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A comparative study to assess knowledge regarding high risk pregnancy among GNM 3rd year and B.Sc. Nursing 3rd year students in selected college of Nursing at Jaipur

Rajni Joshi[1*], Vijay Kumar Jyotishi[2]

[1] Nursing Tutor, Department of Obstetric & Gynecology, College of Nursing, IMS, BHU, Varanasi, Uttar Pradesh, India

[2] Phd student, Department of Mental Health Nursing, Shri Jagdishprasad Jhabarmal Tiberwala University, Jhunjhunu, Rajasthan, Uttar Pradesh, India

Abstract
A Comparative study was conducted among 120 students, 60 from B.Sc. Nursing III yr. and 60 from G.N.M III yr students to assess the knowledge regarding high risk pregnancy by using non-experimental descriptive research design. Non – probability sampling technique was used. The finding revealed that majority of students in both groups i.e. B.Sc. nursing 3rd year (n=31) 51.7 % and GNM 3rd year (n=37) 61.7% had moderate knowledge score. Whereas 26.7 % from B.Sc. 3rd year (n=16) and 21.6 % GNM 3rd year (n=13) had adequate knowledge score. 21.6 % B.Sc. 3rd (n=13) year and 16.7 % GNM 3rd (n=10) had inadequate knowledge score. Knowledge score and professional education reveals that there is significant effect of professional education on the knowledge score. Hence, the current study can be kept as baseline for improving the theoretical and practical knowledge of both B.Sc. Nursing 3rd year and GNM 3rd year students by providing health information.

Keywords: assess, knowledge, high risk pregnancy, B.Sc. nursing iii YR, G.N.M iii yr. etc

1. Introduction

Every pregnancy has some risk of problems. The causes can be conditions her already have or conditions develop. They also include being pregnant with more than one baby, previous problem pregnancies, or being over age (35 years). They can affect mother health and the health of baby. Safe motherhood is the right of all women and this is in her hands. Gaining the knowledge about the high risk conditions is very important for women to prevent it. Many a times they come to the hospital but are not aware of their own condition [1].

A high-risk pregnancy is one in which the mother or foetus has a significantly increased chance of death or disability. In order to achieve optimal perinatal outcome, all factors contributing to mortality and morbidity in a particular pregnancy must be identified and acted upon early. For most women, early and regular prenatal care promotes a healthy pregnancy and delivery without complications. But some women are at an increased risk for complications even before they get pregnant for a variety of reasons [1].

Some disorders and conditions can mean that pregnancy is considered high-risk (about 6-8% of pregnancies in the USA) and in extreme cases may be contraindicated. High-risk pregnancies are the main focus of doctors specializing in maternal-fetal medicine. Serious pre-existing disorders which can reduce a woman's physical ability to survive pregnancy include a range of congenital defects (that is conditions with which the woman herself was born, for example, those of the heart or reproductive organs) and diseases acquired at any time during the woman's life [2]. Most of the time having a baby is a natural process. After a full-term pregnancy, a woman goes into labor on or near her due date and gives birth to a healthy baby. A day or two later she leaves the hospital to begin day-to-day life with her growing family. But not all pregnancies go smoothly. Some women experience what doctors refer to as a high-risk pregnancy [2].

A pregnancy is considered high-risk when there are potential complications that could affect the mother, the baby, or both. High-risk pregnancies require management by a specialist to help ensure the best outcome for the mother and baby. A high-risk pregnancy might pose challenges before, during or after delivery. If mother have a high-risk pregnancy, her and his baby might need special monitoring or care throughout during pregnancy. Understand what causes a high-risk pregnancy, and what mother can do to take care of her and his baby [3].

General Factors increasing the risk (to the woman, the fetus or both) of pregnancy complications beyond the normal level of risk may be present in a woman's medical profile either before she becomes pregnant or during the pregnancy. These pre-existing factors may relate to physical and mental health, and to social issues, or a combination [3].

