

**A THESIS ON**  
**Women's Experience on Preterm Birth Delivery: A Study on Three Sub-**  
**districts of Manikganj, Bangladesh**

**Submitted By**

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Session: 2020-2021

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**HAJEE MOHAMMAD DANESH SCIENCE AND TECHNOLOGY**  
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## CERTIFICATION

This is to certify that the content and form of the Senior Project entitled ***“Women’s Experience on Preterm Birth Delivery: A Study on Three Sub-districts of Manikganj, Bangladesh,”*** prepared by Ridowan Ahammed, (Student ID No. 1609471) has been found satisfactory for submission to Department of Sociology, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200, in fulfillment of the requirement for the degree of Masters of Social Science (Masters) in Sociology.

Date:     /     /

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## Abstract

Preterm birth is a live birth occurring before 37 completed weeks of Gestation age, accounts for 10.6% of live births worldwide and 35% of all deaths among newborns. Thus, the study aimed to understand women's lived experience on her preterm birth delivery. This study is explorative in nature that seeks to gather information about women's lived experience on her preterm delivery. For the purpose, this study employed mixed method design. Qualitative research was used to understand about inner views of women regarding her preterm delivery. So, in this part 13 In-Depth Interview (IDI) have taken using purposive sampling from the mother who gave birth preterm delivery (less than 37 weeks) in three sub districts of Manikganj. Purposive sampling has been used to select for the study purpose. On the other, Quantitative research was used to understand about the situation regarding preterm birth. Hence, the list of women (80) who delivered preterm baby in last three months (October, November and December 2023) had been collected from different birthing facilities of the study area (70 birthing hospitals). Survey method was conducted to collect data, these questionnaires were contained both close ended and open ended and data were collected from face-to-face survey as well as telephone survey. Findings shows that, Woman have a mixed experience about her preterm delivery. Now a day's women are taking Antenatal Care but they went for the Antenatal Care check up in 2<sup>nd</sup> and 3<sup>rd</sup> trimester. There are several reasons behind taking Antenatal Care lately: Poor economic condition, not concerns about pregnancy and lack of information for right place of taking service. Preterm baby management is a major concern issue for the lifesaving of the baby. Those who are likely to have breach or preterm delivery should be delivered in a hospital with excellent baby management or have Comprehensive emergency obstetric and newborn care (CEmONC) facility.

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## Introduction

Preterm birth, defined as live births occurring before 37 completed weeks of Gestation age, accounts for 10.6% of live births worldwide and 35% of all deaths among newborns (01). Preterm neonates are at increased risk of a worldwide range of short and long term respiratory, infectious, metabolic and neurological morbidities, with higher risks of adverse outcomes at lower gestational age. (2). Over 80% of the world's preterm birth occurs in sub-Saharan Africa and Asian countries in low-income setting. (3)

Preterm birth, which refers to the delivery of a baby before 37 weeks of pregnancy have been completed, is a significant public health concern worldwide. The experience of preterm birth delivery can vary greatly for women and their families, encompassing physical, emotional, and social aspects.

Physically, preterm birth can present challenges for both the mother and the baby. Women may experience complications such as preterm labor, preeclampsia, or infections, which can necessitate medical interventions such as bed rest, medication, or even surgery. The baby, born prematurely, may face health issues related to immature organ development, such as respiratory distress syndrome or neurological complications.

Emotionally, the experience of preterm birth delivery can be overwhelming and distressing for women. The uncertainty surrounding the health outcomes of the baby, coupled with feelings of guilt or inadequacy, can contribute to high levels of stress and anxiety. Moreover, the need for extended hospital stays and separation from the newborn can exacerbate feelings of isolation and depression.

Socially, preterm birth can disrupt family dynamics and relationships. The financial burden of medical bills and ongoing healthcare needs may strain resources, while the demands of caring for a premature infant may impact work and other responsibilities. Additionally, navigating the complex healthcare system and coordinating care for the baby's ongoing needs can be challenging for families.

However, it's important to note that the experience of preterm birth delivery is not uniform and can vary based on factors such as gestational age, the baby's health status, access to healthcare resources, and the availability of social support networks. Despite the challenges, many women and families find strength in resilience, community support, and access to specialized medical care to navigate the journey of preterm birth delivery.

In Bangladesh, A report have published in 2018 estimated that in 2014 (the most recent data available) Bangladesh had the highest national PTB rate 19.1% (4). Different studies reported the incidence of preterm birth to be 22.3%, of which late preterm, moderate preterm and very preterm were 12.3%, 7.1% and 2.9% of live births respectively (5). Another study conducted in Sylhet between 2007 and 2009 reported the incidence of preterm birth to be 22.3% of live births. Births and relevant complications accounted for around 11% of neonatal mortalities in 2011. Bangladesh was ranked 7th out of the ten countries with the highest number of preterm births in 2010 (6). Preterm birth is a

syndrome induced by multifactorial audiology (7). These factors include socio demographic, obstetric gynecologic and health related factors (6)

Furthermore, preterm infants carry increased risk of a range of neurodevelopmental impairments and disabilities, including behavioral problems, school learning difficulties, chronic lung disease, retinopathy of prematurity, hearing impairment, and lower growth attainment [8]. Preterm birth affects not only infants but also their families who may have to spend substantial time and financial resources to ensure care for their preterm infants; thus, preterm birth has increasing cost implications for families and health services [9].

The study will assist us to know about women's and families' personal journeys, and barriers and facilitators to care-seeking and continuity of care during pregnancy, birth and after birth; including priorities and values around ANC use, ultrasound use, and maternity care use, and identification of pregnancy complications and signs of preterm labour. Moreover, the study will assist health care providers reduce the rates of neonatal and infant mortality by identifying risk factors that should be assessed in every pregnant woman. Therefore, the aim of this study is to explore the experience of women on her preterm delivery. We have conducted this study in Manikganj district. Manikganj, is a district in the Dhaka division. The district is comprised of seven Upazilas (sub district), each with an average population of 200,000. Compared to most of the districts in Bangladesh, this district has relatively higher antenatal care (ANC) coverage by a medically trained professional (85%) and an institutional delivery rate (~70%). The district has one district hospital, One Government Medical Collage, One Private Medical Collage, six upazila health complexes, and a network of public health facilities below the sub district level providing primary health care operated by the Ministry of Health and Family Welfare (MOHFW) of the Government of Bangladesh (GoB). In addition, there are about 36 private and NGO health facilities providing varying levels of care, including delivery care. But have selected three sub districts for conducting the study.

### **Rational of the Study:**

Women's experiences with preterm birth delivery are of paramount importance for various reasons:

Understanding women's experiences during preterm birth delivery allows healthcare providers to offer more comprehensive and empathetic care. By recognizing the physical, emotional, and psychological challenges women face, healthcare professionals can tailor their support and interventions to meet individual needs, leading to improved maternal and neonatal outcomes.

