

Prevalence of High-risk Pregnancy among Antenatal Mothers

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ABSTRACT

Introduction: According to the WHO, Global and National high-risk pregnancy is about 15% of all pregnant women are expected to develop life-threatening complications requiring skilled care. In India, the MMR stands at approximately 97 per 100,000 live births as of 2023, with wide regional variation. About 20%–30% of pregnancies in India are considered high-risk.

Aim: To assess the prevalence of high-risk pregnancy among antenatal mothers at selected maternity hospital, Hyderabad, Telangana.

Method: A descriptive cross-sectional study was conducted on 99 sample of antenatal mothers from selected maternity hospital, Hyderabad. A structured interview questionnaire and Modified Coopland's assessment tool is used to screen high-risk pregnancy. The content validity of the tool was obtained from experts. The reliability was tested using split half method. Non probability purposive sampling technique was used to collect data. The data was analyzed by descriptive and inferential statistics method.

Result: In the selected maternity hospital out of 99 mothers 44.4% (44) belonged to high-risk, 26.3% (26) belonged to moderate risk and 29.3% (29) belonged to low risk. The most common conditions were previous cesarean section (37.37%), anemia (33.33%), gestational hypertension (20.20%) and previous pregnancy induced hypertension/preeclampsia (20.20%). There is significant association found between high-risk factors with selected demographic variable such as religion ($\chi^2=7.71$) and monthly family income ($\chi^2=9.035$).

Conclusion: The study concluded that nearly half (44.4%) of the antenatal mothers were identified as having high-risk pregnancies using the Modified Coopland's High-Risk Pregnancy Assessment Scale. Early identification, regular antenatal care, timely referral, and appropriate management are essential to improve maternal and neonatal outcomes.

Keywords: Antenatal mother, High-risk pregnancy, Prevalence, Risk factors.

CHAPTER I

INTRODUCTION

“PREGNANCY IS A PROCESS THAT INVITES YOU TO SURRENDER TO THE UNSEEN FORCES BEHIND ALL LIFE.”

-JUDY FORD

Normal pregnancy is a physiological process in which a woman carries a developing fetus in the uterus for about 40 weeks. It is divided into three trimesters and usually progresses without complications. During this period, the mother undergoes various physical, hormonal, and emotional changes to support fetal

growth and development. On the other hand, women experience stress during pregnancy more often than not. The physiological, hormonal, and anatomical changes that occur in expectant mother's body during pregnancy are beyond their control, leaving them vulnerable inside as well as the outside, mentally and emotionally. Some antenatal women can face life-threatening pregnancy complications with little or no advance warning signals.

Although pregnancy is considered to be a physiological state, it can comprise of various risks and complications to the life of the mother as well as the fetus. Every pregnancy is unique where one may require special attention and care from the beginning due to preexisting medical conditions or due to implied complications in later stages.

Pregnancy is a transformative and critical stage in a woman's life, not only symbolizing the creation of new life but also representing a period where significant physical, hormonal, psychological, and emotional changes take place. Despite advances in medical science and maternal care, pregnancy is still associated with risks, especially in certain populations. When specific risk factors are present that may endanger the health of the mother, the fetus, or both, such pregnancies are termed as 'high-risk pregnancies'.

1 *Apollo College of Nursing, Hyderabad* According to **Dutta**, A high-risk pregnancy is defined as one in which the mother, fetus, or neonate is at increased risk of morbidity or mortality before, during, or after delivery. The causes of high-risk pregnancy are multi-factorial and often include maternal age (<18 or >35 years), parity (primigravida or grand multi-para), poor socioeconomic status, malnutrition, lack of access to antenatal care, and preexisting medical or surgical conditions.

High-risk pregnancies are influenced by several contributing factors. Medical conditions such as chronic illnesses including hypertension, diabetes mellitus, asthma, renal disease, heart disorders, and thyroid abnormalities play a significant role. Obstetric history is also important, with factors like previous cesarean section, history of stillbirth, abortion, premature labor, pre-eclampsia, postpartum hemorrhage, and multiple pregnancies increasing risk. Nutritional factors such as anemia, underweight or obesity, and deficiencies in iron, folic acid, and calcium further contribute. Age and parity are also key considerations, as teenage pregnancy and advanced maternal age are independently associated with increased obstetric complications, while primigravida and grand multi-para are more vulnerable to poor outcomes. Additionally, lifestyle and environmental factors such as smoking, alcohol use, domestic violence, and poor sanitation increase pregnancy risk.

Detection of high-risk pregnancy should begin at the first antenatal visit. A comprehensive approach includes detailed history taking covering obstetric, medical, surgical, and social aspects, along with clinical examination involving general physical and obstetric assessment. Investigations such as hemoglobin levels, urine analysis, blood sugar testing, HIV/HBsAg screening, and ultrasonography are essential. Screening tools like Cooplund's High-Risk Scoring System help in classification and referral. According to WHO recommendations, a minimum of four antenatal care visits with proper risk screening and referral protocols is advised.

According to the **WHO**, Global and National high-risk pregnancy is about 15% of all pregnant women are expected to develop life-threatening complications requiring skilled care. The global maternal mortality ratio (MMR) was 223 per 100,000 live births in 2020. In India, the MMR stands at approximately 97 per 100,000 live births as of 2023, with wide regional variation. About 20%–30% of pregnancies in India are considered high-risk. In Tamil Nadu, a cross-sectional study found the prevalence of high-risk pregnancies to be 22.5%.

- In Telangana, the rate was reported at 59.8% in urban areas like Hyderabad

- A similar community-level study in Maharashtra recorded 28.6% prevalence among rural antenatal mothers.

The high incidence is attributed to a combination of unrecognized maternal illness, delayed healthcare-seeking behavior, poor nutrition, anemia, and inadequate ANC. Despite programs like Janani Suraksha Yojana and Pradhan Mantri Surakshit Matritva Abhiyan, many high-risk cases are diagnosed late.

Importance of Early Detection:

Early diagnosis and continuous monitoring can drastically reduce the chances of complications such as eclampsia, preterm labor, postpartum hemorrhage, and perinatal death. Community-level screening through ASHAs and ANMs, regular ANC checkups, nutrition counselling, and institutional delivery significantly improve outcomes.

This study seeks to assess the prevalence of high-risk pregnancies among antenatal mothers in a selected area and to explore the relationship between socio-demographic factors and risk status. Findings from this study will support healthcare providers and policymakers to strengthen ANC strategies, build community awareness, and reduce maternal and neonatal mortality and morbidity.

According to the **National Institute of Health and Family Welfare, India**, any unexpected or unanticipated medical or obstetric condition associated with a pregnancy with an actual or potential hazard to the health or well-being of the mother or fetus is considered a 'high-risk pregnancy. Any pregnancy can be considered to be at a greater risk as compared to a normal pregnancy if the mother is hypertensive, diabetic, Anemia, High Body mass index, High parity susceptible to infections or complications from a previous pregnancy, or any other issues that might arise during pregnancy.

According to **National Health of Medicine** high risk pregnancy is a obstetrical condition affecting 30-33% of mother's Worldwide and may extend to 35-40%. It is emerging as a major health concern with a huge impact on mothers worldwide. Needless to say, it adds to the burden of a country as treatment to decrease the mortality and morbidity.

According to **Journal of Global Health** High risk pregnancies place women and their offspring at the highest risk for mortality and morbidity. Maternal and medical risks increase pregnancy risk and complications during pregnancy and childbirth. Here, we reported the current prevalence of High-risk pregnancies among INDIAN women which is defined through various factors such as maternal, lifestyle, medical, current health risk and adverse birth outcomes.

The prevalence and contributing factors of high-risk pregnancies were estimated using descriptive statistics and logistic regression, respectively. Results the prevalence of High-risk pregnancies among Indian women was 49.4%, with 33% of women having a single high risk and 16.4% having multiple high-risk pregnancies.

The World Health Organization high-risk approach is a strategy to identify pregnant women at increased risk of complications and provide them with special care. It involves early detection through antenatal screening, classification into low- and high-risk groups, close monitoring, proper management, and timely referral when needed. This approach helps in reducing maternal and neonatal morbidity and mortality, though some complications may still occur unexpected.

According to **WHO**-based categorization of high-risk pregnancy, risk factors are classified into six major categories. Under maternal age, pregnancies occurring below

18 years (teenage pregnancy) and above 35 years (advanced maternal age) are considered high risk. Obstetric history includes factors such as previous stillbirth or neonatal death, prior caesarean section,

grand multiparity (more than five births), and a history of preterm labor. Pre-existing medical conditions contributing to high-risk pregnancy include hypertension (chronic or gestational), diabetes mellitus, heart disease, renal disease, moderate to severe anemia, and infectious diseases such as HIV, tuberculosis, malaria, and hepatitis. Current pregnancy complications comprise multiple pregnancies (twins or more), abnormal amniotic fluid levels (polyhydramnios or oligohydramnios), placenta previa or placental abruption, fetal growth restriction or macrosomia, preeclampsia or eclampsia, and preterm labor. Socioeconomic and environmental risks include low socioeconomic status, poor nutrition, limited access to healthcare, domestic violence, and substance abuse such as alcohol, tobacco, and drugs. Lastly, infections and immune-related factors include TORCH infections (toxoplasmosis, rubella, cytomegalovirus, herpes, and others) and Rh incompatibility. Overall, this classification highlights the wide range of biological, medical, and social factors that contribute to high-risk pregnancies and emphasizes the need for comprehensive maternal care.

NEED FOR STUDY

High risk pregnancy is one where there is a greater than average chance of complications or health problems for the mother, fetus, or both during pregnancy, labor, delivery or the post-partum period. Assessment of prevalence of high-risk pregnancy among the antenatal mothers will provide baseline data for educating antenatal mother to identify high-risk conditions. The purpose of the present study is to identify the prevalence regarding high-risk pregnancy among antenatal mothers with a view to develop an information pamphlet.

Everyday approximately 800 women die from preventable causes related to pregnancy & childbirth. 97% of deaths occur in developing countries, where women are from rural & poor communities. Young adolescents face a higher risk of pregnancy-related complications and death compared to older women. Between the years 2020-2025, the MMR in developing countries is 500/100,000 live births as against 16/100,000 in developed countries.

According to **WHO** 17% of maternal deaths worldwide are due to indirect obstetrical causes such as anemia, cardiovascular diseases, and other infections. In India, 71% of all maternal deaths occur due to complications of pregnancy and 27% of maternal mortality is due to direct obstetrical causes & social factors.

Impact on health outcomes: are The High-risk pregnancies are associated with increased risks of adverse maternal and perinatal outcomes, including preterm delivery, LBW, and complications like pre-eclampsia and eclampsia. (According to WHO).

Identifying risk factors: Research helps identify specific risk factors that contribute to high-risk pregnancies, such as maternal age, previous pregnancy history, maternal medical conditions (e.g., hypertension, diabetes), and socioeconomic factors.

Developing effective interactions: Understanding the prevalence and contributing factors allows for the development of targeted interventions to improve maternal and child health, including improved antenatal care, timely referral to specialists, and effective management of high-risk conditions.

Improving health care system: Research can inform the development of protocols and guidelines for identifying and managing high-risk pregnancies at the primary healthcare level, ensuring that women receive timely and appropriate care.

Specific research areas include investigating socioeconomic and demographic factors such as education, wealth, and access to healthcare in relation to the prevalence of high-risk pregnancies. Obstetric history is

also analyzed by examining previous pregnancy complications such as preterm delivery, cesarean section, and prior stillbirths to assess their impact on high-risk pregnancy. In addition, medical conditions like hypertension, diabetes, and thyroid disorders are studied for their influence on maternal and fetal outcomes. Early detection focuses on evaluating the effectiveness of antenatal care programs and screening tools in identifying high-risk pregnancies at an early stage.

According to **International Journal of Clinical Obstetrics and Gynecology**, the study found that almost one-fifth of the pregnant women in rural area have high-risk pregnancy with majority of them contributed by maternal age and pregnancy-induced hypertension. Parity and socioeconomic status were independently associated with high-risk pregnancy. Even though most of the study participants had favorable obstetric and neonatal outcomes, unfavorable outcomes such as low-birth weight, preterm, and post term delivery were more common among high-risk antenatal women. Hence, early detection of high-risk pregnancy needs to be done at primary outpatient department level to improve the maternal, obstetric, and neonatal outcome through quality and accessible antenatal care and appropriate referral services.