Some common risk factors includes age of either parent, exposure to environmental toxins in pregnancy, exposure to recreational drugs in pregnancy, ethanol during pregnancy can cause fetal alcohol syndrome and fetal alcohol spectrum disorder, tobacco smoking and pregnancy, when combined, causes twice the risk of premature rupture of membranes, placental abruption and placenta previa, prenatal cocaine exposure is associated with, for example, premature birth, birth defects and attention deficit disorder, prenatal methamphetamine exposure can cause premature birth and congenital abnormalities, cannabis in pregnancy is possibly associated with adverse effects on the child later in life, exposure to Pharmaceutical drugs in pregnancy [3].

Specific factors that might contribute to a high-risk pregnancy include Advanced maternal age: Pregnancy risks are higher for mothers age 35 and older, Lifestyle choices: Smoking cigarettes, drinking alcohol and using

illegal drugs can put a pregnancy at risk, Medical history: A prior C-section, low birth weight baby or preterm birth — birth before 37 weeks of pregnancy — might increase the risk in subsequent pregnancies, underlying conditions. Chronic conditions — such as diabetes, high blood pressure and epilepsy — increase pregnancy risks, A blood condition, such as anemia, an infection or an underlying mental health condition also can increase pregnancy risks [4].
Various complications that develop during pregnancy pose risks, such as problems with the uterus, cervix or placenta. Other concerns might include too much amniotic fluid (polyhydramnios) or low amniotic fluid (Oligohydramnios), restricted foetal growth, or Rh (rhesus) sensitization — a potentially serious condition that can occurs when mother blood group is Rh negative and her baby's blood group is Rh positive. The following problems originate mainly in the mother [4].
High blood pressure is a common complication during pregnancy. It is usually addressed by the obstetric terminology as preeclampsia in this include Gestational hypertension, proteinuria (>300 mg), and oedema. Severe preeclampsia involves a BP over 160/110 (with additional signs). It affects 5-8% of pregnancies. The condition is eclampsia in this include seizures with hypertension, protein urea and enema. It is affect around 1.4% of pregnancies. The other condition is also there HELLP syndrome that is haemolytic anemia, elevated liver enzymes and low platelet count. Incidence is reported as 0.5-0.9% of all pregnancies [4].
Yet another complication reported during pregnancy is deep vein thrombosis. Deep vein thrombosis (DVT) has an incidence of 0.5 to 7 per 1,000 pregnancies and is the second most common cause of maternal death in developed countries after bleeding. The other most common complication during pregnancy is anemia. According to the United Nations (UN) estimates, approximately half of pregnant women suffer from anemia worldwide. Usually the levels of haemoglobin are lower in the 3rd trimester [3].
A pregnant woman is more susceptible to certain infections. This increased risk is caused by an increased immune tolerance in pregnancy to prevent an immune reaction against the fetus, as well as secondary to maternal physiological changes including a decrease in respiratory volumes and urinary stasis due to an enlarging uterus. Some infections are vertically transmissible, meaning that they can affect the child as well. Postpartum is a moderate to severe depressive episode starting anytime during pregnancy or within the four weeks following delivery [3].
Multiples may become mono chorionic, sharing the same chorion, with resultant risk of twin-to-twin transfusion syndrome. Mono chorionic multiples may even become mono amniotic, sharing the same amniotic sac, resulting in risk of umbilical cord compression and entanglement. In very rare cases, there may be conjoined twins, possibly impairing function of internal organs [4].
Some other most common complication of pregnancy is Posttraumatic stress disorder research indicates that 13.6% of women suffer from symptoms of Posttraumatic stress disorder at 6 months postpartum; Ectopic pregnancy is implantation of the embryo outside the uterus; Placental abruption is separation of the placenta from the uterus and the embryo and fetus have little or no immune function. They depend on the immune function of their mother. Several pathogens can cross the placenta and cause (perinatal) infection. This condition is known as vertically transmitted infection [4].
Since they are listed many complication. There are various step recommended by: - Schedule a preconception appointment. If woman thinking about becoming pregnant, consult health care provider. Counsellor Counsel the woman to start taking a daily prenatal vitamin and reach a healthy weight before becomes pregnant. Be cautious when using assisted reproductive technology (ART). If a woman planning to use ART to get pregnant, consider how many embryos will be implanted. Multiple pregnancies carry a higher risk of preterm labor [5].
Seek regular prenatal care. Prenatal visits can help the health care provider to monitor the woman health and her baby's health. Depending on the circumstances, might be referred to a specialist in maternal-fetal medicine, genetics, paediatrics or other areas. Eat a healthy diet. During pregnancy need more folic acid, calcium, iron and other essential nutrients. A daily prenatal vitamin can help fill any gaps. Consult the health care provider if have special nutrition needs due to a health condition, such as diabetes [5].

