Ain Shams University

Higher Institute of Nursing

The Effect of Ante-Partum Monitoring

of High Risk Pregnancy on Foetal Outcome

Thesis

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of The Master Degree in Nursing

By

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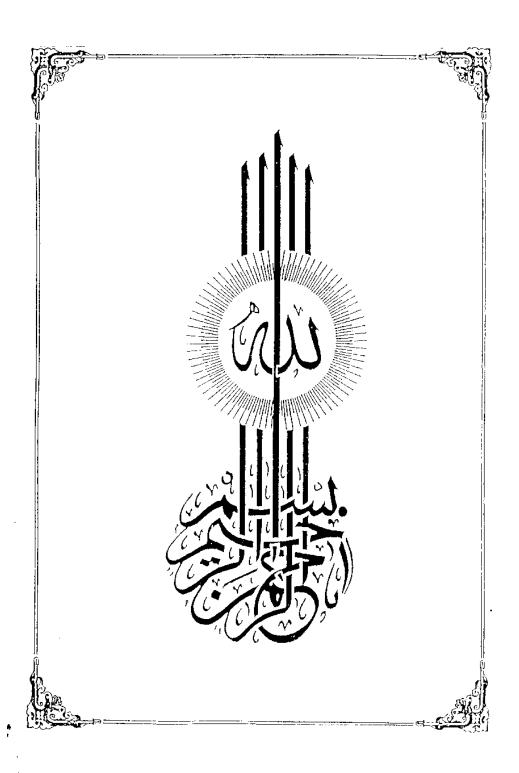HIGHER INSTITUTE OF NURSING

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بسم الله الرحمن الرحيم

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further complete the over all picture of prophylaxis and treatment of the unborn foetus . These units should be equipped with electronic foetal heart rate monitoring , with the availability of highly skilled team of obstetricians , technicians , nurses and social services .

Also Shields (1978), pointed out that the antepartum electronic monitoring appears to have a favourable effect on perinatal outcome . It enables the obstetrician and the nurse to identify a group of high risk patients who will require electronic monitoring during ante-partum period and labour.

This is in accordance with Zakut (1984), who pointed out that foetal monitoring has become a routine examination to assess foetal well being in high risk pregnancy.

The study will include the following operational definition :-

According to Pritchard et al (1985) , to monitor means to watch or check on a person or thing, however, the word monitor in more recent

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years has come to mean specifically surveillance of foetal heart and uterine activity by some sorts of electronic and recording device.

Myles (1981), stated that the high risk mothers are the primigravida over 30 years, the multipara of 4 or more, mothers over 35 years , those with a bad obstetric history or with medical complications.

AIM OF THE WORK :

(1) To assess foetal and maternal outcome among high risk pregnant mothers who will be monitored.

(2) To assess foetal and maternal outcome among, unmonitored high risk pregnant mothers.

(3) To compare the various aspects of foetal and maternal outcome among monitored and unmonitored group.

(4) To recommend standardized activities with guide sheet for the nursing performance of foetal heart rate monitoring.

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HYPOTHESIS :-

Foetal monitoring for high risk pregnant mothers during antenatal period will ensure better foetal and maternal outcome than the unmonitored high risk pregnant mothers.

REVIEW OF LITERATURE

High Risk pregnancy

Definition :-

High risk pregnancy was defined by Boddy et al (1976), as those pregnancies associated with bad reproductive past performance, or with certain medical disorders. According to Reeder et al (1976), the term high risk pregnancy is applied to mothers who have an actual or potential higher incidence and prevelance of morbidity and mortality. While Goodline (1981), added that all gravida should be considered potentially high, risk until , they have given birth. The most recent definition is that of Zuspan (1982), who suggested that high risk pregnancy is one in which the mother , foetus , or newly born is or will be in a state of increased jeopardizing danger.

Factors associated with high risk pregnancy :-

According to WHO (1978), the risk factors may be defined as characteristics or circumstances of a person or a group that are associated with an

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increased risk of having, developing, or being especially adversely affected by a morbid process.