According to **journal of global health 2023 September** Globally, maternal deaths due to complications from pregnancy or childbirth were estimated at 211 deaths per 100 000 live births in 2017. About 1.3 million maternal deaths were estimated among Indian women in the last two decades accounting for 12% of global maternal deaths. The majority of maternal deaths were due to direct medical causes. According to the Sample Registration System, the maternal mortality ratio (MMR) has declined from 113 deaths per 100 000 live births between 2016 and 2018 to 103 deaths per 100 000 live births between 2017 and 2019, and the majority of maternal deaths occurred in the age range of 20-29 years. Poor maternal health indicators are directly associated with pregnancy-related morbidity and mortality. Factors such as severe bleeding (47.0%), pregnancy-related complications (19.6%), infection or sepsis (12.0%), pregnancy induced hypertensive disorders (7.0%), and abortions (5.0%) were the leading causes of maternal deaths in India. With high maternal mortality rates in India, a strategic programme on Reproductive, Maternal, New-born, Child, and Adolescent Health have been initiated to address the primary causes of maternal deaths. However, India is still far from meeting the Sustainable Development Goal of reaching below 70 deaths per 100 000 live births by 2030.

Any pregnancy that involves increased health risk or complications for the mother, fetus, or both during pregnancy or childbirth is referred to as high-risk pregnancy. Nearly 15% of women develop life-threatening complications during pregnancy, and 50-60% of women with maternal complications undergo cesarean delivery. A study found that breech presentation (1.7%), heavy bleeding (7.2%), obstructed labor (7.7%), and prolonged labor (8.2%) were the primary obstetric complications in Indian women. Moreover, high-risk pregnancies are responsible for 75% of perinatal deaths in India.

High rates of morbidity and mortality due to pregnancy-related complications are prevented through early detection, regular follow-up, and providing quality of antenatal, intranatal and postnatal interventions. To ensure comprehensive quality of obstetrics care for every pregnant woman, the Government of India launched a programme called “Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) (Prime Minister’s Safe Motherhood Campaign)” in 2016. This programme aimed to track high-risk pregnancies for counselling, management of birth preparation, and referral up until the birth outcome. Though, the exact prevalence of HRP among Indian women is not known, a few studies have reported a prevalence ranging from 18.3 to 59% in different Indian communities. Hence, this study was conducted to determine the prevalence and associated factors with HRP among Indian women.

According to **Aditi Bhandari International Journal of Reproduction, Contraception, Obstetrics and gynecology 2024 September** Among all pregnancies, nearly one-third of Indian pregnant women had at least one high-risk factor and sixteen percent of women had multiple-high risks. Prevention of high-risk pregnancy may not always be possible but it can be prevented with good care and counselling. In this study observed that the prevalence of high-risk pregnancy was 26.8% which is similar to that in the country (29.4%).

However, it is much higher than the global prevalence of 15%, as India being a developing nation is still lacking behind in many facilities for the pregnant mothers. The advancing age of the mother is a major cause of concern while determining high risk pregnancy. In this study found that 32% participants being between 31-35 years of age, 28% between 26-30 years and 6% were more than 35 years old. As customs permit, often marriages occur at very early ages so by the time a female reaches her 30s she is already a multigravida and any pregnancy after this age is usually bound to have high risk complications associated with it.

It was also found that 64% of the females presented to the antenatal clinic.

(ANC) in the first trimester of pregnancy, 20% in the second trimester and while 16 %were in the third trimester at the time of their first visit. Prevalence of adequate knowledge of government schemes and facilities plays a key role in determining the booking status of antenatal women.

WHO recommends minimum 4 ANC visits to ensure a healthy pregnancy. Considering educational levels as an important marker, we discovered that 64% of the females in our study had low level of education, i.e. between 6th to 12th standard. 14% were educated less than 5th standard and 20% were graduate while only 2% were post graduate.

Thus, education of the pregnant female is of utmost importance to reduce and effectively tackle the issues related with a high-risk pregnancy. Due to lack of proper knowledge and education, the number of ANC visits are often less; most females present directly at term in critical stages with complications and therefore become difficult to manage. Later, they don't follow any family planning practices and hence the vicious cycle continues. When considering the patients on the basis of socioeconomic status being low, medium and high having Rs 0-5000, 5001-10,000 and >10,001 per month family income respectively, we found 64%, 32% and 4% patients in the respective categories. According to Puducherry study, associated in case of low socioeconomic strata. On comparing the distribution of the various risk factors, we found that severe anemia was present in 32% of the patients, which can be attributed to poor nutrition, availability of lesser food portion for the females in the household and multiple pregnancies. This high prevalence of anemia is more likely to present with a risk of atonic post-partum hemorrhage which can be a lifethreatening complication. Anemia in the mother can lead to small fetus and cardiac failure in the mothers.

Other common risk factors were diabetes mellitus, hypertension and infectious diseases, each of which were found in 24% of the patients included. Thus, these appear to be the major risk factors in our selected locality. Similar results were found in a study. The relationship of individual factors with the number of risk factors found in each high-risk pregnancy is indicative that with the increasing age of the female, advancing gestational age and lower socioeconomic status, the number of risk factors present in a female tends to rise significantly. Therefore, a younger female from a higher socioeconomic class presenting to the antenatal clinic in early stages of gestation would have a better pregnancy outcome due to lesser number of risk factors associated.

Counselling of young married couples may create a channel for greater information flow, for planned parenthood. As maternal mortality is remarkably sensitive to standards of obstetric care available, thus regular sensitization programme are needed to improve the awareness of pregnant females towards beneficial government schemes. These mothers can be referred to a tertiary care center early, so that they can be managed better, thus improving the maternal and perinatal outcome. It also helps to avoid the problems of reaching the tertiary care Center as an emergency. Therefore, boosting the access and utilization of antenatal care coverage among pregnant women can ensure the best health outcomes for their pregnancy.

STATEMENT OF THE PROBLEM

“A descriptive cross-sectional research study to assess the Prevalence of High-risk Pregnancy among Antenatal Mothers in selected Maternity Hospital, Hyderabad, Telangana.”

OBJECTIVES OF THE STUDY

- To estimate the prevalence of high-risk pregnancy among antenatal mothers.
- To identify the risk factors on high-risk pregnancy among antenatal mothers.
- To determine association between high-risk factors among the antenatal mother with their selected demographic variables.

OPERATIONAL DEFINITIONS

Prevalence of High-risk pregnancy: The percentage of pregnant women who meet one or more high-risk criteria among the total number of pregnant women attending antenatal care in a selected hospital by Coopland's assessment tool during the study period.

Antenatal mother: A pregnant woman who is in the period of gestation, receiving prenatal care/ support to ensure a healthy pregnancy, childbirth, and postpartum outcome(s).

RESEARCH VARIABLES

Age, Educational Background, Religion, Family History, Family monthly income, Dietary pattern, Sources of getting health information, Obstetrical history, Marital History, Co-morbidity, Lifestyle practices with high-risk pregnancies.

RESEARCH HYPOTHESIS

H₁: There is a significant association between high-risk pregnancy with selected demographic variables.

DELIMITATIONS

The study is delimited to-

- Antenatal mothers from Modern Government Maternity hospital, Petlaburj Hyderabad.
- Period of data collection will be one month.
- Those who are willing to participate.

ASSUMPTIONS

The study assumes that:

- Antenatal mothers might be responsive and able to assess themselves before assessing lifestyle practices.

- The information taken on preexisting factors, pregnancy-related health conditions, maternal age, tests, values, and remarks might be honest responses.

CONCEPTUAL FRAMEWORK

Conceptual framework is a written or visual presentation that explains the main things to be studied in either graphical or narrative form - the key factor, concepts or variables and the presumed relationship among them. It presents logically constructed concepts to provide a general explanation of the relationship among the concepts of the research study.

Conceptual framework is a theoretical approach in the study of the problem that is scientifically based and emphasized the selection, arrangement and classification of the concepts.

The conceptual framework of the present study developed by the researcher is based on-

ERNESTINE WEIDENBACH'S prescriptive theory- a situation producing theory. According to this theory all the nursing actions must be towards an achievement of goal which consists of three elements. This theory is mainly influenced by three factors central purpose, prescription & realities.

ERNESTINE WEIDENBACH'S prescriptive theory has three concepts

The central purpose of philosophy- It is the purpose which the practitioner recognized as essential to the particular discipline.

In this study the central purpose is to assess the prevalence of high-risk pregnancies among antenatal mothers.

The prescription- prescription is the fulfillment of central purpose.

In this study prescription refers to assessing the high-risk pregnancy among antenatal mothers by using structured interview questionnaires and assessing the antenatal mothers based on Coopland's assessment scale.

The realities- the realities are the immediate situation that influence the central purpose.

ERNESTINE WEIDENBACH'S DEFINES IS THE FIVE REALITIES AS:

- The **agent** who is a practicing nurse or delegate is characterized by personal attributes and capacities. In this study, the agent is researcher.
- The **recipient** the client is characterized by personal attributes and capacities, those by to know the perception. In this study, the recipients are the antenatal mothers.
- The **goal** is the desired outcome, in this study, the goal is to estimate the prevalence of high-risk pregnancy and its among antenatal mothers.
- The **means** is the perception, estimation of prevalence and knowledge on the central purpose, which is implemented in the realities of situation. In this study, the means is by using structured interview questions and assessing the antenatal mother, based on Coopland's Assessment scale.
- The **framework** consists of human, environmental, professional and organizational facilities and also contributes to its currently existing limits. In this study, the framework is the antenatal mothers at Modern Government Maternity Hospital in Petlaburj, Hyderabad.

CONCEPTUAL FRAMEWORK

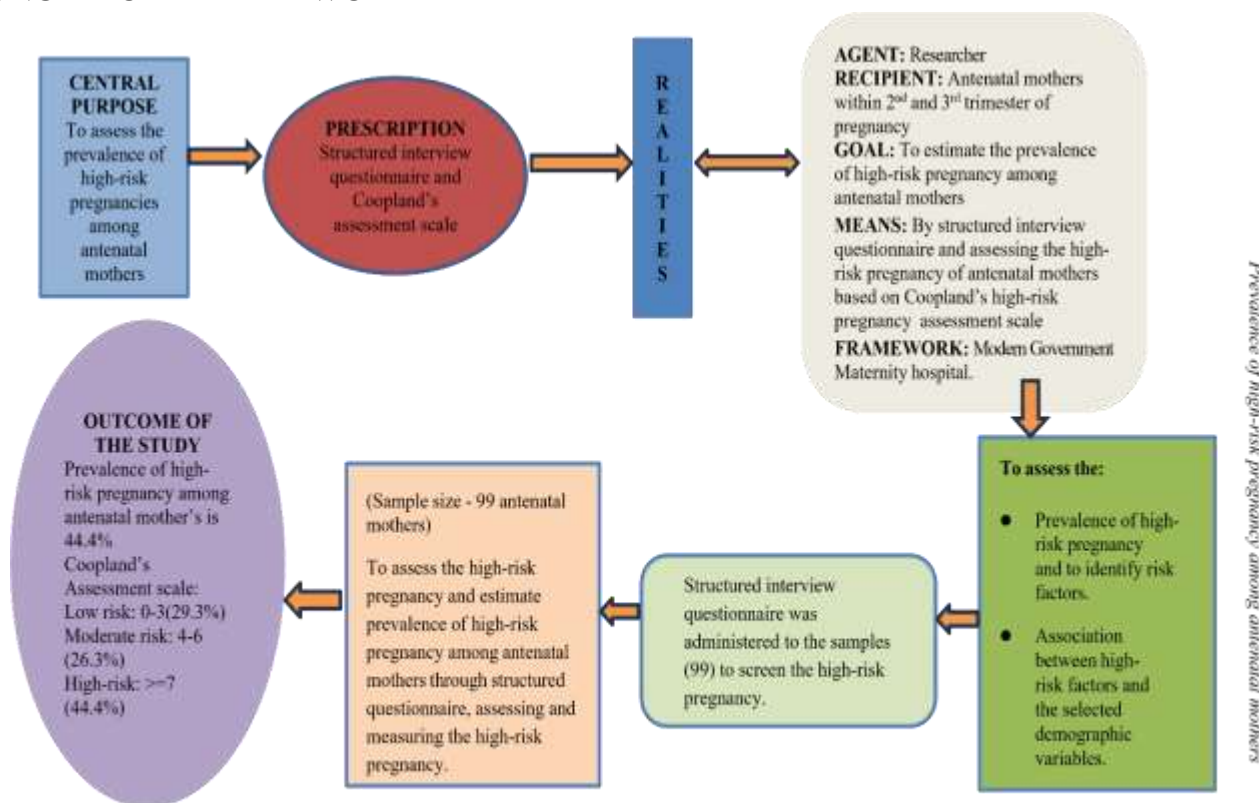


Fig1.1 The Conceptual Framework Based On Ernestine Weidenbach's Five Realities Theory

Prevalence of high-risk pregnancy among antenatal mothers of high-risk pregnancy among antenatal mothers

SUMMARY

This chapter deals with introduction of the study which consist of introduction need for the study, problem statement, objectives, operational definitions, hypothesis & conceptual framework of the study.