2. Materials and Methods

The research design choosen from this study was non – experimental descriptive (Comparative) in nature. The study was conducted among G.N.M III yr. and B.Sc. Nursing III yr. students in selected college of nursing Jaipur. Total 120 samples were used among which 60 students from B.Sc. Nursing III yr. and 60 from G.N.M III yr. Non – probability sampling technique were used.

3. Results

Data on demographic characteristics of the samples

Table 1: Frequency and percentage distribution of sample according to demographic characteristics (N=120)

S. No.	Variables	B.Sc. (N) 3rd yr. (60)		GNM 3rd yr. (60)		Combined	
		freq	%	freq	%	Freq	%
1.	Age (years)						
	20-22	15	25	15	25	30	25
	23-25	45	75	44	73.33	89	74.17
	26-28	0	0	0	0	0	0
	> 28	0	0	1	1.67	1	0.83
2.	Gender						
	Male	12	20	29	48.33	41	34.17
	Female	48	80	31	51.67	79	65.83
3.	Education						
	12th	40	66.67	36	60	76	63.33
	Graduation	20	33.33	23	38.33	43	35.83
	Post Graduation	0	0		0	0	0
	Others	0	0	1	1.6	1	0.83
4.	Stream for eligible education						
	Science	60	100	32	53.33	92	76.67
	Arts	0	0	23	38.33	23	19.16
	Commerce	0	0	5	8.3	5	4.17
	Others	0	0	0	0	0	0
5.	Areas of living						
	Rural	29	48.33	50	83.33	79	65.83
	Urban	31	51.67	10	16.67	41	34.16
6.	Type of family						
	Nuclear	49	81.67	37	61.67	86	71.67
	Joint	11	18.33	23	38.33	34	28.33

Table 1 shows as

Majority of respondents aged between 23-25 years (74.17%) followed by 20-22 yrs. (25%) and >28 yrs. (0.83%). Majority of respondents were female (65.83%) than male (34.17%). Majority of subjects had qualification 12th standard (63.33%) in comparison graduation (35.83%) and others (0.83%). Majority of respondents had science stream (76.67%) in comparison to arts (19.16%) and commerce (4.17%). Majority of respondents were rural (65.83%) in comparison to urban (34.16%). Majority of respondents had nuclear family (71.6%) than joint family (28.6%).

Comparison of knowledge scores between B.Sc. Nursing 3rd year and gnm 3rd year students

Percentage wise distribution of knowledge level between B.Sc. Nursing 3rd and GNM 3rd year students

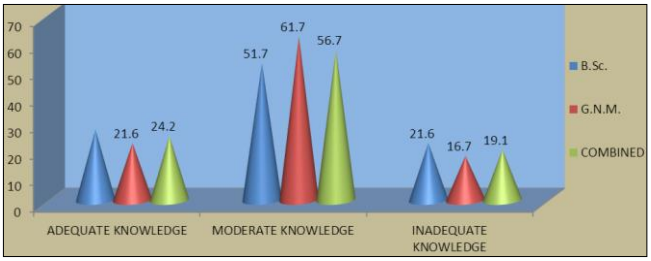

Fig 1: Shows that majority of students in both groups i.e. B.Sc. nursing 3rd year (n=31) 51.7 % and GNM 3rd year (n=37) 61.7% had moderate knowledge score. Whereas 26.7 % from B.Sc. 3rd year (n=16) and 21.6 % GNM 3rd year (n=13) had adequate knowledge score. 21.6 % B.Sc. 3rd (n=13) year and 16.7 % GNM 3rd (n=10) had inadequate knowledge score

