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# A Comparative Study to Assess Stress and Stressors among Primi and Multigravida High Risk Mothers Attending the Selected Hospitals of West Bengal

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**Abstract:** A descriptive study was conducted to assess stress and stressors among primi and multigravida high risk mothers attending the selected hospitals of west Bengal . The objective of the study was to assess stress and stressors among primi and Multigravida high risk mothers. The conceptual framework adopted for the study was based on Lazarus and Folkman model of stress. About 100 antenatal mothers were selected as samples by non probability purposive sampling technique to collect the data. Valid reliable Semi structured interview schedule and Standardized perceived stress scale (Sheldon cohen) were used for data collection. The result showed that majority 12 (24%) multigravida mothers had severe stress. Medical problem like thyroid, anaemia and obstetrical problem like abortion (more than once), caesarean section, social aspect- non co-operation of husband, all are the stressors. The computed 't' value (5.53) of stress of primi and multigravida high risk mother was found greater than the table value at 98 df at 0.05 level of significance. So multigravida high risk mothers suffered more stress than the primi high risk mothers. There was association between stress and stressors of primi and multigravida mothers at 0.05 level of significant. The study had important implication in various field of nursing which paves the way for further research. Based on this study a similar study can be done on large sample.

## I. INTRODUCTION

### A. Background of the Study

"Babies are bits of star-dust blown from the hand of God. Lucky is the woman who knows the pangs of birth for she has held a star."

– Larry Barretto

Woman is the glory of creation. In philosophy, she symbolizes the mother aspect of nature or feminine characteristic of the universe. Pregnancy and childbirth are special events in women's lives and indeed the lives of their families. It can be a time of great hope and joyful anticipation. It can also be a time of fear, anxiety, suffering and even death.

There is no formal or universally accepted definition of a high-risk pregnancy. A pregnancy is considered high risk when maternal or fetal complications are present that could affect the health or safety of the mother or baby. It has greater effect on woman's condition, physiologic, social or emotional, that threatens maternal or fetal health and produces an increased chance of morbidity or mortality. Identifying a pregnancy as high risk helps to ensure that it receives extra attention and proper care thereby significantly decreasing maternal and neonatal morbidity and mortality rate.<sup>1</sup>

High risk pregnant women who undergo antepartum hospitalization experience significant stress. Nurses play an important role in helping these pregnant women adapt to their high-risk status and cope effectively with hospitalization.<sup>2</sup>

Pregnancy may involve major biological psychological and social changes that have been linked to an increase in anxiety and depression symptoms.<sup>3</sup>

Stress is the emotional and physical strain caused by response to pressure from the outside world. It is specific response by the body to a stimulus that disturbs normal functioning. A stressor is an event or any stimulus that causes an individual to experience stress. It is almost impossible to live without some stress and most of us would not want because it gives life some spice and excitement. But when stress gets out of control it may give rise to serious illnesses.

About 20 per cent of pregnant women experience antenatal stress, which not only has deleterious effects on the woman and her baby but also increases the risk of developing postpartum depression. Nurses who understand the prevalence, signs, and symptoms, and risk factors associated with Antenatal Depression can help to identify it and prevent the problem. Risk factors include history of depression, lack of partner, marital difficulties, lack of social support, poverty, family violence, increased life stress, substance abuse, history of previous abortions, unplanned pregnancy, ambivalence toward the pregnancy and anxiety about the foetus.<sup>4</sup>

The world Health Organization (WHO) has estimated that stress related disorder will be one of the leading causes of disability by the year 2020.<sup>5</sup>

Today, mental disorders stand among the leading cause of disease and disability in the world. One in four (25%) people in the world will be affected by mental or neurological disease at some point in their lives. 'Stress' as a universal phenomenon reflecting in each aspect of life cycle, was identified as a major cause of attrition among all categories of people.<sup>6</sup>

Nadia Mohammed et al in IOSR Journal of Nursing and Health Science (IOSR-JNHS) Shows that the majority of the pregnant women stressors were (93.9%, 90.0%, 77.8 % &76.7%) concerned to increase in the prices of everyday goods, feeling unwell during pregnancy, house hold responsibilities and husband worries.<sup>7</sup>

Giakoumaki O, a descriptive study conducted on 180 pregnant women who chosen randomly. That the mean for stressors count was significantly increased for pregnant women at the age of 20-29 years ( $p=0.005$ ), for pregnant women from urban residence ( $P=0.018$ ), for women and husband with university education ( $P=0.009$ ,  $P=0.011$  respectively), for working women ( $P=0.028$ ), for women who reported not having enough family income ( $P=0.020$ ).<sup>8</sup>

A descriptive study mangalore by Muna Silwal, International Journal of Recent Scientific Research 100 antenatal mothers were selected through purposive sampling technique from a selected hospital Mangalore. Result indicated that 8% of the subjects had severe level of anxiety, 22% had moderate and 70% had mild level of anxiety, whereas 3% subjects had severe depression, 19% had moderate depression and 78% had mild level of depression.<sup>9</sup>

Jeyanthi & R. Kavitha Cauvery Research Journal, January 2008 a study shows the level of stress faced by primi mother and multigravida respondents are higher followed by delivery complications. The difference in the level of anxiety and stress between the primi mother and multigravida during the first second, and third trimester of pregnancy is also taken into account. It is used as a means to understand the various problems encountered by pregnant women and thereby formulate the suitable treatment and counseling.<sup>10</sup>

Maggie Fernandes Department of Maternity Nursing, Fundamental Nursing, Manipal College of Nursing, Manipal University, conducted a study that Studies have indicated that high levels of stress in pregnancy have been associated with negative outcomes such as low birth weight and preterm labour. Negative outcomes such as depression and anxiety related to the pregnancy can lead to stress and can lead to less healthy.<sup>11</sup>

Above all these stress and stressors exerts pressure among primimother and multigravida high risk mothers.

### B. Need for the Study

Childbirth is a new experience to the primi mothers. Childbirth in some women is a joyous relationship of hopes, together with a mass of fears and anxieties whether the baby will be normal and healthy; about their own reaction to labour and also about the attitude of people who will help and care for them.

Globally, there are approximately 240 million pregnancies annually, these pregnancies results in 134 million births and 50 millions abortions, 20millions of which are performed under unsafe conditions. India accounts for more than 20% of the global maternal and child deaths and approximately 30million women in India experience pregnancy annually, 27 million have live births. Of these, nearly 1,36,000 maternal deaths occur annually, most of which can be prevented.<sup>12</sup>

A descriptive study conducted by Jacob V and Imran S (2015) International Journal of Recent Scientific Research in mangalore There was a significant association between level of depression and selected baseline variables like number of pregnancies ( $\chi^2=9.141$ ,  $p<0.05$ ) number of abortion ( $\chi^2=6.250$ ,  $p<0.05$  history of depression ( $\chi^2=15.021$ ,  $p<0.05$ ).<sup>13</sup>

Gayathri Kv, et al conducted a study on effectiveness of planned teaching programme on knowledge, and reducing anxiety among primigravida in Karnatak. This study revealed that in pretest 23% had good knowledge and in post- test 100% had good knowledge, .This study recommended that much more study on maternal anxiety was necessary.<sup>14</sup>

D.N, Marshall- conducted a study and says that stress disorders are common in women and tend to aggregate during childbearing age.<sup>15</sup>



International journal of Africa Nursing sciences 2015 shows Pregnancy is not only a period of great joy, but also one of great stress to a woman both physically and mentally. Even in healthy women, pregnancy may give rise to many anxieties because of anticipated uncertainty associated with it. Evidences show that pregnancy not only affects pregnant women's health but also have an impact on labour outcomes such as preterm delivery, prolonged labour, caesarean birth, low birth weight. Revealed a varied prevalence of pregnancy stress at different trimesters of pregnancy with high levels in first and third trimesters.<sup>16</sup>

According to all medical journal content edition board and information the death of the woman during pregnancy and child birth is not only a health issue but also a matter of social justice. There are many cause of maternal death. In the year 2011 birth rate was 21.8 in India, where as in West Bengal was 16.3 and death rate was in India 7.1 but in West Bengal 6.2 in 20 million population.<sup>17</sup>

P H C Rondo, et; al conducted a study on Maternal psychological stress and ` distress as birth weight, prematurity and intrauterine growth retardation among 865 pregnant women who attended the antenatal clinic. Stress was investigated by the perceived stress scale. Measures of stress and distress were obtained, by interview, three times at pregnancy at a gestational age (GA) lower than 16 weeks, from 20 to 26 weeks and from 30 to 36 weeks. The study revealed that maternal distress was associated with LBW and prematurity respectively. The prevalence of stress and distress in the different interviews of pregnancy varied from 22.1 to 52.90/0. The present study confirmed that distress was associated with both birth weight and gestational age. They recommended further research which was needed to assess the antenatal stress, that can improve maternal and fetal well-being.<sup>18</sup>

The wellbeing of the fetus may be affected when the mother is subjected to psychosocial stress during her pregnancy. There is accumulating evidence for severe psychological stress pregnancy and adverse effect on fetal development which is probably mediated through the excessive production of stress hormones in the mother. These stress hormones cross the placenta inhibiting fetal growth and causing preterm delivery.<sup>19</sup>

Antenatal services indirectly save the lives of mothers and babies by promoting and establishing good health before child birth the early post natal period. It often presents the first contact opportunities for a pregnant woman to connect with health services, thus offering an entry point for integrated care promoting healthy home practice, influencing *care* seeking behavior's and linking women with the referral system during need. This will give a positive impact on maternal and foetal health. A high risk pregnancy is one in which some condition puts the mother, the developing foetus or both at higher risk than the normal for complications during the pregnancy and child birth.

Pregnancy is a special time for a woman and also for the family. It is a time of many changes in a pregnant woman's body and emotions. Stress during pregnancy may lead to several problems to the mother and unborn child. Stress reacts physically, mentally and emotionally to the various conditions. The purpose of the present study was to investigate stress in antenatal women and its association with selected factors among antenatal women. A descriptive survey design was used to identify the stress and its associated factors among (160) antenatal women aged 20-45 years. The present study reveals no or mild stress level among antenatal women 107(66.9) and moderate to severe stress in 53(33.3%) of them. A statistically significant association was observed for gravida, education and monthly family income of antenatal women. So Stress during antenatal period was observed among more than half the women. Stress was significantly associated with gravida, educational status and monthly family.<sup>20</sup>

Researcher's personal experience was that high risk mothers were felt so many stress and faced so many physical and psychological problem and limited study was done regarding this matter. So the researcher felt more interest to find out the stressors of antenatal mothers and also compare the stress and stressors among primi and multi gravida high risk mothers is needed in this context.

### C. Problem Statement

A comparative study to assess stress and stressors among primi and multigravida high risk mothers attending the selected hospitals of West Bengal.

### D. Purpose of study

The Purpose of study is to assess stress and stressors among primi and Multigravida high risk mothers attending the Selected Hospitals.

### E. Objectives

- 1) To assess stress among primi and multigravida high risk mothers attending the selected hospitals.
- 2) To assess stressors among primi and multigravida high risk mothers attending the selected hospitals.
- 3) To compare stress and stressors among primi and multigravida high risk mothers attending the selected hospitals.
- 4) To find out the association between stress and stressors and with selected demographic variables.

#### F. Operational definition

In this study following terms are operationalised

- 1) Stress: In this study stress refers to perceived strain during the antenatal period which is assessed by standardized modified perceived stress scale (Sheldon Cohen)
- 2) Stressors: Stressors identified according to mother's statement.

#### G. Primi mother

A primi mother is one who is pregnant for first time.

- 1) *Multigravida Mother*: A multigravida mother is one who has previously been pregnant. She may have a aborted or have delivered a viable baby.
- 2) *High Risk Condition*: According to WHO pregnancy High risk condition are following- (1) Elderly primi (>30 years) (2) Short statured primi (<140 cm) (3) Threatened abortion and APH (4) Malpresentations (5) Preeclampsia and eclampsia (6) Anemia (7) Elderly grand multiparas (8) Twins and hydramnios (9) Previous stillbirth, IUD, manual removal of placenta (10) Prolonged pregnancy (11) History of previous cesarean section and instrumental delivery (12) Pregnancy associated with medical diseases. In this study abortion, Previous stillbirth, History of previous cesarean section, Pregnancy associated with medical diseases (Thyroid, Anaemia, Hypertention, Thalassamia, Diabetes) all are mention condition has been adopted and this condition are all ready diagnosed by medical practitioner and documented in Mother child protection card.

#### 3) Assumptions

In this study following assumptions are undertaken

- Primi and multigravida mothers experiences some stress during antenatal period.
- There are some stressors that contribute to stress during antenatal period.
- Mothers are willing to participate and cooperate in this study.