CHAPTER II

REVIEW OF LITERATURE

This chapter deals with review of literature, which gives an insight into various aspects of the problem under study. A literature review involves systematic identification, serenity and summary of written materials that contains information on a research problem.

The review of related literature provides basis for further investigation. It justifies the need for the study, throws light on the feasibility of the study, reveals constrains of data collection and relates the findings from one study to another with a hope to establish a comprehensive study of scientific knowledge in a professional discipline. the review of literature is traditionally considered as a systematic critical review of the most important published scholarly literature on a particular topic.

Review of literature is categorized into two:

- Reviews related to prevalence of high-risk pregnancy among antenatal mothers.
- Reviews related to risk factors of high-risk pregnancy among antenatal mothers.

1. REVIEWS RELATED TO PREVALENCE OF HIGH-RISK PREGNANCY AMONG ANTENATAL MOTHERS.

Boomika B, Manoj M et.al (2024) conducted a retrospective study on Utilizing Modified Coopland's Scoring System to Identify and Predict the Outcome of High-Risk Pregnancies. 300 samples were selected based on non-probability purposive sampling technique. The inclusion criteria were pregnant women who are in 3rd trimester (16 to 45 years of age). Each record was then numerically assessed according to the modified Coopland's scoring system and categorized according to the risk status. They found that the overall proportion of high-risk pregnancies was 18.3%. Adverse maternal outcomes were increased in high-risk pregnancy groups when compared to low-risk pregnancies, miscarriages (31.6% vs 15.8%) and antepartum hemorrhage (55.6% vs 11.1%). The chi-square test of significance or Fisher's exact test was used to check for association between each of the outcome variables and various risk factor and a P-value of <0.05 was considered statistically significant. A notable portion of pregnant women were classified as high-risk using modified Coopland's scoring tool and would benefit from targeted obstetric care.

Alby J, Sasi V, et.al (2024) conducted a Quantifying the Occurrence of High-Risk Pregnancy in February and March 2022 at the Obstetrics and Gynecology outpatient department, District Government Hospital, in Tamil Nadu. A consecutive sampling technique was adopted in this study. A total of 1889 pregnant women in the second and third trimesters who visited the antenatal clinic for regular antenatal check-ups were surveyed. A structured questionnaire was formulated under the Indian Standard Criteria. The questionnaire was validated by the experts and reliability was determined (0.91). The data were analyzed using Statistical Package for the Social Sciences. The mean age of participants was 25.01 ± 3.99 . The majority of the pregnant women were multigravida (52.9%) and were in the second trimester of pregnancy (28.7%).

The prevalence of various risk factors among the antenatal mothers was identified. The most prevalent risk factor observed was a previous caesarean section, with 22.29%. The chi-square test was used to find the associated factors. The significance level was set at 0.05 for all the statistical analyses. The findings indicate a significant association between primigravida status and HRPs ($p=.006$), with a higher proportion of primigravida women experiencing HRPs compared to multigravida women. However, trimester of pregnancy and history of abortion did not show significant associations with HRPs ($p=0.210$ and $p=0.110$, respectively). Results indicate that approximately one-third of pregnant women were identified as having High-Risk Pregnancies (HRPs) playing significant roles.

Ajay KP, Vineet K, Kanchan S et.al (2022) conducted a cross-sectional study on high-risk pregnancy among pregnant women in district Etawah of Uttar Pradesh. Sample consist of 400 female beneficiaries. Women in the 2nd and 3rd trimesters, who have been registered during the last one year under PMSMA scheme were taken as the study participants. And interviewed using a predesigned, pretested, semi-structured questionnaire. Sociodemographic profiles of 400 beneficiaries revealed that the majority were between the age group of 20–30 years 375 (93.75%) with mean age $\pm$ SD of study participants 25 ± 3.3 years. The majority of them 215 (53.75%) were from joint families and 337 (84.25%) Hindu by religion. Most of them 285 (71.25%) got married between the age of 15–20 years. A statistically significant association was observed (P-value = 0.005 at 95% CI) between the difference in the proportion of high-risk pregnancies and the educational status of the pregnant mothers. Out of 400 beneficiaries, 167 (41.75%) were aware of the PMSMA scheme. Regular antenatal care (ANC) check-ups, early identification of high-risk pregnancy, health education, and timely screening are needed to reduce maternal mortality.

Dr. Sphurti UC, Chandra S (2022) conducted a longitudinal study for a period of one year from 1st

October 2016 to 31st December 2017 at Kinaye, Primary Health Centre (PHC), Belagavi district, Karnataka. The study sample consisted of 147 high-risk pregnant women attending the PMSMA camp and was followed up every month till delivery. The modified Coopland's high-risk pregnancy score was used. Among the participants, 40.4% of the pregnant women had low-risk scores; 45.9% had high-risk scores, and 13.7% had severe-risk scores according to Coopland's high-risk pregnancy scoring. Out of 146 (45.9%) had high-risk. Although the PMSMA camp approach wants to identify HRP as early as possible, 71 (48.3%) of the study participants were in the 3rd trimester, 58 (39.5%) in the 2nd trimester, and 18 (12.2%) in the 1st trimester. The mean $\pm$ SD score was 1.3 ± 0.9 , 4.1 ± 0.9 , and 7.4 ± 0.6 for low, high, and severe risk scores, respectively. It was found to be statistically significant ($P = 0.04$). The statistical test used was Chi-square, and a P value < 0.05 was considered significant at a confidence interval of 95%. This study is of public health importance as it helps us to prevent bad pregnancy outcomes and take necessary precautions among high-risk pregnant women by early detection.

Ibrahim Md.R, Priyadarsini SP et.al (2022) conducted a community based cross-sectional study (Descriptive epidemiology) in the Rural Field Practice Area of Annapoorna Medical College and Hospital, Salem, Tamil Nadu, India, i.e., Magudanchavdi. During the study period total of 235 pregnant mothers of more than 20 weeks of pregnancy, who met the inclusion criteria were interviewed and their responses were recorded using a pretested semi-structured questionnaire and a scoring system developed by Dutta and Das (1990). The association between high-risk pregnancies and sociodemographic variables were analyzed. The frequency, percentage and analytical statistics was done using Pearson's Chi-square test. The results shows that prevalence of high-risk pregnancy among total of 235 pregnant mothers who were interviewed was found to be 15.32%, Moderate and high-risk pregnancies combined were 42.13%, whereas 57.87% were of low-risk pregnancy with no known risk factors. Major risk factors identified were anemia (33.19%), undernutrition (31.06%), previous Lower Segment Caesarean Section (LSCS) (13.62%), abortion (8.51%). The present study found that 42.13% pregnancies were moderate to high-risk pregnancies. In present study, there was no significant association of moderate to high risk with age ($p=0.055$). However, high income group ($p=0.043$), occupation of the mother ($p=0.03$) and parity of pregnant women ($p=0.0001$) were significantly associated. Whereas variables like education of the mothers ($p=0.599$) and religion ($p=0.946$) did not show any significant association. Early detection of these high-risk pregnancies must be done at primary healthcare level using a uniform scoring system by a trained health workers, which may reduce the adverse events.

Shobha S.P, Swapna M (2021) conducted a study on High-risk scoring in pregnancy using modified Coopland's scoring system and its association with perinatal outcome. A total 300 randomly selected pregnant women with gestational age more than 28 weeks of gestation reporting to the department was recruited into the study. This research study was carried out in the department of Obstetrics and Gynecology at Government Medical College, Ernakulam, a tertiary level teaching hospital in Kerala. In all the selected pregnant women, a detail medical and obstetrical history was obtained general, systemic and obstetrical examination and relevant investigations were carried out. Subsequently, using the Modified Coopland scoring system, each selected patient was assigned a risk score. During subsequent visits, any change in the score was made as needed. In this study, 14.66% patients belonged to the high-risk category. Majority of the patients 65.66% belonged to the low-risk group. It has as a significant P value of 0.0001. This study concludes that cost-effective high-risk pregnancy scoring system such as the one proposed in this study is used to identify potential high-risk pregnancies, provide them with tertiary care facilities and also corrective measures is undertaken to prevent or minimize the complicating factors.

Shrestha J, Sangeeta DG (2021) conducted a prospective cross-sectional study on identifying high risk pregnancy and its effectiveness in determining maternal and perinatal outcome. This study was conducted in the department of obstetrics and gynecology, Manipal Teaching Hospital, Pokhara, from 1st August 2020 to 31st January 2021. The sample size is 700. Women presenting for delivery age after 28 weeks of gestation were included in this study. Antenatal scoring system involving various risk factors, was used to stratify women as low-risk (score 0-3), high-risk (score 4-6) and extremely high-risk group (score ≥ 7). There were 67.3% women in low-risk, 20% in high-risk and 12.7% in extremely high-risk groups. With estimated prevalence of about 25% high risk pregnancy taken from some studies $Z = 1.96$. Among 700 women 471(67.3%) were low risk, 140(20%) high risk and 89(12.7%) were grouped as extremely high-risk pregnancy. There was no risk-factors 216(30.9%) pregnant women and had a score zero. It has a significant p-value (<0.001). Identifying high-risk pregnancy using scoring system is useful to identify women at risk of developing maternal and perinatal complications.

Ashrita K, Sarvaganya K (2020) conducted a study to assess the high-risk pregnancies with the maternal factors. A record based retrospective study was done on pregnant women registered at Modern Modern Government Maternity Hospital, Petlaburj, Hyderabad, Telangana, India. This study was done by reviewing the records for the details of pregnant women diagnosed with medical disorders, available over a period of three months, April 2019 to June 2019. The sample size is 1176. The criteria considered for the evaluation of high-risk pregnancies were defined as per the guidelines provided by Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA). Among the sociodemographic factors and obstetric indices, gravida, parity and socioeconomic status were found to be significant factors. The frequency of younger primi and elder gravida was found to be next to hypertension. Secondly, most of the deliveries were term deliveries (79.4%), pre-term deliveries being 18.6% and post term deliveries were 2%. 51.3% deliveries were vaginal deliveries and emergency LSCS were

6.5%. The mean age of the population was 24.220 (Standard Deviation = 4.36) out of which 42 (3.6%) were adolescent pregnancies and 48(4%) were elderly gravida. Among the socio- demographic and obstetric factors associated with high-risk pregnancies, we found gravida, parity and socioeconomic status to be significant (p values being less than 0.05). Major backbone of this study is the use of standard guidelines to classify the disorders in pregnancy, which would help to authentically compare them with the studies done in other parts of the world.

2.REVIEWS RELATED TO RISK FACTORS OF HIGH-RISK PREGNANCY AMONG ANTENATAL MOTHERS.

Christy Maria, Avita R.J. et.al (2025) conducted a longitudinal study prevalence of high-risk pregnancy and its association with adverse maternal conditions. The study was conducted on 180 pregnant women, who completed 24 weeks of gestation, in 25 villages under Sarjapur primary health center near Bangalore. A pre-tested questionnaire was used to capture sociodemographic and obstetric details, risk factors. Regression analysis was performed to determine factors associated with adverse maternal outcomes. The mean age of study population was 24.7 ± 4.2 years. Those with caesarean/assisted mode of delivery has 1.9 times higher chances of adverse perinatal outcome than with the vaginal mode of delivery with a $p=0.04$ [AOR=1.9 (95% CI:1.89-4.46), $p=0.04$]. The prevalence of high-risk pregnancy was 61.6%. High-risk factors found were previous LSCS (16.1%), hypothyroidism (11.6%), bad obstetric history (5.5%), Rh incompatibility (5.5%) and severe anemia (5.5%).

Meera S, Raghavendra H, Nanjesh KS et.al (2024) conducted a cross- sectional study on life of high-risk pregnant mothers residing in a rural community in Karnataka. The sample size was calculated to be

80. All pregnant women more than 20 weeks of gestation who attended the gynecology OPD of the hospital. The risk factors among the study participants were studied according to Dutta and Das scoring system. Majority of the participants were in the range of 18–35 years (91.8 %). The most prevalent occurrences in past obstetric history were abortion (28.2 %), followed by previous caesarean section (16.5 %).

