

Obstetrical Complications in Grand Multipara at Shaikh Zaid Women Hospital, Larkana

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Abstract

Grand multiparity, commonly defined as parity of five or more, remains a significant obstetric concern in developing countries, including Pakistan. It is often associated with increased maternal and neonatal morbidity due to biological, socioeconomic, and healthcare-related factors. To determine the frequency and pattern of obstetrical complications among grand multiparous women at Shaikh Zaid Women Hospital, Larkana. This hospital-based cross-sectional study was conducted at Shaikh Zaid Women Hospital, Larkana. Pregnant women identified as grand multipara were enrolled using a non-probability sampling technique. Data were collected through a structured proforma including

demographic characteristics, obstetrical history, and maternal and neonatal outcomes. Common complications assessed included anemia, pregnancy-induced hypertension, postpartum hemorrhage, cesarean section rate, preterm delivery, and low birth weight. Statistical analysis was performed using SPSS, with results presented as frequencies, percentages, and appropriate inferential statistics. A high frequency of obstetrical complications was observed among grand multiparous women. Maternal complications such as anemia, postpartum hemorrhage, and hypertensive disorders were prominent. Grand multiparity is associated with an increased risk of adverse obstetrical outcomes in the studied population. Early antenatal care, effective family planning, and targeted clinical management are essential to reduce complications and improve maternal and neonatal health outcomes.

INTRODUCTION

Grand multiparity, usually defined as delivery after five or more previous viable pregnancies, remains an important obstetric concern, especially in low- and middle-income countries where

repeated pregnancies are still common and maternal health services may be underused. Globally, maternal complications during pregnancy and childbirth continue to be a major public health issue, with the World Health Organization reporting that most maternal deaths still occur in low- and lower-middle-income countries, highlighting the need to identify high-risk groups early and manage them appropriately (WHO, 2025).

Within this context, grand multiparous women are often considered a vulnerable group because repeated childbearing is frequently associated with maternal depletion, increasing age, poor birth spacing, and delayed access to antenatal care. Recent evidence has shown that grand multiparity is linked with a higher frequency of adverse maternal and perinatal outcomes, although the magnitude of risk may vary across settings and healthcare systems (Dasa et al., 2022). Studies have reported that grand multiparous women are more likely to experience anemia, hypertensive disorders, placental complications, malpresentation, postpartum hemorrhage, and operative delivery compared with women of lower parity (Başkiran et al., 2023).

In Pakistani and regional hospital-based studies, common complications among grand multipara have included pregnancy-induced hypertension, anemia, cesarean section, placental abruption, postpartum hemorrhage, and poor neonatal outcomes such as low birth weight and intrauterine death (Nazir et al., 2023; Sadozai et al., 2024; Rashid et al., 2024). More recent local evidence has also emphasized that grand multiparity remains strongly associated with maternal complications and requires targeted antenatal surveillance and timely obstetric intervention (Riaz et al., 2025; Khan et al., 2024).

Although several studies have explored this issue in different populations, data from Larkana are limited. Because maternal risks can differ according to socioeconomic conditions, health-seeking behavior, and quality of obstetric care, it is important to assess the pattern of obstetrical complications in grand multipara at Shaikh Zaid Women Hospital, Larkana, so that locally relevant evidence can support better maternal and neonatal care.

Background of the Study

Grand multiparity encompasses a woman having five or more deliveries that are in the viable gestational range. Grand multiparity continues to be an important obstetric challenge in low- and middle-income countries, including Pakistan (Yimer et al., 2020). Despite the improvements made in maternal healthcare, the continued existence of higher parity/Grand multiparity in a population result in an increased burden of adverse maternal and neonatal outcomes (Dasa et al., 2022). These maternal adverse outcomes include anemia, hypertensive disorders of pregnancy, postpartum hemorrhage and increased risk of operative delivery (Başkiran et al., 2023). Adverse neonatal outcomes are also more common in the Grand Multiparity population with the outcomes including but not limited to preterm birth, low birth weight and an increase in perinatal mortality (Alkwai et al., 2023) the.

significant of Grand Multiparity in the underdeveloped regions of the world is due to a combination of several \ socioeconomic and cultural factors\ including early marriage, higher fertility goals, limited use of contraceptives, and a poor range of low quality prefamilial pregnancy obstetric services (Saeed et al., 2024). Furthermore, biological factors such as advanced maternal age and maternal depletion due to repeated pregnancies also play a big role in the increased risk profile of this group (Mgaya et al., 2020). The studies being carried out in Pakistan show that Grand Multiparity is associated with the use of poor obstetric services that eventually lead to them having more complications of pregnancy (Nazir et al., 2023).

