## AIN SHAMS UNIVERSITY HIGH INSTITUTE OF NURSING

## IMPLEMENTING NURSING PROGRAMME DURING LABOUR USING THE ELECTRONIC FETAL MONITORING

## THESIS

Submitted in Partial Fulfilment of The Doctorate of Nursing Science (D.N.Sc.)

By

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### CONTENTS

			Page
I.	Intro	oduction	1
II.	Aim	of the Study	6
Ш.	Review of Literature		
	L	Labour:	7
		(1) Onset of natural labour	8
		(2) Induction of labour	14
		(3) Stages of labour	16
	П.	Monitoring labour:	37
IV.	Mat	erials and Nethods	70
Y.	Res	ults	80
VI.	Dis	cussion	1 <b>2</b> 2
VII.	Rec	commendations	132
VIII.	Sun	nmary	133
IX.	Ref	erence	137
x.	App	pendix	
YI	A =~	abic Summary	

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#### LIST OF TABLES

Table	No.	Page
1	Percent Distribution of Social Characteristics of Mothers Studies	82
и.	Percent Distribution of Parity and Interpregnancy Spaling of Mothers Studied	84
111.	Percent Distribution of Mothers by Previous Pregnancy Losses	86
IV.	Percent Distribution by Mothers History of Low Birth Weight or Over Weight Babies	87
v.	Percent Distribution By Mothers Family History of Diabetes or Hypertension	88
VI.	Percent Distribution By Indications for Induction of Labour	89
VII.	Percent Distribution of Mothers Bishop Score	9 <b>0</b>
VIII.	Percent Distribution of Intrapartum Assessment of Fetal Condition	91
IX.	Percent Distribution According to Maternal Outcome of Labour.	9 <b>3</b>
х.	Percent Distribution According to Maternal Post Partum Complications	95
XI.	Percent Distribution According to Fetal Outcome	96
XII.	Percent Distribution By Nurses Characteristics	98
xm.	Percent Distribution By Nurses Knowledge Assessment in the Pre and Post Tests about Induction of Labour	100
XIV.	Percent Distribution By Nurses Knowledge Assessment in the Pre and Post Test about Labour	101
xv.	Percent Distribution of Nurses Knowledge Assessment about the Pain Relief Measures, in the Pre and Post Tests	102

		Page
XVI.	Percent Distribution of Nurses Knowledge Assessment in the Pre and Post Tests about Partogram	103
XVII.	Percent Distribution of Nurses Knowledge Assessment in the Pre and Post Tests about Electronic Monitoring	104
XVIII.	Percent Distribution of Nurses Knowledge Assessment in the Pre and Post Tests According to Baseline FHR	105
XIX.	Percent Distribution of Nurses Knowledge Assessment in the Pre-and Post Tests About the Second Stage of Labour	106
xx.	Percent Distribution of Nurses Knowledge Assessment about Third Stage of Labour in the Pre and Post Tests	107
XXI.	Percent Distribution of Nurses Assessment By Score Level in the Pre and Post Tests in Relation to Their Performance During Monitoring Labour Electronically	108
XXII.	Percent Distribution of Nurses Assessment By Score Level in the Pre and Post Tests According to Their Performance During First Stage of Labour	109
XXIII.	Percent Distribution of Nurses Assessment By Score Level in the Pre and Post Tests About Their Performance During Second Stage of Labour.	110
XXIV.	Percent Distribution of Nurses Assessment By Score Level in the Pre and Post Tests in Relation to Their Performance During Third Stage of Labour	11

# INTRODUCTION

#### INTRODUCTION

The maternity nurse is a key health professional in the prevention, detection and management of conditions that place the childbearing family in jeopardy of a traumatic reproductive experience or poor pregnancy outcome. These were pointed out by Bobak & Jensen (1987), they also added that, the nursing care required for the mothers in the delivery unit demands advanced knowledge and skills and continuous care by specialized nurses and doctors, able to intervene quickely and intelligently.

While Armington and Creighton (1971), suggested that the nurse should have the initiative and interest in self improvement, performance under stress, attitude of acquiring new knowledge and the ability to function purposefully in situation of emergency.

#### The need for continuing education in nursing:

Rapid scientific technological advances and research have greately altered the practice of nursing. Accordingly, the role and responsibilities of the trained nurse is dynamic and constantly changing as pointed out by Barnes (1985).

Pochly (1973) stated that the need for expanded and innovative education programmes for nursing personnel as a valid method for continuous up dating of knowledge and skill to maintain and improve competence cannot be overlooked.

Furthermore Caremon and Walt (1985) stated that to promote better staff development this involves all trained staff in comprehensive

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inservice training. This prepares them for future posts, promotion and probably self confidence, competence and motivation in their work. This is in accordance with Abbatt and McMahan (1985), who also stressed the importance of continuing inservice education for nursing staff.