Only a few participants had associated disease factors, with diabetes (8.2 %), previous gynecological surgery (3.5 %), and chronic renal disease (1.2%) being the most notable. In the present pregnancy, anemia was identified as the most common risk factor (23 %), followed by bleeding PV (10%), hypertension (5.9 %), oligohydramnios (3.5 %), Rh-isoinmunization (1.2 %), multiple pregnancy (1.2 %). Based on these 33 pregnant women were classified as low risk, 36 as moderate risk, and 16 as high risk. The data was analyzed using Pearson's chi-square test and Fisher exact tests as applicable. Findings were found that to be statistically significant with the p value of <0.05 . High-risk pregnancies require specialized attention and comprehensive screening of physical, psychological, social and environmental factors.

Aditi B, SK Rasanina, Savitri V et.al (2024) conducted a cross-sectional observational study to determine various factors associated with high-risk pregnancies among women attending antenatal care center of Delhi. The sample consist of 50 high-risk pregnancies. A prospective, questionnairebased study done over 2 months, March-April 2024 among pregnant females. It was found that 64% of the females presented to the antenatal clinic (ANC) in the first trimester of the pregnancy, 20% in the second trimester and 16% were in the third trimester at the time of their first visit. Severe anemia was present in 32% of the patients, while diabetes mellitus, hypertension and infectious diseases, each of which were found in 24% patient. With the increasing age of the female, advancing gestational age and lower socioeconomic status, the number of risk factors present in a female tends to rise significantly.

Anitha B (2024) conducted a prospective study on Maternal and perinatal morbidity and mortality in high-risk pregnancy. The study was conducted in the department of obstetrics and gynecology from June 2023-July 2024 on 94 pregnant women with period of gestation more than 28 weeks with high risk factors attending OPD, IPD, labor room of Navodaya medical college hospital and research center, Raichur during the study period. The study participant's sociodemographic details, and their obstetric, gynecological, medical, and surgical histories were collected. Both routine and specific investigations were conducted and timely intervention were done when needed. Majority of the participants were aged 20-24 years (42/44.68%). Postpartum hemorrhage (PPH) was observed in (30/31.91%) of cases was the most common immediate complication. The most common cause of perinatal morbidity was respiratory distress syndrome (13/13.83%). The perinatal mortality rate was (25/26.59%). The study demonstrates a clear link between medical conditions and obstetric history with adverse maternal and neonatal outcomes.

Praveena, Akansha S, et.al (2023) conducted a cross-sectional study on prevalence of high-risk pregnancy among pregnant women in a local health care center. All pregnant women attending antenatal clinic were enrolled for the study and they were interviewed using pre-tested, predesigned questionnaire. Sample size was 500. Study was carried out for a period of six months. The obstetric and clinical history in detail were taken from the pregnant women. In the present study, out of 500 pregnant women 30.4% women were having high risk pregnancies and 69.6% pregnant women were non-high-risk pregnancies. Maximum pregnant (84.86%) women of age group 20-29 years were high risk pregnancies. 79.60% multigravida women were high risk pregnancies. In present study, significant association of high risk was

found with age ($p=0.0004$) and parity of pregnant women ($p=0.001$). Anemia was found in total 38% subjects and 32% subjects had thyroid disorders. The study concluded that prevalence of high-risk pregnancy in the study was 30.4%. There was a significant association of high risk was found with age and parity of pregnant women.

Shuchi S, Reena S et.al (2023) conducted a record based retrospective observational study on prevalence of high-risk pregnancy was done from January 2022 to December 2022 among all antenatal women who were admitted in the labor ward of Shri La Bahadur Shastri Government Medical college, Nerchowk, Himachal Pradesh. High-risk pregnancy was classified based on the guidelines provided by Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) for identification of high-risk pregnancy by health-care workers. Among 3,887 patients admitted in the labor ward, 1126 (28.96%) were highrisk pregnancies, 72% were primi gravida and 28% were multi gravida pregnancies. 6% of high-risk mothers were less than 20 years of age, 8% were in the age group of 20-25 years, 60% were between 26-30 years and only 26% were above 30 years. The most common high-risk factors were hypothyroidism (15.96%), hypertensive disorder (3.31%), previous one caesarean section (2.8%) followed by (2.16%) prevalence of each intra-hepatic cholestasis of pregnancy and intrauterine growth restriction. Out of 1126 high risk patients admitted in labour ward, 1001 (88%) high risk pregnant women had caesarean section, 112 (9.9%) vaginal delivery, 6 (0.53%) had preterm delivery and 7 (0.62%) had instrumental deliveries. Directing appropriate timely intervention is very important to prevent maternal and perinatal morbidity and mortality.

Periyasamy K, Ranjan KP et.al (2023) conducted cross-sectional study on prevalence and contributing risk factors of high-risk pregnancy in India, in all States and Union Territories. The sample consist of 23,853 currently pregnant women. Data was collected from India's National Family Health Survey-5(NFHS-5). This study was estimated using descriptive statistics and logical regression. They accessed the unit-level data from the Demographic Health Surreys (DHS) program. From the individual records, they extracted the data of 28408 currently pregnant women who were in the age group of 15-49 years. Result showed that higher frequency of women with short birth spacing was observed in 31.1%, followed by 19.5% of women with a history of adverse birth outcomes either miscarriage, abortion, or stillbirth. Women who reported recent deliveries with caesarean sections were found in 16.4% of the last birth outcomes. Other high-risk factors were women having longer spacing (15.8%), history of preterm delivery (14.1%) and comorbidities (6.4%). The statistical significance was tested at P-value <0.05 . In India, the high prevalence of high-risk pregnancies is a matter of concern, and it could be a probable factor for high maternal and neonatal morbidity and mortality in the country.

Dr. Rajini P, Raziya S (2021) conducted a longitudinal study on high-risk pregnancy and its outcome among all antenatal women attending a territory center in Hyderabad, Telangana. The study was conducted among 567 antenatal women who have attended rural health center of tertiary care institute. This is a record-based longitudinal study conducted by reviewing the maternal and child health MCH register maintained in the antenatal clinic of Dr VRK Womens Medical College during March 2018-March 2019. High-risk pregnancy was classified based on the guidelines provided by Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) by health. More than half of the pregnant women 288, 51% were in the age group of 20–25 years and about 9% was adolescent pregnancy; more than half 350, 64% were multigravida pregnancy; about 344, 60% were multiparous woman. Majority 448 [79%] had term delivery. Most common mode of delivery was spontaneous vaginal delivery 69% followed by lower segment caesarean section 29%. Among obstetric outcomes, type of delivery was found to be significantly associated with high-risk pregnancy with preterm 35% vs. 11.0% more prevalent among high-risk pregnancy when

compared to normal pregnancy $P=0.004$ and post term delivery was equally associated. The current study found that almost one-fifth of the pregnant women in rural area have high-risk pregnancy.

Ravikant A, Priyanka T (2021) conducted a record based retrospective longitudinal study among 3898 antenatal women who have attended tertiary care center, Bundelkhand Medical College, Sagar, M.P. Medical records of all high-risk pregnancy were reviewed. Information of all the cases was extracted from the patient's case notes and Maternal and Child Health register records. Results of this study show that the prevalence of high-risk pregnancy among study participants was 16.54%. Most of the pregnant women were in age group of 20-35 years that is 94.72%. Most of the pregnant women were multigravida 57.20% by gestation. Regarding obstetric and neonatal outcomes, majority had normal vaginal delivery (60.6%). The most common high-risk factors were history of previous caesarean section 31.94 %, Hypertension in Pregnancy 22.17% & Abnormal Presentation were 13.95%. The current study found that almost one-sixth (16.54%) of the pregnant women have highrisk pregnancy. Hence, early detection of high-risk pregnancy needs to be done.

Sonia D, Smiriti A, Vandana R et.al (2020) conducted a retrospective study on high-risk factors in all antenatal women at tertiary care centers in Haryana. The records of total 10073 antenatal women were analyzed. The study was done on all antenatal high-risk patients who visited outpatient department of obstetrics and gynecology at Pt. B.D. Sharma PGIMS, Rohtak, Haryana during one year (1st January 2017 to 31st December 2017). 1283 were included in the high-risk group. In present study, only 295 (22.99%) women were reported in first trimester and most of the women (46.06%) had their first visit in second trimester. One third 397 (31%) of the women in our study reported for the first time in their third trimester only. Most prevalent high-risk factors found were previous caesarean section (31.04%), anemia (31.02%), malpresentation (12.93%) and thyroid disorders (13.09%). Chi square test was used to find out the effect of age on various risk factors in pregnancy. It was found to be highly significant ($p<0.001$) Antenatal surveillance for the high-risk factors complicating pregnancy may prevent or treat most of the complications.

SUMMARY

This chapter consist of review of literature regarding prevalence and risk factors of high-risk pregnancy among antenatal mothers.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology is a way to systematically understand and explore research problems in a scientific manner to reach a logical conclusion. It is a blueprint for conducting a study and it is made specific to a study to increase the probability that the study result will reflect as quickly as possible.

RESEARCH APPROACH

Research approach is the overall plan or strategy used to answer the research problem. The appropriate part of my research approach depends upon the purpose of the research study which was undertaken. The research approach adopted in the present study is Quantitative Research Approach. It guides how data will be collected, analyzed and interpreted.

RESEARCH DESIGN

Research design is a blueprint for conducting the study that maximizes control over factors that could interfere with the validity of findings. The research design adopted for the present study is NonExperimental Descriptive Cross-Sectional Research Design.

SETTING OF THE STUDY

Research settings are defined as the physical location and condition in which data collection takes place and where data collection occurs. The study was conducted at Modern Government Maternity Hospital, Petlaburj, Hyderabad, Telangana, a tertiary care center providing antenatal and high-risk pregnancy services. The hospital has OPD, wards, and labor rooms with skilled healthcare professionals. Data were collected from antenatal mothers attending OPD and admitted in wards, as the hospital receives a large number of high-risk pregnancy cases.

POPULATION

A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. All the individuals or objects within a certain population usually have a common, binding characteristic or trait. The population of the study will be antenatal mothers in the gestational age of 2nd and 3rd trimester.

TARGET POPULATION

The target population refers to the entire population that the researcher is interested and to which they would like to generalize the research findings. The present study comprises mothers who are pregnant with gestational age of 2nd and 3rd trimester.

ACCESSIBLE POPULATION

The accessible population for the study is antenatal mothers from Modern Government Maternity Hospital, Petlaburj, Hyderabad, Telangana.

SAMPLE

Sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population. The sample for the present study consists of antenatal mothers who are at 2nd and 3rd trimester at Modern Government Maternity Hospital, Petlaburj, Hyderabad, Telangana.

SAMPLE SIZE

The sample size is the subset of a population selected for a study, which represents the larger group from which it is drawn. The study has 99 samples which are among antenatal mothers who are at 2nd and 3rd trimester.

SAMPLING TECHNIQUE

Sampling technique refers to the selection of a portion of the population to represent the entire population. The sampling technique adopted for this study is the Non-probability Purposive Sampling technique. The non-probability sampling technique is used for obtaining a sample where researchers use their expertise to choose specific participants that will help the study to meet its goals.

SAMPLING CRITERIA**INCLUSION CRITERIA**

1. Antenatal mothers who are attending antenatal care services in Modern Government Maternity Hospital, Petlaburj during the period of data collection.
2. Mothers who are within 2nd and 3rd trimester of pregnancy irrespective of parity.
3. Mothers who are willing to participate in the study.

EXCLUSION CRITERIA

1. Mothers who are within 1st trimester of pregnancy.
2. Mothers who can't understand and communicate in Telugu or Hindi.
3. Mothers who don't have antenatal records for the review.

RESEARCH APPROACH- Quantitative Approach.



RESEARCH DESIGN- Non-experimental research design.



TARGET POPULATION- Mothers who are pregnant with gestational age of 2nd and 3rd trimester.



SAMPLING TECHNIQUE- Non-probability purposive sampling technique.



SAMPLE SIZE- 99

**TOOL**

- ✦ Demographic variables.
- ✦ Modified Coopland's Assessment to screen high-risk pregnancy.
- ✦ Risk factors on high-risk pregnancy.