#### H. Variables under study

- 1) *Demographic Variables*: Variables such as age, habitat, religion gestational weeks, education, Socio economic condition, gravida.
- 2) *Research Variables*: Stress and stressors among primi and multigravida high risk mothers.
- 3) *Delimitations*

The study was delimited to

- Primi and multigravida high risk mothers attending in antenatal outdoor.
- The antenatal mothers were present at the time of data collection.
- Antenatal mothers able to communicate in Bengali and English.
- Willing to participate in the study.
- Mother with period of gestational age 32 weeks onward but before onset of labour

#### I. Conceptual Framework

A conceptual framework used in research direct the researcher about how these actions are carried out. The study based on Lazarus & Folkman model of stress. According to Richard Lazarus, stress is a two way process. It involves production of stressor by the environment and the response of on individual subjected to the stressor. His conception regarding stress led to the theory of cognitive appraisal. Cognitive appraisal is the personal interpretation of a situation; it is how an individual views a situation.

In this model Lazarus & Folkman model of stress in 1984 distinguish precipitation event as a stimulus arising from the external or internal environment and perceived by the individual in a specific manner.

- 1) *Precipitating Factors*: In this study, precipitating factors of stress as pregnancy. physically changes. high risk condition.
- 2) *Predisposing factors*: It is a stimulus arising from the internal or external environment and is perceived by the individual in a specific manner. Here predisposing factors of stress of primi mothers are age, habitat, education, number of family member, per capita monthly income, medical problem, e.g thyroid, thalassamia, anemia, diabetes and social aspect like non co-operation of husband, unsatisfied of family members regarding this pregnancy.

In multigravida mothers predisposing factors are age ,habitat, education, number of family member, per capita monthly income, medical problem, e.g thyroid, thalassamia, anemia, diabetes, and obstetrical problem e.g abortion(more than once) previous stillbirth, caesarean section, social aspect like non co-operation of husband, unsatisfied of family members regarding this pregnancy.

- Cognitive Appraisal: Cognitive appraisal consists of primary and secondary appraisal.
- Primary Appraisal: Primary appraisal refers to stressors how they affect the primary and multi gravida high risk mothers. Stressors in antenatal mothers along with high risk condition and outcome of pregnancy.
- Secondary Appraisal: Secondary appraisal refers in multigravida mothers. Secondary appraisal become the cause of primary appraisal. Stressors like history of abortion (more than once), still birth, preterm labour, Cesarean section.

### J. Stress

Stress refers to an internal pressure experienced by a person in response to life demand.

In this study stress is the pressure experienced by antenatal mothers (both primi and multigravida) in response to high risk condition. When the woman are exposed to a precipitating stressors that is the antenatal period and it influences the predisposing factors ( in this study stressors) the environment, the environment acts on the person, then there is cognitive response and individual perceive primary appraisals and suffers from stress. When antenatal mother appraise the situation and respond with a coping activity, which in turn may change the environment, the amount of effort that will have to be exerted to handle the situation. If no threat is perceived, no stress is felt.

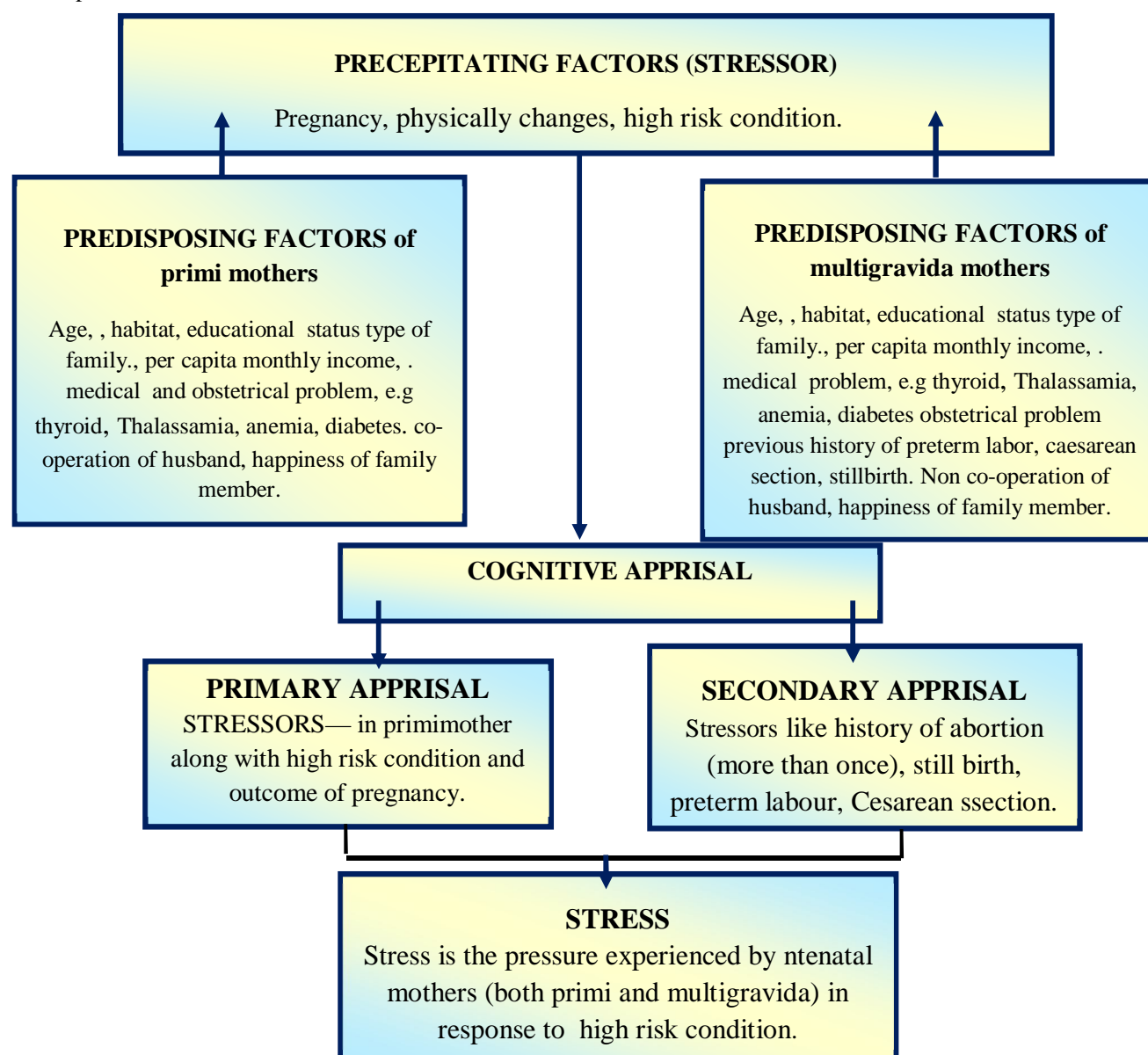


Figure 1 Conceptual framework on Lazarus & Folkman model of stress.

### K. Summary

The introductory chapter deals with the background, need of the study, statement of the problem, objectives of the study, operational definition of terms, variables under study, assumptions, delimitations, and conceptual framework of the study.

### L. Organization of the Report

Chapter II Overview of Literature: Contain review of selected literature with research studies and non research articles supports the present study.

Chapter III Methodology: Describe the methodology of the study which includes Research approach, Research design, variables the Setting, Sample and Sampling technique, Sample size, Data collection technique, Development and description of tool, Plan for data analysis.

Chapter IV Data Analysis and Interpretation: Deals with details of data analysis and interpretation of data

Chapter V Discussion: Deals with the major findings, discussion in relation to others studies, conclusion, implication of the study, limitation and recommendation based on the findings of the study.

## II. REVIEW OF LITERATURE

Review of literature refers to activities in identifying and searching for information on a topic and developing an understanding of the state of knowledge on that topic. Related literatures were reviewed to broaden the understanding and gain insight into the selected problem under study. Pub med search and internet search were conducted to locate the source. The related literature also identified in different journals. It helps the investigator to develop a deeper insight into the problem and gain information on what has been done before.

The literature reviewed for the present study is presented in the following section

- Section I: Literature related to the stress of the antenatal mothers.
- Section II: Literature related to the stressors of the antenatal mothers.
- Section III : Literature related to the high risk antenatal mothers

### A. Section I : Literature related to the stress of the antenatal mothers

Gourounti, K., Karpathiotaki, N & Vaslamatzis, G. (2015) conducted a systematic review for the available evidence of the psychological stress, in terms of anxiety and depression of high-risk pregnancy. The review revealed that high-risk pregnant women had high levels of depression ranging from 18% to 58% and these rates decrease throughout the course of hospitalization and are similar between women hospitalized in a hospital/health centre and women bed-rested in home.<sup>21</sup>

Pantha, S. et al, (2014) conducted a cross-sectional prospective observational study to assess the prevalence of antenatal stress among the pregnant women belonging the age group of 20-29 years attending Antenatal Checkup at the general Antenatal Clinic of Department of Obstetrics and Gynaecology of Patan Hospital. Data was collected by using General Health Questionnaire (GHQ-12) and 1 item Modified Life Events Inventory during the late first trimester and early third trimester. The study results showed that the prevalence of stress during pregnancy was 35% in the first trimester and 34.2% in the third trimester. The author concluded that there was high prevalence of stress among the women attending Antenatal care clinic at Patan Hospital.<sup>22</sup>

Fernandes, M. et al, (2014) conducted a descriptive survey among working and non-working (30 each) antenatal mothers between the age group of 18 to 40 years in three local hospitals of Udupi district. Stress assessment scale was used to assess the stress, 63% of working antenatal mothers sometimes felt that they had lack of strength, 67% of working and 50% of non-working antenatal mothers sometimes complained of not getting adequate sleep at night, 50% of working antenatal mothers sometimes felt that they were lacking in socialization due to pregnancy. All antenatal mothers 14 participated in this study had mild stress and there was a significant difference between working and non-working antenatal mother's stress score. The researchers concluded that mothers are at more risk of developing stress during pregnancy.<sup>23</sup>

Carmi chael SL et al (2014) conducted a population based case-control study on maternal stressful life events and risks of birth defects among 1,355 cases. 38 Prenatal maternal stress has been shown to be an indicator of adverse birth outcomes. Studies have indicated that high levels of stress in pregnancy have been associated with negative outcomes such as low birth weight and preterm labour. Negative outcomes such as depression and anxiety related to the pregnancy can lead to stress and can lead to less health.<sup>24</sup>

Abadi M, (2012) a studies investigated both multigravida and primigravida women during pregnancy and found that social support, stress, and prenatal fantasies about the unborn child were higher in primi gravida women.<sup>25</sup>



Abeyseena, C., Jayawardana, P. & Seneviratne, R. A., (2010) conducted a population-based prospective cohort study to determine the effect of psychosocial stress on maternal complications during pregnancy in Sri Lanka. The sample size was 774 pregnant women between 12th and 28th week of gestation. Psychosocial stress was assessed using the Modified Life Events Inventory and the General Health Questionnaire 30 (GHQ 30). The study concluded that psychosocial stress during the second trimester, BMI>26 kg/m<sup>2</sup>, pre-pregnancy weight > 51 kg and low educational level were risk factors for maternal complications during pregnancy.<sup>26</sup>

Woods, S M., Melville, J. L., Guo, Y., Fan, M & Gavin, A. (2009) performed cross sectional analysis on psychosocial stress during pregnancy among 1,522 women receiving prenatal care at a University Obstetrical Clinic from January 2004 through March 2008. The majority of participants reported antenatal psychosocial stress (78% low-moderate, 6% high). The study concluded that the antenatal psychosocial stress is common, and high levels of maternal factors known to contribute to poor pregnancy outcomes.<sup>27</sup>

A cross-sectional descriptive survey conducted by Hall, et al.(2009) in a community sample of six hundred and fifty English-speaking nulliparous and multiparous women of 17 to 46 years of age and between 35 and 39 weeks gestation, with uncomplicated pregnancies. They explored levels of childbirth fear, anxiety, fatigue, and sleep deprivation in pregnant women and their relationships during the third trimester of pregnancy. Wijma Delivery Expectancy/Experience Questionnaire, STAI, Mindell's Sleep Questionnaire, and the Multidimensional Assessment of Fatigue Questionnaire were used.<sup>28</sup>

Wisborg, K., Barklin, A., Hedegaard, M. & Henriksen, T. B. (2008) conducted a study to assess the impact of psychological stress on the risk of stillbirth among 19,282 pregnant women at 30 weeks of gestation. The maternal stress was measured using a standard questionnaire on mental health. The result revealed that foetal death (after 28 weeks of gestation) occurred in 66 pregnancies (0.34% of all pregnancies). This study observed that high levels of stress are associated with nearly twice the risk of stillbirth.<sup>29</sup>

Carolan- Olah M, Barry M conducted a quantitative descriptive study on "antenatal stress" in 2008 among ISO low risk pregnant women. Data was collected at a single time during the second trimester, using the Edinburgh Postnatal Depression Scale, the Perceived Stress Scale (PSS) and the State Trait Anxiety Inventory. The study revealed that in EPDS 86.5% of participants responded with a score of 12 or above, PSS score were also high. 75.6% respondent scored > 15, rest responded score >20, out of a total score of 40. A score of >39 was taken as indicative of antenatal anxiety, and 74.3% of participants responded with a score of 39 or above so above the findings of the study indicate that there were high levels of stress, anxiety and depressive symptomatology among participants.<sup>30</sup> A study by Teixeira et al. found that the prevalence of anxiety according to trimester. A total of 270 participants were recruited to complete the State Anxiety Inventory by Spielberg in their first, second, and third trimesters of pregnancy they found 15% of the participants had anxiety in their first trimester and 12.3% in second trimester and anxiety peaked in the third trimester that is 18.2%.<sup>31</sup> Menezes conducted a study on prevalence of anxiety and depression during pregnancy 432 participants were present there, 59.5% scored in the range for state anxiety, while 45.3% possessed a trait of anxiety. So this study described that pregnant women suffered from anxiety and depression.<sup>32</sup>

