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Knowledge and Attitude of Antenatal Mother Regarding High-risk Pregnancy in a Tertiary Care Hospital in Western India

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ABSTRACT

Introduction: A high-risk pregnancy is one of the major public health issues across the world including developing countries like India. Considering the importance of high-risk pregnancy, the present study was conducted to investigate the knowledge, attitudes, and practices of pregnant women at a tertiary care hospital in India.

Methodology: A descriptive cross-sectional study with structured questionnaires to 100 registered pregnant women, aged between 18 and 45 years old was done.

Results: All respondents have good knowledge, attitudes, and practices during pregnancy. The high-risk pregnancy status among respondents showed that there was no statistically significant differences to various socio-demographic variables ($p > 0.05$).

Conclusion: The participants have good knowledge, attitude and practices regarding high-risk pregnancy which indicate good penetration of IEC programme regarding the same. There was no difference in knowledge, attitude and practices among various socio-demographic groups.

Keywords: Pregnancy, Public health, Maternal and child health, Anemia, Hypertension, Diabetes

INTRODUCTION

Pregnancy is one of the most important events in life for all mothers. From the conception until postpartum it may be a critical time for the mother and baby. One of the major health problems in dealing with pregnancy is the high-risk pregnancy. The common risk factors during pregnancy and post-partum period are anaemia, hypertension and diabetes that may affect the growth and development of the fetus and can threaten the mother's life as well[1]. The incidence of mortality due to high-risk pregnancy still occurs even though many health programs are being implemented to reduce the mortality rate among the pregnant mother.

Globally, over 30,000 women die each year during pregnancy and childbirth, predominantly as a result of pregnancy and birth-related complications[2]. Screening of mother during early pregnancy is one of the powerful tools to detect the early health risk of a pregnant mother and the fetus and appropriate remedial can take place. Understanding the factors that affect antenatal care is vital in providing care that fits women's needs.[3]

Many factors are contributing to a high-risk pregnancy. One of them is the socioeconomic factor. Statistical analysis in western countries found that this non-medical factor also affects the death of the fetus. Very low socioeconomic conditions and unmarried mothers are one of the causes of the incidence of premature birth. A study was conducted where pregnant women were separated into five

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groups according to the level of employment and family income. Group one consists of pregnant women coming from families with professional occupational level, group two comprising office workers, and group three are sales shop employees, group four are manual workers and 5 groups are gross labour workers. The result of this study found that the birth of premature infants in the first three groups consisting of professional workers, office workers, and shopkeepers was very low at 4.6%. The fourth group, consisting of qualified manual workers, recorded a 7.9% percentage. The last batch of laborers recorded the highest percentage of births of premature infants with 10.3%[4].

Other factors that lead to high-risk pregnancy are the health conditions of pregnant women such as high blood pressure, diabetes, obesity kidney disease, autoimmune disease, infertility and HIV[5,6]. Some studies have shown that age is also one of the risk factors for pregnancy. Teenage pregnancies at a younger age are more likely to produce high blood pressure and anemia problems. Their risk of pregnancy may also be affected by adolescents who are susceptible to illness or sexual infection. At a young age, pregnant women are less likely to receive prenatal care or to make medical appointments with medical officers to monitor their health condition. The rate of fetal death and the birth of premature babies are high in pregnant women aged below 15 and over 35 years. Pregnancy at the age of 35 is more likely to be normal, but studies have found that this group of pregnant women are at risk for surgery, complications during childbirth, birth process longer than 20 hours and possibly the baby is born have genetic disorders such as Down syndrome.

Knowledge, attitude, and practice among antenatal mother herself regarding the high-risk pregnancy is very crucial, this study was conducted to investigate the knowledge, attitude, and practice among antenatal mothers regarding the high-risk pregnancy problem.