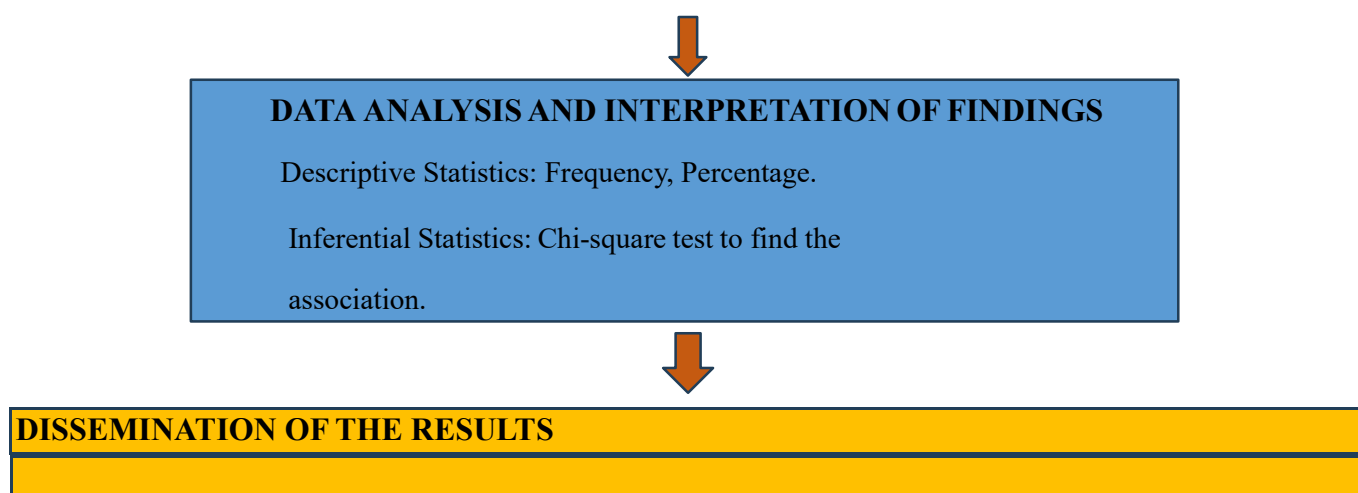


Fig: 3.1 Schematic Representation of Research Methodology.

DESCRIPTION OF THE TOOL

Data collection tool is an instrument used by a researcher to obtain and measure the key variable in the research process.

A Semi-structured interview tool has been prepared to assess the prevalence of high-risk pregnancy among antenatal mothers.

The tool consists of three sections:

Section A: Demographic Variables

It consists of Age, Religion, Area of residence, educational status, Occupation, Family monthly income.

Section B: Modified Coopland's assessment to screen high-risk pregnancy.

Section C: Risk factors on high-risk pregnancy.

SCORING AND INTERPRETATION

Interpretation for Coopland's assessment to screen the high-risk pregnancy.

SCORING	INTERPRETATION
0-3	Low Risk
4-6	Moderate Risk
≥ 7	High Risk

Interpretation for risk factors on high-risk pregnancy.

SCORING	INTERPRETATION
0	Yes
1	No

VALIDITY

To ensure the content validity, the tool was given to experts in the field of nursing. The experts were requested to give their suggestion and changes regarding the appropriateness of the tool for further modification. Some modification in the tool was done as per suggestion of experts and their variable suggestions were considered and the tool was modified where all changes were needed. The research tools used in the study were in the English version. Its content validity was obtained from experts in the field of nursing.

RELIABILITY

The reliability of the tool was tested by introducing the tool among antenatal mothers who were assessed for pilot study. The split-half technique was used in the test for internal consistency. The Cronbach's alpha formula for reliability was used. The reliability of the tool ($r=0.918$).

PILOT STUDY

A pilot study is defined as a small version trial run of a major study. The purpose was to find out the feasibility of the study. The sample consists of 15 samples who were antenatal mothers with gestational age of 2nd and 3rd trimester in Apollo General Hospital (OPD) Hyderabad. The data was collected on 24/07/25 and 25/07/2025. The study revealed that the questionnaire was feasible and comprehension of the data gathering, and the instrument used for the sample collection was good.

The tool was found to be feasible and practicable to conduct the main study.

MAIN STUDY

Formal written permission was obtained from the Nursing Superintendent of Modern Government Maternity Hospital, Petlaburj, Hyderabad, Telangana. The duration of the data collection period is one week. The data was collected between 15/09/2025 to 22/09/2025. The purpose and procedures of the study were explained to the study participants and written informed consent was obtained from them before conducting the study prior to data collection.

DATA COLLECTION

The data were collected from the participants in Modern Government Maternity Hospital, Petlaburj, Telangana, through a semi-structured interview questionnaire from 99 samples who are based on inclusion and exclusion criteria. The time taken for the data collection for each participant is about 10-15 minutes using the Hindi and Telugu language. Purposive sampling technique was used for the study. The answers were marked by the samples.

PLAN FOR DATA ANALYSIS

The analysis and interpretation were based on the objective of the study by using descriptive and inferential statistics.

DESCRIPTIVE STATISTICS

- Frequency and percentage of samples based on demographic data.
- Frequency and percentage on Modified Copland's Assessment to screen high-risk pregnancy.
- Frequency and distribution on risk factors on high-risk pregnancy.

INFERENTIAL STATISTICS

The Chi-square test was used to determine the association between high-risk pregnancy among antenatal mothers with their selected demographic variables.

SUMMARY

This chapter deals with methodology adopted to assess the prevalence of high-risk pregnancy among antenatal mothers. It includes research approach, research design, research setting, population, sample, sample size, sample technique, sample criteria, description of tool, content validity, pilot study, reliability, method of data collection, plan for data analysis, descriptive and inferential statistics.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

Analysis is the appraisal of the data and interpretation of the data consisting of a relationship between the findings of the research problem and theoretical framework of the study. An important function of the process of interpretation is to link the findings of the study to the main stream of scientific knowledge in the field.

-Suresh K Sharma.

Analysis of the particular data is obtained from the questions which were administered that includes questionnaires to assess the prevalence of high-risk pregnancy among antenatal mothers in Modern Government Maternity Hospital, Petlaburj Hyderabad, having 33 questions respectively and data collected from these respondents are subjected for the statistical analysis. Interpretation of data refers to the critical examination of the analyzed study results to draw inference and conclusion. Descriptive statistics such as frequencies and percentages were utilized to describe sample characteristics. Inferential statistics such as t test was used to assess the prevalence of high-risk pregnancy and chi square test was used to find out the association between high risk factors with selected demographic variables.

OBJECTIVES

- To estimate the prevalence of high-risk pregnancy among antenatal mothers.
- To identify the risk factors on high-risk pregnancy among antenatal mothers.
- To determine association between high-risk factors among the antenatal mother with their selected demographic variables.

PRESENTATION OF DATA

The data collected were organized and presented under the following sections: -

SECTION A: Description of study participant according to demographic variables.

SECTION B: Prevalence of high- risk pregnancy among antenatal mothers.

PART A: Prevalence of high- risk pregnancy.

PART B: Assessment to screen high-risk pregnancy.

SECTION C: Risk factors of high-risk pregnancy among antenatal mothers.

SECTION D: Association between high-risk factors among antenatal mothers with their selected demographic variables.

SECTION-A: DESCRIPTION OF STUDY PARTICIPANT ACCORDING TO DEMOGRAPHIC VARIABLES.

Table 4.1: Frequency and Percentage Distribution of Study Participants According to the Demographic Variables. n = 99

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (F)	PERCENTAGE (%)
1.	RELIGION		
	a) Hindu	51	51.5
	b) Muslim	46	46.5
	c) Christian	2	2.0
	d) Others	0	0
2.	AREA OF RESIDENCE		
	a) Urban	62	62.6
	b) Rural	37	37.4
3.	EDUCATIONAL STATUS		
	a) Primary Education	38	38.4
	b) Secondary Education	39	39.4
	c) UG/PG	19	19.2
	d) Others	3	3.0
4.	OCCUPATION		
	a) IT employee	1	1.0
	b) Health Care Employee	1	1.0
	c) Housewife	92	92.9
	d) Other	5	5.1
5.	MONTHLY FAMILY INCOME		
	a) <15,000	48	48.5
	b) 15,000-50,000	51	51.5
	c) >50,000	0	0
6.	WEEK OF GESTATION		
	a) 13-27 Weeks	16	16.2
	b) 28-42 Weeks	82	82.8
	c) >42 Weeks	1	1.0
7.	AGE OF MARRIAGE		
	a) <18	12	12.1
	b) 18-25	81	81.8
	c) 25-32	6	6.1
	d) >32		

Table 4.1 presents the distribution of 99 samples. Among them, 51 (51.5%) were Hindus, 46 (46.5%) Muslims, and 2 (2%) Christians. The majority, 62 (62.6%), belonged to urban areas, while 37 (37.4%)

were from rural areas. Regarding education, 39 (39.4%) had secondary education, 38 (38.4%) primary education, 19 (19.2%) UG/PG, and 3 (3%) other education. Most participants, 92 (92.9%), were housewives, with very few employed, 1 (1%) were IT employee and health care employee. About 51 (51.5%) had a monthly income of ₹15,000–50,000, while 48 (48.5%) earned less than ₹15,000. The majority, 82 (82.8%), were in 28–42 weeks of gestation. Most participants, 81 (81.8%), were married between 18–25 years, followed by 12 (12.1%) below 18 years and 6 (6.1%) between 25–32 years

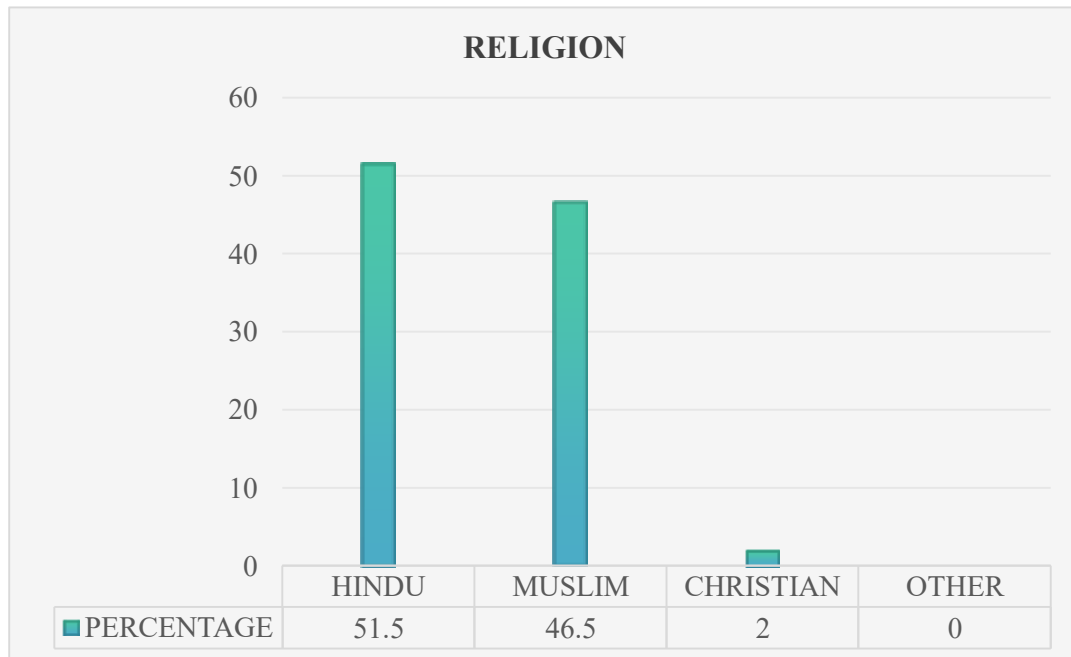


Fig 4.1 Percentage Distribution of Antenatal Mothers According to Religion.

From the above Fig. 4.1 shows the percentage distribution of antenatal mothers according to religion. The majority of 51(51.5%) antenatal mothers were Hindus, 46(46.5%) antenatal mothers were Muslims and 2 (2%) antenatal mothers were Christians.

