



## **Assessment of the Risk Status of Antenatal Mothers Attending Selected Hospital at Mangaluru**

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### **Authors' contributions**

*This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

### **Article Information**

DOI: 10.9734/JPRI/2021/v33i46B32963

*Editor(s):*

(1) Dr. Takashi Ikeno, National Institute of Mental Health, Japan.

*Reviewers:*

(1) K. R. Padma, Visvavidyalayam Women's University, India.

(2) Nitin Girdharwal, Dr. A.P.J Abdul Kalam University, India.

Complete Peer review History: <https://www.sdiarticle4.com/review-history/74286>

**Original Research Article**

**Received 06 August 2021**

**Accepted 13 October 2021**

**Published 23 October 2021**

### **ABSTRACT**

**Background:** All pregnancies are at risk even though most of the pregnancies and childbirth worldwide are uneventful. Almost 15% of all the pregnant women can develop potentially life-threatening complications which might require skilled care with some requiring major intervention for survival. Complications can occur anytime during the course of the pregnancy and childbirth, which in turn can affect the health and the overall survival of mother and the fetus. Hence there is a need to identify those high risk pregnancy groups for whom a greater degree of care is required. This study aimed to identify the risk status among antenatal mothers thus enhancing the mother to have a clear understanding about health.

**Methods:** A quantitative research approach with descriptive survey design was used to assess the risk status of pregnancy among antenatal mothers. The study was conducted among 100 antenatal mothers in a selected hospital, Mangaluru.

**Results:** The present study revealed that maximum number of antenatal mothers (33.7%) were in the age group of 25-30 years and 31-36 years. 41.6% antenatal mothers had high school education, 24.8% had PUC education. 41.6% of antenatal mothers were from nuclear family and 40.6% belongs to second trimester. The maximum number of antenatal mothers (39.6%) belongs to second gravida. 75.2% of antenatal mothers belongs to above poverty line. Analysis of the

association between risk statuses of pregnancy with selected demographic variables reveals that there is significant association between risk status of pregnancy with age in years and gravida status of antenatal mothers at 0.05 level of significance. In this study 55% of antenatal mothers belong to high risk pregnancy status and remaining 45% were at low risk status.

**Conclusion:** The study reflects that most of the pregnant women are in high risk status of pregnancy. The overall findings of the study clearly showed that there is significant level of risk status of pregnancy among antenatal mothers.

*Keywords: Assessment; risk status; antenatal mothers; hospital.*

## 1. INTRODUCTION

Pregnancy and child birth are special events in women's lives and indeed the lives of their families. While the majority of pregnancies will progress satisfactorily with minimal intervention from the caring professionals, there will always be the need to identify those high risk pregnancy groups for whom a greater degree of care is required [1]. A pregnancy is considered high risk when maternal or foetal complications are present that could affect the health or safety of the mother or baby. A high risk pregnancy can be defined as the gestation period in which the mother and the child both are highly susceptible to health problems, medical complications and may run a higher risk of spontaneous abortion. It is an accepted truth the probability of undergoing a high risk pregnancy increases with maternal age [2].

The World Health Organization has reported that almost 830 women die daily as a result of complications during antenatal period and childbirth [3]. There are five main reasons for death of pregnant women such as severe hemorrhage, maternal infections, unsafe abortion, hypertension-related disorders of pregnancy such as preeclampsia and eclampsia, and medical complications such as cardiac conditions, HIV/AIDS, or diabetes complicating or complicated by pregnancy. Risk assessment in pregnancy helps to predict which women are most likely to experience adverse health events and enables providers to administer risk appropriate perinatal care. Hence, all the pregnancies need to be evaluated for high-risk pregnancy through routine antenatal care provided by the health-care professionals. Thus the investigator had identified the risk status of antenatal mothers to enhance, refer for the timely measures to intervene the complications [4].