METHODOLOGY

This is a descriptive cross-sectional study. This study was conducted in Maternal and Child Health department of a tertiary care centre in western India during the year 2017-18. After taking approval from institutional ethical committee, the data was collected through a questionnaire which was developed by using available literature related to the topic and with the help of subject experts in the field. The questionnaire was piloted for feasibility and completeness before using for actual study. The selected respondents explained the purpose of the questionnaire. Once the respondent understands and agrees to answer the question, the form distributed to the respondent to be filled out. Once the form is completed, the form returned to the researcher at the same time.

The questionnaire forms are provided in 4 sections: Part I included respondent demographic data information; part II included respondent knowledge level on health practices; part III included respondent attitude towards health practices; and part IV included respondent practices (others). The questionnaire is using the Likert scale to measure the thinking or perception of the respondent against the dangers of high-risk pregnancy: (1) Strongly Disagree, (2) Disagree, (3) Not sure, (4) Agree, (5) Strongly Agree. Also, answer Correct (1) and Wrong (2) questions and answer Yes (1) or No (2) question. The advantages of the scale used are easy to manage and use, items are easily answered by respondents, reliability in data collection.

Inclusion criteria

All pregnant women between age 18 to 45 years registered at the hospital and understand Hindi or Gujarati language were included in the study. Those who don't understand Gujrati or Hindi language or not willing to participate were excluded. Pregnant women coming to the hospital for the first time directly for delivery were also excluded.

Sampling

The sampling of this study is convenient. The study was conducted among first 100 newly registered pregnant women after the initiation of the study.

Data Analysis

The data were analyzed using the SPSS software system Version 22. Descriptive data described as the mean deviation of standard deviation (SD).

RESULTS

Table 1 shows that mean weight (kg) 59.3 (8.90), Height (cm) 154.0 (4.13), Systolic blood pressure (mmHg) 113.8 (6.95), Diastolic blood pressure (mmHg). Gestational age during the first visit to clinic 13.3 (7.50). Among the respondent 34% was primipara.

Table 1: Clinical features of the study respondents (n=100)

Variable	Mean values (SD)
Body weight (kg)	59.3 (8.90)
Height (cm)	154.0 (4.13)
Systolic blood pressure (mmHg)	113.8 (6.95)
Diastolic blood pressure (mmHg)	73.9 (6.84)
Hemoglobin level (g/ml)	11.3 (0.64)
Age of gestation during clinic first visit (week)	13.3 (7.50)
Parity	
Primi	32 (32.0)
2nd Para to 4th Para	66 (66.0)
5th para or more	2 (2.0)

Table 2: Knowledge and Attitude score of the study participants and their correlation with socio-demographic variables

Variables	Cases (N=100)	Knowledge score (mean (SD))	P-value	Attitude score (mean (SD))	P-value
Age (year)					
< 20	3	13 (3)	0.089	41.7 (3.21)	0.820
21-34	70	15 (4.8)		42.7 (3.31)	
35-40	25	14 (3.7)		42.6 (2.25)	
>40	2	14 (2)		41.0 (0)	
Educational status					
Primary school	9	14.7 (1.00)	0.987	42.3 (3.39)	0.311
Secondary school	59	14.6 (0.99)		42.9 (3.31)	
University	32	14.6 (0.86)		42.3 (2.27)	
Occupation					
Housewife	48	14.7 (0.77)	0.897	41.9 (2.94)	0.674
Business	5	14.4 (1.34)		44.0 (3.93)	
Civil servants	17	14.5 (1.08)		43.88 (3.12)	
Private servants	30	14.7 (1.09)		42.9 (2.74)	
Socio-economic class					
Upper	1	14 (-)	0.928	41.87 (3.05)	0.809
Upper middle	16	14.6 (0.88)		42.1(2.93)	
Middle	32	14.6 (1.09)		42.1 (2.93)	
Lower middle	14	14.8 (0.80)		43.7 (2.81)	
Lower	36	14.8 (0.79)		43.2 (3.02)	
Number of pregnancies					
1	32	14.1 (1.52)	0.222	42.0 (3.17)	0.524
2-4	66	14.7 (0.77)		42.7 (3.01)	
>5	2	13.9 (2)		43.3 (2.84)	