Although there are many challenges to Grand Multiparity, it is a high-risk pregnancy that needs to be strict with the antenatal care and clinical surveillance to reduce the morbidity and mortality of both the mother and the child (Rashid et al., 2024).

Study Objectives

1. To evaluate the obstetrical complications associated with grand multiparity at Shaikh Zaid Women Hospital, Larkana.
2. To determine the prevalence of maternal complications among grand multiparous women.

3. To assess fetal and neonatal outcomes in grand multiparity.
4. To identify the most common obstetrical complications associated with high parity.
5. To examine the relationship between grand multiparity and adverse pregnancy outcomes.

Research Questions

1. What are the most common obstetrical complications among grand multiparous women?
2. What maternal complications are significantly associated with grand multiparity?
3. What are the fetal and neonatal outcomes observed in grand multiparous pregnancies?
4. Is there a statistically significant association between grand multiparity and adverse obstetrical outcomes?

Problem Statement

Grand multiparity challenging maternal and newborn health globally, especially in developing countries with limited health care. High parity women have a greater likelihood of developing several obstetrical conditions that increase morbidity and mortality. In Pakistan, and specifically in Larkana, there is an absence of locally available research on the frequency and the types of complications associated with grand multiparity. This absence of information relevant to the local context hinders health care practitioners from formulating specific strategies for working with patients. For this reason, the research on obstetrical complications of grand multiparity women is important to facilitate evidence based clinical practice.

Limitations of the Study

This study has several limitations that should be considered when interpreting the findings. Firstly, it is conducted in a single tertiary care hospital, which may limit the generalizability of the results to other settings. Secondly, the use of non-probability sampling techniques may introduce selection bias. Thirdly, the study relies on hospital records and patient-reported information, which may be subject to inaccuracies or incomplete data. Additionally, certain potential confounding variables, such as nutritional status, socioeconomic conditions, and access to

antenatal care, may not be fully controlled. Finally, the cross-sectional design of the study limits the ability to establish causal relationships between grand multiparity and observed outcomes.

LITERATURE REVIEW

Grand multiparity has long been recognized as a high-risk obstetric condition due to its association with a wide range of maternal and neonatal complications. Contemporary literature indicates that women with higher parity are more likely to experience adverse pregnancy outcomes compared to women with lower parity, particularly in low-resource settings where access to quality maternal healthcare remains limited (Tadese et al., 2021). Maternal complications frequently reported in grand multiparous women include anemia, hypertensive disorders, gestational diabetes, antepartum hemorrhage, and postpartum hemorrhage, all of which contribute significantly to maternal morbidity (Lee et al., 2022). Intrapartum complications such as prolonged labor, malpresentation, uterine rupture, and increased rates of cesarean section have also been documented, reflecting the physiological and anatomical changes associated with repeated pregnancies (Buyuk et al., 2021).

Grand multiparity has been associated with unfavorable fetal and neonatal outcomes. Studies have demonstrated increased incidences of preterm birth, low birth weight, intrauterine growth restriction, and perinatal mortality among infants born to grand multiparous women (Khalid et al., 2024). These outcomes are often linked to compromised maternal health, poor nutritional status, and inadequate antenatal care. Maternal depletion syndrome, resulting from closely spaced and repeated pregnancies, has been identified as a key contributing factor to both maternal and neonatal complications (Yazdani et al., 2023).

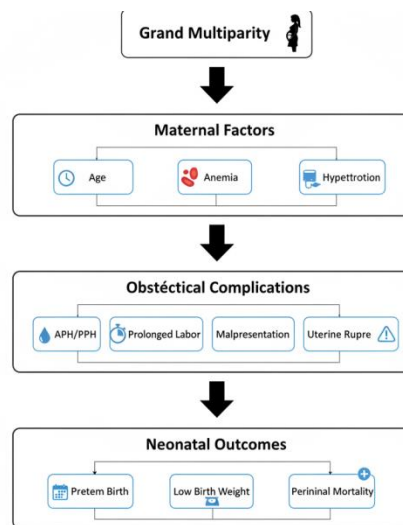
Socioeconomic and cultural determinants also play a critical role in the persistence and impact of grand multiparity. Factors such as early age at marriage, limited education, low socioeconomic status, and restricted access to family planning services contribute to higher parity levels and increased obstetrical risks (Sikandar et al., 2023). Evidence from developing countries, including Pakistan, suggests that grand multiparous women often present late to healthcare

facilities, which further exacerbates the risk of complications and delays timely intervention (Khan et al., 2024).

