

Frequency of Psycho-Social Characteristics of Pregnant Females Fearing Vaginal Birth

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Abstract

Objective: To determine the frequency of psycho-social characteristics of pregnant females fearing vaginal Birth.

Material and Methods: A cross-sectional survey was conducted at Sharif Medical City, Lahore, involving 120 patients. The duration of the study was six months from 1st January 2024 to 30 June 2024 (6 months). Ethical approval from the institutional review board was taken with letter number SMDC/ SMRC 128-20. Patient's medical records, demographic information, and fear of childbirth were collected, and psycho-social characteristics like labor pain, socioeconomic status, younger age, and primipara were assessed.

Results: In our study, the mean age of the participants was 26.18±3.23 years. Frequency of psycho-social characteristics of pregnant females fearing vaginal birth shows that 65(54.2%) cases had a fear of labor pain, 81(67.5%) cases had less than general secondary education, 44(36.7%) cases had primiparity whereas 38(31.7%) cases had younger age. The P-value for the relationship of socioeconomic status with fear of pain, primiparity, and younger age was 0.941, 0.325, and 0.132 respectively, which is not significant.

Conclusion: It is concluded that low education levels (<general secondary education), fear of labor pain, and primiparity are the leading psychosocial characteristics associated with fear of vaginal birth (FOC) among pregnant women. Younger age (<25 years) and poor socioeconomic status also contribute significantly to FOC.

Keywords: Vaginal birth, fear of childbirth, psychosocial characteristics, Primiparity, Medical record.

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Introduction

Labor is the process of delivering a baby, characterized by painful uterine contractions. Giving birth is a significant life event with significant physical, emotional, cognitive, social, and cultural repercussions.¹ Women undergo intense changes

during pregnancy, including uterine and cervix expansion, and delivery of the baby and placenta. Pain in labor consists of two components: visceral and somatic². Visceral pain occurs during the early stages and somatic pain in the late stages.² The intensity of pain increases with cervical dilatation and correlates with the intensity, duration, and frequency of uterine contractions. Pain relief in labor depends on personal aspirations, cultural factors, and peer group influences.³ Antenatal education can increase maternal satisfaction and reduce pain scores. Stress hormones and epigenetic mechanisms play a role in the physiological process of labor and birth, promoting contractions and physiological changes in the baby.³

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Interpersonal dynamics between women, birth partners, and maternity staff can either support or raise stress levels. Birth and motherhood are related to cultural expectations and standards.⁴ Delivery is a highly medicalized process in Western nations, but women may strive for a "natural" delivery. Understanding the effects of delivery in conjunction with prior and postpartum adjustment to pregnancy and a new infant is crucial.⁵ Childbirth can be traumatic for women, with posttraumatic stress disorders developing in 3% of women. Measurement issues are important when examining stress responses in pregnancy and postpartum⁵.

Psycho-social factors play a crucial role in both physical and psychological outcomes during birth, including mother satisfaction, mental health, morbidity, and death rates.⁶ Postpartum experiences can lead to unique psychological issues like baby blues, postpartum depression, and puerperal psychosis.⁷ Post-traumatic stress disorder (PTSD) affects around 3.17 percent of women post-birth, with 4.3 million women acquiring PTSD annually due to high birth rates.⁷ Understanding and addressing PTSD is vital for understanding extreme stress responses and enhancing theories of stress. Adequate care and support during labor and birthing can help avoid cases and have a wide range of negative effects on women and their families.⁸

Pregnancy and delivery are significant and challenging experiences for many women, with a prevalence rate of 8 to 27% in Western nations suffering from fear of childbirth (FOC). Factors contributing to FOC include advanced maternal age, high socioeconomic status, insufficient antenatal education, obstetric complications, increased analgesic use in labor, postdate pregnancy, low self-esteem, and low acceptance of pregnancy.⁹ Nulliparous women experience higher levels of fear than multiparous women before birth, but recent studies show no difference in postpartum fear levels. Lack of social support is also associated with FOC. A doula (person providing support during labour) during pregnancy, birth, and postpartum can positively impact maternal emotional well-being, reducing anxiety, stress, and self-esteem. Primiparous women tend to score better on FOC than

multiparous women, and the prevalence of FOC is higher in early postpartum.¹⁰

Predictors of intense FOC include mothers' age < 30, primiparity, low satisfaction with pregnancy, and low perceived marital/sexual satisfaction. Health policymakers should learn from countries with low FOC rates and adopt measures such as improving birth conditions, offering more choices, avoiding unnecessary interventions, promoting normal physiologic birth, and respectful maternity care.¹⁰ Pregnant and childbirth education classes aim to improve knowledge and skills for pregnant women during pregnancy, labor, and childbirth, as well as postpartum. These programs include pain management techniques, expectant mother and father adaptation, and building women's confidence in giving birth. Birthing education has been shown to reduce infant death rates, pain, and anxiety associated with delivery.¹¹ However, the culture is not yet prepared for this type of education. Public hospitals should encourage private organizations' prenatal education sessions to reduce anxiety and increase the rate of cesarean deliveries. This study was aimed to determine the frequency of psychosocial characteristics of pregnant females fearing vaginal birth. The rationale of this study is to look for the frequency of Fear of vaginal birth, to look for the impact on maternal and neonatal outcomes as fear of vaginal birth is linked to higher rates of elective cesarean sections, increased use of analgesics, and adverse psychological outcomes, including postpartum depression and PTSD. Understanding these fears can lead to interventions that improve maternal and neonatal health.