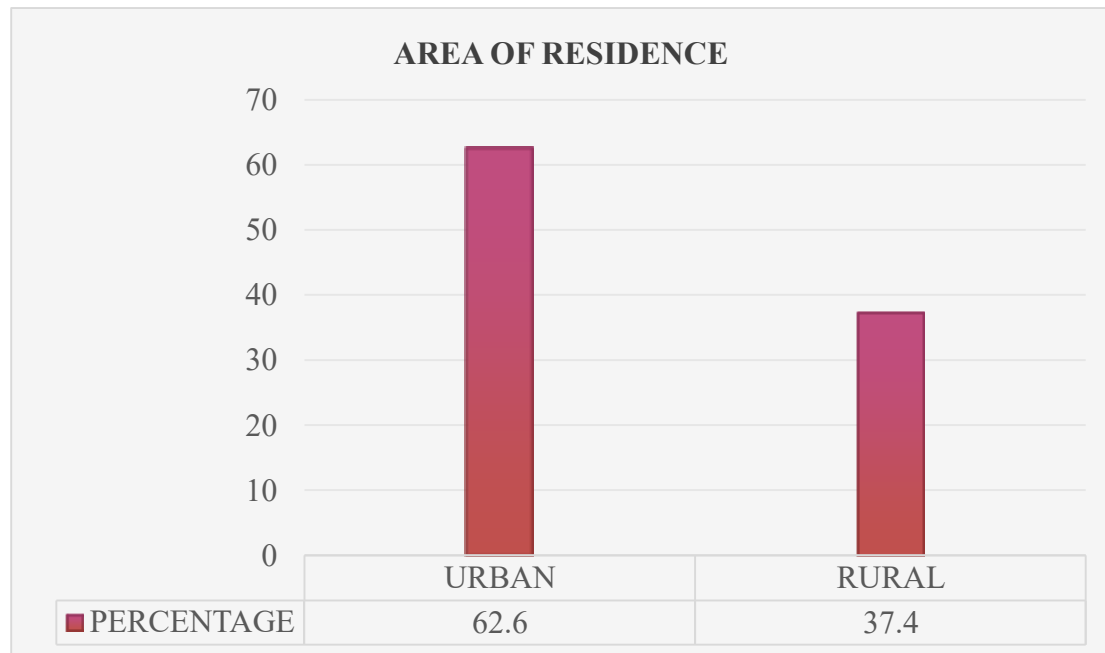


Fig 4.2 Percentage Distribution of Antenatal Mothers According to Area of Residence.

Fig. 4.2 shows the percentage distribution of antenatal mothers according to their area of residence. The majority 62(62.6%) antenatal mothers resided in urban areas, while 37 (37.4%) antenatal mothers resided in rural area.

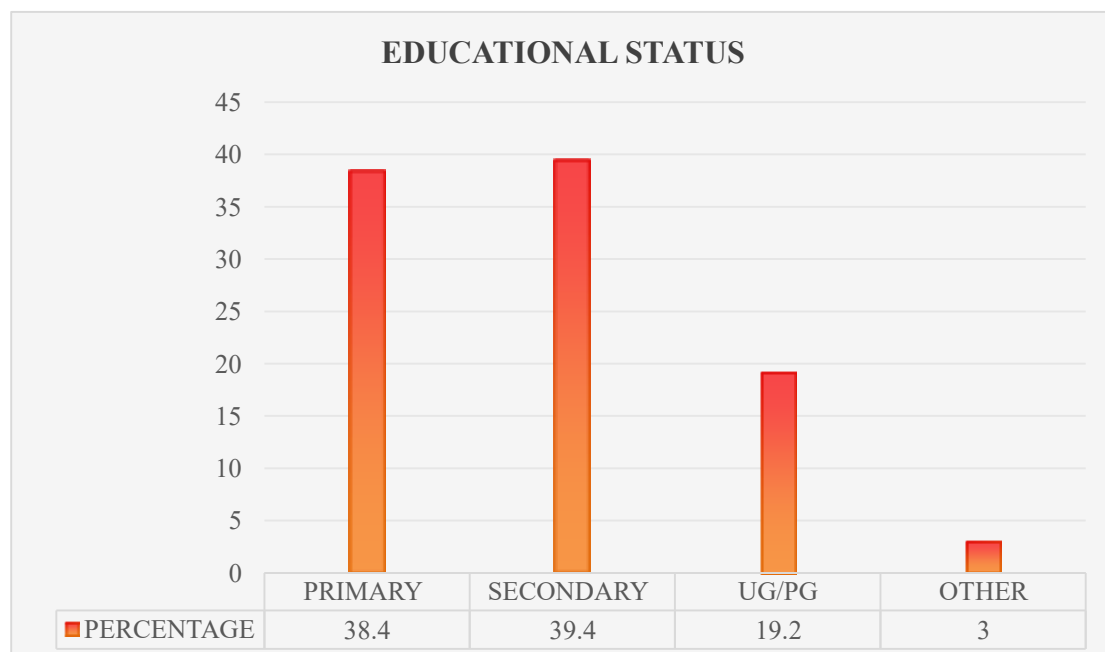


Fig 4.3 Percentage Distribution of Antenatal Mothers According to Educational Status.

Fig. 4.3 shows the percentage distribution of antenatal mothers according to their educational status. Among the respondents, 39(39.4%) antenatal mothers had secondary education, 38(38.4%) antenatal

mothers had primary education, 19(19.2%) antenatal mothers had UG/PG and 3(3%) antenatal mothers had other educational qualifications.

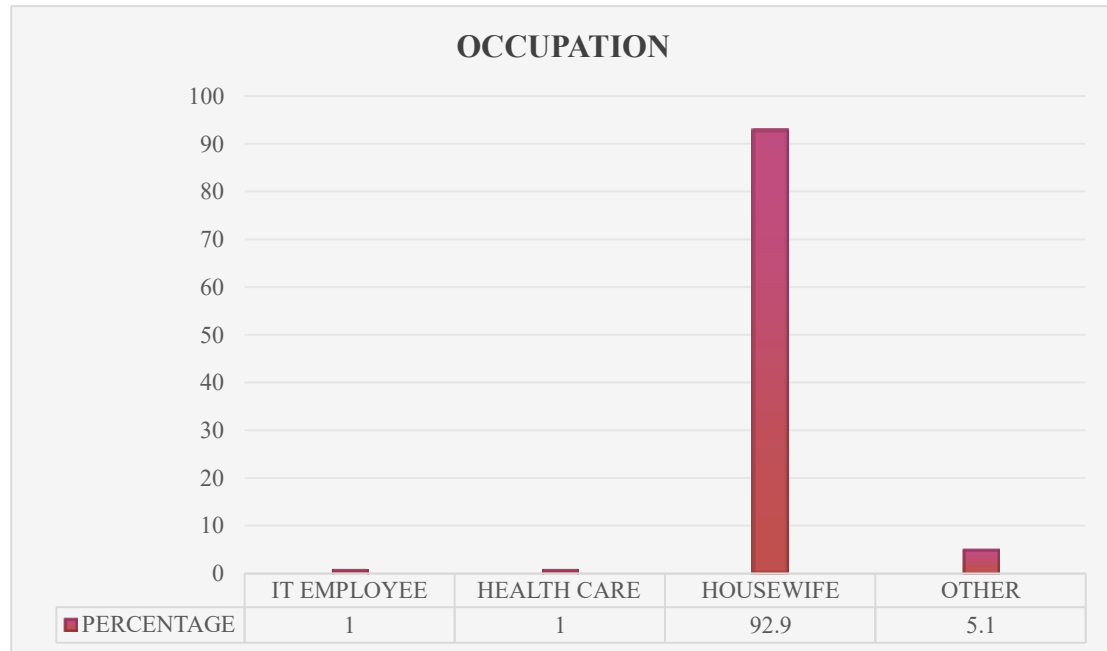


Fig 4.4 Percentage Distribution of Antenatal Mothers According to Occupation.

Fig. 4.4 shows the percentage distribution of antenatal mothers according to their occupation. The majority, 92(92.9%) antenatal mothers were housewives, 5(5.1%) antenatal mothers belonged to other occupation, 1(1%) antenatal mother was IT employee and 1(1%) antenatal mother was a health care employee.

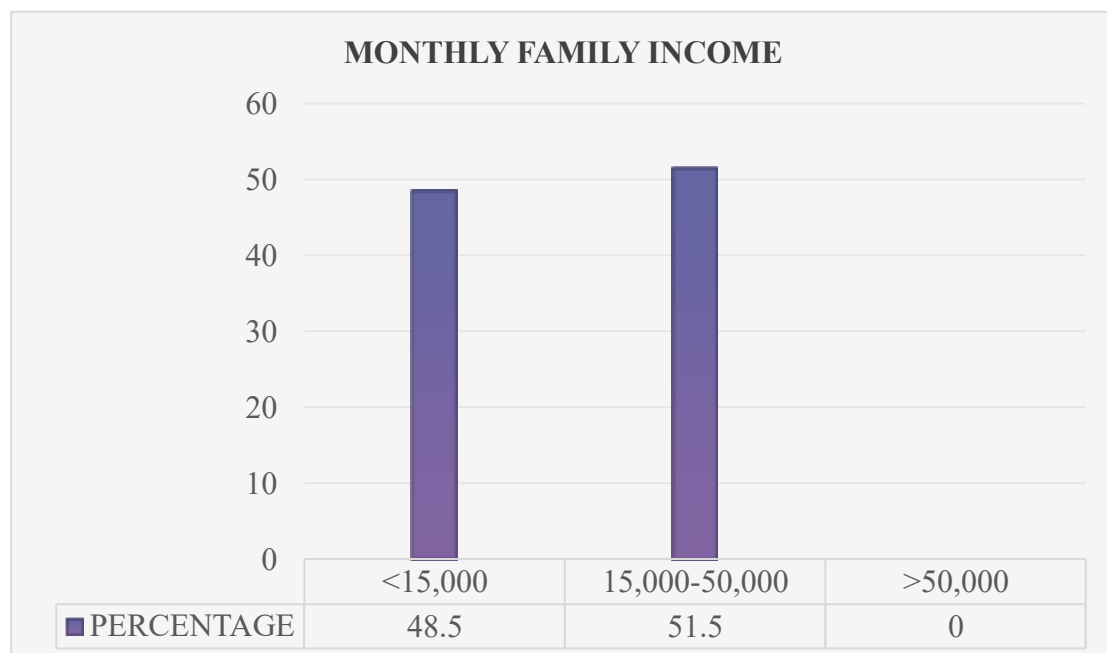


Fig 4.5 Percentage Distribution of Antenatal Mothers According to Monthly Family Income.

Fig 4.5, shows the percentage distribution of antenatal mothers according to monthly family income. Among the respondents, 51(51.5%) antenatal mothers had monthly family income of 15,000-50,000 while, 48 (48.5%) antenatal mothers have family income <15,000.

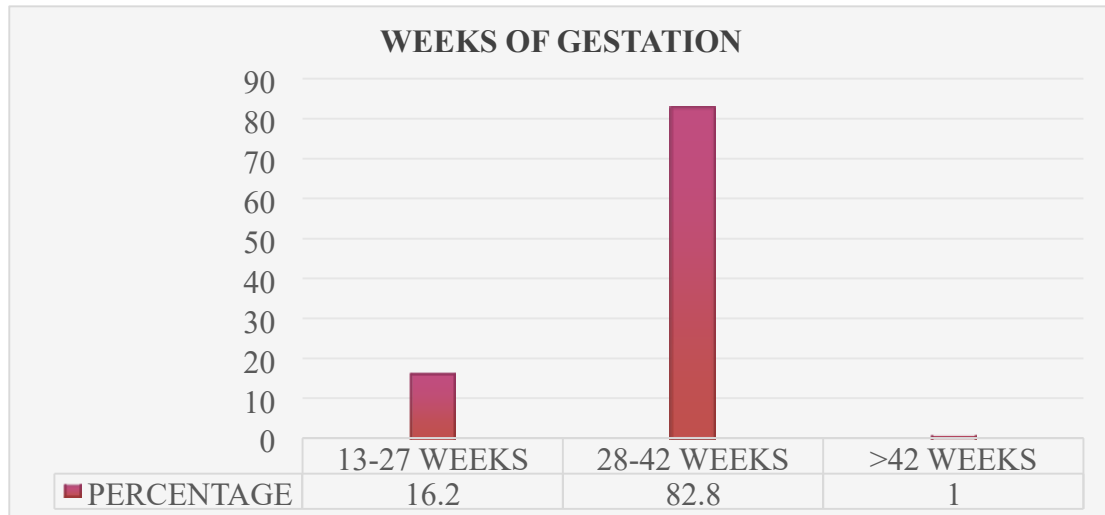


Fig 4.6 Percentage Distribution of Antenatal Mothers According to Week of Gestation.

Fig 4.6 shows the percentage distribution of antenatal mothers according to week of gestation. The majority of 82(82.8%) antenatal mothers were between 28-42 weeks of gestation, 16(16.2%) antenatal mothers were between 13-27 weeks of gestation and 1(1%) of antenatal mothers was >42 weeks of gestation.