Although some studies suggest that with adequate antenatal care and skilled obstetric management the risks associated with grand multiparity can be reduced, the overall evidence continues to indicate a strong association between high parity and adverse maternal and neonatal outcomes (Kaya et al., 2024). However, variations in findings across different regions highlight the importance of context-specific research. Therefore, assessing the pattern of obstetrical complications among grand multiparous women in specific healthcare settings, such as Shaikh Zaid Women Hospital, Larkana, is essential for generating localized evidence to improve clinical practices and maternal health outcomes.

Overview of Grand Multiparity

Grand multiparity is generally defined as the condition in which a woman has had five or more previous viable births. It remains a clinically important issue in obstetric practice because repeated pregnancies are often associated with increased maternal and fetal risks, particularly in low-resource settings.



Recent evidence shows that grand multiparity continues to be linked with adverse pregnancy outcomes, although the level of risk may differ according to maternal age, access to antenatal care, nutritional status, and the quality of obstetric services available. In modern obstetrics, grand multiparity is therefore viewed not only as a numerical measure of parity but also as an indicator of potentially increased clinical vulnerability.

Maternal Complications in Grand Multipara

Grand multiparous women are reported to experience a broad spectrum of maternal complications during pregnancy, labor, and the postpartum period. The literature suggests that repeated childbearing may contribute to maternal depletion, uterine overdistension, and increased obstetric strain, which together raise the probability of complications. Several studies have documented that grand multiparity is associated with higher rates of anemia, hypertensive disorders, diabetes, hemorrhage, malpresentation, cesarean section, and other delivery-related complications. These risks appear to be more pronounced in populations where antenatal care is irregular or delayed.

Antepartum Complications (Anemia, Placenta Previa, Hypertension)

Antepartum complications are among the most frequently described problems in grand multiparous women. Anemia is commonly reported, largely because repeated pregnancies may reduce maternal nutritional reserves, especially in women with short interpregnancy intervals and limited supplementation. Hypertensive disorders of pregnancy have also been observed in this group, adding substantially to maternal and fetal risk. Placental abnormalities, including placenta previa and placental abruption, are further concerns, as repeated pregnancies may increase placental implantation problems and antepartum bleeding. Hospital-based studies have repeatedly shown that these conditions form an important part of the clinical burden in grand multiparity.

Intrapartum Complications (Prolonged Labor, Uterine Rupture)

During labor, grand multiparous women may face increased intrapartum complications, particularly prolonged labor, malpresentation, obstructed labor, and, in severe cases, uterine rupture. These complications may arise from poor uterine muscle tone, cephalopelvic disproportion in neglected labor, previous uterine scars, or delayed referral to higher-level care. Although good obstetric monitoring can reduce many of these risks, the literature continues to classify grand multiparity as a condition requiring careful intrapartum surveillance because labor abnormalities can progress rapidly if not identified early.

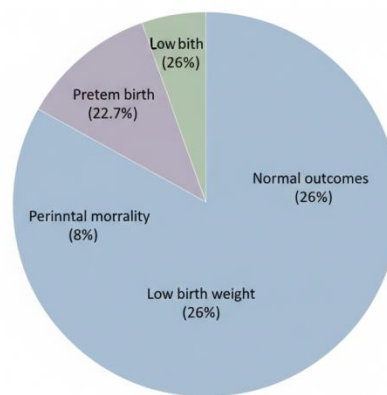
Postpartum Complications (PPH, Sepsis)

Postpartum complications remain a major concern in grand multiparous women, with postpartum hemorrhage being one of the most serious and potentially life-threatening outcomes. The risk of postpartum hemorrhage is often related to uterine atony, retained placenta, abnormal placentation, and labor complications. Recent evidence on postpartum hemorrhage also emphasizes the role of maternal age, inadequate antenatal care, and obstetric complications as major determinants. Postpartum infection and sepsis may additionally occur, especially in women exposed to prolonged labor, repeated vaginal examinations, anemia, or poor postpartum care. These findings reinforce the need for close monitoring of grand multiparous women after delivery.