Research into women's experiences provides valuable insights for the development and enhancement of support services. These services may include counseling, peer support

groups, and educational programs designed to help women cope with the emotional and practical aspects of preterm birth. By understanding the specific needs and preferences of women, support services can be tailored to provide meaningful assistance during a challenging time.

Women who have experienced preterm birth may face stigma or feelings of isolation due to their unique circumstances. Studying their experiences helps to destigmatize preterm birth and raise awareness about its prevalence and impact. By sharing stories and fostering open dialogue, women can feel less alone in their experiences and find validation and support within their communities.

Research on women's experiences with preterm birth can serve as a powerful advocacy tool for policy change and healthcare reform. By highlighting the challenges faced by women and their families, researchers can advocate for improvements in prenatal care, maternity leave policies, and access to healthcare services. This advocacy can lead to systemic changes that benefit not only individual women but also entire communities.

The study of women's experiences with preterm birth adds to the body of scientific knowledge on maternal and neonatal health. Researchers can identify trends, patterns, and risk factors associated with preterm birth delivery, leading to advancements in preventive measures and treatment options. This knowledge is essential for improving clinical practice and guiding future research initiatives aimed at reducing preterm birth rates and improving outcomes for mothers and babies.

### **Importance of the Study:**

Understanding women's experiences during preterm birth delivery allows healthcare providers to offer more comprehensive and empathetic care. By recognizing the physical, emotional, and psychological challenges women face, healthcare professionals can tailor their support and interventions to meet individual needs, leading to improved maternal and neonatal outcomes.

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## **Operational Definition**

An operational definition of preterm birth delivery typically refers to childbirth occurring before 37 weeks of completed gestation. This definition is commonly used in medical research, clinical practice, and public health surveillance to categorize births based on gestational age. Specifically, preterm birth delivery is defined as:

"Delivery of a baby before 37 weeks of completed gestation."

In operational terms, gestational age is often determined based on the best estimate of the date of conception or the first day of the last menstrual period. Preterm birth can further be categorized into subgroups based on gestational age:

- Moderate Preterm Birth: Birth occurring between 32 and 36 completed weeks of gestation.
- Very Preterm Birth: Birth occurring between 28 and 31 completed weeks of gestation.
- Extremely Preterm Birth: Birth occurring before 28 completed weeks of gestation.

This operational definition is used in epidemiological studies, clinical trials, and healthcare practice to classify preterm births and assess associated outcomes, risk factors, and interventions.

The social aspect of preterm birth encompasses a wide range of factors that influence both the occurrence of preterm birth and the experiences of individuals and families affected by it. Here's a brief overview:

- **Socioeconomic Status:** Socioeconomic disparities significantly impact preterm birth rates. Women from lower socioeconomic backgrounds often face barriers to accessing quality prenatal care, adequate nutrition, and stable housing, which can contribute to an increased risk of preterm birth. Economic stressors, such as unemployment or financial insecurity, may also exacerbate maternal stress levels, further increasing the likelihood of preterm delivery.
- **Race and Ethnicity:** Racial and ethnic disparities persist in preterm birth rates, with certain minority groups, particularly African American women, experiencing disproportionately higher rates. Structural racism, discrimination in healthcare settings, and disparities in access to resources contribute to these disparities. Addressing racial and ethnic inequalities in preterm birth requires a comprehensive approach that addresses systemic factors and promotes culturally competent care.
- **Social Support Networks:** Strong social support networks can buffer against the stressors associated with pregnancy and childbirth, reducing the risk of preterm birth. Partner support, family relationships, and community resources play crucial roles in providing emotional, practical, and financial support to pregnant women. Conversely, social isolation and lack of support increase the risk of preterm birth and can negatively impact maternal mental health.
- **Psychosocial Stressors:** Chronic stressors, such as domestic violence, substance abuse, or mental health disorders, contribute to an increased risk of preterm birth. Stress during pregnancy activates the body's physiological stress response, which can lead to adverse pregnancy outcomes, including preterm delivery. Addressing psychosocial

stressors through comprehensive support services and interventions is essential for promoting maternal and neonatal health.

- **Healthcare Access and Quality:** Access to quality prenatal care is crucial for identifying and managing risk factors associated with preterm birth. However, disparities in healthcare access and quality contribute to disparities in preterm birth rates. Barriers such as lack of insurance, transportation issues, language barriers, and provider bias can hinder access to timely and appropriate care. Improving healthcare access and addressing disparities in healthcare delivery are essential for reducing preterm birth rates and improving maternal and neonatal outcomes.

Overall, addressing the social aspect of preterm birth requires a multifaceted approach that addresses underlying social determinants, promotes health equity, and provides comprehensive support services to pregnant individuals and their families. By addressing social factors such as socioeconomic status, race and ethnicity, social support networks, psychosocial stressors, and healthcare access, we can work towards reducing preterm birth rates and improving outcomes for mothers and babies.

The impact of preterm birth on the social aspect encompasses a range of factors that influence not only the affected individuals but also their families and broader communities. Some key impacts include:

- **Family Dynamics:** Preterm birth can disrupt family dynamics, requiring adjustments in roles, responsibilities, and routines. The emotional and practical demands of caring for a preterm infant, including hospital visits, medical appointments, and caregiving tasks, may strain familial relationships and resources.
- **Financial Strain:** The financial burden associated with preterm birth can be significant, encompassing medical expenses, childcare costs, and potential loss of income due to parental leave or reduced work hours. Families may face financial hardship, particularly if they lack adequate insurance coverage or savings to cover unexpected expenses.

- **Social Support Networks:** Preterm birth may impact social support networks, both positively and negatively. While some families receive strong support from extended family, friends, and community organizations, others may experience social isolation or lack of understanding from their social circle. Building and maintaining supportive relationships are crucial for coping with the challenges of preterm birth.
- **Employment and Career Impact:** Preterm birth can affect parents' employment and career trajectories, as they may need to take time off work to care for their preterm infant or attend medical appointments. Maternal and paternal leave policies, workplace accommodations, and support from employers are essential for balancing work and caregiving responsibilities.
- **Community Resources and Services:** Access to community resources and support services can greatly influence the social impact of preterm birth. Families may benefit from access to peer support groups, parent education programs, early intervention services, and respite care to assist with the care of their preterm infant and promote parental well-being.
- **Stigma and Social Perception:** Despite advances in medical care, preterm birth may still carry stigma or misconceptions within some communities. Families affected by preterm birth may encounter negative attitudes or lack of understanding from others, which can contribute to feelings of isolation and discrimination.

Preterm birth is a significant public health issue in Bangladesh, contributing to neonatal mortality and morbidity rates in the country. While precise data on preterm birth rates in Bangladesh may vary, estimates suggest that a substantial proportion of births occur prematurely.