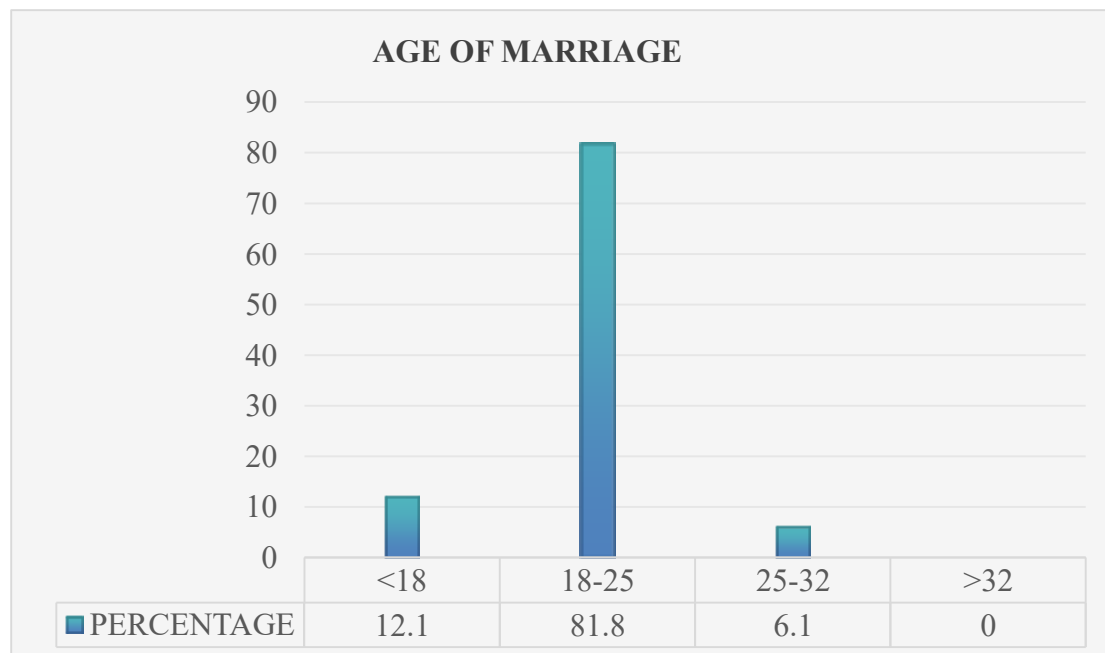


Fig 4.7 Percentage Distribution of Antenatal Mothers According to Age Of Marriage.

Fig 4.7 shows percentage distribution of antenatal mothers according to age of marriage, it is observed that 81(81.8%) antenatal mothers were married between 18-25 years of age, 12(12.1%) of antenatal

mothers were married before <18 years of age and 6(6.1%) antenatal mothers were married between 25-32 years of age.

SECTION-B: PREVALENCE OF HIGH-RISK PREGNANCY AMONG ANTENATAL MOTHERS.

PART A: PREVALENCE OF HIGH-RISK PREGNANCY.

Table 4.2.1: Frequency And Percentage of High-Risk Factors Among Antenatal Mothers
n=99

Sl.no	CATEGORY	FREQUENCY (F)	PERCENTAGE (%)
1	High-risk	44	44.4
2	Moderate risk	26	26.3
3	Low risk	29	29.3

The above Table 4.2 shows that 44(44.4%) had high-risk pregnancy, 29 (29.3%) had low risk pregnancy and 26 (26.3%) had moderate risk pregnancy.

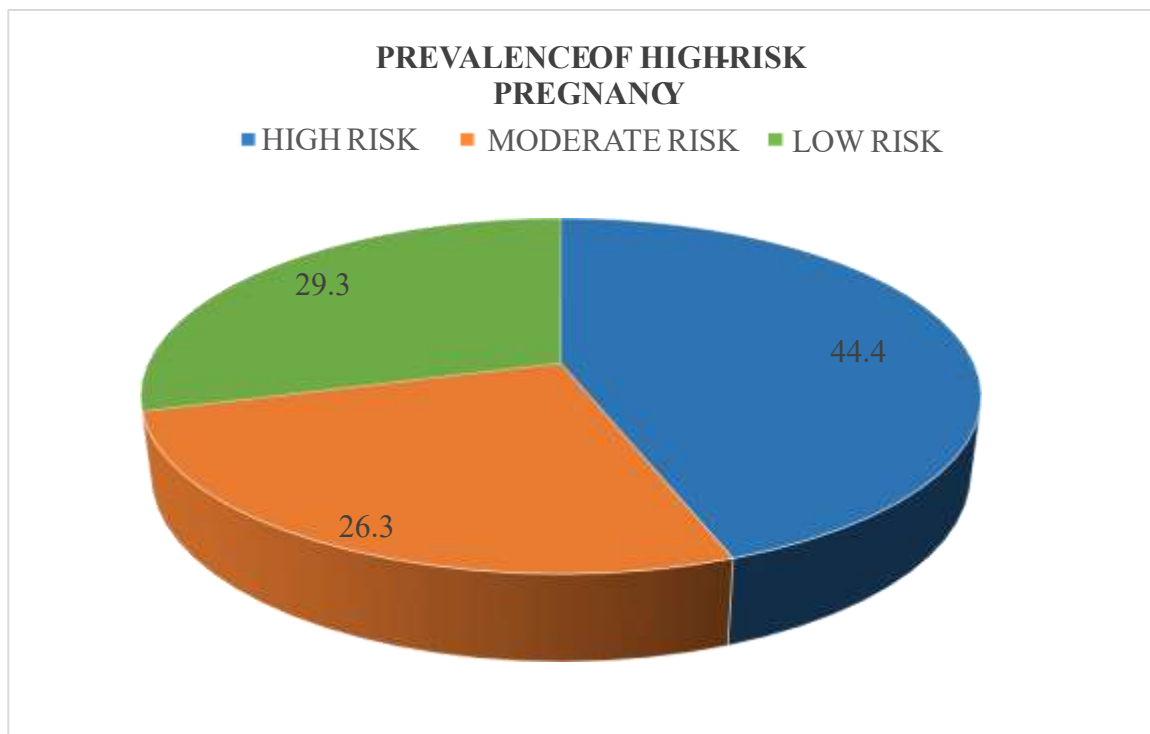


Fig 4.2.1. Prevalence Of High-Risk Among Antenatal Mothers.

Figure 4.2.1 illustrates the prevalence of high-risk levels among 99 antenatal mothers. The findings reveal that a majority of the participants, 45%, fall under the high-risk category. Meanwhile, 26% of the antenatal

mothers are classified as having moderate risk, and 29% belong to the low-risk group. This distribution indicates that a considerable proportion of the study population is at high risk, highlighting the need for careful monitoring and appropriate antenatal care interventions.

PART B: ASSESSMENT TO SCREEN HIGH-RISK PREGNANCY

Table 4.2.2: Frequency and Percentage Distribution to Screen the High-Risk Pregnancy.
n=99

SLNo	Assessment to screen highrisk pregnancy.	Score	High-risk		Moderate risk		Low risk	
			F	%	F	%	F	%
1.	Age <18 18-35 >35	2 0 2	2 6	2.02 6.06	 0	 0	91	91.91
2.	No. of deliveries 0 1-4 >5	1 0 2	 5	 5.05	 12	 12.12	82	82.83
3.	H/o of chronic HTN	2	9	9.09	0	0	90	90.91
4.	H/o pre-gestational DM in prev. preg	2	5	5.05	0	0	94	94.95
5.	Change in exercise tolerance	3	18	18.18	0	0	81	81.89
6.	H/o of gynec surgeries	2	10	10.10	0	0	89	89.90
7.	Medical diseases	3	1	1.01	5	5.05	93	93.93
8.	H/o infertility	1	5	5.05	0	0	94	94.95
9.	H/o of abortion	1	12	12.12	11	11.11	76	76.76
10.	Increase no. of abortion	2	15	15.15	0	0	84	84.84
11.	Prev. Child birth wt.	1	16	16.16	0	0	83	83.83
12.	Prev. C-section	1	37	37.37	0	0	62	62.62
13.	H/o PPH / manual removal of placenta	1	2	2.02	0	0	97	97.98

14.	H/o prev. still birth / neonatal death	3	9	9.09	0	0	90	90.91
15.	Prolonged/difficult labor	2	9	9.09	0	0	90	90.91
16.	GHTN/ pre-eclampsia in prev. pregnancy	2	20	20.20	0	0	79	79.80
17.	Eclampsia in prev. pregnancy	3	5	5.05	0	0	94	94.94
18.	GDM in prev. pregnancy	2	9	9.09	0	0	90	90.91
19.	Bleeding before 20 weeks	1	8	8.08	0	0	91	91.92
20.	Bleeding after 20 weeks	3	3	3.03	0	0	96	96.97
21.	Anemic	1	33	33.33	0	0	66	66.66

22.	Fetal malpresentation	3	18	18.18	0	0	81	81.81
23.	Multiple or twin pregnancy	3	7	7.07	0	0	92	92.93
24.	GHTN	2	20	20.20	0	0	79	79.80
25.	Eclampsia	3	3	3.03	0	0	96	96.96
26.	GDM	2	13	13.13	0	0	86	86.87
27.	Placenta previa	2	5	5.05	0	0	94	94.95
28.	Polyhydramnios	2	9	9.09	0	0	90	90.91
29.	Oligohydramnios	2	9	9.09	0	0	90	90.91
30.	PROM	2	9	9.09	0	0	90	90.91
31.	PPROM	3	4	4.04	0	0	95	95.96
32.	IUGR	3	2	2.02	0	0	97	97.98
33.	Rh sensitization	2	10	10.10	0	0	89	89.90

The above table 4.2.1 shows that among the high-risk conditions, previous Caesarean section was the most common (37.37%), followed by anemia (33.33%). Gestational hypertension (GHTN) and gestational hypertension/preeclampsia in the previous pregnancy each accounted for 20.20% of the participants. Change in exercise tolerance and fetal malpresentation were observed in 18.18% each, while previous child birth weight abnormalities accounted for 16.16%. Increased number of abortions was reported in 15.15%, and gestational diabetes mellitus (GDM) in the current pregnancy was present in 13.13%. A history of abortion was observed in 12.12%, and Rh sensitization and a history of gynecological surgeries each accounted for 10.10%

SECTION C: RISK FACTORS OF HIGH-RISK PREGNANCY AMONG ANTENATAL MOTHERS

Table 4.3 Frequency and Percentage Distribution of High-Risk Factors on High-Risk Pregnancy Among Antenatal Mothers.

n=99

Sl.no	RISK FACTORS	YES		NO	
		F	%	F	%
1	Vaccination	95	95.96	4	4.04
2	Alcohol consumption	4	4.04	95	95.96
3	Smoking	3	3.03	96	96.96
4	Regular exercise	45	45.45	54	54.54
5	Medication	31	31.30	68	68.68
6	Thyroid issue	18	18.20	81	81.08
7	Polycystic ovarian syndrome	10	10.10	89	89.90
8	Consanguineous marriage	24	24.20	75	75.80
9	Radiation exposure	9	9.10	90	90.90
10	H/o delivery of premature infants	12	12.10	87	87.90

11	H/o post-term delivery (>42 weeks)	12	12.10	87	87.90
12	Previous fetal anomalies	14	14.10	85	85.90
13	Excessive tea/coffee consumption	17	17.20	82	82.80
14	BMI >30	23	23.20	76	76.80

The table 4.3 shows the frequency and percentage distribution of various high-risk factors among antenatal mothers. The majority of mothers (96%) had received vaccination. Moderate proportions were observed for regular exercise (45%), medication use (31.3%), BMI >30 (23.2%), consanguineous marriage (24.2%), thyroid issues (18.2%), and excessive tea/coffee consumption (17.2%). Other factors such as previous fetal anomalies (14.1%), delivery of premature infants (12.1%), post-term delivery (12.1%), radiation exposure (9.1%), and polycystic ovarian syndrome (10.1%) were present in smaller proportions. Very few mothers reported alcohol consumption (4%) and smoking (3%). Overall, vaccination was the most common factor, while lifestyle-related risks like alcohol use and smoking were least reported.

SECTION D: Association between high-risk factors among antenatal mothers with their selected demographic variables.