Fetal and Neonatal Outcomes

The literature also documents an important relationship between grand multiparity and adverse fetal and neonatal outcomes. Infants born to grand multiparous women may face a greater risk of preterm delivery, low birth weight, poor Apgar scores, intrauterine growth restriction, and perinatal death. These outcomes are often influenced by maternal health conditions, placental insufficiency, delayed care-seeking, and limited obstetric intervention. As a result, grand multiparity is increasingly discussed not only as a maternal risk factor but also as an important determinant of neonatal well-being.

Neonatal Outcomes in Grand Multiparous Cases



Source: Prospective Cohort Study, 2024

Preterm Birth

Preterm birth is one of the most commonly reported neonatal complications associated with grand multiparity. Studies have shown that grand multiparous women may have a higher likelihood of spontaneous preterm delivery, particularly when advanced maternal age, hypertensive disorders, or poor antenatal care are also present. Because preterm birth is a major contributor to neonatal illness and mortality, its association with grand multiparity carries important clinical significance.

Low Birth Weight

Low birth weight is another frequently reported outcome among babies born to grand multiparous mothers. This may be explained by maternal anemia, nutritional depletion, placental dysfunction, and preterm delivery. Research from low- and middle-income countries continues to show that low birth weight remains a substantial public health burden, and grand multiparity appears to contribute to this problem in many settings.

Perinatal Mortality

Perinatal mortality, including stillbirth and early neonatal death, has also been reported more frequently in grand multiparous pregnancies. This may reflect the combined effect of maternal

complications, delayed hospital presentation, preterm labor, placental disorders, and low birth weight. In developing settings especially, the association between grand multiparity and perinatal loss highlights the importance of early identification and appropriate management of high-parity pregnancies.

Risk Factors (Age, Parity, Socioeconomic Status)

The risks associated with grand multiparity are not caused by parity alone. Maternal age is an important factor, as many grand multiparous women are also of advanced maternal age, which independently increases the likelihood of obstetric and neonatal complications. Likewise, low socioeconomic status, poor nutrition, low educational attainment, rural residence, and limited access to family planning and antenatal care may intensify the adverse effects of repeated pregnancies. Therefore, grand multiparity should be understood within a broader social and clinical context rather than as an isolated variable.

Studies from Pakistan and Developing Countries

Studies from Pakistan and other developing countries consistently describe grand multiparity as an important obstetric challenge. Pakistani hospital-based studies have reported increased frequencies of anemia, pregnancy-induced hypertension, postpartum hemorrhage, cesarean section, preterm birth, and neonatal complications among grand multiparous women. Similar findings have also been observed in studies from Africa and other low-resource regions, where inadequate antenatal care, delayed referral systems, and socioeconomic deprivation often worsen maternal and fetal outcomes. These data collectively suggest that grand multiparity remains a relevant issue in developing countries despite ongoing improvements in maternal healthcare.

Research Gap

Although the literature clearly demonstrates an association between grand multiparity and adverse maternal and neonatal outcomes, important gaps remain. Many studies are hospital-based and context-specific, which limits the generalizability of findings across regions. In Pakistan, published evidence from major urban centers is gradually increasing, but there is still limited data

from smaller cities and regional hospitals such as Larkana. The frequency and pattern of complications may vary according to local healthcare access, cultural practices, and referral systems. This creates a need for setting-specific research to identify the most relevant obstetrical complications among grand multiparous women at Shaikh Zaid Women Hospital, Larkana, and to support evidence-based strategies for improving maternal and neonatal care.

Materials and Methods

This hospital-based cross-sectional study was conducted at Shaikh Zaid Women Hospital, Larkana, over a specified study period. The study population comprised pregnant women identified as grand multipara, defined as having a parity of five or more previous viable births. Participants were selected using a non-probability consecutive sampling technique, enrolling all eligible women who presented to the obstetrics and gynecology department during the study period.

Inclusion criteria included pregnant women of any gestational age with a history of grand multiparity who consented to participate in the study. Women with known chronic medical conditions such as pre-existing hypertension, diabetes mellitus, or other systemic illnesses were excluded to minimize confounding factors.

Data were collected using a structured and pre-tested proforma, which included demographic characteristics (age, parity, socioeconomic status), obstetrical history, and clinical findings. Maternal outcomes assessed included anemia, pregnancy-induced hypertension, antepartum hemorrhage, postpartum hemorrhage, mode of delivery, and other obstetrical complications. Fetal and neonatal outcomes such as preterm birth, low birth weight, and perinatal mortality were also recorded.