The fear of vaginal birth was evaluated by asking the question to the pregnant female "are you agree with vaginal birth" if not then it was considered a fear of vaginal birth.

Psychosocial characteristics:

1. Fear of Labour pain⁷(females have fear of labour pain)
2. Primiparous⁷ (females having first pregnancy)
3. Low education⁹ (≤Secondary education level)
4. Younger age (<25 years)

Material and Methods

This descriptive cross-sectional survey was done in the Department of Obstetrics & Gynecology, Sharif Medical City, Lahore for six months from 1st January 2024 to 30 June 2024 (6 months). Ethical approval from the institutional ethical board was taken with letter no SMDC/SMRC 128-20 dated 28-12-23. The sample size was 120 which was calculated with a 95% confidence level, 9% margin of error, and taking an expected percentage of primiparous as 41.4%⁹ by random sampling. Age: 18-40 years. All females presenting for antenatal visit with fear of childbirth. Any parity, Women with a known history of diagnosed psychiatric or mental health disorders (based on history or medical records). Women with severe medical comorbidity or obstetric conditions requiring mandatory cesarean section (e.g., placenta previa, severe pre-eclampsia). Non-consenting participants. Women unable to communicate effectively due to language barriers or cognitive impairment. After approval from the hospital ethical committee with letter number SMDC/ SMRC 128-20, a total of 120 cases, fulfilling the inclusion/exclusion criteria were enrolled from the Department of Obstetrics & Gynecology, Sharif Medical City Hospital, Lahore. Informed consent of the patients was obtained. A self-structured Survey questionnaire was shared with all the patients coming to the antenatal clinics in the third trimester. It was administered by a trained person who asked questions from patients and filled out the proforma. All patients were evaluated for the presence/absence of fear of childbirth and psycho-social characteristics i.e. fear of labor pain, primipara, education level, and younger age. The bias was controlled through exclusion criteria and data stratification. All this information was recorded on predesigned proforma (attached). All patients were counseled for fear of vaginal birth and managed as per standard protocols. The collected data was analyzed by using SPSS version 23. Quantitative variables like age, were presented in the form of mean \pm S.D. Qualitative variables like psycho-social characteristics i.e. fear of labor pain, education level, primiparity and younger age were presented in the form of frequency and percentage. The data was stratified for socioeconomic status i.e. Poor/Good/Excellent to control the effect modifiers. Post-stratification chi-square test was applied with p-value ≤ 0.05 as significant.

Results

The age distribution of the patients, frequency of psycho-social characteristics of pregnant females fearing vaginal birth, and socioeconomic distribution are shown in Table 1.

The relationship of fear of pain with socio-economic status had a P-value of 0.941 as shown in Table 2 which is not significant. The relationship of primiparity with socioeconomic status had a P-value of 0.325 which is insignificant as shown in Table 3. The relationship between younger age and socioeconomic status has a P-value of 0.132 as shown in Table 4 which is insignificant.

Table 1: Demographic information

Age distribution (n=120)	No of patients	Percentage
18-30 years	98	81.70%
31-40	22	18.30%
Frequency of psycho-social characteristics of pregnant females fearing vaginal birth (n=120)		
Fear of labor pain	65	54.20%
\leq general secondary education	81	67.50%
Primiparity	44	36.70%
Younger age	38	31.70%
Frequency of socioeconomic status of the patients (n=120)		
Poor	65	54.20%
Good	45	37.50%
Excellent	10	8.30%

Table 2: Frequency of Fear of Pain in Pregnant Females Fearing Vaginal Birth by Socioeconomic Status

Socioeconomic Status	Fear of Pain		Total	P value
	Yes	No		
Poor	36 55.40%	29 44.60%	65 100.00%	0.941
Good	24 53.30%	21 46.70%	45 100.00%	
Excellent	5 50.00%	5 50.00%	10 100.00%	

Table 3: Frequency of Primiparity in Pregnant Females Fearing Vaginal Birth by Socioeconomic Status

Socioeconomic Status	Primiparity		Total	P value
	Yes	No		
Poor	26 40%	39 60%	65 100.00%	0.325
Good	13 28.90%	32 71.10%	45 100.00%	
Excellent	5 50.00%	5 50.00%	10 100.00%	