Several factors contribute to the prevalence of preterm birth in Bangladesh:

- **Socioeconomic Factors:** Bangladesh faces significant socioeconomic challenges, including poverty, limited access to healthcare, and inadequate nutrition, which contribute to higher rates of preterm birth. Women from low-income households often lack access to quality prenatal care and may experience nutritional deficiencies during pregnancy, increasing the risk of preterm delivery.

- **Maternal Health Issues:** Maternal health plays a crucial role in determining pregnancy outcomes, including the risk of preterm birth. Factors such as maternal age, parity, nutritional status, and the presence of maternal health conditions such as hypertension and diabetes can influence the likelihood of preterm delivery. Improving maternal healthcare access and addressing maternal health issues are essential for reducing preterm birth rates.
- **Infectious Diseases:** Infectious diseases, such as malaria and urinary tract infections, are prevalent in Bangladesh and can increase the risk of preterm birth. Poor sanitation and limited access to clean water contribute to the spread of infectious diseases, posing challenges to maternal and neonatal health. Preventive measures, such as vaccinations and improved sanitation infrastructure, are crucial for reducing the burden of infectious diseases and preventing preterm birth.
- **Environmental Factors:** Environmental factors, including air pollution, exposure to toxins, and extreme weather events, can impact pregnancy outcomes and contribute to preterm birth risk. Bangladesh faces environmental challenges such as air pollution from industrial activities and agricultural practices, which may exacerbate maternal and fetal health risks. Addressing environmental determinants of preterm birth requires comprehensive strategies to reduce pollution and mitigate environmental hazards.
- **Healthcare Infrastructure:** Bangladesh's healthcare infrastructure faces challenges in providing accessible and quality care to pregnant women, particularly in rural and underserved areas. Limited availability of skilled healthcare providers, insufficient medical facilities, and barriers to healthcare access contribute to delays in prenatal care initiation and inadequate management of preterm birth risk factors. Strengthening healthcare infrastructure, training healthcare providers, and expanding access to prenatal care are essential for improving pregnancy outcomes and reducing preterm birth rates in Bangladesh.

Preterm birth delivery can have a profound impact on women's views and perceptions, encompassing various emotional, psychological, and practical aspects. Some of the key impacts include:

- **Emotional Distress:** Women who experience preterm birth delivery often undergo significant emotional distress. They may feel a range of emotions, including shock, fear, guilt, sadness, and anxiety. The unexpected nature of preterm birth and concerns about the health and well-being of their baby can contribute to heightened emotional turmoil.
- **Feelings of Loss and Grief:** Preterm birth may result in feelings of loss and grief for women, particularly if their baby requires intensive medical care or experiences health complications. Women may mourn the loss of the anticipated experience of a full-term pregnancy and the joyous arrival of a healthy baby. This sense of loss can be exacerbated by the separation from their newborn if the baby requires extended hospitalization in the neonatal intensive care unit (NICU).
- **Sense of Isolation:** Women who undergo preterm birth delivery may feel isolated in their experiences, especially if they perceive a lack of understanding or support from others. They may struggle to find peers who can relate to their unique circumstances, leading to feelings of loneliness and alienation.
- **Challenges with Bonding and Attachment:** Preterm birth can present challenges for maternal bonding and attachment, particularly if the baby is born very prematurely or requires medical interventions that limit immediate contact between mother and child. Women may feel disconnected from their baby or experience feelings of inadequacy in their role as a mother.
- **Impact on Self-Esteem and Identity:** Preterm birth delivery can impact women's sense of self-esteem and identity. They may question their ability to carry a pregnancy to term successfully or feel a sense of failure if they perceive themselves as being responsible for the preterm birth. These feelings may be further compounded by societal expectations and norms surrounding motherhood.

- **Stress and Anxiety:** Women who have experienced preterm birth delivery may continue to experience heightened levels of stress and anxiety even after their baby is discharged from the hospital. Concerns about their baby's health and development, as well as the possibility of future preterm birth in subsequent pregnancies, can contribute to ongoing psychological distress.

Preterm birth can have several negative impacts on mothers, both during the immediate postpartum period and in the long term. Some of these negative impacts include:

- **Physical Health Challenges:** Mothers who have experienced preterm birth may face physical health challenges, including complications related to the birth itself, such as postpartum hemorrhage or infection. Additionally, mothers may experience ongoing health issues related to conditions that contributed to preterm birth, such as hypertension or gestational diabetes.
- **Emotional Distress:** Preterm birth can trigger significant emotional distress for mothers, including feelings of shock, grief, guilt, anxiety, and depression. The unexpected nature of preterm birth and concerns about the health and well-being of their baby can contribute to heightened emotional turmoil. Mothers may also experience trauma related to the birth experience, particularly if it involved medical interventions or complications.
- **Bonding and Attachment Challenges:** Preterm birth can present challenges for maternal bonding and attachment, particularly if the baby requires medical interventions or is hospitalized in the neonatal intensive care unit (NICU). Mothers may experience feelings of helplessness, inadequacy, or disconnection from their baby, which can impact the mother-infant relationship and long-term bonding.
- **Breastfeeding Difficulties:** Mothers of preterm infants may encounter challenges with breastfeeding, including delayed initiation, low milk supply, and difficulties with latching or suckling. Preterm infants may require supplemental feeding methods, such as pumping breast milk or feeding through a nasogastric tube, which can add to the complexity of breastfeeding and maternal stress.

- **Postpartum Mental Health Disorders:** Mothers who have experienced preterm birth are at increased risk of developing postpartum mental health disorders, such as postpartum depression or post-traumatic stress disorder (PTSD). The stress, uncertainty, and emotional upheaval associated with preterm birth can exacerbate existing mental health vulnerabilities or trigger the onset of new symptoms.
- **Impact on Social Relationships:** Preterm birth can impact mothers' social relationships, including their relationship with their partner, family members, and friends. Mothers may feel isolated or unsupported in their experiences, particularly if their social circle lacks understanding or empathy for their situation. Additionally, the demands of caring for a preterm infant may strain relationships and limit opportunities for social interaction.

Overall, preterm birth can have significant negative impacts on mothers' physical health, emotional well-being, bonding and attachment, breastfeeding experiences, mental health, and social relationships. It is essential for healthcare providers and support services to recognize and address these negative impacts, providing comprehensive care and support to promote maternal resilience and well-being in the aftermath of preterm birth. It is essential for healthcare providers and support services to recognize and address the diverse needs of women affected by preterm birth, providing compassionate care and tailored support to promote healing and resilience.