The age category of 100 respondents consisted of 21 to 34 years 70 (70%), followed by 35 to 40 years 25 (25%) then less 20 years 3 (3%) and over 40 years 2 (2%). Most of the respondents had a secondary school education i.e. 59 (59.0%). University 32 (32%) and Primary School 9 (9%). 48 (48%) respondents did not work only housewives, as private servants 30 (30%), civil servants 17 (17%) and business 5 (5%).

Table 2 shows that all respondents have very good knowledge (85%), the lowest score is 10 marks from the total score of 15 marks. All respondents showed a positive attitude towards pregnancy care. All socio-demographic variables for the respondents' knowledge score such as age, educational level, occupation, income and number of pregnancies were not statistically significant (p >0.05). Average knowledge score is mean (SD) 14 almost all respondents have excellent knowledge about a high risk pregnancy.

Almost all respondents have a good attitude. There was no statistically significant difference in the variables (p >0.05).

Awareness and knowledge of high-risk pregnancies are also positive where the knowledge score of the respondents is 85% and there is no difference for the level of knowledge about high-risk pregnancy between the primigravida and pregnant mother with more than 4 times pregnancy. This shows that the respondents are ready for pregnancy by getting information about their pregnancy condition. All respondents have good practice during pregnancy because they do not smoke.

DISCUSSION

Based on demographic data, there are 3 (3%) respondents aged less than 20 years old and 27 (27%) over 35 years old. As a result of this study, all respondents had good knowledge of high-risk pregnancies with a score of 15 (85%).

However, in contrast to the findings of a study with first-time mothers at younger ages below 15 years, they find that this age range is less knowledge of pregnancy care that results in increased fetal mortality in premature and premature births, while knowledge and the awareness of women aged 35 years and older on risky pregnancies is positive.[7]

An analysis made on 137,427 births in a study found that the fetus mortality rate was very high among pregnant women aged 15 and below with 133 per thousand and this was followed by pregnant women aged 40 and above with 64.5 per thousand.[8] Pregnancy at the age of 35 is more likely to be normal, but studies have found that pregnant women are at risk for surgery, complications during childbirth, the birth process is longer than 20 hours and possibly the baby is born to have genetic disorders such as Down syndrome.

The level of knowledge and attitude on high-risk pregnancies with socio-economic factors namely education, income, occupation, frequency of pregnancy and age are also no significant differences. Based on the results of this finding, all respondents showed a positive attitude towards risk pregnancies. However, according to the results of Sukesih[9] respondents with a high level of education have good knowledge about the risk of pregnancy compared to pregnant women

with a low level of education. While in terms of age, mothers who are in a healthy reproductive age have a better knowledge of pregnancy risk than mothers who are at an unhealthy reproductive age.

All respondents have good practice during pregnancy because they do not smoke. However, 14 (14%) of respondents responded to their abstinence during pregnancy. In a study conducted by Lemoine, respondents who smoke and take alcohol during pregnancy have resulted in miscarriage, premature birth, death, low birth weight.[10-13]

Study Limitation

This sample is limited to 100 respondents only a comprehensive picture of knowledge, attitudes, and practices among mothers pregnant with high-risk pregnancies. The study results are limited to hospital cases only and might not reflect situation in community. The population selection is limited in the selected site only.

CONCLUSION AND RECOMMENDATIONS

Overall, this study concludes that the participants have good knowledge, attitude and practices regarding high-risk pregnancy which indicate good penetration of IEC programme regarding the same. There was no difference in knowledge, attitude and practices among various socio-demographic groups. However, in future this study may be extended with more detailed ways and methods to obtain knowledge gap among the participants. Study may be expanded to more site and to more communities.

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