#### *B. Section II: Literature related to the stressors of the antenatal mothers*

Faramarz, M & Pasha, H. (2015). conducted a cross sectional study to determine the role of social support in prediction of stress during pregnancy among 210 pregnant women aging 18-40 years, who referred to two teaching hospitals of Babol in 2013. The subjects filled out demographic profile checklist, Pregnancy 16 Experience Scale (PES) and Social Support Questionnaire (SSQ) in the first, second and third trimesters of pregnancy. The results demonstrated that social support had a significant positive relationship with pleasant experiences and a significant negative relationship with unpleasant experiences and stress during pregnancy.<sup>33</sup>

A cross-sectional correlative study conducted by Shishehgar S, Dolatian M, (2014) in Iran showed the association between stress count and family income, the present study revealed that women with low family income status were more stressed than others to investigate the association between the socioeconomic status and stress rate during pregnancy on 210 pregnant women supported this study finding and reported that the family income is one of the most significant socioeconomic elements that can affect the count of stress during pregnancy.<sup>34</sup>

Abdollahpour S, Ramezani S, Khosravi a descriptive-analytic study was conducted on 358 women who delivered in the second half of 2014 in Fatemiyeh Hospital in Shahrud, North East of Iran revealed that there were significant positive association between the mother level of satisfaction of support and high level of education and family income.<sup>35</sup>

Wado Y, et al in Journal of clinical and diagnostic research in India conducted a study that the well-being of an infant may be affected when the mother is subjected to psychosocial stress during her pregnancy. Mothers exposed to stressful conditions were more prone for preterm birth than those without any stress.<sup>36</sup>



Gallo LC, et al(2013) conducted a descriptive study which conducted in Mexican as a one of the developed countries by (who examined the associations of family income and general stressful life events, perceived stress, on 318 Mexican American women, they reported that family income was not significantly associated with stress count during pregnancy. This difference might be due to they consider the state of being high family income class, the pregnancy perceived stress and demands immediately rise up to suit their class demands.<sup>37</sup>

Divney A A, et.al.(2012) a comparative study conducted in Canadian on 8,542 pregnant women to explore and compare factors associated with perceived stress and stressful life events in pregnant women. They realized that pregnant women with high socioeconomic status can experience greater stress during pregnancy rather than those with lower socioeconomic status.<sup>38</sup>

Haobijam, J., Sharma, U & David, S. (2010) conducted a study to explore family support and its effect on outcome of pregnancy in terms of maternal health during pregnancy and neonatal health. Purposive sampling method was used to collect the data from 80 postnatal mothers who were admitted in the postnatal unit of Christian Medical College and Hospital, Ludhiana. They were interviewed related to the four areas of support-emotional, informational, social and financial support during pregnancy with the structured questionnaire and observational checklist. The study revealed that the emotional support for the mothers during pregnancy was more as compared to the other areas. There was a significant positive relationship between family support and outcome of pregnancy.<sup>39</sup>

### C. Section III: Literature related to the high risk antenatal mothers

Study by Getahun D et al., 2010 -13 reported that the prevalence of gestational diabetes mellitus largely driven by the increase in 25-35 years age group. Our study population average age was more than 25 years ( $27.75 \pm 3.90$ ) and found risk. Advancing age was found to increase risk for earlier development of GDM. In study also the age of women who diagnosed GDM before 28th The increase in BMI is also a risk factor for gestational diabetes mellitus. The average age was respectively  $28.33 \pm 3.89$  and  $27.28 \pm 3.85$  years ( $P < 0.05$ ).<sup>40</sup>

Ms Seema C (2009) conducted a study conditions that can make pregnancy risky can happen gestational diabetes. Good prenatal care can help detect and treat them. Identifying potential risks of a pregnancy is an important part of preconception care. Some women have increased chances for having a high-risk pregnancy because, of genetic background, existing medical conditions, their lifestyle, or factors that may develop with the pregnancy. e.g., anemia, substance use (cigarettes).<sup>41</sup>

Velusamy Sivakumar (2009) et al. International Journal of Pharma Sciences and Research (IJPSR) A woman with GDM may lead to increased risk for preeclampsia cesarean delivery ,cardiovascular complications, neonatal macrosomia and hypoglycemia. In long term, GDM women are prone (20 – 50%) to develop type ii diabetes mellitus in five years after delivery.<sup>42-43</sup>

A experimental study was conducted by Kumar A et al (2009) on “Calcium supplementation for the prevention of pre eclampsia”, at Moulana Azad Medical College and Lok Nayak Hospital, New Delhi, India, with an objective to study the effect of calcium supplementation during on blood pressure and maternal and neonatal outcomes. A total of 524 healthy primigravida with a blood pressure less than 140/90 mmHg were randomly assigned between 12th weeks to receive 2g of elemental calcium or placebo and were followed up until delivery. The result showed, the incidence of Pre eclampsia was less in calcium than in placebo group<sup>44</sup>

A study was conducted by Bricefio-Perez c, et al(2009) on “Prediction and prevention of Preeclampsia”, at University of Zulia, Maracaibo, Venezuela. According to the study preeclampsia increases maternal and prenatal morbidity and mortality rates. Much research has been done to identify unique screening tests that been done to identify unique screening tests that would predict the risk of developing preeclampsia before the classic symptom appear. To identify and to modify susceptible risk factors might decrease the frequency of preeclampsia. Calcium supplementation and aspirin administration during pregnancy are beneficial in low calcium intake women and in the patients at a very high risk of developing severe early onset disease..Hence by systematic screening and preventive measures PIH can be controlled.<sup>45</sup>

Benzies K et al study conducted and found that sub-fertile women thought 40 and 45 years more acceptable as an age at which to become a first-time mother, than pregnant women did. Another study revealed that, while most women were satisfied with their decisions of postponing childbearing, women of 35 years of age and older would, in retrospect, have started having children earlier in life.<sup>46</sup>

Reeta Lampinen in a Open nursing journal conducted a study and showed , childbearing later in life is a phenomenon which has become increasingly evident in the last three decades . For example, in Finland in 1997, 8.3% of primigravida women were over 35 years old. By 2007, this had increased to 10.4% . The situation is closely comparable with Sweden, where, in 2007, 10% of primigravidas were 35 years of age or older. In 2007, 19.2% of all women giving birth in Finland were over 35 years old, whereas the figure in 1997 was 16.7%.<sup>47</sup>

Myles wolf, conducted a study showed differential risk of hypertensive disorders of pregnancy among gestational hypertension. Demonstrate a significantly incidence of gestational hypertension(1.6% versus 8.5%;  $p<0.01$ ), but a similar incidence of preeclampsia (3.8 versus 3.7%;  $p=0.9$ . Adjusting for age, smoking, diabetes, BP, Body Mass Index, and multiple gestation uncovered an increased Relative risk (RR) for preeclampsia among women (RR1.9 : 95%CI,1.1 to 3.3; $p=0.01$ ).<sup>48</sup>

#### D. Summary

A reviews of literatures were undertaken by the investigator to extend her view in establishing the background of the study and finding the need for the study. All reviewed literature helped the investigator to gain in depth understanding of the problem and designing and conducting the present study.

### III. METHODOLOGY

This chapter describes the details of methodology for the study. The methodology of the research indicates the general pattern for organizing the procedures for gathering valid and reliable data for the study. It includes research approach, research design, variables, sample, sampling technique, selection of sample, sample size, setting of the study, development and description of data collection tools, reliability and validity of the tool, pilot study, data collection procedure, problem faced during data collection and plan for data analysis.

#### A. Research Approach

The present study aimed at identifying the level of stress and stressors among primi and multigravida high risk mothers . In this study, the research approach was ‘Non Experimental’ research approach as it would be appropriate for the purpose.

#### B. Research Design

The research design is a critical link that connects the researcher’s framework with appropriate type of data. Descriptive survey research design was chosen for the present study.

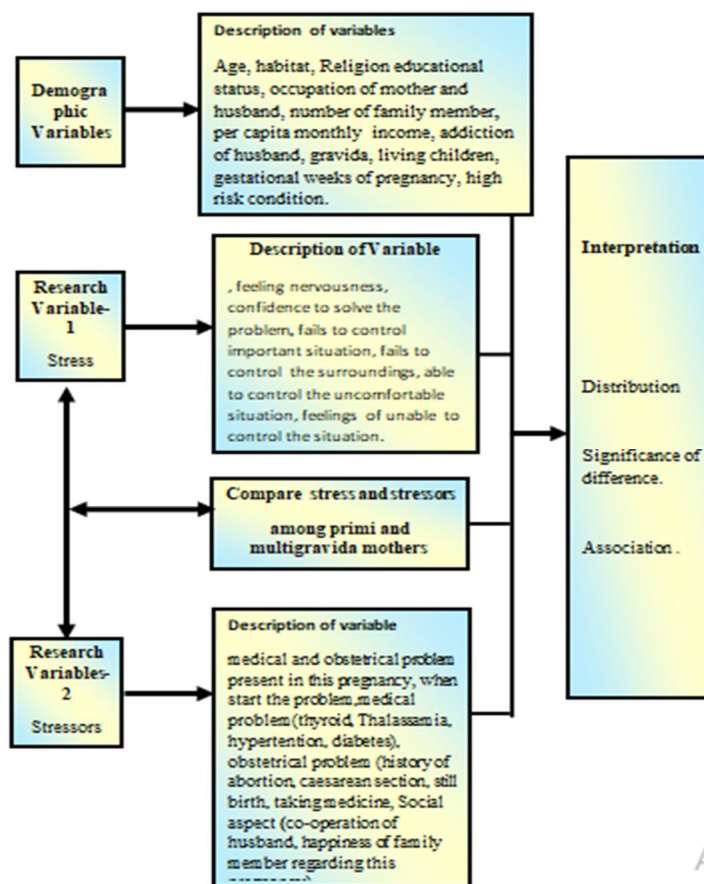


Figure 2 Schematic presentation of study research design

### C. Variables under study

- 1) Demographic variables: Age, habitat, Religion educational status, occupation of mother and husband, number of family member, per capita monthly income, addiction of husband, gravida, living children, gestational weeks of pregnancy, high risk condition
- 2) Research variables
  - Stress
  - Stressors

### D. Settings of the Research Study

Setting is the more specific places, where data collection done. The nature of setting can influence the way people behave or feel and how they respond to question. So, the selection of an appropriate setting is important.

- 1) Pilot Study: The setting for the Pilot study was antenatal OPD of NRS MCH, Kolkata.
- 2) Final study: The setting for the final study was conducted antenatal OPD of Imambara District Hospital Chinsurah, Hooghly.
- 3) Reasons for selecting the setting
  - Familiarity with the setting.
  - Availability of adequate subjects.
  - Administrative approval.
  - Feasibility of conducting research study in terms of time and distance.
  - Expectation of co-operation from all levels.

### E. Population

In this study, the Population was comprised high risk antenatal mothers.

#### 1) Sample

The sample is defined as representative unit of a target population, which is to be worked upon by researchers during their study for observation and analysis.

In this study, Sample was comprised high risk antenatal mothers who were present during the data collection period in OPD in a selected Hospital.

#### 2) Sampling criteria

##### a) Inclusion criteria

- Primi and multigravida high risk antenatal mothers who were attending in antenatal outdoor.
- Who were present at the time of data collection.
- Mothers who were able to communicate in Bengali and English.
- Mothers who were willing to participate in this study.
- Mothers with period of gestational age 32 weeks and onward but before the labour.

##### b) Exclusion criteria

- High risk antenatal mothers who were mentally ill.

#### 3) Sample size

The sample size for the present study was 50 primi and 50 multigravida high risk mothers.

### F. Sampling Technique

Sampling is the process of selecting a representative segment of the population under the study. Non probability purposive sampling technique was chosen for selection of the antenatal mothers.