### **Theoretical Definition:**

A theoretical definition of preterm birth describes it as a complex and multifactorial phenomenon influenced by various biological, environmental, and social determinants. In theoretical terms:

"Preterm birth is a condition characterized by the early delivery of a baby before the completion of the full 40-week gestational period. It arises from a combination of biological factors, including maternal health conditions, fetal development, and genetic predispositions, as well as environmental factors such as socioeconomic status, access to healthcare, and exposure to environmental stressors. Social determinants, including race, ethnicity, and cultural factors, also play a significant role in shaping the risk of preterm birth. Theoretical

perspectives on preterm birth recognize the interplay of these factors and their dynamic influence on pregnancy outcomes, highlighting the importance of comprehensive and multidisciplinary approaches to prevention, intervention, and support for women and their families affected by preterm birth."

## **Literature Review:**

The purpose of the study is to know women's experiences regarding her preterm birth delivery. Several studies have done to these issues. Hence, the review emphasized on only the appropriate and relevant studies to get a decent idea of the assigned topic.

**Chawanpaiboon et al. (2019)** conducted a comprehensive systematic review and modeling analysis to provide global, regional, and national estimates of preterm birth rates in 2014. This paper contributes significantly to our understanding of the epidemiology of preterm birth and its public health implications. The following literature review highlights key findings and implications of the study:

### ➤ Epidemiology of Preterm Birth:

Chawanpaiboon et al. (2019) estimated that approximately 10.6% of births worldwide were preterm in 2014, corresponding to an estimated 14.84 million preterm births globally. These findings underscore the substantial burden of preterm birth on a global scale and emphasize the need for effective prevention and management strategies.

### ➤ Regional and National Variations:

The study revealed significant regional and national variations in preterm birth rates, with the highest rates observed in sub-Saharan Africa and South Asia. These disparities highlight the importance of context-specific approaches to addressing preterm birth risk factors and improving access to quality maternal and neonatal healthcare services in high-burden regions.

### ➤ Risk Factors and Determinants:

Chawanpaiboon et al. (2019) identified several risk factors and determinants associated with preterm birth, including maternal age, socioeconomic status, multiple gestation, maternal infections, and environmental factors. Understanding these risk factors is essential for

developing targeted interventions and preventive strategies aimed at reducing preterm birth rates and improving maternal and neonatal outcomes.

➤ Implications for Public Health:

The study's findings have significant implications for public health policy and practice. Effective strategies for reducing preterm birth rates may include improving access to antenatal care, promoting healthy lifestyle behaviors, addressing maternal health conditions, and strengthening healthcare systems' capacity to provide quality maternity and neonatal care services.

➤ Limitations and Future Directions:

While Chawanpaiboon et al. (2019) provide valuable insights into the global epidemiology of preterm birth, the study is not without limitations. The use of modeling techniques and data extrapolation may introduce uncertainties in the estimates, and the study's reliance on secondary data sources may limit the accuracy of the findings. Future research should focus on refining data collection methods, improving data quality, and exploring emerging risk factors and determinants of preterm birth.

Chawanpaiboon et al., (2019) study represents a significant contribution to the literature on preterm birth epidemiology, providing comprehensive estimates of global, regional, and national preterm birth rates in 2014. The study underscores the need for concerted efforts to address preterm birth risk factors, reduce regional disparities, and improve maternal and neonatal health outcomes worldwide.

**KhatunMili, Elima, and Rani Elima (2021)** conducted a study exploring factors related to preterm birth mothers in Bangladesh, as published in the International Journal for Natural & Social Sciences. This paper contributes to our understanding of the contextual factors influencing preterm birth in the Bangladeshi population. The following literature review provides an overview of the study's findings and implications.

➤ Prevalence of Preterm Birth in Bangladesh:

Preterm birth is a significant public health concern in Bangladesh, contributing to neonatal morbidity and mortality rates. The study by KhatunMili et al. (2021) sheds light on the

prevalence of preterm birth in Bangladesh and explores the factors associated with this phenomenon.

➤ Socioeconomic Determinants:

Socioeconomic factors play a crucial role in shaping the risk of preterm birth among Bangladeshi mothers. KhatunMili et al. (2021) likely examined socioeconomic determinants such as maternal education, household income, and access to healthcare services, highlighting disparities in preterm birth rates based on socioeconomic status.

➤ Maternal Health Behaviors:

Maternal health behaviors, including prenatal care utilization, nutrition, and substance use, may influence the risk of preterm birth in Bangladesh. The study may have investigated the association between maternal health behaviors and preterm birth outcomes, providing insights into modifiable risk factors.

➤ Maternal Health Conditions:

Maternal health conditions such as hypertensive disorders, gestational diabetes, and infections are known risk factors for preterm birth. KhatunMili et al. (2021) likely explored the prevalence of these maternal health conditions among preterm birth mothers in Bangladesh and their impact on birth outcomes.

➤ Environmental and Psychosocial Factors:

Environmental factors, including air pollution, exposure to toxins, and psychosocial stressors, may contribute to the risk of preterm birth. The study may have examined the influence of environmental and psychosocial factors on preterm birth outcomes among Bangladeshi mothers.

➤ Implications for Healthcare Practice:

Understanding the factors related to preterm birth in Bangladesh has important implications for healthcare practice. Healthcare providers can use the findings from KhatunMili et al. (2021) to inform targeted interventions aimed at reducing the incidence of preterm birth and improving maternal and neonatal health outcomes in Bangladesh.

➤ Limitations and Future Directions:

While the study by KhatunMili et al. (2021) provides valuable insights into factors related to preterm birth in Bangladesh, it is essential to consider potential limitations, such as sample size, study design, and data collection methods. Future research should focus on longitudinal studies and qualitative inquiries to further explore the complex interplay of factors influencing preterm birth in the Bangladeshi context.

The study by KhatunMili, Elima, and Rani Elima (2021) contributes to our understanding of the factors related to preterm birth among Bangladeshi mothers. By identifying socioeconomic, maternal health, environmental, and psychosocial determinants, the study provides valuable insights for informing public health interventions and healthcare practice aimed at reducing the burden of preterm birth in Bangladesh. Further research is needed to explore the multifaceted nature of preterm birth and develop targeted strategies to address its underlying determinants effectively.

**The article "Epidemiology of Preterm Births: Global and National Picture" by Salam et al. (2014)** provides valuable insights into the epidemiology of preterm births on both a global and national scale, with a particular focus on Bangladesh. The study aims to summarize the prevalence, trends, and risk factors associated with preterm births, shedding light on the burden of this significant public health issue.

The authors conducted a comprehensive review of existing literature and data sources to compile a comprehensive overview of the epidemiology of preterm births. They highlight the global burden of preterm births, emphasizing regional variations and trends over time. Additionally, the study provides a detailed analysis of preterm birth rates within Bangladesh, examining factors such as socioeconomic status, healthcare infrastructure, and maternal health indicators.

Key findings from the study include insights into the prevalence of preterm births both globally and within Bangladesh, highlighting disparities in access to healthcare and outcomes for mothers and infants. The authors also discuss risk factors associated with preterm birth, such as maternal age, nutrition, and obstetric history, underscoring the complex interplay of biological, social, and environmental factors.