As pointed out by Hume (1975), the risk factors include increased maternal age, social class, weight , smoking habit ,threatened abortion, past history of abortion , perinatal death antepartum haemorrhage and previous low (2500 gm) or high (4000 gm) birth weight infant.

Culture and customs may act as risk factors by limiting the education or status of women, by prescribing or with holding certain foods during pregnancy or by perpetuating unhygeinic practice. - The climate , the unavailability of certain foods, poor enviromental sanitation also may increase the risk for both mothers and foetus (W H O , 1978) .

Baired (1980), has urged that poor social and enviromental condition have adversely affected the reproductive efficiency as the low birth weight infant which is closely linked to adverse socioeconomic status.

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This is in accordance with Pernoll (1982) , who also mentioned other factors such as ignorance, ,unwanted pregnancy , serious health problems , obstetric disorders and biological handicaps, untimely termination of pregnancy, umbilical cord complication, placental dysfunction and complication during natal , and post natal period. He also emphasized that about 60 % of all maternal deaths in the U.S.A. are attributable to haemorrhage, infection , or hypertensive disorders of pregnancy (pre-eclampsia and eclampsia).

Other factors for risk prediction were proposed by Fox (1983), as prolonged gestational age, previous reproductive loss, toxemia, diseases associated with hypertension and severe anemia.

The importance of the risk factors as reported by WHO (1983), depends on the degree of association with the outcome, as well as the frequency of the out come in the community, such as previous artificial abortion leading to cervical incompetence, grand multiparity with its increased risk of several complications during pregnancy as well as delivery such as transverse lie, antepartum

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haemorrhage, premature and precipitated labour, placenta previa which lead to foetal death from anoxia . Other complications were also stated during the first trimester such as rubella and congenital malformation . However it was emphasized that women with previous still birth are at greater risk of losing their next foetus .

The importance and aim of early identification of high risk pregnancy :-
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The early identification was emphasized by Gractacose and Paul (1980) as it aims at early detection of patients at risk and effective treatment of high risk pregnancies and deteriorating foetus . He emphasized that the use of electronic foetal heart rate monitoring will help the clinician and the obstetric nurse to identify the fetus at risk .

According to Zuspan and Quilligan (1982), the risk identification is not a new terminology , but it has been used for many years and over the past decade has become more identifiable on a quantitative basis . They also concluded that the

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woman and her foetus who are at risk during pregnancy are usually exposed to greater risk during labour and the neonatal period.

While Pearson (1982), recommended early detection and identification of mothers who suffer from multiple problems of social , biological and pathological origin , aiming at reducing the risk of perinatal deaths among those group.

Moreover, Reeder et al (1983), suggested the following for early identification and management of high risk pregnancy :-

(1) Careful history may reveal specific risk factors.

(2) Proper organized physical examination of the mothers.

(3) Routine laboratory screening is mandatory.

(4) Close and comprehensive assessment of the foetus over the course of pregnancy may include special studies to ascertain foetal well being.

(5) The effect of labour on the fetus must be assessed in order to detect distress.

(6)   Selection of the method most likely to affect
      an atraumatic delivery to decrease the like-
      hood of subsequent   functional or   growth
      disorders.

      While   Chard (1983), suggested that the   early
identification and prediction of risk factors   may
prevent   foetal   death   , intra-uterine growth
retardation, foetal distress in labour, neonatal
asphyxia, post neonatal motor and intellectual
impairment and congenital abnormalities .

      Many   studies were done to   determine   a
quantitative screening technique for identification
of high risk pregnancy .   The identification
requires the   use of a scoring system or   risk
card guided by a check list to assess the degree of
risk and factors associated with it .

Scoring system :

      Hobel and Coworkers (1973), devised a system
in which high risk prenatal   intrapartum   and
neonatal factors were identified .They also pointed
out, that there is a correlation between prenatal

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