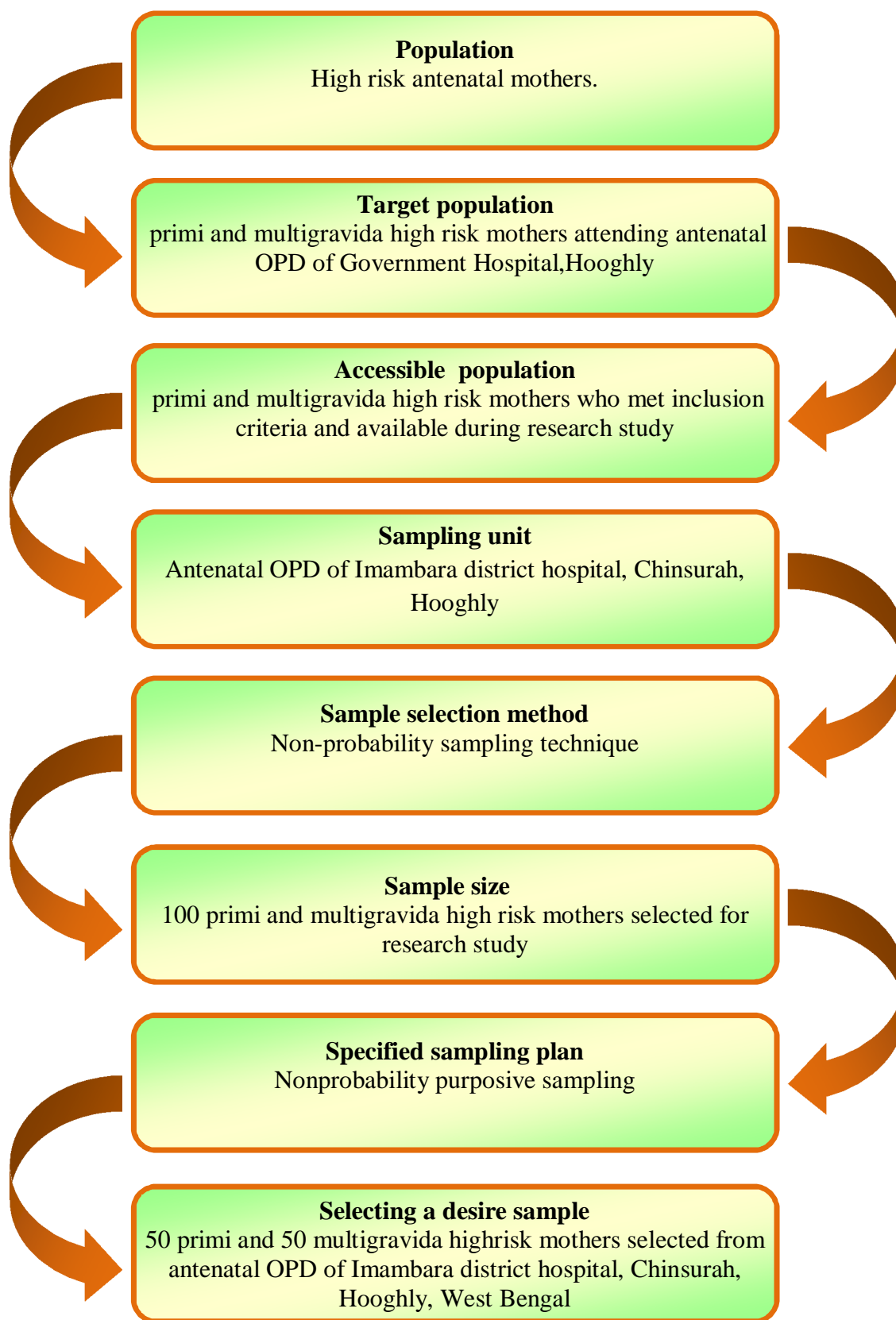


Figure 3 Diagrammatic representation of sampling technique



### G. Data collection tool and techniques

Data collection was the crucial and important aspect of any research for collection of appropriate information to provide necessary data for the study. Based on the objectives of the study the following data collection tool were developed in order to obtain necessary information.

Table 1 Data collection tool and technique

Variables	Tool	Technique
Demographic characteristic and general information	Part-I Semi structured Interview schedule	Interviewing
	Part-II Standardized Perceived stress scale	
Stress	Part-III Semi structured Interview schedule	Interviewing

### H. Development and Description of Tool

A data collection tool is a formal written document used to collect and record information. According to the objectives of the study the following data collection tool was developed in order to obtain necessary information.

The tool comprised of three parts

- 1) Part I Semi structured interview schedule on demographic characteristics and general information of primi and multigravida high risk mothers.
- 2) Part- II Standardized perceived stress scale to identify the stress of primi and multi gravida high risk mothers.
- 3) Part- III Semi structured interview schedule to identify the stressors of primi and multi gravida high risk mothers.

### I. Description of the tool

- 1) *Part I Semi structured interview schedule on demographic characteristics and general information of primi and multi gravida high risk mothers.*

The tool consisted of 16 items to collect demographic & general information of primi and multigravida high risk mothers, i.e. age, habitat, religion educational status, occupation of mother and husband, per capita monthly income (Revised Modified BG Prasad socioeconomic classification scale,2016 was used to classify the families on the basis of their total family income divided by total family members), addiction of husband, gravida, gestational weeks of pregnancy, number of live births, gender of living children, known the high risk condition, co-operation of husband, happiness of family member regarding this pregnancy.

- 2) *Part II Standardized perceived stress scale to identify the stress of primi and multi gravida high risk mothers.*

The tool perceived stress scale (Sheldon Cohen) is a simple, quick. and reliable instrument, which facilitates rapid and accurate identification the level of stress. The questions in the PSS (perceived stress scale) ask about feeling and thoughts during the last month. In each case, respondents were asked how often they felt a certain way. Each item was rated on a 5-point scale ranging from never (0) to almost always (4).Positively worded items were reverse scored, and the ratings were summed, with higher scores indicating more perceived stress. The scale consist of 10 items, perceived stress scale scores were obtained by reversing the scores on the four positive items, (0=4,1=3, 2=2,3=1,4=0 ) and then summing across all 10 items. Items, 4, 5, 7 and 8 were the positively stated items. Score provided as never=0, almost never=1, sometimes=2, fairly often=3, very often=4. Perceived stress scale contained instruction to the respondents.

- 3) *Part III Semi structured interview schedule to identify the stressors of primi and multigravida high risk mothers*

Semi structured interview schedule was developed to identify the stressors of the primi and multigravida high risk mothers. The semi structured interview schedule was consists of total 11 items. Each item related to stressors of primi and multigravida high risk mothers.

### *J. Major Steps of the tool Development*

Preparation of tool would be accurate if the major steps would be followed one after another.

- 1) Step I Planning phase of development of the tool.
- 2) Step II Consultation with guide and co guide.
- 3) Step III 1<sup>st</sup> draft of interview schedule was developed.
- 4) Step IV Semi structure interview schedule validity was established and modification was made as per suggestion.
- 5) Step V
  - Preparation of the 2<sup>nd</sup> draft of the tool.
  - Translation of tool.
- 6) Step VI Pretesting of the tool.
- 7) Step VII Establishment of reliability.
- 8) Step VIII Final draft of interview schedule were made.

### *K. Planning phase of development of tool*

In planning for above mentioned tool, the objectives were outlined for each tool based on review of research and non-research literature and investigator's own experience.

### *L. Consultation with guide and co guide*

Consultation with guide and co guide was done to collect their valuable opinion and suggestion for preparation of tool and content.

### *M. Development of the first draft*

- 1) Part I It was composed of 16 items to collect information on demographic characteristic and general information of primi and multigravida high risk mothers.
- 2) Part II Standardized perceived stress scale to identify the stress of primi and multigravida high risk mothers.
- 3) Part III Semi structured interview schedule to identify the stressors of primi and multigravida high risk mothers.

### *N. Development of the criteria checklist*

Criteria checklist for the validation of the tool was developed. The criteria checklist had agree, partially agree and disagree column. It also had remarks column for necessary suggestions. It was submitted to nine validators along with the Interview schedule for the relevance, accuracy and appropriateness of the tool.

### *O. Validity of the tool*

The prepared tool and criteria checklist was given to nine experts for establishing the validity of the tool. The experts were asked to consider regarding addition, omission, suggestion to improve clarity of items. The experts were selected on the basis of related field of specialist and experience from the field of obstetrical and Gynecological nursing and psychiatric. The experts were requested to give their opinion and suggestions regarding the appropriateness, accuracy and relevancy of the items. Suggestions of the experts were incorporated and tools were modified accordingly.

- 1) Part I: In demographic data, 15 items were 100% agreement, 1 item was 88.9% agreement.
- 2) Part II: The scale was a standardized tool, so no modification was made for the part.
- 3) Part III: Semi structured interview schedule to identify stressors was submitted to nine experts for their opinions and suggestions. Two of them were in the field of mental health services and four from the field of obstetrical and Gynecological nursing, and three experts were from medical officer of obstetrical and Gynecological department. A criteria checklist for validating the tool was made, which included relevance, accuracy and appropriateness of the tool, which was evaluated by the experts.

### *P. Preparation of second draft of interview schedule*

Second draft was prepared after alteration, addition, and omission of suggestion from expert and necessary modification done as per suggestion.

### 1) Translation of the Tool

The tool was prepared in English then converted in to Bengali language. Language validity is established by an expert in Bengali language ( Rupam Roy, Assistant Teacher, Akna Union High School, Sonatikri, Akna, Hooghly) and an expert in English language (Sujit kumar Bandyopadhyay, Assistant Teacher, Akna Union High School, Sonatikri, Akna, Hooghly).

### 2) Pretesting of the Tool

Pretesting of the tool was done to check clarity of the items, feasibility, practicability and ambiguity of the language.

Pretesting of the tool was conducted on 02/09/16 among 20 high risk antenatal mothers attending in antenatal outdoor of N.R.S. MCH Kolkata after taking necessary permission.

- Participant took 10-15 minutes time.
- It was understandable to them.
- They provide free and frank response.
- No problem occurred.
- It is feasible also.

### 3) Reliability of the Tool

The standardized perceived stress scale and semi structured stressors interview schedule were administered on 10 primi and 10 multigravida high risk mothers attended antenatal OPD N.R.S. MCH. One week after the first administration was taken to establish reliability. Reliability was computed by test-retest, where  $r = 0.98$  for perceived stress scale and  $r = 0.98$  for stressors interview schedule, so the tool had highly acceptable level of reliability.

### Q. Development of final draft

The final tool was prepared after incorporation of suggestion from the experts and language changes were made.

### R. Ethical consideration

#### 1) Institutional Ethics committee

- Permission was taken from the Institutional Ethics Committee, of N.R.S Medical College and Hospital.
- Principal, Govt. College of Nursing, N.R.S. M C & H

#### 2) Administrative permission

- Directorate of Health Services of West Bengal.
- Joint Directorate of Health Services (Nursing) of West Bengal.
- Director of Medical Education of West Bengal.
- Medical Superintendent cum Vice Principal of N.R.S. M C & H.
- Medical Superintendent Imambara District hospital, Chinsurah, Hooghly

#### 3) Informed Consent

- Informed consent was taken from respondents.
- Privacy and confidentiality had been maintained through out the study.

### S. Pilot study

Pilot study was conducted from 11.9.17 to 16.9.17 at antenatal OPD N.R.S. Medical College and Hospital, Kolkata, Formal administrative permission had been taken from the Principal, Medical superintendent cum vice Principal, Nursing superintendent of N.R.S. Medical College and Hospital, Sample size was 20. 20 subjects were selected by non probability purposive sampling method. Self introduction was given & purpose of the study was explained and confidentiality was assured. Informed consent was taken from each participant The interview schedule and perceived stress scale were administered to the subjects and data was collected. The purpose of the pilot study was assessing the effectiveness of the tools, feasibility and practicability of conducting the study and to decide the plan of statistical analysis.

Collected data was tabulated, analyzed and statistically calculated with the help of descriptive and inferential statistics level of significance. The findings of the pilot study revealed that tool was effective. After gaining the experience, it was decided to proceed for the main study.

#### T. Final data collection procedure

The venues for collection of final data had been done at Imambara District Hospital Chinsurah Hooghly after obtaining permission from the research guide, co-guide, and higher authorities of the institution. The data was collected according to the availability of the subjects during the time schedule of three weeks.

#### U. Procedure for data collection

- 1) Final data collection was performed from 16/10/2017 to 11/11/2017 Imambara District Hospital Chinsurah Hooghly.
- 2) Entire data were collected by the investigator herself.
- 3) The investigator met the Medical Superintendent of Imambara District Hospital Chinsurah and introduced her and explained the purpose of the study
- 4) Self introduction was given to the subject
- 5) Established rapport with the subject and explained the purpose of the study to them.
- 6) Address terms of confidentiality.
- 7) Non probability purposive sampling technique was adopted.
- 8) Sample size was 100.
- 9) Informed and written consent was taken from the respondents
- 10) To ensure privacy and anonymity, code numbers were used on interview schedule instead of respondent's names.
- 11) Interviewing was taken to fill up semi-structured interviewed scheduled to collect background and general information of primi and multigravida high risk mothers, standardized perceived stress scale, semi structured interviewed scheduled to identify stressors.
- 12) Total time taken for each sample was approximately 20 minutes.
- 13) Termination of data collection procedure was done by thanking each subject for their kind participation and co-operation.
- 14) Data were collected, compiled and statistically analysed on selected parameters based on objectives of the study. At the end of the session thanks was given to the participants.

#### V. Problem faced during period of data collection

No such problem faced during period of data collection.

Plan for analysis of data

- 1) The investigator used descriptive inferential statistical techniques for data analysis.
- 2) The analyzed data would be presented in the form of Tables, diagrams, based on finding.