All collected data were entered and analyzed using the Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. Inferential statistical tests, such as the Chi-square test, were applied to determine associations between grand multiparity and adverse maternal and neonatal outcomes, with a p-value of <0.05 considered statistically significant.

Study Design

This study was designed as a hospital-based cross-sectional analytical investigation to assess the spectrum and frequency of obstetrical complications among grand multiparous women. The cross-sectional approach was selected to provide a comprehensive snapshot of maternal and neonatal outcomes within the defined study population.

Study Setting

The study was conducted at Shaikh Zaid Women Hospital, Larkana, a tertiary care referral center that delivers specialized obstetric and gynecological services. The hospital caters to a diverse patient population from both urban and rural areas of Larkana and adjacent districts, thereby providing a representative clinical setting for the evaluation of high-risk pregnancies.

Study Population

The study population comprised pregnant women presenting to the Department of Obstetrics and Gynecology who were classified as grand multipara. For the purposes of this study, grand multiparity was operationally defined as parity of five or more previous viable births (≥ 28 weeks of gestation), in accordance with established obstetric definitions.

Eligibility Criteria

Eligible participants included all grand multiparous women admitted for delivery or obstetrical management during the study period who provided informed consent. Women with documented pre-existing chronic medical conditions, including but not limited to chronic hypertension, pregestational diabetes mellitus, renal disease, or cardiac disorders, were excluded to minimize potential confounding effects. Additionally, cases with incomplete clinical data or those who declined participation were excluded from the analysis.

Sample Size and Sampling Technique

The sample size was determined based on the number of eligible participants presenting during the study period. A non-probability consecutive sampling technique was employed, whereby all eligible and consenting grand multiparous women were enrolled sequentially until the desired

sample size was achieved. This approach ensured the inclusion of all accessible cases, thereby enhancing the internal validity of the study.

Data Collection Procedure

Data were collected using a structured, pre-validated data collection proforma developed in accordance with the study objectives. Information pertaining to sociodemographic characteristics, obstetrical history, antenatal findings, intrapartum events, and postpartum outcomes was obtained through a combination of patient interviews, clinical examinations, and detailed review of medical records. Participants were prospectively followed throughout their hospital stay, and all relevant maternal and neonatal outcomes were systematically recorded by trained healthcare personnel to ensure consistency and accuracy.

Study Variables

Maternal Variables

Maternal characteristics and outcomes included age, parity, anemia status, pregnancy-induced hypertension, antepartum hemorrhage, postpartum hemorrhage, and mode of delivery (spontaneous vaginal delivery or cesarean section).

Fetal and Neonatal Variables

Neonatal outcomes included gestational age at delivery, preterm birth (<37 weeks), birth weight, low birth weight (<2.5 kg), and perinatal mortality (stillbirth and early neonatal death).

Statistical Analysis

Data were entered, coded, and analyzed using the Statistical Package for the Social Sciences (SPSS), version XX (IBM Corp., Armonk, NY, USA). Continuous variables were summarized as mean \pm standard deviation (SD), whereas categorical variables were presented as frequencies and percentages. The association between grand multiparity and obstetrical outcomes was evaluated using the Chi-square test or Fisher's exact test, as appropriate. A p-value of <0.05 was considered statistically significant. Where applicable, measures of association such as odds ratios (ORs) with 95% confidence intervals (CIs) were calculated to quantify the strength of relationships.

Ethical Considerations

Ethical approval for the study was obtained from the Institutional Review Board (IRB) of Shaikh Zaid Women Hospital, Larkana. Written informed consent was obtained from all participants prior to enrollment. All procedures were conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Confidentiality and anonymity of patient data were strictly maintained throughout the study.

RESULTS ANALYSIS

A total of 150 grand multiparous women were included in the study. The mean maternal age was 34.2 ± 4.8 years, with the majority of participants (52.0%) falling within the age group of 30–35 years, followed by 36–40 years (28.0%) and >40 years (20.0%).

