

Knowledge regarding assessment of placenta among staff nurses and nursing students.



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ABSTRACT:

Background: The human placenta is discoid. It is originating from the trophoblastic layer of the fertilized ovum. It links closely with mothers circulation to carry out function that the fetus is unable to perform for itself during intrauterine life.

Objective: To assess the level of knowledge on assessment of placenta among staff nurses and student nurses in Narayana Medical College and Hospital.

Materials and Methods: Descriptive cross sectional design and convenient sampling technique was used to select 30 samples. Data was collected using structured questionnaire. Data analysis was done with SPSS.

Results: With regard to knowledge on placenta, among 15 staff nurses, 5(33.33%) had inadequate knowledge, 9(60%) had moderately adequate knowledge and 1(6.67%) had adequate knowledge. Among 15 nursing students, 5(33.33%) had inadequate knowledge, 9(60%) had moderately adequate knowledge and 1(6.67%) had adequate knowledge.

Conclusions: The study concluded that majority of staff nurses had moderately adequate knowledge and majority of nursing students had moderately adequate knowledge regarding assessment of placenta.

Key words: placenta, umbilical cord, trophoblastic.

INTRODUCTION:

Placenta is a remarkable organ. The human placenta is discoid. Its originating from the trophoblastic layer of the fertilized ovum. It links closely with mothers circulation to carry out function that the fetus is unable to perform for itself during intrauterine life.

The development of placenta is initially from the ovum, appears to be covered with a fine down hair, which consist of the projections from the trophoblastic layer.

These proliferate and branch from about 3 weeks after fertilization and are called chorionic villi. The villi erode the walls of maternal blood vessels as they penetrate the decidua. Each chorionic villi is branching structure arising from one stem and branches of umbilical artery and vein.

The placenta mainly has two surfaces, maternal

surface and the fetal surface. In maternal surface the blood gives this surface a dark red. It is arranged in about 20 lobes. The lobes are made up of lobules. Numerous small greyish spots are visible. Fetal surface is covered by the smooth and glistening amnion, which gives it a white shiny appearance. Branches of umbilical vein and arteries are visible, separating out from the insertion of umbilical cord, which is normally in the centre.

The placenta has the function of respiration during intrauterine life. Oxygen from the mothers blood passes into the fetal blood by simple diffusion and similarly the fetus gives off carbon dioxide into maternal blood. It also provides nutrition to fetus. The placenta selects the substances need for the fetus and supplies to the fetus. The placenta also excretes carbon dioxide from the fetus. It protects the fetus by building a barrier to infection.

There is a marked variation in the morphology including size, shape and weight of the placenta. When the placenta is implanted partially or completely over the lower uterine segment, it is called placenta praevia. The term praevia denotes the position of placenta in relation to the presenting part in which the placenta may be large and thin. Placenta praevia is an obstetric complication which leading to antepartum haemorrhage It affects approximately 0.4- 0.5% of all labors in pregnancy.

Clinical characteristics of placenta shows that the usual term placenta is about 22cm in diameter and 2.0 to 2.5cm thick. It generally weighs approximately 470g. The term umbilical cord is 55 to 60 cm long, with a diameter of 2.0 to 2.5 cm. The short cord may result in cord rupture. The umbilical cord typically inserts into the placenta near its center. About 90% of cord insertions are central. The cord is attached to ventral surface of the embryo, close to the caudal extremity. The umbilical arteries do not possess an internal elastic lamina but have got well developed muscular coat. A true cord knot occurs when the fetus passes through a loop of umbilical cord. If sufficient tension is placed on the cord before or during labour and delivery, blood flow may be cut off. The umbilical cord typically contains two arteries and a single vein. If only one artery and one vein are grossly visible, the fetal anomaly rate is nearly 50%.

Examination of Placenta:

- ❖ Explain procedure to parents and ask if they want to observe.
- ❖ Wash hands, wear an apron and gloves.
- ❖ The delivery trolley is a good surface to use.
- ❖ Lay out the placenta with the fetal surface uppermost, noting shape, size, colour and smell.
- ❖ The cord is then examined for the length, point of insertion and presence of knots, Normal length is 40cm.
- ❖ Count the vessels in cut end of cord. The absence of one artery can associated with renal agenesis.
- ❖ Observe fetal surface for irregularities .
- ❖ After observing the cord and hold the placenta up, and observe the membranes. There should be a single hole present.
- ❖ The placenta is replaced to the surface and the membranes are spread out in order to look for extra vessels, lobes and holes.

- ❖ The amnion is pulled back towards the cord there by separating the membranes.
- ❖ The placenta is turned over to inspect the maternal side.
- ❖ The cotyledons are examined to ensure that they are all present.
- ❖ Estimate blood lost.
- ❖ Take cord blood samples.
- ❖ Weigh or swab if indicated and dispose the placenta.
- ❖ Clean away equipment and wash hands.
- ❖ Discuss findings with patients.

Placental abruption complicates 0.4 to 1% of pregnancies. The incidence appears to be increasing, possibly due to increasing in the prevalence of risk factors for the disorder and change in ascertainment of cases. In one review, 40 to 60% of abruptions occurred before 37 weeks of gestation and 14% occurred before 32 weeks.

As Per university of medical and health sciences, JAMSHORO (2013) The main aim of study was to see the morphological changes of placenta .They have selected age all parturient was between 17 to 32 years. 120 placenta were collected from labor room and gynecology operation theatre of Liaquate hospital. About 40% placenta have pregnancy induced hypertension. It’s showing result of placental parameter and fetal weight with statistical with analysis of parameter show highly significant (p=<0.001) difference in weight. A total of 104 women with confirmed transvaginal diagnosis of placenta previa before 32 weeks gestation. And 60% women found with low lying placenta.