## 2. MATERIALS AND METHODS

A quantitative non experimental descriptive survey was carried out amongst the antenatal

mothers who were attending Yenepoya Medical College Hospital in Deralakatte, Mangaluru. The antenatal mothers who were in the three trimesters of pregnancy, able to understand English or Kannada, available during the time of data collection were included in the study. Written informed consent was obtained from antenatal mothers and they were assessed for the various demographic and obstetrical determinants as a cause of their risk status during pregnancy [5,6].

Ethical clearance was obtained from the ethical committee of Yenepoya University protocol no. 050. Individual consent was taken from the sample before data collection. Participants were also assured for the confidentiality of the information provided. Prior to data collection, formal permission was obtained from the Medical Superintendent of selected hospital, Mangaluru. Participants were informed about the nature and purpose of the study and informed consent was obtained. The time taken by each respondent was 10 to 15 minutes.

Data collection instrument was developed to collect information regarding age, gravida, period of gestation, educational status, occupation, socioeconomic status, type of family, previous history of illness of antenatal mothers. A structured risk assessment checklist was developed and used for the data collection. Data was analysed by SPSS 16.0 version. The results were expressed as frequency and percentage. P value <0.05 was taken as statistically significant.

## 3. RESULTS AND DISCUSSION

The analysis and interpretation of data obtained from 100 antenatal mothers who are assessed for the risk status of pregnancy in a selected hospital at Mangaluru.

The findings of the study has been organized and presented under the following sections:

**Section I: Description of demographic characteristics of antenatal mothers.**

**Table 1. Description of demographic characteristics of antenatal mothers**

<b>Age in years</b>	<b>Frequency</b>	<b>Percentage</b>
19-24	13	12.9%
25-30	34	33.9%
31-36	34	33.9%
37-43	19	18.8%
<b>Gravida</b>		
1	21	20.8%
2	40	39.6%
3	28	27.7%
4 or more	11	10.9%
<b>Period of gestation</b>		
First trimester	40	39.6%
Second trimester	41	40.6%
Third trimester	19	18.8%
<b>Type of family</b>		
Nuclear	42	41.6%
Joint	36	35.6%
Extended	22	21.8%
<b>Educational status</b>		
Primary school	29	28.7%
High school	42	41.6%
PUC	25	24.8%
Diploma	1	1%
No formal education	3	3%
<b>Occupation</b>		
Non health sector	19	18.8%
Health sector	14	13.9%
Home maker	67	66.3%
<b>Socioeconomic status</b>		
Above poverty line	76	75.2%
Below poverty line	24	24.8%

The maximum numbers of antenatal mothers (33.7%) were in the age group of 25-30 years and 31-36 years. About 41.6% antenatal mothers had high school education, 24.8% had PUC education, 28.7% had primary school. Around 66.3% of antenatal mothers were homemakers and 18.8% were working in non-health sector and remaining 13.9% were health sector workers. And 41.6% of antenatal mothers were from nuclear family and 35.6% from joint family

and remaining 21.8% from extended family, 18.8% antenatal mothers belong to third trimester and 40.6% belongs to second trimester and remaining 39.6% belongs to first trimester. The maximum number of antenatal mothers (39.6%) belongs to second gravida, 20.8% were first gravida and 27.7% were third gravida status. About 75.2% of antenatal mothers belong to above poverty line.

**Section II: Risk status of antenatal mothers**

**Table 2. Risk status of antenatal mothers**

<b>Level of risk</b>	<b>Frequency</b>	<b>Percentage</b>
High risk	55	55%
Low risk	45	45%

As per the study findings, maximum (55%) mothers were belonging to the high risk and remaining (45%) mothers were into the low risk category.

**Section III: Association of risk status of pregnancy with selected demographic variables**

**Table 3. Association of risk status of pregnancy with selected demographic variables**

Socio demographic variables	Calculated chi square	Table value	df	P value
Age in years	9.742	7.82	3	0.021*
Gravida	15.957	7.82	3	0.001*
Period of gestation	0.654	5.99	2	0.721
Type of family	0.270	5.99	2	0.874
Educational status	1.120	9.49	4	0.891
Occupation	0.867	5.99	2	0.648
Socioeconomic status	0.319	3.84	1	0.572

\*Significant

Analysis of the association between risk statuses of pregnancy with selected demographic variables reveals that there is significant association between risk status of pregnancy with age in years and gravida status of antenatal mothers at 0.05 level of significance.