Table 2: Over all mean scores of B.Sc. Nursing 3rd and GNM 3rd year students regarding high risk pregnancy (N=120)

S No.	Groups	Sample (frequency=n)	Mean	Median	SD	Df	t-test
1.	B.Sc. (N) 3rd Year	60	19	19	1.866	118	6.923*
2.	GNM 3rd Year	60	14.5	15	1.668		

Table no. 2 show that the mean test knowledge scores of the B.Sc. Nursing IIIrd year students is higher than mean test knowledge score of G.N.M. IIIrd year students. The tabulated value of't' at the 0.05 level of significance of 118 df is 1.984 and calculated value at the 0.05 level of significance of 118 df is 6.923.

Association between knowledge score of B.Sc. Nursing 3rd year students regarding high risk pregnancy with selected demographic variables

Table 4: Association between knowledge score of B.Sc. nursing 3rd year students (N =120)

S. No	Demographic Variables	Degree of Freedom (df)	Tabulated Value	Calculated value (Chi Square)	Significant or not significant
1.	Age	6	12.59	14.156	Significant
2.	Gender	2	5.99	0.3878	Not Significant
3.	Qualification	6	12.59	14.66	Significant
4.	Stream of Qualification	6	12.59	0	Not Significant
5.	Area of Living	2	5.99	2.7935	Not Significant
6.	Type of Family	2	5.99	1.0616	Not Significant

The tabulated value of chi square at the 6 df at 0.05 level of significant is 12.59 and the 2 df at 0.05 level of significant is 5.99. Calculated value of age is 14.156; gender is 0.3878, qualification 0.6373, stream of qualification 0, area of Living 2.7935, and type of family 1.0616. It means all demographic variables are significant with high risk pregnancy.

Association between knowledge score of gnm 3rd year students regarding high risk pregnancy with selected demographic variables

Table 5: Association between knowledge score of G.N.M. 3rd year students

S. No	Demographic Variables	Degree of Freedom (df)	Tabulated Value	Calculated value(Chi Square)	Significant or not Significant
1.	Age	6	12.59	14.01	Significant
2.	Gender	2	5.99	0.6241	Not Significant
3.	Qualification	6	0.637	13.148	Significant
4.	Stream of Qualification	6	12.59	15.198	Significant
5.	Area of Living	2	5.99	0	Not Significant
6.	Type of Family	2	5.99	3.3934	Not Significant

The tabulated value of chi square at the 6 df at 0.05 level of significant is 12.59 and the 2 df at 0.05 level of significant is 5.99. Calculated value of age is 14.01; gender is 0.6241, Qualification 13.148, Stream of Qualification 15.198, Area of Living 0, and Type of Family 3.3934. It means all demographic variables are significant with high risk pregnancy.

4. Discussion

This chapter deals with the summary of the study, its major findings, conclusion and the implications for research in various areas of nursing, nursing education, nursing administration and nursing research followed by its limitation. The chapter ends with suggestion and recommendation for research in future.

The problem stated is "A Comparative Study to Assess Knowledge Regarding High Risk Pregnancy among G.N.M.3rd year and B.Sc. Nursing 3rd year Students in Selected College of Nursing at Jaipur."

Hypothesis formulated for the study were

H_1 - There will be significant difference between knowledge score of GNM 3rd year students and B.Sc. Nursing 3rd year students regarding high risk pregnancy.

H_2 - There will be a significant relationship between knowledge and selected demographic variables among GNM 3rd year students regarding high risk pregnancy.

H_3 - There will be a significant relationship between knowledge and selected demographic variables among B.Sc. Nursing 3rd year students regarding high risk pregnancy.