The purposes of continuing education as suggested by Kratz (1985), are mainly to provide training to improve the nurses skills, to assure high quality of care and to compensate for weaknesses in the initial training. A third purpose is to help the implementation of the policy.

Hospitals should have a policy for the use of electronic fetal monitoring in their obstetric unit. These were recommended by Bobak & Jensen (1987), they also suggested that the electronic fetal monitoring requires the presence of skilled individuals. They also pointed out that it is the responsibility of the hospital to verify the knowledge bases of health professionals in the clinical application of electronic fetal monitoring and to encourage the continuous updating of their skills.

#### Inservice education for nursing service personnel:

Inservice education, as stated by Miller (1965), includes the educational activities opportunities planned, organized and presented by employing agency. These activities were thought to contribute to the up dating staff knowledge and skills as well as to develop the competence required for effective achievement of the agency

objectives, These were also stressed with Alexander (1962).

Inservice education, as recommended by Hamelin (1966), provides the nurse with the necessary behavioural skills basic to effecient performance of their job and also helps developing their leadership and management abilities. This was agreed upon by Lahiff (1984) who added that inservice training allows the personnel for staying in their areas of speciality for which they are basically prepared.

Orientation programme is one of the types of the inservice education. It is a planned introduction to the jobs. This aims to help the new staff members to find his/her place in the particular setting and inturn to be able to adjust the new environment to learn the assigned work functions and these contribute to fulfilling the purposes of the agency. These were emphasized with Roland (1975).

A clinical orientation programme for the new labour and delivery room nurses was constructed by Poole (1985). Who concluded that at the end of the clinical orientation programme, the nurses were able to function relatively independently.

Skills training programme is another type, which provides the employees with "How" and "Why" to carry out specific activities assigned to them, These were mentioned with Alexander (1962).

Miller (1965), clarified that these programmes could be in the form of demonstration of techniques and procedure practical classes about techniques of nursing care for specific conditions, lectures accompanied with discussions concerning new discoveries and techniques in medical

- 4 -

care aspects, nursing team conferences and discussion of nursing care for individual patients.

It is mandatory for good pregnancy outcome, a well defined programme, to be established that provides careful surveillance of the well being of both mother and fetus during labour. These were recommended with Cunningham et al. (1989).

The regionalization concept in perinatal medicine has opened many new areas of information and practice for obstetrical nurses, one of these areas is in electronic fetal monitoring. Since the technique is relatively new to most nurses, the need for in-hospital training programme is tremendous as pointed out by Haire and Boehm (1978).

It was concluded by Russin et al. (1974) that most monitoring during labour has been done by nurses using their hands to palpate uterine contractions and listening to the fetal heart sound with fetal-stethoscope. Although this method is successful in a majority of cases it has some short-comings. It was also demonstrated that in monitoring with fetal-stethoscope listeners tended to be subjective and to normalize the fetal heart rate. Twenty percent of observations were inaccurate by more than 15 beats/m from the actual heart rate, fur thermore this method is not continuous.

Whether labour start spontaneously or induced it was considered by Howe (1982), as a period of crisis that requires monitoring of maternal uterine contractions and fetal heart rate by trained personnel.

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Moreover Boback & Jensen (1987), mentioned that the goal of intrapartum monitors is the early detection of mild fetal hypoxia and prevention of severe fetal hypoxia. They also added that the responsibility of labour and delivery room nurse is to assess fetal heart rate pattern, performing independent nursing intervention and report nonreassuring pattern to the obstetrician.

It cannot be overemphasized that the techniques for continuous recording of fetal heart rate (FHR) and uterine contraction do not themselves provide continuous surveillance of the fetus. Appropriate trained personnel must be immediately available to activate the electronic techniques to inspect and analyze the data that are being recorded. These were reported by Pritchard (1985).

Furthermore, Cunningham et al. (1989) pointed out that, the electronic monitors are merely the extensions of doctors and nurses eyes and hands. All informations obtained from these mechanical devices are of no value unless processed through the human brain in or timely and appropriate fashion. Simply stated that a well trained physician and the nurse must be present to interpret the information gathered from the electronic monitors. So the machine and the health care providers should be combined to provide safe compassionate environment for labouring mother.

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This study will include the following operational definition.

#### Monitoring

According to Cunningham et al. (1989), to monitor means to watch or check on a person or a thing, however the word monitor in more recent year, had come to mean specifically surveillance of fetal heart rate and uterine activity by some sorts of electronic detecting and recording device.

#### Aim of the Study

- (1) to identify the nursing staff knowledge in relation to fetal monitoring during labour.
- (2) To develop and implement a programme for nurses about fetal monitoring during labour.
- (3) To reveal the effect of the programme on nurses knowledge and labour out-come.

# REVIEW OF LITERATURE