**3.1 Discussion**

In the present study, maximum numbers of antenatal mothers (33.7%) were in the age group of 25-30 years and 31-36 years. About 41.6% antenatal mothers had high school education. As per the occupation status, 66.3% of antenatal mothers were homemakers and 18.8% were working in non-health sector. And 41.6% of antenatal mothers were from nuclear family, 40.6% antenatal mothers belong to second trimester. The maximum number of antenatal mothers (39.6%) belongs to second gravida and 75.2% of antenatal mothers belongs to above poverty line.

In this study 55% of antenatal mothers belong to high risk pregnancy status and remaining 45% were at low risk status.

Analysis of the association between risk statuses of pregnancy and selected demographic variables reveals that there is significant association between risk status of pregnancy with age in years and gravida status of antenatal mothers at 0.05 level of significance.

A similar study conducted by MG. Marie et.al., to determine the factors associated with high-risk pregnancy and its outcome through longitudinal review of case records in rural primary health-care center. The prevalence of high-risk pregnancy was found to be 18.3%. Socioeconomic status and parity were found to

be independently associated with high-risk pregnancy [7].

This findings are supported by a cohort study conducted by Louise C K, Tina L R et al on advanced maternal age and adverse outcome in UK have witnessed an increase in mean maternal age at childbirth has been associated with several maternal and perinatal outcomes. This study confirms that the risk of a wide range of adverse perinatal outcomes, including macrosomia, still birth, pre term birth increases with increasing maternal age. It also supported that high socioeconomic status mothers are having low risk status compared to low socioeconomic status women [8].

**4. CONCLUSION**

The present study revealed that maximum numbers of antenatal mothers (33.7%) were in the age group of 25-30 years and 31-36 years. 41.6% antenatal mothers had high school education, 24.8% had PUC education. 66.3% of antenatal mothers were homemakers. 41.6% of antenatal mothers were from nuclear family. 40.6% belongs to second trimester and remaining 39.6% belongs to first trimester. The maximum number of antenatal mothers (39.6%) belongs to second gravida status. 75.2% of antenatal mothers belong to above poverty line. Analysis of the association between risk status of pregnancy with selected demographic variables reveals that there is significant association between risk status of pregnancy with age in years and gravida status of antenatal mothers at 0.05 level of significance. In this study 55% of antenatal mothers belong to high risk pregnancy status and remaining 45% were at low risk status.

## CONSENT AND ETHICAL APPROVAL

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. UK health departments. Why mothers die: report on confidential enquiries into maternal deaths in the UK; 1994-96.
2. Samiya M, Samina M. Identification of high risk pregnancy. Indian Journal for the Practicing Doctor. 2008;3(1):35-38.
3. Dr. Lale S. Global causes of maternal death: A WHO systematic analysis. The Lancet Global Health. 2014;2(6):323-33.
4. Dutta S, Das XS. Identification of high risk mothers by a scoring system and its correlation with perinatal outcome. Journal of Obstet Gynaecol India. 2017;40: 181-90.
5. Antenatal care, routine care for the healthy pregnant woman, national collaborating centre for women's and children's health. Clinical Guideline. 2018;6(2):67-72.
6. Miller S, Thomson A.A book for midwives: care for pregnancy, birth and women's health. 2<sup>nd</sup> Ed. USA.2010;1-28.
7. Marie Gilbert Majella, Gokul Sarveswaran, Yuvaraj Krishnamoorthy, K. Sivaranjini, Kalaiselvy Arikrishnan, S. Ganesh Kumar. A longitudinal study on high risk pregnancy and its outcome among antenatal women attending rural primary health centre in Puducherry, South India. J Educ Health Promot. 2019;8:12. Published online 2019
8. UK health departments. Why mothers die: report on confidential enquiries into maternal deaths in the UK; 2014-16.

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*Peer-review history:*

*The peer review history for this paper can be accessed here:*  
<https://www.sdiarticle4.com/review-history/74286>