The review of literature helped the investigator to understand the problem area, determined methodology and frame work and tool for the purpose of this study. Health belief model was used to improve the quality care, to understand factors, influencing client's perceptions beliefs and behaviours, in order to plan care that will most effectively assist client in maintaining and preventing illness.

A quantitative approach (comparative) was used to accomplish the objectives of the present study. The dependent variable for the study was knowledge of GNM and B.Sc. students and extraneous variables were demographic variables (Age, gender, education, stream of education, areas of living and type of family.)

A sample of 120 Nursing students (60 - 60 from each group i.e. B.Sc. Nursing 3rd year and GNM 3rd year) was selected by purposive sampling method.

The data was analyzed by calculating mean, median, standard deviation. 't' test was used to compare and find out the significance of certain variables. Test of association (chi square test) was calculated for the significant variables to check if they were really matched. Cone, column, pyramid diagrams used to depict some of the findings.

The major findings of the study were:-

- Majority of respondents aged between 23-25 years (74.17%) followed by 20-22 yrs. (25%) and >28 yrs. (0.83%).
- Majority of respondents were female (65.83%) than male (34.17%).
- Majority of subjects had qualification 12th standard (63.33%) in comparison graduation (35.83%) and others (0.83%).
- Majority of respondents had science stream (76.67%) in comparison to arts (19.16%) and commerce (4.17%).
- Majority of respondents were rural (65.83%) in comparison to urban (34.16%).
- Majority of respondents had nuclear family (71.6%) than joint family (28.6%).

Comparison of knowledge of GNM 3rd year and B.Sc. Nursing 3rd year students

While comparing the knowledge scores between B.Sc. Nursing 3rd year and GNM 3rd year students, following results have been drawn-

- Majority of students in both groups i.e. B.Sc. nursing 3rd year (n=31) 51.7 % and GNM 3rd year (n=37) 61.7% had moderate knowledge score. Whereas 26.7 % from B.Sc. 3rd year (n=16) and 21.6 % GNM 3rd year (n=13) had adequate knowledge score. 21.6 % B.Sc. 3rd (n=13) year and 16.7 % GNM 3rd (n=10) had inadequate knowledge score.
- The mean test knowledge scores of the B.Sc. Nursing IIIrd year students is higher than mean test knowledge score of G.N.M. IIIrd year students. The tabulated value of 't' at the 0.05 level of significance of 118 df is 1.984 and calculated value at the 0.05 level of significance of 118 df is 6.923.
- So we can say that the calculated value is higher than tabulated value it mean B.Sc. nursing IIIrd year students have more knowledge then G.N.M. IIIrd year students.

Assessment of knowledge level of high risk pregnancy among students with selected demographic variables

- The tabulated value for B.Sc. Nursing students of chi square at the 6 df at 0.05 level of significant is 12.59 and the 2 df at 0.05 level of significant is 5.99. Calculated value of age is 14.156; gender is 0.3878, qualification 0.6373, stream of qualification 0, area of Living 2.7935, and type of family 1.0616. It means all demographic variables are significant with high risk pregnancy.
- The tabulated value for GNM students of chi square at the 6 df at 0.05 level of significant is 12.59 and the 2 df at 0.05 level of significant is 5.99. Calculated value of age is 14.01; gender is 0.6241, Qualification 13.148, Stream of Qualification 15.198, Area of Living 0, and Type of Family 3.3934. It means all demographic variables are significant with high risk pregnancy.

5. Conclusion

In this study B.Sc. 3rd year and GNM 3rd year two group students have been compared. One is degree course and another one is diploma course. Findings knowledge score and professional education reveals that there is significant effect of professional education on the knowledge score. Both of these courses are Nursing courses, both are going for clinical experience in the same hospital and studied in the same college. The main difference in B.Sc. Nursing students and GNM students is first one is having more theoretical knowledge whereas another one have more practical knowledge. The questioner which was prepared for data collection contains both types of questions.

B.Sc. Nursing students secured the highest knowledge than GNM Nursing students. Findings related to mean knowledge score and experience reveals that there is significant effect of professional education on knowledge score.

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