The following plan has been adopted

- To describe demographic variables and stress score, stressors, frequency percentage would be computed .
- The level of significance was set at 0.05 level of significance
- The test of significant of stressors among primi and multigravida high risk mothers would be analyzed by chi square test.
- The significant different of level of stress score among primi and multigravida high risk mothers were analyzed by ' t ' test
- Association of stress score with their selected variables were analyzed by chi square test.

#### W. Summary

This chapter dealt with the methodology of the study. The main features included under the methodology were research approach and design, variables, the research settings, population, sample, sample size and sampling technique. This chapter also includes the selection and development of the study instruments, its validity and reliability. Finally, the report of pilot study, the data collection process and plan for data analysis were included.

### IV. ANALYSIS AND INTERPRETATION OF DATA

This chapter deal with the analysis and interpretation of the data collected during the study to identify the stress and stressors among primi and multigravida high risk mothers. In the present study, analysis and interpretation of the data based on data collection through standardized perceived stress scale and semi structured interviewed schedule. Both descriptive and inferential statistics had been used to analyze the data. Results of analysis of obtained data were organized into statistical method, so that the result could be visualized in a scientific way.



### A. Organization and Presentation of Data

The obtained data were scrutinized, categorized, organized, and presented according to the objectives of the study with the opinion of the experts.

### B. Objectives of the Study Were

- 1) To assess stress among primi and multigravida high risk mothers attending the selected hospitals.
- 2) To assess stressors among primi and multigravida high risk mothers attending the selected hospitals .
- 3) To compare stress and stressors among primi and multigravida high risk mothers attending the selected Hospitals.
- 4) To find out the association between stress and stressors, and with selected demographic variables.

### C. Organization of Data Analysis and Interpretation of Data

The obtained data were organized and presented under the following sections:

- Section I: Findings related to Demographic characteristic and general information of primi and multigravida high risk mothers.
- Section II: Findings related to identify the level of stress among primi and multigravida high risk mothers.
- Section III: Findings related to identify stressors among primi and multigravida high risk mothers.
- Section IV: Findings related to find out the significant different of level of stress among primi and multigravida high risk mothers.
- Section V: Findings related to association of stressors among primi and multigravida high risk mothers.
- Section VI: Findings related to association between the level of stress and stressors among primi and multigravida high risk mothers.
- Section VII: Findings related to association between the level of stress with. selected variables.

#### 1) Section I: Findings related to Demographic characteristic and general information of primi and multigravida high risk mothers.

This section deals with the back ground information of subjects. These are age, habitat, occupation of mother, occupation of husband, number of family member. religion, educational status, per capita monthly income, addiction of husband, gravida of multigravida mothers.

Table 2 Frequency and percentage distribution of sample related to age, habitat, occupation of mother, occupation of husband, number of family member.

$n_1+n_2 = 50+50$					
Variable	Participant characteristic	Primi mother		Multigravida mother	
		Frequency	Percentage	Frequency	Percentage
Age	18 - 29	45	90	38	76
	30 - 41	05	10	12	24
Habitat	Urban	38	76	41	82
	Rural	12	24	09	18
Occupation of mother	Working	04	08	10	20
	Home maker	46	92	40	80
Occupation of Husband	Labour	28	56	20	40
	Service	06	12	06	12
	Business	16	32	24	48
Number of family member	2- 6	42	84	39	78
	>6	08	16	11	22

$n_1$ = primi mother ,  $n_2$ = multigravida mother

The data presented in Table 2 .indicates that majority 45(90%) of primi high risk mothers belonged to the age group between 18-29 years. Majority 41(82%) habitat of multigravida mothers in urban . 28 (56%) husband of primi mother were labour. Majority 42 (84%) primi mothers belonged to the family having 2- 6 members.

$$n_1+n_2 = 50+50$$

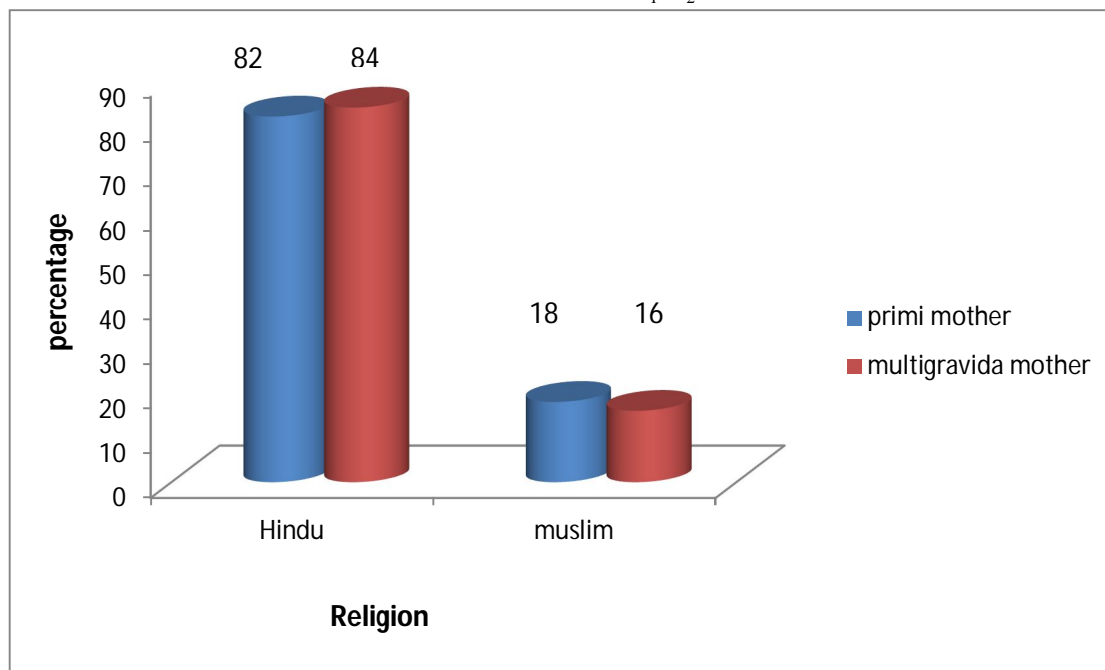


Figure 4 Bar diagram showing percentage distribution religion of primi and multigravida high risk mothers.

Data represented in Fig 4 indicates that majority 42 (84%) of multigravida mothers were Hindu, whereas 41 (82%) primi mothers were Hindu.

$$n_1+n_2 = 50+50$$

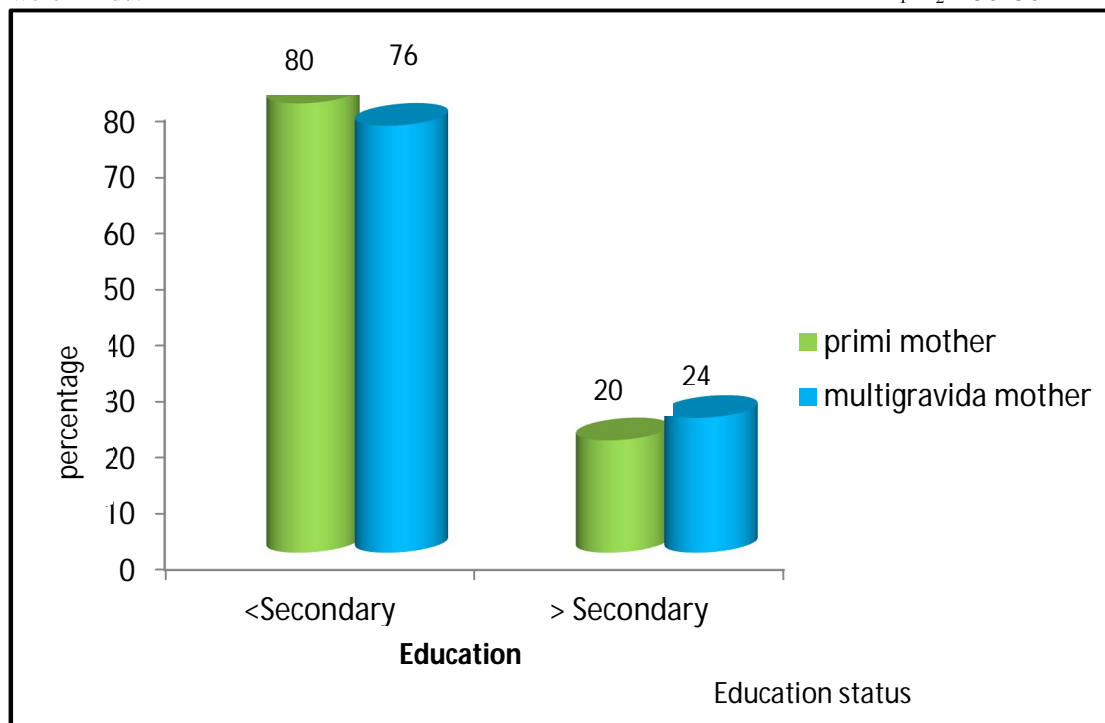


Figure 5 Bar diagram showing percentage distribution according to their education status of primi and multigravida high risk mothers.

Data presented in Figure 5 shows that majority 40 (80%) primi high risk mothers and 38(76%) multigravida high risk mothers were below secondary level of education.

$$n_1+n_2 = 50+50$$

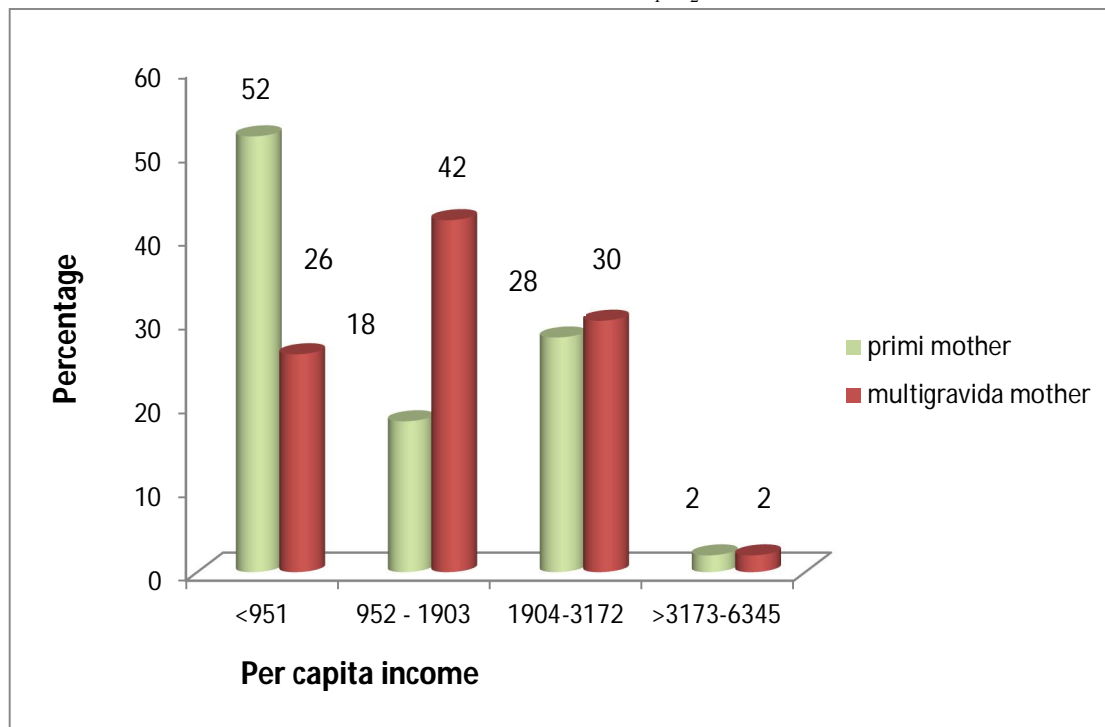


Figure 6 Bar diagram showing percentage distribution according to their per capita monthly income of primi and multigravida high risk mothers

Data presented in Figure 6 represents that maximum primi mothers 26(52%) belonged to per capita monthly income <951 and majority multigravida mothers 21(42%) belonged to per capita monthly income between 952- 1903.

$$n_1+n_2 = 50+50$$

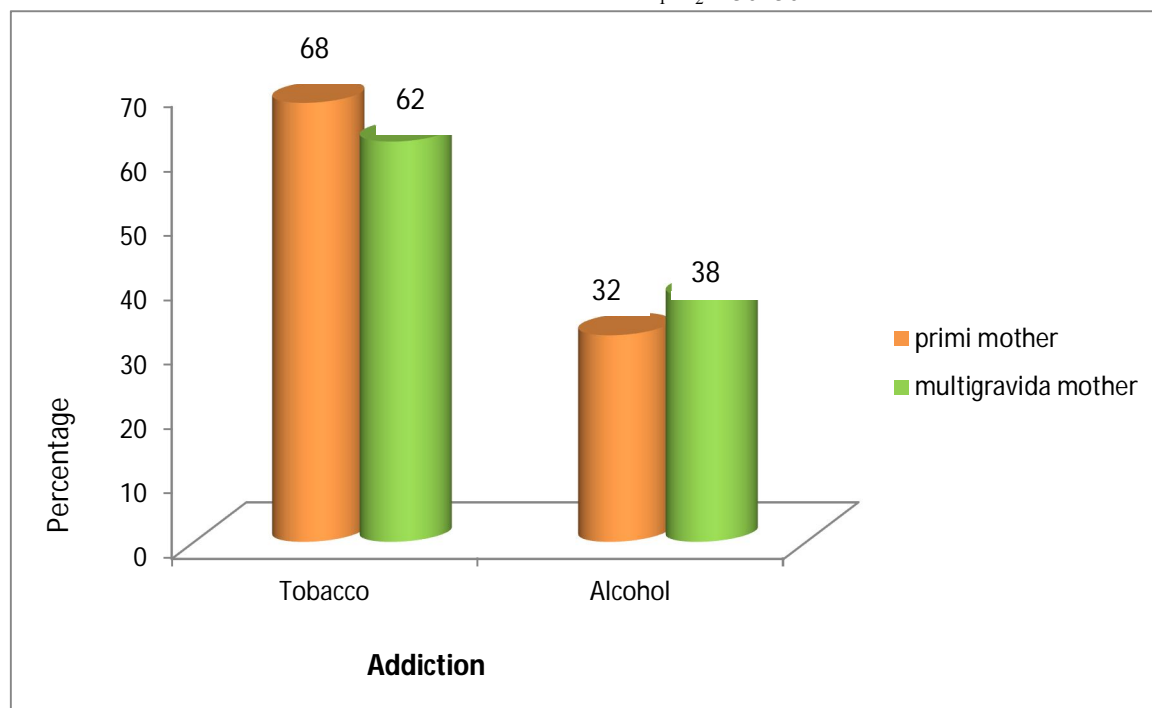


Figure 7 Bar diagram showing percentage distribution of antenatal mother's husband according to their addiction.

