

MATERNAL CARE DISPARITIES: IMPACT OF PREGNANCY PROFILES , SOCIOECONOMIC FACTORS, AND AGE ON MATERNAL OUTCOMES

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ABSTRACT OBJECTIVES

This study aimed to evaluate the impact of pregnancy profiles, socioeconomic factors, and age on maternal at teaching hospitals in Mardan, Khyber Pakhtunkhwa.

METHODOLOGY

This descriptive-exploratory/qualitative study was conducted at the genealogical outside-patient department of the Mardan Medical Complex, with the approval of the ethics committee. A total of 1187 patients attended the complex between January 2021 and January 2022. Informed consent was obtained, and a comprehensive history and physical examination were conducted using a pre-designed proforma. Patients meeting specific criteria, such as gestational age >36 weeks, singleton pregnancies, and absence of maternal co-morbidities, were included. Exclusion criteria encompassed conditions such as antepartum haemorrhage and fetal anomalies. Data analysis was performed using SPSS-24 version, ensuring the confidentiality and anonymity of participants.

RESULTS

Out % of 1187 patients, 48% had previous pregnancies (multiparous), while 52% were experiencing their first pregnancy (primiparous). Gestational age distribution showed that 45% of cases fell within the 36-38 week range, and 55% were between 39-40 weeks. Regarding booking status, 29% of patients were booked, while 71% were unbooked. Finally, the socioeconomic status analysis indicates that 61% of cases were above the poverty line, while 39% were below. These findings highlight important factors such as previous pregnancies, gestational age, booking status, and socioeconomic status that can influence maternal care and outcomes. Among the different age groups, the <20 age group had the highest percentage of spontaneous deliveries (31%), while the >30 age group had the highest percentage of cesarean sections (25%). Induced labour rates were relatively consistent across age groups. Not being in labour was more prevalent in the 25-30 and >30 age groups.

CONCLUSION

The findings highlight that important factors such as previous pregnancies, gestational age, booking status, and socioeconomic status can influence maternal care and outcomes.

KEYWORDS: Pregnancy, Age, Gestational, Socioeconomic status, Maternal

INTRODUCTION

When a woman was about to die, an abdominal incision was made to save the child in 1610. In 1610, a woman underwent what is believed to be the first recorded abdominal childbirth. Following that, abdominal delivery was subsequently tried in numerous ways and circumstances, which is known as a caesarean section. A Caesarean section is a surgical procedure in which the mother's abdomen and uterus are incised multiple times to deliver the baby. With other techniques, Caesarean sections can result in complications such as pelvic and wound infections, breathing issues, urinary

tract infections, lung emboli, thrombosis, and other anesthetic effects. Only when there is a risk to the mother's or the baby's health, and there is no hope of normal birth, should a Caesarean section be performed.¹ Unfortunately, having a Caesarean section to avoid labor agony has become culturally accepted. It had a negative impact on public health. Most Caesarean sections are carried out at the mothers wish rather than for any medical reason.² Pakistan ranks fifth in the world for maternal mortality, and 6% of all maternal fatalities occur there. The standard ratio, 5% to 10%, has dramatically increased the Caesarean section rate. Most Caesarean sections are performed solely at the

mother's request and without complications or medical needs. Of all caesarean deliveries, 8% to 14% are completed at the mother's request. There aren't many other characteristics besides maternal effects like high maternal education and maternal age that lead pregnant women to elect Caesarean sections.^{1,2,3} A normal and physiological process, vaginal birth. In some cases, a cesarian section may be necessary to preserve the health of the mother and the unborn child. Underutilization of CS under these conditions raises maternal and neonatal mortality and morbidity. Contrarily excessive use (i.e., using CS without a medical reason) has not demonstrated any benefits, may be harmful, and wastes human and financial resources.^{4,5,6} It is a challenge in public health while optimizing the use of CS in regional concern.^{7,8} In this context, many nations experience a double burden associated with CS (i.e., an unmet need for CS coupled with CS given in a hazardous manner). In contrast, others, primarily due to health inequalities, experience a triple burden (i.e., the double duty that affects a fraction of the population is aggravated by the overuse of CS in another fraction of the population) it. It might be predicted that the abuse of CS, hazardous provision of CS, and unmet requirement of CS may emerge as an obstacle to achieving sustainable health development goals given the forecasts of large population growth in countries afflicted by the double and triple burden.^{9,10} Estimates of CS usage at the global and regional levels have been released to track advancements and shifts toward global health goals. To create projections within the time limit for accomplishing the common health goals, we set up to update this earlier estimations.¹¹ Based on these forecasts, policymakers and other stakeholders could develop policies to lessen the burden of dangerous CS, overusing CS and unmet CS needs. Due to the overuse of CS and difficulties that can occur during and after surgery, CS has become a serious public health concern.¹² This study will be helpful to understand better understanding the trend of Caesarean Sections among childbearing women in the Mardan medical complex and pinpoint the presenting factors linked to the shift in caesarean deliveries. It will also be helpful to evaluate the attitudes of pregnant women that lead them to choose a Caesarean section without any medical justification. The purpose of this study was to examine the factors that contribute to Caesarean sections and to assess whether or not women choose these procedures when there is no medical necessity.