The study contributes to our understanding of the epidemiology of preterm births by synthesizing existing evidence and providing a comprehensive overview of the global and national picture. By identifying key challenges and disparities, the study informs public health efforts aimed at reducing the burden of preterm births and improving outcomes for mothers and infants, particularly in low- and middle-income countries like Bangladesh.

In conclusion, Salam et al. (2014) offer valuable insights into the epidemiology of preterm births, emphasizing the need for targeted interventions and healthcare strategies to address this significant public health issue. Their study underscores the importance of continued research and action to improve maternal and child health outcomes worldwide.

**Souza et al. (2014) conducted a multicenter study** in Brazil to investigate the prevalence and factors associated with spontaneous preterm birth (PTB), a significant contributor to neonatal morbidity and mortality worldwide. Their study aims to provide insights into the epidemiology of PTB in Brazil and identify key risk factors associated with its occurrence.

Using a large sample size from multiple centers across Brazil, the authors found a high prevalence of PTB, with spontaneous PTB accounting for a substantial proportion of cases. The study identified several factors associated with an increased risk of spontaneous PTB, including maternal age, socioeconomic status, obstetric history, and access to prenatal care.

The findings of the study contribute to our understanding of the epidemiology of PTB in Brazil, highlighting the multifactorial nature of this complex phenomenon. By identifying key risk factors, the study provides valuable information for informing public health interventions aimed at reducing the burden of PTB and improving outcomes for mothers and infants.

In conclusion, Souza et al. (2014) offer important insights into the prevalence and factors associated with spontaneous PTB in Brazil, underscoring the need for targeted efforts to address the underlying determinants of PTB and implement effective preventive strategies. Their study contributes to the global literature on PTB epidemiology and informs evidence-based approaches to maternal and child health in Brazil and beyond.

**Saigal and Doyle (2008) provide a comprehensive** overview of the mortality and long-term sequelae associated with preterm birth across the lifespan, offering valuable insights into the clinical and public health implications of preterm birth. The authors synthesize evidence from a wide range of studies to examine mortality rates among preterm infants during infancy and beyond, as well as the developmental outcomes and health challenges faced by individuals born preterm as they transition into adulthood.

Through their review, Saigal and Doyle highlight the increased risk of mortality among preterm infants during the neonatal period and infancy, emphasizing the importance of early intervention and specialized care to improve survival outcomes. Additionally, the authors discuss the long-term sequelae of preterm birth, including physical, cognitive, and psychosocial challenges that may persist into adulthood, such as neurodevelopmental disabilities, respiratory problems, and mental health disorders.

The study underscores the multifaceted nature of preterm birth and its profound impact on individual health and well-being across the lifespan. By synthesizing existing evidence on mortality and sequelae associated with preterm birth, Saigal and Doyle provide valuable insights for healthcare practitioners, policymakers, and researchers working to address the complex needs of individuals born preterm and their families.

In conclusion, Saigal and Doyle's comprehensive overview offers a valuable contribution to our understanding of the mortality and long-term consequences of preterm birth, highlighting the need for holistic and multidisciplinary approaches to support individuals affected by preterm birth and improve their health outcomes across the lifespan.

**Kramer et al. (2001) present a thorough examination of the socio-economic** disparities in preterm birth, aiming to elucidate the causal pathways and mechanisms underlying these disparities. The authors review existing literature and propose potential explanations for the observed association between socio-economic status (SES) and preterm birth outcomes.

The study highlights the complex interplay of social, environmental, and biological factors that contribute to socio-economic disparities in preterm birth. Kramer et al. discuss how low SES is associated with a range of adverse maternal health behaviors, such as smoking, poor nutrition, and inadequate prenatal care, which can increase the risk of preterm birth.

Additionally, the authors explore the impact of psychosocial stressors, including financial strain, neighborhood deprivation, and racism, on maternal health and pregnancy outcomes.

Through their review, Kramer et al. underscore the importance of addressing the social determinants of health to reduce socio-economic disparities in preterm birth. They advocate for comprehensive public health interventions that target upstream determinants of health inequality, such as poverty alleviation, improved access to healthcare, and social support for at-risk populations.

In conclusion, Kramer et al.'s review provides valuable insights into the complex relationship between socio-economic status and preterm birth, highlighting the need for multidimensional approaches to address the underlying causes of health disparities. Their findings underscore the importance of addressing social and environmental determinants of health to promote maternal and child health equity and reduce the burden of preterm birth on vulnerable populations.

**Parker et al. (1994) conducted a study to** investigate the associations between various measures of socioeconomic status (SES) and adverse birth outcomes, including low birth weight (LBW), small for gestational age (SGA), and premature delivery, in the United States. The authors aimed to identify specific socio-economic factors that may contribute to disparities in birth outcomes and inform public health interventions aimed at reducing health inequalities.

Using data from a nationally representative sample, Parker et al. found consistent associations between lower SES and increased risk of adverse birth outcomes. Specifically, they observed higher rates of LBW, SGA, and premature delivery among mothers with lower educational attainment, lower income levels, and non-white racial/ethnic backgrounds. These associations remained significant even after adjusting for potential confounding factors, highlighting the independent impact of socio-economic disadvantage on birth outcomes.

The study contributes to our understanding of the social determinants of health and underscores the importance of addressing socio-economic inequalities to improve maternal and child health outcomes. Parker et al. advocate for targeted public health interventions aimed at addressing the root causes of socio-economic disparities, such as poverty,

inadequate access to healthcare, and environmental stressors, to reduce the burden of adverse birth outcomes on vulnerable populations.

In conclusion, Parker et al.'s study provides compelling evidence of the associations between socio-economic status and adverse birth outcomes in the United States. Their findings highlight the need for comprehensive approaches to address social and economic inequalities and promote maternal and child health equity. By addressing the underlying determinants of health disparities, policymakers and public health practitioners can work towards improving birth outcomes and reducing health inequities across diverse populations.

**Stevenson et al. (2000) conducted a study to investigate** sex differences in outcomes among very low birth weight (VLBW) infants, with a focus on identifying potential disparities in morbidity and mortality between males and females. The authors aimed to elucidate the underlying mechanisms contributing to the observed "newborn male disadvantage" in neonatal outcomes.

Using data from a large multicenter cohort study, Stevenson et al. found that male VLBW infants experienced higher rates of mortality and morbidity compared to their female counterparts. Specifically, male infants were more likely to experience complications such as respiratory distress syndrome, intraventricular hemorrhage, and necrotizing enterocolitis, leading to poorer overall outcomes.

The study highlights the importance of considering sex as a biological variable in neonatal research and clinical practice. Stevenson et al. discuss potential biological and socio-cultural factors that may contribute to the observed sex differences in outcomes, including hormonal influences, immune responses, and healthcare utilization patterns.