Data presented in Figure 7 shows that 34(68%) husband of primi mothers and 31 (62%) husband of multigravida mothers were addicted by tobacco. 19(38%) husband of multigravida mothers were addicted by Alcohol.

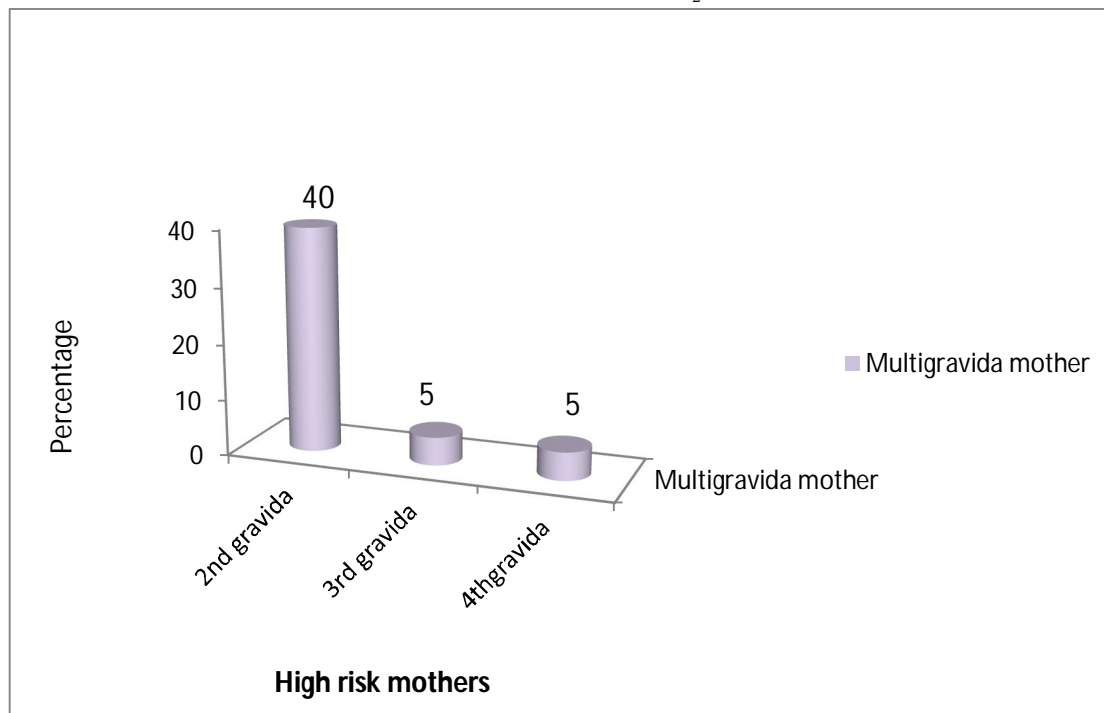
 $n_2 = 50$ 


Figure 8 Bar diagram showing percentage distribution of multigravida high risk mothers according to their gravida. Data presented in Figure 8 indicates that majority 20(40%) of multigravida mothers were 2<sup>nd</sup> gravida.

Table 3 Frequency and percentage distribution of sample related to Duration of marriage. Living children, Gender of living children High risk condition Known by mother, high risk condition of primi and multigravida high risk mothers.,.

 $n_1+n_2 = 50+50$ 

Variables	Primi mother		Multigravida mother	
	Frequency	Percentage	Frequency	percentage
Duration of marriage				
1 – 7	48	96	34	68
8 - 14	02	04	16	32
Present of Living children	--	--	37	74
Gender of living children.	--	--		
Male			17	34
Female			20	40
High risk condition Known by mother	30	60	40	80
High risk condition				
Abortion	--	--	06	12
Still birth	--	--	01	02
Post C.S	--	--	21	42
Thyroid	07	14	11	22
Thalassamia	02	04	03	06
Hypertension	03	06	07	14
Anemia	04	08	17	34
Diabetes	06	12	12	24



Data presented in table 3 indicates that the duration of marriage of primi mothers were 48(96%) from 1- 7 yrs whereas 34(68 %) of the multi gravida mothers were 8- 14 yrs. The data also depicted that majority 37(74%) of multigravida mothers had living children. Among them, 20(40%) living children were female. Majority of multi mothers 40(80%) and 30(60%) primi mothers known the high risk condition. That majority 11(22%) primi mothers and 7 (14%) multigravida mothers were suffering from Thyroid .17 (34%) multigravida mother were suffering from anaemia.

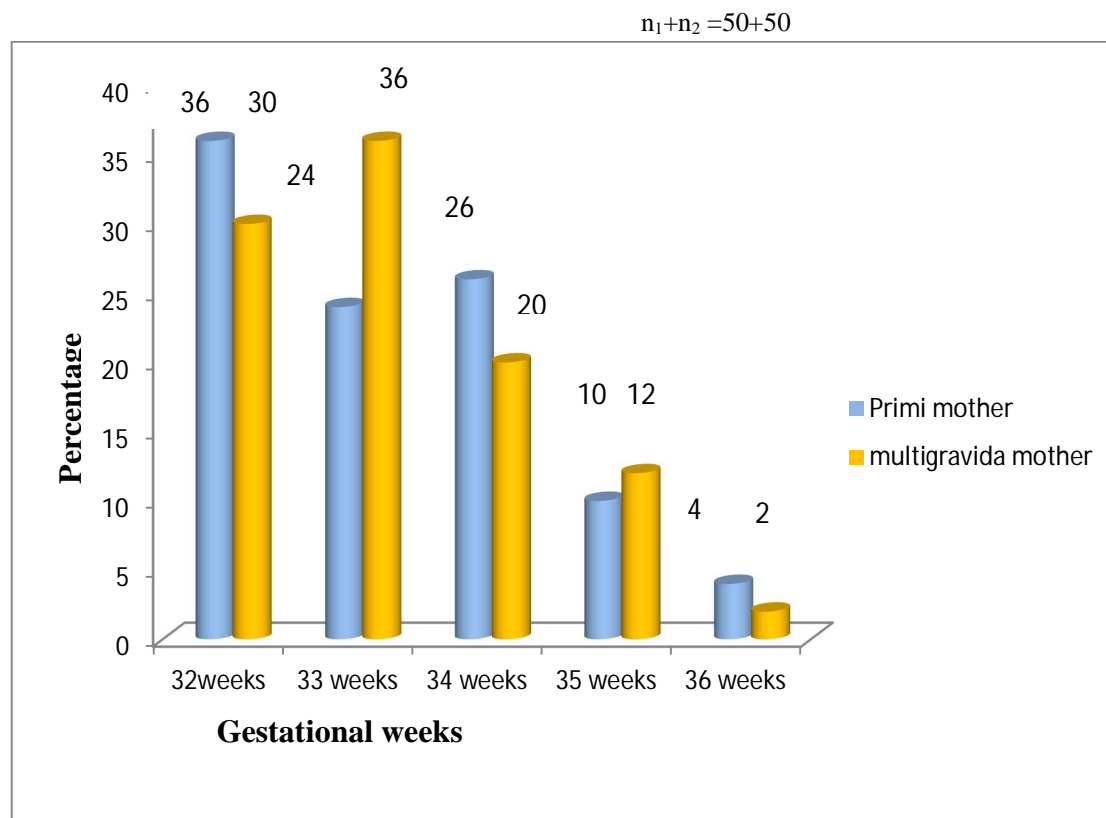


Figure 9 Bar diagram showing percentage distribution of primi and multigravida high risk mothers according to their gestational weeks.

Data presented in Figure 9 represents that majority 18(36%) primimothers and 15(30%) multigravida mothers Gestational weeks of pregnancy were 32 weeks and maximum 18 (36%) multigravida a mothers Gestational weeks of pregnancy were 33 weeks.

## 2) Section II : Findings related to identify the level of stress among primi and multigravida high risk mothers.

Table 4 Frequency and percentage distribution according to the level of stress score.

$n_1+n_2=50+50$

S.no	Perceived stress of mothers	Score range	Primi mother		Multigravida mother	
			Frequency	Percentage	Frequency	Percentage
1	Mild stress	< 13	31	62	14	28
2.	Moderate stress	13-20	17	34	24	48
3.	Severe stress	> 20	02	04	12	24

NB maximum score = 40, Minimum score = 0

Data presented in table 4 showed that the maximum 31( 62%) of primi high risk mothers had mild stress and majority 24 (48%) multigravida mothers had moderate stress and 12 (24 %) multigravida mothers had severe stress. So multigravida high risk mothers suffered greater stress than the primi high risk mothers.

### 3) Section III: Findings related to identify stressors among primi and multigravida high risk mothers.

Table 5 Frequency and percentage distribution of stressors of primi and multigravida high risk mothers.

n <sub>1</sub> +n <sub>2</sub> =50+50					
Sl. no	Stressors	Primi mother		Multigravida mother	
		Frequency	percentage	Frequency	Percentage
1.	Medical and obstetrical problem faced by mothers,	50	100	22	44
2.	Medical problem:				
	Thyroid	11	22	07	14
	Thalassamia	03	06	02	04
	Hypertension	07	14	03	06
	Anemia	17	34	04	08
	Diabetes	12	24	06	12
3	When problem start	15	30	16	32
	1 <sup>st</sup> trimester	35	70	03	06
	2 <sup>nd</sup> trimester	-	--	03	06
	3 <sup>rd</sup> trimester				
4	Problem persisting now	50	100	22	44
5	Obstetrical problem	--	--	28	56
	previously Abortion occurs	--	--	06	12
	Any history of Still birth	--	--	01	02
	History of caesarean section.	--	--	21	42
	History of taking any medicine	50	100	22	44
6.	Social aspect :	41	82	40	80
	Co-operation of husband				
	Happiness of family member regarding this pregnancy	44	88	43	86

Cont.

The data presented in table 5 indicates that all 50 (100%) medical problems faced by primimothers.11(22%) primi mothers were suffering from Thyroid whereas multigravida mothers were 7(14%). Most of the primi mothers 35(70%) suffered problem from 2<sup>nd</sup> trimester whereas 3(6%) multigravida mothers suffered from 2<sup>nd</sup> trimester. Majority of multigravida mothers 16(32%) suffered problem from 1st trimester. 50(100%) medical problem were persist now in primi mothers.28(56%) obstetrical problem faced by multigravida mothers.6(12%) abortion(more than one) occurs previously of multigravida mothers .21(42%) multigravida mothers had history of caesarean section.50 (100%) primi mothers took any history of taking medicine. Majority 41 (82%) husband of primi mothers were co- operate with his wife .and 40(80%) husband of multigravida mothers were co- operate with his wife. Maximum 44 (88%) family members of primi mothers were happy regarding this pregnancy and 7(14%) family member of multigravida mothers were unsatisfied regarding this pregnancy.

So medical problem e.g Thiroid, Thalassamia, Hypertension, Anemia, Diabetes and obstetrical problem e.g history of abortion, still birth, caesarean section , social aspect e.g non co- operation of husband, unsatisfied of family members regarding this pregnancy.- all were the stressors of primi and multigravida high risk mothers.

### 4) Section IV: Findings related to find out the significant different of level of stress among primi and multigravida high risk mothers.

This section has dealt with stress scores of primi and multigravida high risk antenatal mothers.

