

Association of Fear of Childbirth with the Preference for Cesarean Section; A Cross Sectional Study

Asma Ansari, Samina Irum*

Combined Military Hospital/National University of Medical Sciences (NUMS) Rawalpindi, Pakistan, *Combined Military Hospital Sargodha/National University of Medical Sciences (NUMS) Pakistan

ABSTRACT

Objective: To determine the fear of childbirth (FOC) amongst pregnant women and its association with preference for cesarean section.

Study Design: Cross-sectional study.

Place and Duration of Study: Department of Obstetrics and Gynecology Pak Emirates Military Hospital, Rawalpindi from Jan 2018 to Jun 2018.

Methodology: Demographic and reproductive data of the patients including mode of delivery, was noted. The intensity of fear of childbirth was measured by Wijma delivery expectancy/experience questionnaire (W-DEQ), and a score was allotted. The total sum of scoring ranged from 0 to 165. A score of >85-99 indicated an intense fear of childbirth, and ≥ 100 indicated very intense fear. The frequency of requests for cesarean section in women suffering from fear of childbirth was calculated.

Results: A total of 335 patients were included. The mean age was 28.74 ± 3.58 years, and the mean gestational age was 39.50 ± 1.43 weeks. The mean W-DEQ score was 94.59 ± 9.86 . The fear of childbirth calculated by W-DEQ in the third trimester of pregnancy showed no fear in 233 (69.55%) participants, intense fear in 42 (12.54%) and very intense fear in 60 (17.91%) women. The requests for cesarean section in women suffering from intense fear were made by 5 (11.90%) women and in women suffering from very intense fear of childbirth was 19 (31.67%) (p -value <0.001).

Conclusion: This study concluded that the intensity of fear of childbirth calculated by W-DEQ amongst pregnant women in the third trimester of pregnancy was relatively high, with a much higher rate of cesarean section in very intense fear of childbirth.

Keywords: Cesarean section, Childbirth fear, Maternal request.

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INTRODUCTION

Fear of childbirth is a common problem and often leads to requests for cesarean section. Almost 5 to 20% of pregnant women fear childbirth, according to the WHO.¹⁻³ Fear of childbirth (FOC) is a broad term used for all kinds of anxiety and fears, women experience about pregnancy and childbirth, also known as Tokophobia. Concept of FOC was first described in 1858 by a French psychiatrist, but FOC was first used in 1981 as intense anxiety.⁴⁻⁶

Research about the childbirth fear has its origins in Scandinavian countries. Subsequently, this led to the development of the most commonly used measure of childbirth fear.⁷ W-DEQ is considered the gold standard measure of FOC by researchers and organizations exploring this concept and is a validated scoring questionnaire.⁸ It focuses on the expectations that a woman has about recent childbirth and the influence of pre-

vious birth experiences. Calculating the answers estimates the fear a woman may experience during childbirth and pregnancy. Fear of childbirth might motivate a request for elective caesarean delivery.⁹

Some researchers have questioned the concept of FOC as overemphasizing a normal response by women and labelling it a disease, thus giving justification to operative interventions. Labelling the women as having a pathological process does not absolve health care professionals and maternity services of their responsibilities. The woman might be having this fear because of the unfriendly atmosphere, restrictive infrastructure and lack of family support during labour rather than some inherent pathological process within her.¹⁰

This study was undertaken to objectively measure the fear of childbirth in our obstetric population and to determine its association with rising requests for cesarean section.

METHODOLOGY

This cross-sectional study was conducted at the Department of Obstetrics and Gynecology, Pak

Correspondence: Dr Asma Ansari, OBGYN Department, Combined Military Hospital, Rawalpindi Pakistan

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Emirates Military Hospital, Rawalpindi, from Jan 2018 to Jun 2018. Approval from the Institutional Ethical Review Committee was obtained (A/28/13.7.2016). The WHO sample size calculator was used for calculated a sample size of 335 patients by taking confidence level 95%, anticipated population 5.7%,¹¹ absolute precision required 2.5%.

Inclusion Criteria: Pregnant women aged 20-35 years during the third trimester were included in the study.

Exclusion Criteria: Women with malpresentation, primigravida, twins or higher-order multiples, having high-risk pregnancy including medical disorders like diabetes and hypertension, women with a history of myomectomy or uterine surgery, and present or past history of psychiatric illness were excluded from the study.

