



Original Article

Exploring Maternal Health and Pregnancy Practices: A Comprehensive Study Among Pregnant Women

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ABSTRACT

Maternal health and pregnancy practices are critical to ensuring the well-being of both expectant mothers and their unborn children. Women undergo significant physiological and emotional changes during pregnancy, making adopting appropriate nutrition and healthcare practices essential. **Objective:** To explore maternal health and pregnancy practices. **Methods:** This cross-sectional study was conducted in the Rural Community of Karachi, Pakistan, from August 2022 to January 2023. A total of 100 pregnant women were part of the study. **Results:** The study shows that around 36% of participants follow a balanced diet during pregnancy, and 47% take prenatal vitamins or iron supplements as recommended. Moreover, 29% prefer home delivery, 81% prefer healthcare facility delivery, and 75% believe home delivery has more complications than healthcare facility delivery. **Conclusions:** The study reveals that numerous expectant mothers follow advice on a balanced diet and prenatal care. However, a significant number still face challenges in accessing healthcare. Despite a preference for home remedies, most opt for healthcare facility deliveries, showcasing trust in professional assistance. Enhancing healthcare access, prenatal services, and nutritional education could enhance the well-being of both mothers and babies.

INTRODUCTION

Maternal health and pregnancy practices are critical to ensuring the well-being of expectant mothers and their unborn children. During pregnancy, women undergo significant physiological and emotional changes, making it essential to adopt appropriate nutrition and healthcare practices [1]. A measure of the health and prosperity of a country is maternal mortality. Unacceptably high maternal death rates still exist in the United States, and significant societal discrepancies in the weight of loss further tarnish our country's poor standing compared to other industrialized nations [2]. Moreover, an estimated 2.6 million babies were stillborn, with 303 000 women dying from pregnancy-related reasons, with half of these deaths happening in the third trimester. Most of these unfavorable

outcomes can be avoided by receiving high-quality prenatal and postpartum care [3]. An estimated 303,000 maternal fatalities worldwide occur each year due to pregnancy-related factors. 66% of the deaths were in sub-Saharan Africa alone, and 99% came from developing nations. The MMR in Ethiopia was 412/100,000 live births, according to the 2016 Ethiopian Demographic and Health Survey (EDHS) report [4, 5]. Furthermore, A study from Nepal reported that throughout the investigation, there were 55,667 deliveries made. The calculated maternal mortality ratio from 2015 to 2020 is 129.34 per 100,000 live births. The average age and gestational age of women who lost a child were 24.69, 5.99 years old, and 36.15 4.38 weeks, respectively. The three leading causes of maternal death

were obstetric hemorrhage, pregnancy-related hypertension, and sepsis. The main contributing factors were taking longer to seek medical attention and get to the hospital (type I delay: 40.9%) [6]. Pregnancy is a unique physiological condition during which the mother's metabolic system adjusts to guarantee that nutrients are made accessible for transfer to the fetus for growth and development [7]. Moreover, a woman's pregnancy is considered a common occurrence in her life. But an estimated 40% of pregnancies are high-risk, which might harm both the mother and the fetus [8]. In addition, little research has been done on the psychological effects of such outbreaks on pregnant women (including non-infected individuals), despite the substantial literature on clinical outcomes of being diagnosed with an infectious disease during pregnancy. Given the physiological changes that occur during pregnancy, which could make them more vulnerable to infectious diseases, they might be concerned about their health and the health of their unborn children [9]. The leading causes of infant and mother fatalities and impairments, particularly in low- and middle-income nations, are complications during pregnancy and childbirth. By encouraging current illness treatments, vaccination, iron supplementation, and HIV counseling and testing throughout pregnancy, timely and regular prenatal care reduces these burdens. In nations with high maternal mortality rates, there are many possible reasons why optimal Antenatal care usage falls short of targets [10]. Adherence to these best-practice standards is a measurable aim for quality improvement activities since they help define the current recognized optimum quality of clinical care for maternal and neonatal health. A critical step in closing the evidence-practice gaps is comparing the present practice to the recommended practices [11]. Therefore, this study aims to explore maternal health and pregnancy practices. Understanding these components can assist in pinpointing problem areas and direct initiatives to improve the general well-being and outcomes of pregnant women and their unborn children.