Table 6 Mean, median, mean difference, SD and 't' test to find out the difference of stress level among primi and multigravida high risk mothers.

H<sub>0</sub> There is no significant difference stress level among primi and multigravida high risk mothers. at 0.05 level of significance

H<sub>1</sub> There is significant difference stress level among primi and multigravida high risk mothers at 0.05 level of significance.

.. n<sub>1</sub>+n<sub>2</sub>=50+50

Group	Perceived stress Score range	Mean	Mean difference	SD	t value
Primi mother	0 - 40	10.7	5.66	5.14	5.53*
Multigravida high risk mothers		16.36		5.09	

't' df (98)= 1.98 \* p< 0.05

Data presented in table 6 shows that there was mean difference (5.66) between stress score among primi and multigravida high risk mothers. The computed 't' value (5.53) was found greater than the table value (1.98) at 98 df at 0.05 level of significance. So, there was statistically significant difference between stress score among primi and multigravida high risk mothers.

So multigravida high risk mothers suffered more stress than the primi high risk mothers.

#### 5) Section V: Findings related to association of stressors among primi and multigravida high risk mothers.

This section describes to stressors like thyroid, anemia, diabetes, abortion ,post caesarean section, preterm delivery, Still birth, non co-operation of husband, unsatisfied of family members regarding this pregnancy.

Table 7: Association with the stressors of primi and multigravida high risk mothers.

n<sub>1</sub>+n<sub>2</sub> = 50+50

Stressors	Primi mother Frequency	Multigravida mother Frequency	$\chi^2$ value	P. value	df.	Significance
Thyroid,	11	07	1.08	.297802	1	NS
Thalassamia	03	02	0.21	.6464	1	NS
Anaemia	17	04	8.68*	.00032	1	S
Hypertension	07	03	1	.0373	1	NS
Diabetes	12	6	0.09	.766199	1	NS
Co-operation of husband	41	40	0.07	.798795	1	NS
Happiness of family member	44	43	0.09	.766199	1	NS

$\chi^2$  value at df (1)=3.84, NS= not significant (p > 0.05), \* = S (Significant) p < 0.05

Data presented in table 7 represents that there was significant association medical disorder (anaemia) as stressors of primi and multigravida mothers at the level of 0.05 level of significant and no association with medical disorder like Thyroid, Thalassamia, hypertension, diabetes. No association with co-operation of husband , happiness of family member regarding this pregnancy, among primi and multigravida mothers. .

H<sub>1</sub> medical disorder is dependant of gravida at 0.05 level of significance .

So it could be interpreted that medical disorders is dependent of gravida at 0.05 level of significance.

6) Section VI: Findings related to association between the level of stress and stressors among primi and multigravida high risk mothers.

Table 8 Association between the level of stress score among primi and multigravida mothers (< median and  $\geq$  median. Median of stress score of primi mothers was 9. Median of multigravida mothers stress score was 15) with stressors.

n <sub>1</sub> +n <sub>2</sub> =50+50					
Stressors	Group	$\chi^2$ value	P. value	df.	Significance
Thyroid	primi	7.42*	0.0064	1	S
	multigravida	5.48*	019208	1	S
Thalassamia	primi	20.29*	0.0001	1	S
	multigravida	12.74*	0.0004	1	S
Hypertension	primi	13.51*	0.0124	1	S
	multigravida	10.53*	0.0012	1	S
Anaemia	primi	2.026	0.1547	1	NS
	multigravida	8.68*	0.0032	1	S
Diabetes	primi	6.25*	0.0124	1	S
	multigravida	5.65*	0.01754	1	S
When problem start	primi	3.40	.065007	1	NS
	multigravida	5.00*	.025317	1	S
1 <sup>st</sup> trimester	primi	0.05	.831585	1	NS
	multigravida	15.43*	.000086	1	S
2 <sup>nd</sup> trimester	primi	NA	NA	NA	NA
	multigravida	6.83*	.008952	1	S
Abortion occurs (more than one)	primi	NA	NA	NA	NA
	multigravida	0.67	.409891	1	NS
History of caesarean section	primi	12.72*	.000365	1	S
	multigravida	21.58*	.000003	1	S
Co-operation of husband	primi	18.38*	.000018	1	S
	multigravida	28.17*	.000018	1	S
Happiness of family member regarding this pregnancy	primi				
	multigravida				

$\chi^2$  value at df (1) =3.84, NS= not significant (p > 0.05), \* = S (Significant) p < 0.05

The data presented in table 8 revealed that there were significant association between level of stress and stressors like medical problem (Thyroid, Thalassamia, Hypertension Diabetes) and social aspect (co-operation of husband, happiness of family member regarding this pregnancy) of primi mothers and there were significant association with medical disorder (Thyroid, Thalassamia, Hypertension, Anemia, Diabetes), problem start in 1<sup>st</sup> trimester, problem start in 2<sup>nd</sup> trimester, obstetrical problem (abortion more than one occurs previously) and social aspect (co-operation of husband, Happiness of family member regarding this pregnancy)of multigravida mothers. There were no significant association like medical problem (Anemia), problem start in 1<sup>st</sup> trimester, 2<sup>nd</sup> trimester of primi mother and history of previously caesarean section of multigravida mothers.

The following hypothesis are formulated

H<sub>1</sub> There is significant association between stress and stressors of primi and multigravida high risk mothers at the 0.05 level of significant.

So it could be interpreted that there was association between stress and stressors of primi and multigravida mothers at the level of 0.05 level of significant.



## 7) Section VII: Findings related to association between the level of stress and selected variables among primi and multigravida high risk mothers.

Table 9 Association between the level of stress of primi and multigravida high risk mothers (< median and ≥ median. Median of stress score was 14) with selected demographic variables.

Demographic Variables	$\chi^2$ value	n = 100		
		P. value	df.	Significance
Age	18.01*	.000022	1	S
Habitat	14.03*	.00018	1	S
Religion	19.49*	.00001	1	S
Educational status	12.83*	.00034	1	S
Per capita monthly income	4.12*	.042395	1	S
Gestational weeks of Pregnancy	24.38*	.000001	1	S
Gravida	21.58	.000003	1	.S

N

n = primi and multigravida mother.

$\chi^2$  value at df (1) = 3.84, NS= not significant ( $p > 0.05$ ) \* = S (Significant)  $p < 0.05$

Data presented in table 9 showed that there was significant association between level of stress and selected variables like age, habitat, religion, educational status and per capita monthly income, gestational weeks of pregnancy, and gravida df (1) at 0.05 level of significance. In the table calculated chi-square values were more than the table value 3.84 &  $p < 0.05$ .

So it could be interpreted that there were statistically significant association between. level of stress and selected demographic variables.

## 8) Summary

This chapter dealt with analysis and interpretation of data collected from 100 primi and multigravida high risk mothers from Imambara District Hospital Hooghly West. Bengal. Frequency were used to analysis background and general information, level of stress and stressors. Mean, mean difference, standard deviation and 't' value computed to describe level of stress among primi and multigravida mother. Finally showed that multigravida mother that multigravida mothers suffer more stress than primi mothers. The result of the statistical test shown that some factors were significant association between level of stress and stressors like medical problem (Thyroid, Thalassamia, Hypertension, Diabetes) and social aspect (co-operation of husband, happiness of family member regarding this pregnancy) of primi mothers and there were significant association medical disorder (Thyroid, Thalassamia, Hypertension, Anemia, Diabetes), problem start in 1<sup>st</sup> trimester, problem start in 2<sup>nd</sup> trimester, obstetrical problem (abortion more than one occurs previously) and social aspect (co-operation of husband, Happiness of family member regarding this pregnancy) of multigravida mothers. There were no significant association like medical problem (Anemia), problem start in 1<sup>st</sup> trimester, 2<sup>nd</sup> trimester of primi mother and history of previously caesarean section of multigravida mothers.

## V. DISCUSSION

This chapter deals with the major findings of the study, discussion in relation with the findings of the other studies, conclusion, implication of the study to nursing services, nursing education, nursing administration, and nursing research. The limitations and the recommendations for further research studies were put forth for further consideration.

### A. Major Findings of the Study

#### 1) Findings related to demographic characteristic and general information of primi and multigravida high risk mothers

- Out of 100, 44 (88%) of primi mothers belonged in the 18- 29 age group and 38 (76%) multigravida mothers belonged in the 18 – 29 age group.
- Majority of the multigravida mothers 41(82%) were from urban community.
- Maximum number 42 (84%) multigravida mothers belonged to Hindu religion whereas primi mothers were 41(82%).

- Maximum of the primi mothers 40 (80%) had below secondary level of education and only 12(24%) multigravida mother had above secondary level of education.
- Most of the primi mothers 46 (92%) were homemaker and majority 10 (20%) multigravida mothers were working mothers.
- Majority number 24(48%) husband of multigravida mothers were engaged business and 28 (56%) husband of primi mothers were labour.
- Maximum number of family members of primi mothers 42 (84%) were 2- 6 members.
- Among the antenatal mothers, 26 (52%) primi mothers were having per capita monthly income Rs <951.
- 34(68%) husband of primi mothers were addicted by tobacco and 19(38%) husband of multigravida mothers were addicted by alcohol.
- Majority 18 (36%) primimothers gestational weeks of pregnancy were 32 weeks whereas 15(30%) were multigravida mothers.
- Most of 40(80%) multigravida mothers were 2nd gravida mothers.
- Majority 37(74%) multigravida had the living children.
- Most of them 40 (80%) living children were female.
- Among the high risk antenatal mothers, majority of multi mothers 40(80%) were known the high risk condition.
- 30 (60%) primi mothers were known the high risk condition.

2) *Findings related to identify the level of stress among primi and multigravida high risk mothers.*

- Among the primi high risk mothers 31(62%) were having mild level of stress.
- Majority 24(48%) multigravida mothers were having moderate level of stress.
- 12 (24%) multigravida mothers suffered from severe level of stress.

3) *Findings related to identify stressors among primi and multigravida high risk mothers.*

50 (100%) primi mothers faced medical problems. 11(22%) primi mothers were suffering from Thyroid whereas multigravida mothers were 7(14%). Most of the primi mothers 35(70%) suffered problem from 2<sup>nd</sup> trimester whereas 3(6%) multigravida mothers suffered from 2<sup>nd</sup> trimester. Majority of multigravida mothers 16(32%) suffered problem from 1st trimester. 50(100%) medical problem were persist in primi mothers 28(56%) obstetrical problem faced by multigravida mothers 6(12%) abortion(more than once) occurs previously of multigravida mothers. 21(42%) multigravida mothers had history of caesarean section. 50 (100%) primi mothers took any medicine. Majority 41 (82%) husband of primi mothers were co- operate with his wife and 10(20%) husband of multigravida mothers were non co- operate with his wife. Maximum 44 (88%) family members of primi mothers were happy regarding this pregnancy and 7(14%) family member of multigravida mothers were unsatisfied regarding this pregnancy. So medical problem e.g. Thiroid, Thalassamia, Hypertension, Anemia, Diabetes and obstetrical problem e.g history of abortion, still birth, caesarean section , social aspect e.g non co- operation of husband, unsatisfied of family member regarding this pregnancy.- all are the stressors of primi and multigravida high risk mothers.

4) *Findings related to find out the significant difference of level of stress score among primi and multigravida high risk mothers.*

Mean difference (5.66) between stress score among primi and multigravida high risk mothers. The computed.t value (5.53) was found greater than the table value (1.98) at 98 df at 0.05 level of significance. So there was statistically significant difference between stress score and stress level among primi and multigravida high risk mothers. So it could be interpreted that multigravida high risk mothers were having more stress than the primi high risk mothers Multigravida mothers faced 22(44%) medical problem and 28 (56%) obstetrical problem. Medical problem were Thyroid, Thalassamia, Hypertension, Anemia, Diabetes and obstetrical problems were like abortion (more than one), caesarean section, still birth. 6(12%) abortion (more than one) occurs previously of multigravida mothers. 21(42%) multigravida mothers had history of caesarean section so they were having more stress regarding their outcome.

5) *Findings related to find out test of significant of stressors among primi and multi gravida high risk mothers.*

Significant associated medical disorder (anaemia) as stressors of primi and multi gravida mothers at the level of 0.05 level of significant. Abortion, post cesarean section, still birth, preterm labour not applicable in primi mothers and no association with co- operation of husband , happiness of family member regarding this pregnancy, both primi and multigravida mothers. So it could be interpreted that medical disorder is dependent of gravida at 0.05 level of significance.

6) *Findings related to association between the level of stress and stressors among primi and multigravida high risk mothers.*

There were significant association between level of stress and stressors like Thyroid, Diabetes, problem start in 1<sup>st</sup> trimester of multigravida, problem start in 2<sup>nd</sup> trimester of multigravida, abortion occurs previously and Co-operation of husband, happiness of family members. There were significant association between level of stress and stressors of primi mothers with medical disorder (Thyroid, diabetes), co-operation of husband, happiness of family member. and significant association between level of stress and stressors of multigravida mothers with medical disorder (thyroid, anaemia, diabetes), problem start in 1<sup>st</sup> trimester, problem starts in 2<sup>nd</sup> trimester, abortion occurs previously (more than once), co-operation of husband, happiness of family members. And there is significant association between level of stress and stressors both primi and multigravida were thyroid, diabetes, co-operation of husband, happiness of family member regarding this pregnancy. Whereas there were no significant association like problem start in 1<sup>st</sup> trimester in primi mothers and history of previously caesarean section of multigravida mothers.