Participants were included by consecutive non-probability sampling technique after taking informed consent. All the women had uncomplicated singleton pregnancies and a history of vaginal or cesarean section delivery in the past in case of multigravida. Patient confidentiality was maintained, and women undergoing regular antenatal checkups at Obstetrics OPD after complete evaluation with history, examination and investigations were asked to fill out a questionnaire. Demographic and reproductive profile was noted. The Wijma delivery expectancy/experience questionnaire (W-DEQ) calculated the preferred mode of delivery. The Wijma delivery expectancy/experience questionnaire is a 33 item, 6 points Likert scale (scoring from 0-6) questionnaire to measure FOC during the antenatal period.¹²

Data was collected on standardized W-DEQ, and according to patients' answers, W-DEQ score was allotted. Women had to answer how they imagined and felt about the experience of childbirth. FOC was further divided into intense, very intense or no fear according to the score on W-DEQ. The total sum of scoring ranges from 0 to 165. The higher score showed more fear. The score of >85-99 indicated an intense fear of childbirth and ≥ 100 very intense fear. Statistical Package for Social Sciences (SPSS) version 21.0 was used for the data analysis. Descriptive statistics were used to calculate mean and standard deviation for the age of the patients, gestational age and W-DEQ score. Frequencies and percentages were calculated for the mode of delivery in a previous pregnancy, history of complications, parity, educational status, frequency of fear of childbirth and its intensity. The chi-square test

was applied, and the p -value ≤ 0.05 was taken as significant.

RESULTS

A total of 335 patients were enrolled during the study period. The demographic and reproductive profile was shown in Table-I. The mean W-DEQ score was 94.59 ± 9.86 . The intensity of fear of childbirth calculated by W-DEQ amongst pregnant women in the third trimester of pregnancy was found in 102 (30.4%) women. There was no fear in 233 (69.55%) women, intense fear was found in 42 (12.54%) women and very intense fear in 60 (17.91%) women.

Table-I: Demographic and reproductive Parameters.

Parameters	n(%)
Age	28.74 \pm 3.5 years
Gestational age	39.5 \pm 1.43 weeks
Parity	
Primigravida	119 (35.5%)
Multiparity	216 (64.4%)
Education Level	
None	25 (7.46%)
Primary	40 (11.9%)
Middle	79 (23.5%)
Matric	58 (17.3%)
Bachelors and above	133 (39.7%)
History of Complications in Previous Pregnancy	
Yes	108 (32.2%)
No	227 (67.7%)
Mode of Delivery in Previous Pregnancy	
Vaginal	175 (52.2%)
Cesarean Section	160 (47.7%)

The requests for cesarean section in women suffering from intense fear were made by 5 (11.90%) women and in women suffering from very intense fear of childbirth was 19 (31.67%) (p -value < 0.001). 23 (48.9%) patients did not request cesarean section despite having FOC (Figure).

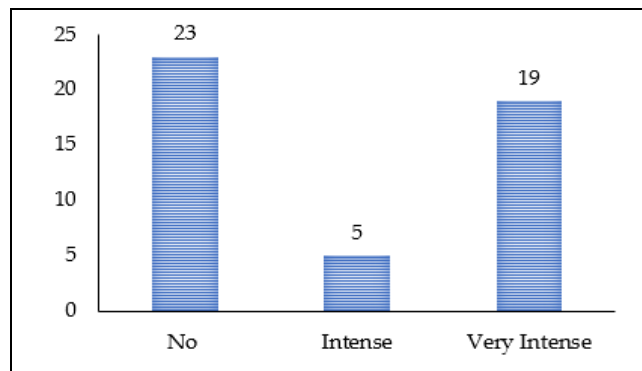


Figure: Fear of childbirth and frequency of maternal request for cesarean section

Fear of Childbirth (FOC)

Association of intensity of fear of childbirth with age, gestational age, parity, educational status, mode of delivery and history of complications in previous pregnancy showed no statistically significant difference as shown in Table-II.

physical, psychological, and social aspects in becoming a mother.¹⁴

The mean W-DEQ score was 94.59 ± 9.86 in this study, whereas in another study score was 56.66 ± 19.49 and 7.5% of women had a fear of childbirth.¹⁵

Table-II: Association of fear of childbirth with demographic and reproductive parameters.