METHODOLOGY

This descriptive-exploratory/qualitative study was conducted at the genealogical outside-patient department of the Mardan Medical Complex, following

the approval of the ethics committee. The study period spanned from January 2021 to January 2022, during which 1187 patients attended the complex. The inclusion criteria consisted of patients with a gestational age greater than 36 weeks, singleton pregnancies, absence of maternal co-morbidities, and willingness to grant permission for participation. A comprehensive history and physical examination were conducted after obtaining informed consent from the patients. Data collection was carried out through interviews conducted at the outpatient department (OPD) and on the wards. A pre-designed proforma was utilized to gather information. Exclusion criteria included antepartum haemorrhage, major maternal co-morbid conditions, fetal development limitations, and anomalies. Throughout the study, the rights of research subjects were respected according to the guidelines established by the ethics committee of the Mardan Medical Complex/BKMC-MTI. Informed consent was obtained from participants through a consent form, ensuring the confidentiality of their name and identity. Anonymity and confidentiality were strictly maintained, and participants had the option to withdraw from the study at any time. Data analysis was performed using the randomized sample method with SPSS-24 Version.

RESULTS

A total of 1187 patients were enrolled in the study. After collecting data following results were analyzed.

Table 1: Frequencies and Percentages of the Study Variables

		No of Cases	%age
Primi Gravida	Yes	567	48%
	No	620	52%
Gestational Age	36-38 Weeks	257	45%
	39-40 Weeks	310	55%
Cases Summary	Booked	340	29%
	Un Booked	847	71%
Socio-Economic Status	Above Poverty Line	722	61%
	Below Poverty Line	465	39%

Table 2: Types of Labor with Age Groups

Mode	<20 Age Group N=124	20-25 Age Group N=263	25-30 Age Group N=118	>30 Age Group N=63
Spontaneous	39(31%)	55(21%)	21(18%)	17(27%)
Induced	23(19%)	50(19%)	18(15%)	05(08%)
C Sec	28(23%)	82(31%)	31(26%)	16(25%)
Not in Labour	34(27%)	75(29%)	48(41%)	25(40%)

DISCUSSION

Both trend and projection show results in two different emergencies. In Khyber Pakhtunkhwa, a policy

discourse for determinant research and action to improve the quality of care may be prioritized, but government funding for strengthening the health system is still necessary to offer critical intervention.⁶ Caesarean sections are increasingly popular worldwide. The rapid rise of caesarean sections has drawn controversy. The World Health Organization advised that the rate of caesarean sections should not be less than 5% or greater than 10%. Caesarean sections as a percentage jumped from 19.6% in 2018 to 3.2% in 1991.^{7,8} According to the Pakistan demographic health census conducted in 2018, the rate of caesarean sections in Pakistan reached 22%, which has a negative effect on both moms and children.^{9,10} In more industrialized regions like North America and Europe, patterns have shown signs of stabilization over the past ten years.¹¹ The fundamental causes of this trend need to be examined and may be complicated given the challenges of many facets. More research is required to comprehend how society, public health policy, and therapeutic advancements may contribute to the increase.¹² Numerous variables and interactions contribute to the rise in the use of CS, including women's and familial preferences, health professional opinions and beliefs, convenience, compensation, health care organization and funding system.^{6,13} In our study ratio of CS was seen as high in ages 25-30, which was similar to other studies.¹⁴ In 2018, WHO issued recommendations on non-clinical interventions to decrease the needless use of CS in recognition of the growing importance of non-medical elements in the decision-making process for the mode of delivery.^{15,16} It is crucial to consider the usage of monitoring techniques and frameworks, such as Robson categorization, to assess trends in CS rates and mother and infant outcomes in a more comparative and action-oriented way.^{17,18} According to the study, most Caesarean sections are done at mothers request rather than because of any medical necessity.⁹ 8-14% of caesarean deliveries worldwide are Caesarean deliveries performed at the mother's request, according to estimates.^{19,20}

LIMITATIONS

The high booked and UN booked sample size resulting from a relatively high incidence is the main limitation of the current investigation. The second issue is that such a study should be conducted on multiple educational facilities with various clinical characteristics, and the quality of life of those participants would be assessed using a disease-specific questionnaire.

CONCLUSIONS

In conclusion, our analysis reveals variations in birthing modes across different age groups. The <20 age group demonstrated a higher rate of spontaneous deliveries, while the >30 age group had a higher percentage of cesarean sections. Induced labour rates were relatively consistent across age groups. Additionally, the 25-30 and >30 age groups had more cases where women were not in labour. These findings highlight the influence of age on birthing modes and emphasize the need for age-specific considerations in childbirth management.

CONFLICT OF INTEREST: None

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