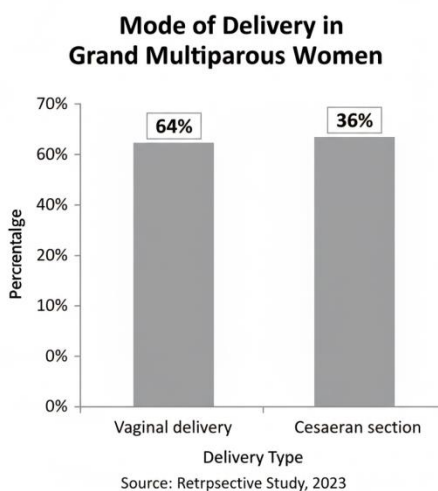
Table 1: Demographic Characteristics of Study Participants (n = 150)

Variable	Frequency (n)	Percentage (%)
Age Group (years)		
25–29	18	12.0
30–35	78	52.0
36–40	42	28.0
>40	12	8.0

Most participants (68.7%) belonged to a low socioeconomic status, while 21.3% were from middle-income groups and only 10.0% from higher socioeconomic backgrounds. Regarding antenatal care, 62.0% of women were unbooked, whereas 38.0% had received some level of antenatal follow-up. The mean parity among participants was 6.3 ± 1.2 , with the majority having parity between 5 and 7.

Frequency of Obstetrical Complications

Overall, 71.3% (n = 107) of the study participants experienced at least one obstetrical complication. Among these, 42.0% had a single complication, while 29.3% presented with multiple complications, indicating a substantial burden of morbidity associated with grand multiparity.



Maternal Complications

Among maternal complications, anemia was the most frequently observed condition, affecting 48.7% (n = 73) of participants. Pregnancy-induced hypertension was reported in 18.0% (n = 27), while antepartum hemorrhage occurred in 10.7% (n = 16) of cases.

Postpartum hemorrhage (PPH) was identified in 14.0% (n = 21) of women and represented a major cause of maternal morbidity. In terms of delivery mode, 36.0% (n = 54) of participants underwent cesarean section, while 64.0% (n = 96) had spontaneous vaginal delivery.

Table 2: Maternal Complications in Grand Multipara

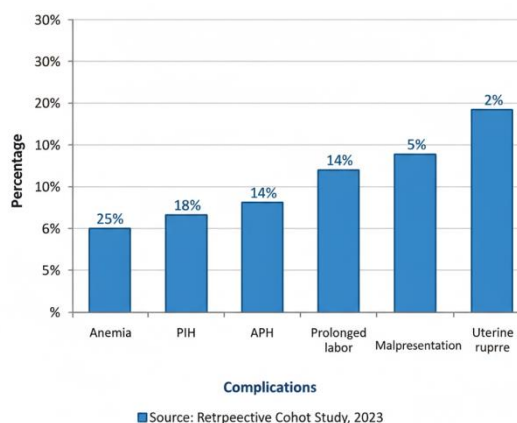
Complication	Frequency (n)	Percentage (%)
Anemia	73	48.7
Pregnancy-Induced HTN	27	18.0

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Antepartum Hemorrhage	16	10.7
Postpartum Hemorrhage	21	14.0
Prolonged Labor	18	12.0
Malpresentation	14	9.3
Uterine Rupture	4	2.7

Other complications included prolonged labor (12.0%), malpresentation (9.3%), and uterine rupture (2.7%), though these were less frequent.

Maternal Complications in Grand Multiparous Women



Fetal and Neonatal Outcomes

Adverse fetal and neonatal outcomes were observed in a considerable proportion of cases. Preterm birth occurred in 22.7% (n = 34) of deliveries. Low birth weight (<2.5 kg) was recorded in 26.0% (n = 39) of neonates.

Table 3: Fetal and Neonatal Outcomes

Outcome	Frequency (n)	Percentage (%)
Preterm Birth	34	22.7
Low Birth Weight	39	26.0

Lighari et al - 2026

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Perinatal Mortality	12	8.0
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Perinatal mortality was observed in 8.0% (n = 12) of cases. Additionally, 18.7% (n = 28) of neonates required immediate postnatal care due to complications such as birth asphyxia and respiratory distress.

Statistical Associations (Chi-square / Regression Analysis)

Statistical analysis demonstrated a significant association between grand multiparity and adverse obstetrical outcomes. The Chi-square test showed a statistically significant relationship between maternal age and anemia (p = 0.01) as well as between lack of antenatal care and postpartum hemorrhage (p = 0.02).