The findings of the study have implications for neonatal care and intervention strategies aimed at reducing the burden of morbidity and mortality among VLBW infants, particularly male infants who may be at increased risk. Stevenson et al. advocate for tailored approaches to neonatal care that take into account sex-specific differences in vulnerability and response to treatment.

In conclusion, Stevenson et al.'s study provides compelling evidence of sex differences in outcomes among VLBW infants, highlighting the "newborn male disadvantage" in neonatal morbidity and mortality. Their findings underscore the need for further research to understand the underlying mechanisms driving these disparities and inform targeted interventions to improve outcomes for all VLBW infants, regardless of sex.

## **Objective of the Study:**

### **Overall Objective:**

- To understand Women's lived experience on preterm birth delivery.

### **Broad Objective:**

- To understand women's personal journey regarding her preterm birth delivery.
- To understand the barrier and facilitators to Care: during pregnancy, delivery and after delivery including priorities Antenatal care, Ultrasound and Child birth care.
- To identify the pregnancy complication and signs of preterm delivery.

## **Methodology:**

### **Study method:**

This study is explorative in nature that seeks to gather information about women's lived experience on her preterm delivery. For the purpose, this study employed mixed method design that applies both Qualitative and Quantitative research methodology.

Qualitative research was used to understand about inner views of women regarding her preterm delivery. So, in these part In-Depth Interview (IDI) have taken using purposive sampling from the mother who gave birth preterm delivery (less than 37 weeks) in three sub districts of Manikganj. Purposive sampling has been used to select for the study purpose. On the other, Quantitative research was used to understand about the situation regarding preterm birth. Hence, the list of women who delivered preterm baby in last three months (October, November and December 2023) had been collected from different birthing facilities of the study area (70 birthing hospitals).

### **Study Area:**

The Study has conducted in three sub districts (Manikganj Sadar, Satoria, Ghior) of Manikganj District. There are some logical reasons behind area selection:

- Approximately 10,000- 12,000 births per year and 1200 preterm birth (less than 37 weeks);
- High proportion of facility births. (At par with National average or higher);
- Having two medical college and one district hospital that can provide Comprehensive emergency obstetric and newborn care (CEmONC) facility, including caesarean section and these three-hospital having minimum package of care for preterm newborn (care at birth, Kangaroo Mother Care, feeding support, respiratory support including Continuous positive airway pressure (CPAP) and Oxygen service).

### **Population of the Study:**

As per definition of Preterm Women, Respondent was those women who gave birth before 37 completed weeks of Gestation Week.

### **Sampling Procedure and Sample size predetermines and Sources of Primary Data:**

In Qualitative part, Purposive sampling has been used for this study and interviews were continued up to reaching saturation level. (13 IDI).

In Quantitative Part, we have listed 80 women, who gave birth before 37 weeks in last three months (October, November, and December of 2023) at different birthing facilities (70). After finalizing the questionnaire, Survey method was conducted to collect data, these questionnaires were contained both close ended and open ended and data were collected from face-to-face survey as well as telephone survey.

**Secondary Data Collection:**

Secondary data were collected from different governmental and NGO Publication, Research report, Journal etc.

**Analysis and Interpretation of Data:**

In Qualitative part, collected data has been analyzed in thematic directions. All interviewed (13 IDI) were recorded. After completion of the interview, the tapes were transcribed and translated into English. Transcription of qualitative data occurred in parallel to data collection. The transcriptions were then coded. After coding the themes were identified and reviewed.

In Quantitative part, All Collected data were analyzed by using Computer software Microsoft Excel. The findings from the analysis were present by table, charts and figures.

## Result from the study:

### Socio-Demography Characteristic of the respondent:

| Socio Demographic Characteristic of the Respondent |       |                |
|----------------------------------------------------|-------|----------------|
|                                                    | N= 80 | Percentage (%) |
| <b>Place of Living Area</b>                        |       |                |
| Manikganj Sadar                                    | 37    | 46.25          |
| Ghior                                              | 20    | 25             |
| Saturia                                            | 23    | 28.75          |
| <b>Age Range of the Respondents</b>                |       |                |
| Below 20                                           | 29    | 36.25          |
| 21-25                                              | 30    | 37.5           |
| 26-30                                              | 15    | 18.75          |
| 31- Upper                                          | 6     | 7.5            |
| <b>Education Level of the Respondent</b>           |       |                |
| Primary                                            | 6     | 7.5            |
| S.S.C                                              | 39    | 48.75          |
| H.S.C                                              | 16    | 20             |
| Bachelor/Degree                                    | 14    | 17.5           |
| Masters                                            | 5     | 6.25           |
| <b>Occupation level Of the Respondent</b>          |       |                |
| Garments Worker                                    | 2     | 2.5            |
| Govt. Worker                                       | 6     | 7.5            |
| Housewife                                          | 52    | 65             |
| NGO Worker                                         | 2     | 2.5            |
| Student                                            | 14    | 17.5           |
| Business                                           | 4     | 5              |
| <b>Family Pattern of the Respondent</b>            |       |                |
| Nuclear Family                                     | 30    | 37.5           |
| Extended Family                                    | 50    | 62.5           |

The majority (46%) respondents were lived in Manikganj Sadar Area and rests of the respondents were lived in other two upazila of Manikganj district. Almost half (48.75%) respondents have completed Secondary School of Certificate and have completed different level of schooling. It is

significant that around 62.5% have lived in Extended family and most of the women are housewife (65%).

### **Antenatal Care (ANC) Service situation:**

ANC checkup is very important for a pregnant Woman. Many women are not taking ANC at the right time, so they are not aware of the problems of her pregnancy, there are many reasons behind not taking ANC at the right time, we have seen that most of the mothers are doing ANC checkup in the third trimester of their pregnancy, there are lots of reason behind taking ANC Later, In govt. facility, they have go in a fixed time and fixed date. It is not easy for a woman to taking ANC such a tide schedule as they have engaged in different household work.

| <b>Check up related information</b>      |             |                       |
|------------------------------------------|-------------|-----------------------|
|                                          | <b>N=80</b> | <b>Percentage (%)</b> |
| <b>No of taking Antenatal Care visit</b> |             |                       |
| One                                      | 2           | 2.5                   |
| Two                                      | 16          | 20                    |
| Three                                    | 36          | 45                    |
| Four                                     | 20          | 25                    |
| More than 4                              | 6           | 7.5                   |
| <b>Timestar of 1st Antenatal Care</b>    |             |                       |
| First Timestar                           | 22          | 27.5                  |
| Second Timestar                          | 49          | 61.25                 |
| Third Timestar                           | 9           | 11.25                 |
| <b>Place of taking Antenatal Care</b>    |             |                       |
| Private Hospital                         | 55          | 68.75                 |
| Public Hospital                          | 25          | 31.25                 |
| <b>No of taking Ultrasound</b>           |             |                       |
| One                                      | 24          | 30                    |
| Two                                      | 43          | 53.75                 |
| Three                                    | 10          | 12.5                  |
| Four                                     | 3           | 3.75                  |
| <b>Timestar of 1st Ultrasound</b>        |             |                       |
| One                                      | 18          | 22.5                  |
| Two                                      | 33          | 41.25                 |
| Three                                    | 29          | 36.25                 |
| <b>Place of taking Ultrasound</b>        |             |                       |
| Private Hospital                         | 72          | 90                    |
| Public Hospital                          | 8           | 10                    |

Earliest ANC checkup is required as soon as possible, as earliest ANC give an idea about the weight of the baby, the condition of the baby, but it appears that most of the mothers are doing ANC checkup at the very end of their pregnancy, there are various reasons behind it. Many are not sure about her pregnancy, family economic status, and cost of ANC etc.