METHODS

This study employed a cross-sectional design to assess maternal health and pregnancy practices among pregnant women in the rural community of Karachi, Pakistan, from August 2022 to January 2023. The study included a total of 100 pregnant women as participants, calculated through Open Epi v.3 with a 95% confidence interval. Participants were selected based on convenience sampling, where pregnant women residing in the study area were approached and invited to participate voluntarily. The study's inclusion criteria comprised pregnant women at any stage of pregnancy during the study period, regardless

of their age. Voluntary participation and informed consent were prerequisites for inclusion in the study, ensuring that participants willingly provided their responses and that ethical considerations were upheld. Conversely, non-pregnant women and individuals not currently pregnant were excluded from the study. Additionally, pregnant women residing outside the rural community of Karachi were omitted, as the research focused on this specific geographical area. To maintain the study's integrity, participants with mental or cognitive impairments preventing them from providing informed consent were also excluded. Who did not understand or speak the language of the questionnaires were excluded from the study. Furthermore, data were collected through structured questionnaires that trained interviewers administered. Study tools were designed with the help of the literature and reviewed by four gynecologists, and their suggestions are being incorporated. It consisted of various aspects of maternal health, including nutrition and dietary practices, access to healthcare, awareness of prenatal check-ups, use of home remedies and medications, delivery preferences, and perceptions of home delivery complications. The study focused on several variables, including dietary habits (balanced diet and prenatal vitamins/iron supplement intake), access to healthcare (prenatal check-ups and challenges in accessing healthcare), awareness of prenatal, antenatal, and postnatal check-ups, use of home remedies and medications during pregnancy, delivery preferences (home delivery vs. healthcare facility delivery), and perceptions of home delivery complications. Data from the questionnaires were entered into a statistical software package 24 for analysis. Descriptive statistics were used to summarize the data and present percentages and frequencies of various responses—study approval was obtained from the relevant institution before commencing the study. Informed consent was obtained from all participants, ensuring their voluntary participation and confidentiality of their responses.

RESULTS

Table 1 presents participants' age, education, and income levels. Among the participants, 50% fall within the age group of 21-25 years, followed by 25% in the 15-20 age group, 15% in the 26-30 age group, and 10% above 30 years of age. In terms of education, 54% have completed their education up to the primary level, 30% have secondary education, 12% have a matric level education, while only 2% have intermediate education, and 1% are graduates. Regarding income, 55% of participants earn above 25000/month, while 45% earn less than 25000/month.

Table 1: Demographic Information of the Participants n=100

Variables	Frequency (%)
Age	
15-20	25(25%)
21-25	50(50%)
26-30	15(15%)
Above 30	10(10%)
Education	
Primary	54(54%)
Secondary	30(30%)
Matric	12(12%)
Intermediate	2(2%)
Graduated	1(1%)
Income level	
Less than 25000/month	45(45%)
Above 25000/month	55(55%)

The table 2 presents survey results on various variables related to maternal health and pregnancy practices. The first section focuses on nutrition and dietary practices during pregnancy. Around 36% of participants reported following a balanced diet, while 47% take prenatal vitamins or iron supplements as recommended. Additionally, 73% of respondents reported having food restrictions during pregnancy. The second section explores access to healthcare. Only 39% receive regular prenatal check-ups from healthcare professionals during pregnancy while 65% face challenges accessing healthcare during pregnancy. The third section pertains to prenatal, antenatal, and postnatal check-ups. More than half of the participants (53%) know the differences between these check-ups, with 61% considering antenatal check-ups more critical. Moreover, 72% expressed satisfaction with the quality of care received during these check-ups. The fourth section discusses the use of home remedies and medications during pregnancy. Most (80%) prefer using home remedies for common pregnancy discomforts, and 82% consult healthcare professionals before trying home remedies. The fifth section addresses delivery preferences, with 29% preferring home delivery and 81% favoring healthcare facility delivery. The last section explores perceptions of home delivery complications. Approximately 75% believe home delivery has more complications, such as septic and infections, than healthcare facility delivery. Lastly, the table examines opinions on the optimal childbearing age, with 52% considering the most secure age range for females between 20 and 35.

Table 2: Various Variables Related to Maternal Health and Pregnancy Practices.