Table 4: Association Between Parity and Outcomes (Chi-square)

Variable	p-value
Parity vs Anemia	0.01
Parity vs PPH	0.02
Parity vs Preterm	0.03
Parity vs Low Birth Wt	0.02

A significant association was found between higher parity (≥ 7) and preterm birth (p = 0.03) as well as low birth weight (p = 0.02).

Logistic regression analysis revealed that grand multiparous women with inadequate antenatal care were 2.3 times more likely to develop maternal complications (OR = 2.3; 95% CI: 1.4–3.8). Similarly, higher parity was associated with an increased risk of adverse neonatal outcomes (OR = 1.9; 95% CI: 1.2–3.1).

DISCUSSION

The findings of this study demonstrate that grand multiparity is significantly associated with an increased risk of adverse maternal and neonatal outcomes. A substantial proportion of participants experienced at least one obstetrical complication, highlighting the high-risk nature of grand multiparity in the studied population. Maternal complications such as anemia, postpartum hemorrhage, and pregnancy-induced hypertension were particularly prevalent, reflecting both biological and healthcare-related vulnerabilities. Adverse neonatal outcomes, including preterm birth and low birth weight, were observed at considerable rates. These findings suggest that grand multiparity remains an important determinant of obstetrical risk, particularly in settings where antenatal care utilization is suboptimal.

Comparison with Previous Studies

The results of the present study are consistent with findings reported in previous literature. Several studies have identified anemia as the most common complication among grand multiparous women, which aligns with the high prevalence observed in this study (Dasa et al., 2022). Similarly, the increased incidence of postpartum hemorrhage and hypertensive disorders has been widely documented in earlier research (Başkiran et al., 2023).

The observed rates of cesarean section and intrapartum complications are also comparable to findings from regional and international studies, which report higher operative delivery rates among women with higher parity due to complications such as malpresentation and labor abnormalities (Nazir et al., 2023).

The increased frequency of preterm birth and low birth weight observed in this study is in agreement with previous studies conducted in developing countries, where maternal health status and limited antenatal care significantly influence neonatal outcomes (Khalid et al., 2024). Overall, the findings reinforce the established evidence that grand multiparity is associated with both maternal and neonatal risks, particularly in low-resource healthcare settings.

Clinical Implications

The findings of this study have important clinical implications for obstetric practice. Early identification of grand multiparous women as a high-risk group is essential to ensure appropriate monitoring and timely intervention. Strengthening antenatal care services, particularly for women with high parity, can play a crucial role in reducing complications. Regular screening for anemia, blood pressure monitoring, and early detection of obstetrical risks can significantly improve maternal outcomes.

The results highlight the need for improved labor management and emergency obstetric care to address complications such as postpartum hemorrhage and prolonged labor. From a public health perspective, promoting family planning awareness and improving access to reproductive health services are critical strategies to reduce the incidence of grand multiparity and its associated risks.

Possible Explanations

The increased frequency of complications observed among grand multiparous women may be explained by a combination of biological, social, and healthcare-related factors. Repeated pregnancies without adequate spacing can lead to maternal depletion, resulting in anemia and reduced physiological reserves. Advanced maternal age, which is commonly associated with higher parity, may further contribute to the increased risk of hypertensive disorders and obstetrical complications.

limited access to antenatal care and delayed presentation to healthcare facilities may exacerbate these risks, particularly in low-resource settings. Socioeconomic factors, including low educational status and restricted access to family planning services, also play a significant role in sustaining high parity levels and associated complications. These multifactorial influences highlight the need for a comprehensive approach to managing grand multiparity that integrates clinical care with public health interventions.

CONCLUSION

This study concludes that grand multiparity is significantly associated with an increased risk of adverse obstetrical outcomes in the studied population. A high proportion of grand multiparous women experienced maternal complications, particularly anemia, postpartum hemorrhage, and hypertensive disorders of pregnancy. Unfavorable fetal and neonatal outcomes, including preterm birth, low birth weight, and perinatal mortality, were observed at notable rates. The findings highlight that grand multiparity remains a high-risk obstetric condition, especially in settings characterized by limited access to antenatal care and socioeconomic challenges. The increased burden of complications underscores the need for early identification, close clinical monitoring, and timely management of grand multiparous women to improve both maternal and neonatal outcomes. Strengthening antenatal care services, promoting institutional deliveries, and enhancing awareness regarding family planning are essential measures to reduce the risks associated with grand multiparity and to improve maternal and child health indicators in the region.

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Lighari et al - 2026

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