**TABLE 4.4: Association Between the High-Risk Factors with The Demographic Variables.
(Demographic Variable Is Religion).**

n=99

Sl no.	Risk factor		Demographic variables			Calculated (x²) value	Table value	df	S
			Religion						
			Hindu	Muslim	Christian				
1	Vaccination taken	Yes	49	44	2	0.97	5.991	2	NS
		No	2	2	0				
2	Alcohol consumption	Yes	2	2	0	0.09	5.991	2	NS
		No	49	44	2				

3	Smoking habit	Yes	1	2	0	0.533	5.991	2	NS
		No	50	44	2				
4	Regular exercises	Yes	22	22	1	0.231	5.991	2	NS
		No	29	24	1				
5	On any medications	Yes	14	17	0	1.94	5.991	2	NS
		No	37	29	2				
6	Thyroid issues	Yes	6	12	0	3.789	5.991	2	NS
		No	45	34	2				
7	PCOS	Yes	3	7	0	2.55	5.991	2	NS
		No	48	39	2				
8	Consanguineous marriage	Yes	11	13	0	1.243	5.991	2	NS

		No	40	33	2				
9	Radiation exposure	Yes	3	6	0	1.705	5.991	2	NS
		No	48	40	2				
10	Previous pre - mature infants	Yes	6	6	0	0.319	5.991	2	NS
		No	45	40	2				
11	Previous postterm delivery	Yes	5	7	0	0.94	5.991	2	NS
		No	46	39	2				
12	Previous fetal anomalies	Yes	3	10	1	7.17	5.991	2	S*
		No	48	36	1				
13	Excessive tea/coffee consumption	Yes	5	12	1	6.2773	5.991	2	S*
		No	46	34	1				

14	BMI >30	Yes	11	11	1	0.89	5.991	2	NS
		No	40	35	1				

S= Significant at p<0.05 level of significance NS = Not significant at p>0.05 of significance

The table 4.4. shows that most of the high-risk factors such as vaccination status, alcohol consumption, smoking habit, regular exercise, medication use, thyroid issues, PCOS, consanguineous marriage, radiation exposure, previous premature infants, previous post-term delivery, and BMI >30 were not significantly associated with religion, as their calculated chi-square values were less than the table value (5.991) at 2 degrees of freedom. However, previous fetal anomalies ($\chi^2 = 7.17$) and excessive tea/coffee consumption ($\chi^2 = 6.2773$) showed a statistically significant association with religion, as their calculated values is more than the table value. Thus, only these two factors were found to have a significant relationship with religion, while all other variables were not significant.

TABLE 4.5: Association Between High-Risk Factors with Demographic Variables. (Demographic Variable Is Monthly Family Income)

n=99

Sl no.	Risk factor		Demographic variables			Calculated (x ²) value	Table value	df	S
			Monthly family income						
			<15,000	15,000-50,000	>50,000				
1	Vaccination taken	Yes	47	48	0	0.920	3.841	1	NS
		No	1	3	0				
2	Alcohol consumption	Yes	1	3	0	0.92	3.841	1	NS
		No	47	48	0				

3	Smoking habit	Yes	0	3	0	2.912	3.841	1	NS
		No	48	48	0				

4	Regular exercises	Yes	21	24	0	0.109	3.841	1	NS
		No	27	27	0				
5	On any medications	Yes	11	20	1	3.05	3.841	1	NS
		No	37	31	0				
6	Thyroid issues	Yes	5	13	0	3.777	3.841	1	NS
		No	43	38	0				
7	PCOS	Yes	3	7	0	1.52	3.841	1	NS
		No	45	44	0				
8	Consanguineous marriage	Yes	9	15	0	1.530	3.841	1	NS
		No	39	36	0				
9	Radiation exposure	Yes	2	7	0	2.734	3.841	1	NS

		No	46	44	0				
10	Previous pre mature infants	Yes	2	10	0	5.535	3.841	1	S*
		No	46	41	0				
11	Previous post-term delivery	Yes	2	10	0	5.53	3.841	1	S*
		No	46	41	0				
12	Previous fetal anomalies	Yes	5	9	0	1.065	3.841	1	NS
		No	43	42	0				
13	Excessive tea/coffee consumption	Yes	3	14	0	9.035	3.841	1	S*
		No	45	37	0				
14	BMI >30	Yes	11	12	0	0.005	3.841	1	NS
		No	37	39	0				

S=Significant at $p < 0.05$ level of significance NS=Not significant at $p > 0.05$ of significance

The table 4.5 shows that most of the risk-factors, including vaccination, alcohol consumption, smoking, exercise, medication use, thyroid issues, PCOS, consanguineous marriage, radiation exposure, previous fetal anomalies, and BMI >30, were not significantly associated with income ($p > 0.05$). However, previous premature infants, previous post-term delivery, and excessive tea/coffee consumption showed a statistically significant association, as their calculated chi-square values exceeded the table value ($\chi^2 = 3.841$, $df = 1$). The null hypothesis H_0 is rejected and H_1 is accepted.

CHAPTER-V

DISCUSSION, IMPLICATIONS, LIMITATION, RECOMMENDATIONS, CONCLUSION AND SUMMARY

This chapter deals with the discussion, summary of the study and its findings and conclusion, implication, limitation and recommendation of the study.

DISCUSSION

A pregnancy is considered high risk when there are potential complications that could affect the mother and the baby, or both. High-risk pregnancies threaten the health or life of the mother or her fetus. To ensure the best outcome for both the mother and the baby, high-risk pregnancy must be managed by a specialist. It often requires specialized care from specially trained health care providers. Some pregnancies become high risk as they progress, while some women are at increased risk for complications even before they get pregnant for a variety of reasons. High-risk pregnancies may result because of various conditions, which are there either before getting pregnant such as diabetes or high blood pressure, and complications from a previous pregnancy, or conditions during pregnancy or delivery. Early and regular antenatal checkups help many women have healthy pregnancies and deliveries without any complications. Early detection and effective management of high-risk pregnancies can contribute substantially to the reduction of maternal and fetal adverse outcomes.

The results of the study discussed in terms of findings and its relevance to their earlier studies conducted in this field. The conclusion drawn from the study should be judged in the light of its methodological shortcomings. The present non-experimental descriptive study was undertaken with an objective to assess the prevalence of high-risk pregnancy among the antenatal mothers at selected maternity hospital in Hyderabad, Telangana. From the hospital 99 samples were included by using random sampling techniques. Done pilot study on 24/07/25 and 25/07/2025 in Apollo Institute of Medical Science and Research, Hyderabad and got reliability of 0.918. From 15/09/2025 to 20/09/2025 the main study was conducted in Modern Government Maternity Hospital, Petlaburj, Hyderabad. The collected data was tabulated, analyzed using Modified Coopland's scoring system. The results of the present study contribute to assess the prevalence of high-risk pregnancy among antenatal mothers.

Apollo College of Nursing, Hyderabad

OBJECTIVES OF THE STUDY

1. To estimate the prevalence of high-risk pregnancy among antenatal mothers.
2. To identify the risk factors on high-risk pregnancy among antenatal mothers.
3. To determine association between high-risk factors among the antenatal mother with their selected demographic variables.

Major findings of study

- According to prevalence of high-risk pregnancy among 99 antenatal mothers in selected maternity hospital 44.4% (44) belong to high-risk.
- According to Religion of the antenatal mothers, 51.5% belongs to Hindus.
- Regarding with Area of Residence of the antenatal mothers, 62.6% belongs to urban area.
- Majority of the antenatal mothers, 92.9% are Housewives.
- 51.5% of the antenatal mothers have Monthly Family Income in the range of 15,000-50,000.
- According to association between high-risk factor with selected demographic variable, religion is found to have significance with previous fetal anomalies and excessive tea and coffee consumption. According to association between high-risk factor with selected demographic variable, monthly family

income is found to have significance with previous post-term delivery and excessive tea and coffee consumption.

- According to association between high-risk factor with selected demographic variable, other demographic variables such as area of residence, educational status, occupation, week of gestation and age of marriage are found to have no significance with any risk factors.

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The first objective of the study was to estimate the prevalence of High-risk pregnancy among Antenatal mothers.

In the selected maternity hospital out of 99 mothers 44.4% (44) belong to high-risk, 26% (26) belong to moderate risk and 29% (29) belongs to low risk. Among the high-risk conditions, previous cesarean section with the most common (37.37%), followed by anemia (33.33%). Gestational hypertension (GHTN) and gestational hypertension/pre-eclampsia in the previous pregnancy each accounted for 20.20% participants.

The above findings are supported by Dr. Sphurti UC, Chandra S (2022) conducted a longitudinal study at Kinaye, Primary Health Centre (PHC), Belagavi district, Karnataka. The study sample consisted of 147 high-risk pregnant women. Among the participants, 40.4% of the pregnant women had low-risk scores; 45.9% had high-risk scores, and 13.7% had moderate risk scores according to Coopland's high-risk pregnancy scoring. This study is of public health importance as it helps us to prevent bad pregnancy outcomes and take necessary precautions among high-risk pregnant women by early detection.

The second objective of the study was to identify the risk factors on high-risk pregnancy among antenatal mothers.

The major risk factors identified on pregnant antenatal mothers are lack of regular exercise (54%), increased use of medications (31%), consanguineous marriage (24.2%) and overweight (23.2%). Bharti V et al (2013) found that 11.6% had preterm birth. Periyasamy K, Ranjan K. P et al (2023), categorized risk factors as maternal, lifestyle, medical, current health and previous birth outcomes. Risk factors include overweight, thyroid issues, preterm birth, smoking, alcohol consumption etc. They found out that 49.4% had more than one risk factors. Dr. Rajni Bagai (2024) identified risk factors as drug use, genetic disorders, previous preterm birth and pre-existing medical conditions

The third objective of the study was to determine the association between high risk factors among Antenatal mother with their selected demographic variables.

There is significant association found between high-risk factors with selected demographic variable such as religion and monthly family income. Religion has significant association with the risk factors previous fetal anomalies with a Chi square value of 7.17 and excessive tea/coffee consumption with a Chi square value of 6.2773 greater than the table value 5.991 at degree of freedom 2. Monthly family income has significant association with the risk factors previous premature infants with a Chi square value of 5.535, previous post-term delivery with a Chi square value 5.53 and excessive tea/coffee consumption with a Chi square value of 9.035 greater than the table value 3.841 at degree of freedom 1. Null hypothesis is rejected and H1 is accepted.

Jaideep K.C., Prashant D, et.al (2017) conducted a cross-sectional study on Prevalence of high risk among all pregnant women attending antenatal clinic in rural field practice area of Jawaharlal Nehru Medical College, Belagavi, Karnataka, India. A total of 600 pregnant women attending antenatal clinic in PHC Kinaye were interviewed using predesigned, pretested questionnaire. According to religion, majority i.e. 81.6% belonged to Hindu religion, 8.8% Muslims, 4.1% Christian and 5.3% belonged to others. 72.33% belonged to nuclear family followed by joint family (16.33%) and three generation family (11.33%). In

present study, the prevalence of high-risk pregnancy was found to be 30.66%. The significant association of high risk was found with age ($p=0.0004$) and parity of pregnant women ($p=0.001$). The present study concludes that around 30.67% women were detected to be high risk. Age and parity of the pregnant woman were found to be significantly associated with the prevalence of high-risk.

NURSING IMPLICATIONS

The findings of the Present study have its implications in the field of Nursing education, Nursing practice, Nursing research and Nursing administration.

NURSING PRACTICE

As a nurse, the investigators have an important role in providing support to pregnant women. An obstetric nurse can educate pregnant women regarding antenatal care and prevention and diagnosis of high-risk pregnancy. By incorporating these aspects into nursing practice, nurses can provide patient centered care to individuals with high-risk pregnancy and support their needs and preferences

NURSING EDUCATION

Nursing Education plays an important role in providing high-quality person-centered care to high-risk antenatal mothers. It helps the antenatal mothers to know more about their symptoms, causes and how to promote their overall health. In-service education can be provided to healthcare professional with necessary knowledge, skills and strategies to support the antenatal mother's needs. Provide ongoing support and guidance to ensure the health and safe pregnancy.

NURSING ADMINISTRATION

As a nursing administrator the findings of the study will help the nurses to provide comprehensive nursing interventions for improving care to antenatal mothers. The study will be helpful for the nurse administrator for implementing individualized care plans that address the needs of individuals with high-risk pregnancy. Nursing administration will help to educate staff to promote comfort for antenatal mothers. Regularly evaluate staff performance and provide feedback to ensure high-quality nursing care on high-risk pregnancy. By focusing on the key aspects, Nursing administrator can ensure that high-risk antenatal mothers receive high-quality, person-centered care that addresses and anticipates their needs and promotes optimal outcomes.

NURSING RESEARCH

The finding of the study is that the prevalence of high-risk pregnancy among antenatal mothers is 44.4%. The generalization of the study results can be made further replications of the study in various settings and large populations.

RECOMMENDATIONS

- The researcher can provide Structured teaching programme/Video audio programme on high-risk pregnancy among antenatal mothers.
- The study can be replicated in the same area for reinforcement
- A cross-sectional study can be conducted to correlate the prevalence of high-risk pregnancy among antenatal mothers.

- Comparative study can be done to assess the awareness among the mothers from Urban and rural areas.
- Comparative study, can be done between different profession

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