According to a mother (recently gave birth),

*I didn't understand that I was pregnant at first, then when I realized later, I didn't go to the hospital, as family members said that it would be better to go after a few days, so we can assure about expected date of delivery, so I was late. (IDI, Recently gave birth women, 21, Manikganj)*

By doing an Ultrasonogram, it can easily identify the Gestation Age (GA) of women's Pregnancy, the condition of baby and as well as woman's overall condition, so the Ultrasonogram should be done as soon as possible, but most mothers do not want to do ultrasound earlier, because of the cost of Ultrasound are involved, they think that the Ultrasonogram can be done at the last moment of pregnancy. They think that last moment Ultrasound can explain the sex of baby, the weight of baby, the expected date of delivery etc. so, they do it later.

According to a mother (recently gave birth),

*I am doing Ultrasonogram very late; I have to go to Manikganj to do Ultrasound, so I have done Ultrasound lately at the Gestation date of 35 weeks. By doing this Ultrasound I have ensured about the sex of baby and expected date of delivery. It was a boy baby. (IDI, Recently gave birth women, 22, Manikganj)*

Government hospitals also don't do routine Ultrasonograms, as private hospitals cost more, so woman go for the late ultrasounds.

According to a mother (recently gave birth),

*When my labor pain had started, we went to Doyle hospital (Private Hospital) for delivery, after delivery, the doctor said that the baby was delivered preterm and having low birth. so the baby was referred from Doyal Hospital to Sadar Hospital, where baby was admitted to SCANU. (IDI, Recently gave birth women, 17, Ghior)*

| <b>Pregnancy Related Information</b> |      |                |
|--------------------------------------|------|----------------|
|                                      | N=80 | Percentage (%) |
| <b>Age of Marriage</b>               |      |                |
| Below 18                             | 28   | 35             |
| 18-22                                | 44   | 55             |
| 23-27                                | 8    | 10             |
| <b>Age of 1st Pregnancy</b>          |      |                |
| Below 18                             | 12   | 15             |
| 18-24                                | 61   | 76.25          |
| 25-30                                | 7    | 8.75           |
| <b>Number of Child</b>               |      |                |
| One                                  | 46   | 57.5           |
| Two                                  | 24   | 30             |
| Three                                | 8    | 10             |
| Four                                 | 2    | 2.5            |
| <b>Place of Delivery</b>             |      |                |
| Tertiary Level Hospital              | 12   | 15             |
| Secondary Level Hospital             | 8    | 10             |
| Private Hospital                     | 58   | 72.5           |
| Home                                 | 2    | 2.5            |
| <b>Mode of Delivery</b>              |      |                |
| Caesarian Section                    | 62   | 77.5           |
| Normal Vaginal Delivery              | 18   | 22.5           |

### **Age of marriage:**

Time of marriage for a girl is very important. In the context of our country, the age of marriage is set at 18, but we found that around 35% of women have married before the age of 18. Though Bangladesh has the highest prevalence of child marriage rate (51%) in South Asia, and is among the 10 countries worldwide with the highest levels, says by UNICEF.

Again, about 15 % of girls have their first child before the age of 18. Almost half of the woman has delivered for the baby for the first time. According to a mother (recently delivered),

*I got married three days after I finished my S.S.C examination, and had conceived on my first period after marriage. (IDI, Recently gave birth women, 17, Ghior)*

### **Mode of delivery:**

There are about 70 delivery centers in the three upazila of Manikganj district, including both government and private centers. We found that that about 77% deliveries are doing by caesarean section and the remaining deliveries are through normal vaginal delivery. The national prevalence of cesarean section deliveries in Bangladesh was 32% wherein the division of Dhaka and Khulna showed highest prevalence (42.7%) while Sylhet showed the lowest (22.6%).

According to a mother (recently gave birth),

*First, I went to the hospital for my delivery, I went to the government hospital, it was night, and there was no doctor, I couldn't do the ultrasound there then, and I went to a private hospital to deliver the baby, the doctor said that my physical condition was not good, so I had to have a caesarean section.*

**(IDI, Recently gave birth women, 21, Manikganj)**

A recently delivered woman have said that,

*If I want to go to the hospital, i have to go by ten o clock in the morning, I can't go as i have a lot of work at home in the morning. If went to the afternoon, I can't find a doctor in the hospital. (IDI,*

**Recently gave birth women, 27, Saturia)**

### **Right Place for delivery:**

A correct delivery center has much important for the delivery of woman, especially for those with a risk of breech or preterm delivery. Those who are likely to have breached or preterm delivery should be delivered in a hospital with excellent baby management or have CEMOC facility. But most people are not aware of this or don't have enough information, so they go elsewhere for delivery.

A recently delivered woman have said that,

*If I had known that my baby would be born early and my baby would have to be admitted for SCANU, I would not have gone anywhere for delivery, I would have gone to that hospital where have the SCANU facility, my baby has suffered a lot. (IDI, Recently gave birth women, 21, Manikganj)*

### **Special Service for Preterm baby:**

Premature babies have required special care, especially premature babies are suffering from lots of complications including breathing problems, and often seen that premature babies are underweighting, if the baby is not stable then the baby need to Special Care Neonatal Unit (SCANU) support. There

are two types of Preterm baby have identified. We found (57.5%) are the early preterm those are born before Gestation age of 32 weeks and (42.5%) were late preterm. From our data, we found that almost (63.75%) babies needed SCANU support, as most of the babies were preterm & unstable. Similarly those babies weights were less than 2000 gm also required KMC services. Around (20%) women have got KMC service.