Parameters	Intensity of Fear of Childbirth			p-value
	No	Intense	Very Intense	
Age (In Years)				
20-30	146 (69.52%)	29 (13.81%)	35 (16.67%)	0.545
31-35	87 (58.50%)	13 (10.40%)	25 (20.0%)	
Parity				
Primiparous	84 (70.59%)	11 (9.24%)	24 (20.17%)	0.341
Multiparous	149 (68.98%)	31 (14.35%)	36 (16.67%)	
Mode of Delivery in Previous				
Pregnancy Vaginal/Instrumental	120 (68.57%)	19 (10.86%)	36 (20.57%)	0.313
Cesarean section	113 (70.63%)	23 (14.38%)	24 (15.0%)	
History of Complications				
Yes	75 (69.44%)	12 (11.11%)	21 (19.44%)	0.791
No	158 (69.60%)	30 (13.22%)	39 (17.18%)	
Education Level				
None	16 (64.0%)	04 (16.0%)	05 (20.0%)	0.859
Primary	30 (75.0%)	04 (10.0%)	06 (15.0%)	
Middle	55 (69.62%)	08 (10.13%)	16 (20.25%)	
Matric	41 (70.69%)	10 (17.24%)	07 (12.07%)	
Bachelors and above	91 (68.42%)	16 (12.03%)	26 (19.55%)	

DISCUSSION

This study showed that the intensity of fear of childbirth calculated by W-DEQ amongst pregnant women in the third trimester of pregnancy was relatively high, with a much higher rate of cesarean section in very intense fear of childbirth.

The majority of patients in our study were multipara (64.4%) and (35.5%) primipara. 31% of the multipara women and 29% of primipara had FOC. There are contradictory evidence on parity and fear of childbirth. Zar *et al*, reported a slight increase in the multiparous women's fear of childbirth,¹¹ while a study by Nieminen *et al*, in Sweden found no difference.¹² A cohort study on 7000 Swedish pregnant women by Ryding *et al*, found that the multiparous women were at significant risk for cesarean section due to fear of childbirth.¹³ Furthermore, women with previous experience of cesarean section, instrumental labour and complications during previous delivery reported FOC, which was statistically significant $p < 0.001$. A study by Toohill *et al*, on 1410 Australian women reported fear of childbirth in nulliparous ten times more than the multiparous women because of their uncertainty about the fetus health and confronting a significant transition in their life in various

The fear of childbirth in our study was 30%. Internationally, the prevalence of fear associated with childbirth is around 20%, and 6-10% of these women experience intense fear of labour and birth that positively impacts their daily activities and ability to anticipate a normal birth.^{16,17} The variation in prevalence rates might be due to lack of consensus on the definition of FOC and lack of objectivity and validity of assessment tools. In a study by Lukasse *et al*, in Sweden incidence of FOC was 14.3%, whereas, in another study by Jespersen in Denmark, the incidence was 9.0%.^{18,19} Furthermore, the prevalence of fear of childbirth among Australian, Canadian, and Swedish women was 24%-26%.²⁰⁻²² Therefore, our obstetric population also has a high frequency of FOC comparable to other countries of the world.

Several studies have shown that fear of childbirth often is an underlying factor for a mother's request for caesarean section and association between level of fear and delivery mode preference. International data revealed that preference for CS was as high as 50% in pregnant women,²³ with high fear which was in agreement with the current study findings. Karlström *et al*, in a study done in Sweden, concluded that women who preferred and were delivered by caesarean section

experienced FOC to a higher level than women with a vaginal delivery.²⁴ In the year 2000, 8% of all the caesarean section performed at Helsinki University Hospital, Finland were performed due to severe maternal fear of childbirth. Multiple studies that have evaluated women's reasons for requesting CS on non-medical grounds and have found that fear of childbirth is the foremost reason for the requests.²⁵

This study showed that fear of childbirth calculated by W-DEQ amongst pregnant women in the third trimester of pregnancy was relatively high, with a much higher cesarean section rate in very intense fear of childbirth. FOC can be an underreported intersection between the fields of Obstetrics and Psychology. More robust data is required for early detection and treatment of FOC, especially in clinical settings where it is a cause for complications and demands for non-medically indicated cesarean section. Despite the limited knowledge of causes and consequences of FOC, there is an association with complications and interventions, so more research is needed to provide evidence-based health care to women who fear childbirth.

CONCLUSION

This study concluded that the intensity of fear of childbirth calculated by W-DEQ amongst pregnant women in the third trimester of pregnancy was relatively high, with a much higher rate of cesarean section in very intense fear of childbirth.

Conflict of interest: None.

Authors' Contribution

AA: Concept, design, writing, interpretation, SI: Concept, analysis, interpretation.

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