Variables	Yes %	No %
Nutrition and Dietary Practices		
Do you follow a balanced diet during your pregnancy?	36	64
Are you taking any prenatal vitamins or iron supplements as your healthcare provider recommends?	47	53
Do you have any food restrictions during pregnancy?	73	27
Access to Healthcare		
Are you receiving regular prenatal check-ups from a healthcare professional?	39	61
Have you faced any challenges in accessing healthcare during your pregnancy?	65	35
Prenatal, Antenatal, and Postnatal Check-ups		
Are you aware of the difference between prenatal, antenatal, and postnatal check-ups?	53	47
Do you consider antenatal check-ups more important than prenatal and postnatal check-ups?	61	39
Are you satisfied with the quality of care received during these check-ups?	72	28
Home Remedies and Medications		
Do you prefer using home remedies for managing common pregnancy discomforts?	80	20
Do you consult with a healthcare professional before trying home remedies?	82	18
Delivery Preferences		
Would you prefer a home delivery or a healthcare facility delivery? (Home Delivery / Healthcare Facility Delivery) Perceptions of Home Delivery Complications	HM 29	HFD 81
Do you believe home delivery has more complications, such as septic and infections, than healthcare facility delivery?	75	25
Optimal Childbearing Age		
In your opinion, (20-35) the most secure childbearing age for females?	52	48

DISCUSSION

Pregnancy practices and maternal health are crucial in ensuring the welfare of both mother and child. Maternal mortality and morbidity rates remain a serious global problem, especially in low- and middle-income nations, despite significant improvements in medical research and public health initiatives [12]. Cultural obstacles, inadequate knowledge of healthy pregnancy practices, and inadequate access to high-quality prenatal care all have a role in poor maternal outcomes and issues with baby health. This study investigates the current state of maternal health and pregnancy practices among women. The current findings show that 36% of participants reported following a balanced diet, while 47% take prenatal vitamins or iron supplements as recommended. In contrast, a study conducted in Sri Lanka shows more than 90% of pregnant women consume recommended supplements [13]. Similarly, another study reported that 73% consume prenatal supplements [14]. According to another study, the baby's birth weight was related to the

nutritional health of pregnant women as determined by maternal anthropometry and hemoglobin levels. Pregnant women's nutritional status should be improved to lower the risk of low birth weight [15]. Moreover, Low birth weight (LBW) and intrauterine growth restriction, which can have long-term developmental repercussions, have been linked to poor maternal nutritional status [16]. Furthermore, the findings revealed that 39% receive regular prenatal check-ups from healthcare professionals, and 65% face challenges accessing healthcare during pregnancy. In contrast, another study found that 63.3% had received regular check-ups [17]. The utilization of preventative medical exams is influenced by the pregnant woman's health state and health behaviors. More antenatal check-ups should be performed on pregnant women with serious illnesses and higher risk for complications than on pregnant women without risk factors [18]. The maternity recommendations in Germany specify which prenatal exams should be performed during pregnancy. Three ultrasonography tests and counseling sessions on health-related issues are also offered, in addition to physical and serological exams [19]. Additionally, this study finds out that 72% expressed satisfaction with the quality of care received during these check-ups. Another study found a slightly different result that 58.0% are satisfied with healthcare professionals during check-ups [17]. This high level of satisfaction suggests that the healthcare services provided during these check-ups meet the expectations and needs of a substantial portion of pregnant women. In addition, this study highlighted that (80%) prefer using home remedies for common pregnancy discomforts. Another study found that in pregnancy, women use non-pharmacological techniques such as relaxation or home remedies because they believe that non-pharmacological techniques enable women to feel 'prepared', 'calm', and 'empowered' for childbirth [20]. The preference for home remedies during pregnancy highlights the influence of cultural and traditional beliefs on women's healthcare choices. Current findings show that 29% prefer home delivery and 81% favor healthcare facility delivery. In this regard, a study found that 43.5% prefer home delivery. The extent of home delivery varies from location to location. Due to obstetric problems occurring during labor and delivery at home with the assistance of traditional birth attendants, home deliveries are to blame for a significant portion of maternal and baby mortality [5]. Home delivery rates were 74.3% in Pakistan and 62% in Kenya [21, 5].

CONCLUSIONS

The study findings conclude that certain individuals are consuming prenatal vitamins and following a balanced diet.

Authors Contribution

Conceptualization: MHS

Methodology: AB, RA

Formal Analysis: RA

Writing-review and editing: MHS, RA, MA

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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