications**

The findings of the study have implications in the field of nursing education, nursing practice and nursing research.

**Nursing Education**

Nursing students should be given necessary theoretical and practical knowledge on Fetal well-being measures, its implications, application along with the recent and advanced technology. Curriculum should give additional importance in developing skills of the student nurses for better utilization of available equipments.

**Nursing Practice**

Nurse's deficit in knowledge regarding selected fetal well-being measures indicate the need for arranging in-service education, continuing education, skill training programs to enhance the staff nurse's knowledge and skills regarding fetal well-being measures.

**Nursing Administration**

The nursing administrators at institutional, local, state and national level should focus their attention to make the nurses to know about the fetal well-being measures, its implications, application along with the recent and advanced technology. Print media and electronic media may be utilised to educate the staff nurses. Health administrators should influence the education department to include the fetal well-being measures with its advanced application.

**Nursing Research**

The findings of the study can serve as a basis for the professional and student nurses for further studies on fetal well-being measures. It will motivate the initial researchers to conduct the same study on large scale.

**Recommendations**

On the basis of the findings of the study following recommendations have been made.

- A similar study can be replicated on a larger scale to generalize the findings.

- An experimental study can be undertaken with control group for effective comparison.
- A study can be conducted to evaluate various teaching strategies like Structured Teaching Programme, Information booklet.
- A study can be conducted to assess the standards/ protocols practiced in the hospitals related to assessment of fetal well- being.

## CONCLUSION

Screening and monitoring in the pregnancy are the important strategies used to monitor the fetal well being and aids in preventing still births and also reduce perinatal morbidity and mortality. Many of the diagnostic measures are completed on an outpatient basis, the nurse may brief contact with the women and their family. Nurse plays a vital role in assessing their knowledge about these measures, importance and their risk to the fetus and possibly to the pregnant women and also in providing information about it to them. It was found that the pre-test knowledge mean percentage was 42.3% and the post-test mean percentage was 78.3% with an enhancement of 36.1% that reveals that the SIM was found to be an effective teaching material for the staff nurses, helping them gain knowledge regarding selected fetal well- being measures.

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