| Last baby's Profile                |      |                |
|------------------------------------|------|----------------|
|                                    | N=80 | Percentage (%) |
| <b>Sex of the baby</b>             |      |                |
| Female                             | 33   | 41.25          |
| Male                               | 47   | 58.75          |
| <b>Weeks of Delivery</b>           |      |                |
| (24-28) Weeks                      | 14   | 17.5           |
| (29-32) Weeks                      | 32   | 40             |
| (33-36) Weeks                      | 34   | 42.5           |
| <b>Birth Weight Range</b>          |      |                |
| Below 1499                         | 14   | 17.5           |
| 1500-1999                          | 40   | 50             |
| 2000-2499                          | 24   | 30             |
| 2500- Upper                        | 2    | 2.5            |
| <b>Special Service</b>             |      |                |
| Special Care Neonatal Unit (SCANU) | 51   | 63.75          |
| Kangaroo Mother Care (KMC) Service | 11   | 20.37037       |

A recently delivered woman have said that,

*I have delivered a preterm baby at the Gestation age of 34 weeks approximately 1800 gm. After seeing my baby, the Pediatrician has referred my baby to SCANU. Nurses are doing all the care of my baby at SCANU. (IDI, Recently gave birth women, 20, Satoria)*

A recently delivered woman have said that,

*In front of SCANU, the hospital authority has arranged a meeting and informed us how to take care of baby, how to bath the baby and how to feed the baby after reaching home. (IDI, Recently gave birth women, 25, Ghior)*

**Preterm induction:**

| Complication found by the respondent during Pregnancy |      |                |
|-------------------------------------------------------|------|----------------|
|                                                       | N=80 | Percentage (%) |
| Antepartum Hemorrhage (APH)                           | 17   | 21.25          |
| Prelabor Rupture of Membranes (PROM)                  | 42   | 52.5           |
| Less Fetal Movement (LFM)                             | 43   | 53.75          |
| High Blood Pressure                                   | 12   | 15             |
| Vomiting                                              | 54   | 67.5           |
| Urinary Infection                                     | 24   | 30             |

A premature baby can be born due to various physical problems of the mother during her pregnancy. In case of some mother, it has seen that she has high blood pressure, vomiting problem during pregnancy, urinary infection, less fetal movement and also PROM. Sometime one patient also faced several problems too. From our data we found that most of the pregnant have vomiting issue (67.5%) during her pregnancy. Less fetal movement, high blood pressure and urinary infection stimulate to preterm delivery. From the data set, we found that around 53% women faced LFM issue during her pregnancy. A recently delivered woman have said that,

*During my pregnancy, i suddenly noticed that the baby was not moving anymore (LFM), then I got worried, then I rushed to the hospital and the delivery was done after going to the hospital. (IDI, Recently gave birth women, 18, Satoria)*

## Discussion:

Bangladesh was ranked 7th on the top-10 country list for high preterm birth rates in 2010 [1]. Although recent global estimates reported that sub-Saharan Africa and South Asia account for the majority (60%) of the globally estimated 14.9 million annual preterm births [1], available data on preterm birth rates from South Asian countries are scarce. Our estimate of 22.3% is consistent with data from similar regional community-based research sites in southern Nepal (NNIPS, Sarlahi, Nepal - 19%, (1)

Present study revealed that around 62.5% have lived in Extended family and most of the women are housewife (65%). Another study by Mili Khatun found that around 75% women were housewife and approximate 60% lead extended family. (10)

Age of marriage and first birth is an important issue. Present study revealed that around 15 % of girls have their first child before the age of 18. Almost half of the woman has delivered for the baby for the first time. Another study found that 26.5% of women who gave birth for the first time were below the 18 years.(11)

Education is the dimension of socioeconomic status that most strongly and consistently predicts health status A low level of education limits a person's access to employment and other social resources, which in turn limits his/her capacity to integrate within society and thereby increases the risk of subsequent poverty. Maternal education below Secondary level plays as a risk factor for preterm birth. (12-13)

We found that male sex was associated with preterm birth relative to girls, in our study we found around 58% are male which is consistent with previous studies in which 55% of all preterm births are boys (14).

Studies from several developing countries have found that “no ANC visit” is a significant risk factor for preterm birth, ranging from 1.3 times to 7 times higher than for women having any ANC visit .Visits to ANC centers and/or receiving ANC may raise awareness of the need for skilled delivery care (15) or give women and their families’ familiarity with the health services available at health centers or the skills of the service providers, thus enabling them to navigate and receive necessary care when a crises arises (16).

We found (57.5%) are the early preterm those are born before Gestation age of 32 weeks and (42.5%) were late preterm. From our data, we found that almost (63.75%) babies needed SCANU support, as most of the babies were preterm & unstable. Similarly, those babies’ weights were less than 2000 gm also required KMC services.Similarly, another study also revealed that 62.5% preterm unstable baby

needed SCANU support for saving the life of the preterm baby. (17) So, from discussion we have known a mixed experience of women regarding her preterm delivery.

### **Recommendations from the Study:**

From the study we have recommended in two different ways.

#### **For Medical Service Sector:**

- Increase the **provision of ANC checkup** facilities at lower-level hospital
- Provision of **USG service 24/7** in every hospital.
- Increase **Workforce** in the hospital.
- Strong **linkage between Lower-level hospitals to upper-level hospital** must ensure.
- Focus on **Hospital delivery** by medically trained person.
- Provision of Special Care Neonatal Unit (**SCANU**) should ensure at level 2 hospital.

#### **In Social Awareness:**

- Early Marriage should be stopped from the society.
- Woman should take first pregnancy after 20 ages of years.
- Pregnant woman should be encouraged to get earliest ANC & USG.
- People should be aware about the care preterm baby.

### **Strength & Limitations of the Study:**

Perhaps this was the first time we attempted to investigate women's experience regarding her preterm delivery at Manikganj. As this study followed Mixed methodology, so it can easily identify about women's lived experience both Statistically & Explanatory on her preterm delivery. All information were used confidentially only for this study. However, we have some limitations. First, the lists of mothers were collected from different birthing facility of Manikganj. It was not possible to collect all data, mostly those who were delivered in home. Second, gestational age was calculated from last menstrual period and by doing Ultrasound, these might sometimes be prone to errors. Third, some potential confounders such as previous preterm births, preterm stillbirth, cervical length, maternal malaria, infections, biological and genetic markers, etc. were not included in the study. Fourth, we were not conducted any interviewed those women, whose babies were died. Lastly, some information was collected on the basis of recall bias method.

**Conclusion:**

Preterm birth is a leading cause of neonatal and infant mortality as well as short- and long- term disability. In these studies women's experience regarding her preterm delivery were full of sufferings. Proper timing of marriage must have to followed, the national guideline about 18 and 1<sup>st</sup> pregnancy should take after 20 years old. As well as, a correct delivery center has much important for the delivery of woman, especially for those with a risk of breech or preterm delivery. Those who are likely to have breach or preterm delivery should be delivered in a hospital with excellent baby management or have CEMOC facility. Additionally, all lower level (primary) facilities including the private sector where births occur in the geographically defined health administrative area should linked to the high-level facility.

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