As Per Nightingales Times of Nursing JITENDRA P.PATEL (2010) states that assessment of placenta study was carried out selecting 70 mothers with uncomplicated pregnancy from indoor patients of gynaecology department of health science. It showing result of placental weight, surface area volume is directly proportional to weight of baby. The correlation coefficient for birth weight of baby from placenta in centrally attached umbilical cord is 0.884, 0.651 inter immediately attached cord and 0.913 in marginally attached. About 64% placenta is central and 36% have pregnancy induced hypertension.

The purpose of study is to identify the knowledge of assessment of placenta among staff nurses and student nurses. So, the researcher selected this

statement to improve the knowledge regarding examination of placenta in order to prevent the placental abnormalities.

OBJECTIVES OF THE STUDY:

- 1 To assess the level of knowledge regarding assessment of placenta among staff nurses.
- 2 To assess the level of knowledge regarding assessment placenta among student nurses.
- 3.To compare the knowledge between staff nurse and student nurse regarding assessment of placenta.
- 4 To find out association between the level of knowledge regarding assessment of placenta among staff nurses with selected demographic variables.
- 5 To find out association between the level of knowledge regarding assessment of placenta among student nurses with selected demographic variables.

MATERIALS AND METHODS:

Descriptive cross sectional design is used to assess the level of knowledge regarding assessment of placenta among staff nurses and student nurses in Narayana Medical College Hospital. Non-probability convenient sampling was used. Staff nurses and student nurses who were eligible, can understand regional language, who were available during data collection and voluntarily willing to participate in the study are included. Who are sick, who are on leave were excluded. Prior Permission was obtained from ethical clearance committee Participants signed an informed consent and were told they could withdraw from the study at any time for any reason.

DESCRIPTION OF TOOL

PART I: Deals with demographic variables include age, gender, educational qualification, source of information, attended any CNE programme.

PART II: It deals with structured questionnaire to convey the knowledge partograph among staff nurses and student nurses. It consists of 30 multiple choice question. Each correct answer is given 1 score and each wrong answer gives 0 score.

Score Interpretation: The score was interpreted as follows:

- Inadequate knowledge : 0-10
- Moderately adequate : 11-20
- Adequate knowledge : 21-30

Data analysis: Data was analysed by using descriptive and inferential statistics. Frequency, percentage, mean, standard deviation and chi-square test were done.

Results: The results shows that frequency and percentage distribution with regard to age 8(53.34%) staff nurses are between 20-22 years and 7(46.66%) are between 23-25 years, with regard to gender, 15(100%) staff nurses are females, regard to educational qualification, 1(6.66%) staff nurses studied GNM and 14(93.34%) studied B.Sc Nursing, with regard to working experience, 8(53.34%) have <1 year experience, 7(46.66%) have 1-3 years experience, regard to source of information, 1 (6.66%) gained from TV/Radio, 2(13.34%) from practice experience, 5(33.34%) from curriculum and 7(46.66%) from all the sources and with regard to attending CNE programme on assessment of placenta 15(100%) staff nurses did not attend.

For nursing students with regard to age 12(80%) nursing students are having 20 years and 3(20%) are having 22 years, with regard to educational qualification, 15(100%) studied B.Sc Nursing, with regard to year of course, 9(60%) students are studying 3rd year and 6(40%) are studying 4th year, with regard to source of information, 1(6.66%) gained from TV/ Radio, 3(20%) from practice experience, 2(13.34%) from curriculum and 9(60%) from all the sources and with regard to CNE programme 15(100%) nursing students did not attend.



Fig - 1: Percentage distribution of level of knowledge between staff nurses and nursing students.

Table no.1: Comparison of mean and standard deviation of knowledge scores between staff nurses and nursing students. (n=30)

Category	Mean	Standard Deviation
Staff nurses	18.46	2.77
Nursing student	18.46	3.93

For staff nurses there was no significant association between the age, gender education qualification and working experience, source of information and attending CNE and for nursing students there was significant association with source of information and remaining there was no significant association between age, educational qualification and year of course.

DISCUSSION: The discussion of the present study was based on the findings obtained from the descriptive and inferential statistical analysis of collected data. It is presented in the view of the objectives of the study. The study related to level of knowledge regarding assessment of placenta among 15 staff nurses majority 9(60%) had moderate knowledge and among the 15 student nurses majority 9(60%) had moderate knowledge.

With regard to association, staff nurses there was no significant association between the age, gender education qualification and working experience, source of information and attending CNE and for nursing students there was significant association with source of information and remaining there was no significant association between age, educational qualification and year of course.

CONCLUSION: The study findings concluded that majority of the staff nurses had moderate knowledge and majority of nursing students had moderate knowledge regarding assessment of placenta. There is significant association between the level of knowledge with socio demographic variables such as source of information among nursing students and there is no significant association between level of

knowledge with socio demographic variables such as age, gender, Educational qualification, Working experience, Source of information and attending CNE programme among staff nurses.

RECOMMENDATIONS:

1. A similar study can be conducted on large number of sample in different settings.
2. An quasi experimental study can be conducted for identifying the effectiveness of structured teaching programme on assessment of placenta among staff nurses and nursing students.
3. The intervention can be made as regular, reduce the complication of placenta.

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