Table 4: Frequency of younger age in pregnant females Fearing Vaginal Birth by Socioeconomic Status

Socioeconomic Status	Younger Age		Total	P value
	Yes	No		
Poor	19 29.20%	46 70.80%	65 100.00%	0.132
Good	13 28.90%	32 71.10%	45 100.00%	
Excellent	6 60%	4 40%	10 100.00%	

Discussion

The findings of our study reveal a high prevalence of psycho-social characteristics associated with the fear of vaginal birth (FOC) among pregnant women. Out of 120 participants, 54.2% reported fear of labor pain, 67.5% had less than general secondary education, 36.7% were primiparous, and 31.7% were of younger age (<25 years). These findings align with previous research emphasizing the significant role of psycho-social factors in shaping the perception of childbirth.¹²

Globally, the prevalence of FOC varies widely, ranging from 8–27% in Western nations and up to 19.6% in some Asian countries.⁷ Fear of childbirth has been linked to negative maternal and neonatal outcomes, including postpartum depression, impaired maternal-infant bonding, increased cesarean delivery rates, dystocia, and emergency interventions. This highlights the critical need to address FOC to improve both maternal and neonatal health outcomes.¹³

Our study found that fear of labor pain was the most common psychosocial factor, consistent with prior

studies reporting pain-related fear in 67% of cases. Another local study revealed that 34.7% of women were fully aware of painless labor techniques, and 92.4% agreed with their use. These findings underscore the importance of antenatal education in addressing misconceptions and fears about labor pain management.^{14,15}

Education level was another significant factor, with 67.5% of participants having less than general secondary education (less than general secondary education" refers to completing primary education (grades 1-5) and potentially middle school (grades 6-8), but not finishing the full secondary education which includes grades 9 and 10 (Matriculation). Studies have consistently shown that lower education levels are associated with higher FOC. For instance, Lopukhova et al. reported FOC in 54.5% of women with general secondary education and 45.5% with low education. Enhancing education about childbirth through antenatal programs may help mitigate fear by increasing knowledge, self-efficacy, and confidence in labor and delivery.^{16,17}

Primiparity was observed in 36.7% of cases, aligning with earlier studies indicating that nulliparous women experience higher levels of FOC compared to multiparous women.¹⁸ However, postpartum fear levels may not differ significantly between these groups, as suggested by recent research. This finding emphasizes the need to provide targeted interventions for primiparous women, such as counseling and childbirth education, to reduce antenatal anxiety.¹⁹

Socioeconomic status also plays a crucial role in FOC, with 54.2% of participants in our study belonging to poor socioeconomic backgrounds. Lack of social support has been previously linked to increased FOC, while the presence of a doula during pregnancy, birth, and postpartum has been shown to impact maternal emotional well-being, reducing anxiety and stress positively.²⁰

Our findings also support global research, which reported high levels of FOC in 31.5% of nulliparous and 18% of multiparous women.²¹ Wigert et al. provided a qualitative understanding of FOC, interpreting it through the metaphor of "being at a point of no return," with themes of trauma, lack of understanding, and facing fear.^{22,23} This reinforces the need for empathetic, patient-centered care during labor and delivery.²⁴

Childbirth education has been identified as a key intervention to address FOC. Koehn and others have demonstrated that birthing education reduces infant mortality rates, labor pain, anxiety, and the need for analgesics while improving breastfeeding initiation, maternal satisfaction, and readiness for parenting²⁵. However, in many cultures, including ours, structured antenatal education programs remain underutilized. There is an urgent need to incorporate multidisciplinary approaches, involving obstetricians, midwives, psychologists, and childbirth educators, to deliver effective antenatal education tailored to cultural contexts.

In conclusion, fear of labor pain and low education levels were identified as the major psychosocial factors contributing to FOC in our study. These factors are modifiable and can be addressed through timely and appropriate antenatal education and support. While our findings align with existing literature, further studies with larger sample sizes and diverse populations are needed to validate and generalize these results.

Conclusion

It is concluded that low education levels (<general secondary education), fear of labor pain, and primiparity are the leading psychosocial characteristics associated with fear of vaginal birth (FOC) among pregnant women. Younger age (<25 years) and poor socioeconomic status also contribute significantly to FOC. These findings emphasize the need for targeted interventions such as comprehensive antenatal education, pain management strategies, and psychosocial support to address these fears. Enhancing awareness, building self-confidence, and providing emotional support can potentially reduce FOC, improve maternal satisfaction, and promote safe, natural deliveries. Future research should explore the long-term impact of such interventions and identify additional cultural and environmental factors influencing FOC.

Conflict of Interest: *None*

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Authors Contribution

ZF, MH: Conceptualization of Project

ZF, ST: Data Collection

ST, SR: Literature Search

ZF, ST: Statistical Analysis

ST, SR: Drafting, Revision

ZF, ST: Writing of Manuscript