So it could be interpreted that stressors were thyroid, diabetes, problem start in 1<sup>st</sup> trimester of multigravida, problem start in 2<sup>nd</sup> trimester of multigravida, abortion occurs previously and co-operation of husband, happiness of family member and there were significant association between stress of primi and multigravida mothers with stressors at the level of 0.05 level of significant.

7) *Findings related to association between the level of stress and selected variables among primi and multigravida high risk mothers.*

The present study findings revealed that there was significant association between level of stress and selected variables like age, habitat, religion, educational status, per capita monthly income, gestational weeks of primi and multigravida mothers at 0.05 level of significance. So it could be interpreted that there is significant association between stress and selected variables of primi and multigravida high risk mothers at the 0.05 level of significant.

8) *Discussion in relation to other studies With regards to findings on demographic characteristic and general information of primi and multigravida high risk mothers.*

The present study revealed that Maximum number, 44 (88%) of primi mothers belonged in the 18 to 29 age group and 38 (76%) multigravida mothers belonged in the 18 to 29 age group. Among the antenatal mothers, 26 (52%) primi mothers were having per capita monthly income Rs <951. Majority 18 (36%) primimothers gestational weeks of pregnancy were 32 weeks whereas 15 (30%) were multigravida mothers. Majority 41 (82%) husband of primi mothers were co-operate with his wife and 40 (80%) husband of multigravida mothers were co-operate with his wife. The findings was supported Ms. Seematti. P conducted a descriptive study the study was Emergency Obstetrical Care Centres, Saidapet and Pulianthope, Chennai. Total of 240 samples 120 primi gravida and 120 multi gravida were (60 with risk and 60 without risk) selected using non probability purposive sampling technique. equal numbers (120) were primi and were primi and multi gravida mothers. Equal number (40) of the primi and multi gravida mothers were in the gestational age, 25 to 40 weeks. Majority (58.3%) of the primi mothers were in the age group of 21 to 25 years whereas majority (59%) of the multi gravida mothers were in the age group of 26-30 years. Majority (71.75%) of the primi mothers were Hindus whereas majority (51.7%) of the multi gravida mothers were Hindus. Majority (50%) of the primi mothers and 36.6% of the multi gravida mothers family monthly income was above Rs 15000. Majority (28.3%) of the primi gravida mothers received support from husband and parents whereas (26.7%) of the multigravida mothers received support from their husband and in laws and (23.3%) of the multi gravida with risk received support from their husband and siblings<sup>49</sup>.

9) *Findings related to identify the level of stress among primi and multigravida high risk mothers.*

The present study findings revealed that the majority 31 (62%) of primi high risk mothers had mild level of stress and majority 24 (48%) had moderate level stress of multigravida mothers and 12 (24%) multigravida mothers suffered severe stress.

The findings was supported with a descriptive study conducted by Maria Paris, Murlidhar V Pai, Asha Kamath in article January 2014 to identify the stress and its associated factors among (160) antenatal women aged 20 to 45 years. This study reveals no or mild stress level among antenatal women 107 (66.9%) and moderate to severe stress in 53 (33.3%) of them. So Stress during antenatal period was observed among more than half the women.<sup>50</sup>

10) *Findings related to identify stressors among primi and multigravida high risk mothers.*

The present study findings revealed that all primi mothers 50 (100%) faced medical problem. Most of the primi mothers 35 (72%) suffered problem from 2nd trimester. Majority of multigravida mothers 16 (32%) suffered problem from 1st trimester. 50 (100%) problem were persist in primi mothers, 6 (12%) multi mothers abortion occurs previously. 21 (42%) mothers had history of

caesarean section. 42 (82%) husband of primi mothers were co-operate with her wife and 10 (20%) husband of multigravida mothers were non-co-operate with their wife. 44 (88%) family member of primi mothers and 43 (86%) family member of multigravida mothers were happy regarding this pregnancy.

The findings was supported with cross-sectional study done by [Reeta Vijayaselvi](#), in Journal of clinical and diagnostic research of pregnant women attending the outpatient services of a tertiary care hospital for regular antenatal check-up with 100 Antenatal mother. Past history of spontaneous abortion (OR 2.8; 0.99-8.00;  $p=0.053$ ), and maternal stress have been noticed. mean pss score 54. previous history of spontaneous abortion yes 8(26.7) .no 46(36.5). poor family support, yes 4(44.4), no 50(34.0). So this study is similar to present study in the aspect of employment of husband, past history of spontaneous abortion. which are associated to antenatal stress<sup>51</sup>.

*11) Findings related to find out the significant different of level of stress score among primi and multigravida high risk mothers.*

The present study findings revealed that there were significant difference (5.66) between stress score among primi and multigravida high risk mothers. The computed. t value (5.35) was found greater than the table value (1.98) at 98 df at 0.05 level of significance.

The findings was supported with the comparative study conducted by. I. Jeyanthi on anxiety and stress among the primigravida and the multigravida shows stress level of primi gravida was mean 16,600 ,SD 6.134, SE 1.020 ,t =1.49,  $P > 0.05$ . Stress level of multigravida mothers mean of stress score was 14.533, SD 40534 ,  $P > 0.05$ . So this study is similar in the aspect of assessing antenatal stress and perceived stress scale was used to assess the stress but dissimilar to this study was study results indicate that high level of stress was present among multigravida mothers.<sup>52</sup>

*12) Findings related to test of significant of stressors among primi and multigravida high risk mothers.*

The present study findings revealed that there were significant association medical disorder (anaemia) as stressors of primi and multi gravida mothers at the 0.05 level of significant. Abortion, post cesarean section, still birth, preterm labour not applicable in primi mothers. Mostly multigravida mothers faced stressors abortion post cesarean section. And no association with co-operation of husband, happiness of family members regarding this pregnancy, among primi mothers and multigravida mothers. So medical disorder is dependent of gravida at 0.05 level of significance. The findings was supported with a comparative study by I. P. Kavitha in Cauvery Research Journal, January 2008 showed that Co-relation Value, Statistical Inference .of stressors (family income) , co-relation value of stress of primigravida was 0.0874 and multigravida was 0.2873 , statistical inference  $P > 0.05$  .Size of family when stressors co-relation value of stress of primigravida was 0.1415 , Multigravida was 0.1296, statistical inference  $P > 0.05$ . However, there is no significant relationship between various socio demographic variables in primigravida and multigravida mothers.<sup>53</sup>

*13) Findings related to association between the level of stress and stressors among primi and multigravida high risk mothers*

The present study findings revealed that there were significant association between level of stress and stressors like medical disorder thyroid, diabetes. problem start in 1<sup>st</sup> trimester of multigravida ,problem start in 2<sup>nd</sup> trimester of multigravida, abortion occurs previously and Co-operation of husband, happiness of family member. There were no significant association like problem start in 1<sup>st</sup> trimester in primi mother and history of previously caesarean section of multigravida. The findings was supported with a cross sectional study by Monisha madhai beck in Journal of Clinical and Diagnostic Research 2015 Pearson's Chi-square test was used to assess the association between level of stress and psychosocial, pregnancy and family related factors. A small proportion of the women (13; 8.3 %) admitted to having a male gender preference for the baby and (16; 10.3%) of them admitted to their mother-in-laws having a male gender preference for the expected baby. Reports of poor support by their families were made by few women (9; 5.8%).<sup>54</sup>.

*14) Findings related to association between the level of stress with selected variables.*

The present study findings revealed that there was significant association between level of stress and selected variables like age, habitat, religion, educational status and per capita income, Gestational weeks of mothers, gravida at 0.05 level of significance.

The findings was supported with a descriptive study by Maria Pais, International Journal of Nursing Care. 2014 there was association between the level of antenatal stress and gravida ( $p = 0.002$ ), educational status ( $p=0.034$ ) and monthly family income ( $p=0.024$ ). However no association was found between antenatal stress and selected variables like occupation and type of family. Therefore it can be stated that gravida, educational status and monthly family income has a direct influence on the stress experienced by antenatal women. So this study is similar in the aspect there was association between the level of antenatal stress and gravida educational status and monthly family income.<sup>55</sup>



## VI. CONCLUSION

The aim of the study assess the level of stress and stressors among primi and multigravida mothers. Antenatal stress is a serious problem. In present antenatal mothers there the majority 31(62%) of primi high risk mothers had mild level stress and majority 24 (48%) had moderate level stress of multigravida mothers. and 12 (24%) multigravida had the severe stress. Multigravida high risk mothers stress found greater than the primi high risk mothers during antenatal period .So proper assessment and counselling and family support needed of them. So multigravida high risk mothers suffered more stress than the primi high risk mothers Antenatal stress there are some stressors i.e medical disorder, Abortion, post cesarean section, still birth, preterm labour, co –operation of husband , happiness of family members. By understanding the stressors and Identifying and treating these problem is important in preventing postpartum depression.Early identification and treatment of antenatal stress may improve pregnancy outcomes and healthcare providers need to be sensitive to the risk factors for stress and strengthen the women's skill in scoping with stress to improve their emotional health. Future research in this area is needed, Which will clearly elucidate the potential long term impact of stress during pregnancy and associated risk factors, so as to help professionals identify vulnerable groups for early detection, diagnosis, and providing counseling for stress during pregnancy.

### A. Implication of the study

The findings of this study have implications for Nursing Practice, Nursing Education, Nursing Administration and Nursing Research

#### 1) Nursing practice

- Stress assessment must be done as a routine procedure for the antenatal mothers visiting the outpatient department which helps the nurses to identify stress level and plan intervention to overcome.
- Midwives should include the family members while providing care to the mothers. Counseling sessions can be arranged for the mothers with moderate to severe stress.
- Doctor/ Nurses can educate the mother about antepartum stress and its effect on the un born fetus and its preventive measures
- The staff nurse must explain preventive aspects of antepartum stress like yoga, time management, breathing techniques etc when the mothers come for the visits.
- The community programmes about prevention of ante partum stress, importance of family support and ways to improve self-esteem can be taught.

#### 2) Nursing Education

- Curriculum should include about antepartum stress, its effect on the mother during and after pregnancy and also on the unborn fetus.
- Seminars, conferences panel discussion should be held to the students to create awareness regarding the stress, its impact and ways to prevent.
- Students should be encouraged to include stress management related topics in their health teachings to the antenatal mothers.
- Nurse educator can conduct staff development programme to the staff nurses about the importance of family support and self-esteem on antepartum stress and its preventive measures..

#### 3) Nursing Administration

- Nurse administrator should make standard protocol for stress assessment, management and referral forms need to made for their hospitals.
- Nurse administrator can plan and organise in service education for the staff nurses to reinforce the importance of family support and self esteem for antenatal mothers.
- Nursing administrators should establish to initiate a policy making at the hospital and community setting, to develop policy on awareness programme regarding antenatal stress - Social support programme for the mother must be developed to ensure their wellbeing.
- Essential maternal mental health care should be strengthened in all setting. So that nurse administrators can make effective plans to focus and provide effective health education for the antenatal mothers and organize in service education, continuing education programs on maternal mental health for all health professionals.



#### 4) *Nursing Research*

- Disseminate the finding of the research through conferences, seminars and
- Publishing in nursing journal.
- Results to be confirmed by conducting more studies in this area.
- Data collection tools can be standardized.
- More researches can be done as there was only few researches done in this area.

#### B. *Limitation*

The limitations of the study were:

- Non-probability purposive sampling technique was used for selecting sample which reduce the scope of generalization.
- As study was conducted only in suburban setting generalization of the study findings is limited.
- Limited sample size restricted the findings to be generalized.

#### C. *Recommendation*

On the basis of the findings the following recommendation Can be offered for future study-

- A study can be replicated on a larger Sample of the antenatal mothers at a different urban settings.
- A comparative study can be conducted between rural primi mothers and urban antenatal mother's stress and stressors.
- A comparative study can be conducted to assess the stress between primigravida and multigravida antenatal mother.
- A comparative study can be conducted to assess the stress between urban primigravida and multigravida high risk antenatal mothers.
- A study can be to find out the association with maternal stress and psychological problems of children.
- A comparative study can be conducted between stress and its contributing factors working and housewife antenatal mothers.
- A similar study can be conducted with random sampling technique.
- A Similar study can be conducted at private setting.
- Longitudinal studies can be done to see the outcome of the mother as well as the fetus.

#### D. *Summary*

This chapter dealt with the major findings of the study discussion, discussion in relation to other study, conclusion, implication, limitation and recommendation for further studies. The implications have been stated followed by its limitations. This chapter ends with recommendation of the investigator for the future researcher in different aspects and suggestions.

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“sometimes the greatest thing to come out of all your hard work isn’t what you get for it, but what you became for it. Shake things up today! Be You...Be Free...Share.”

-Steve Maraboli

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