

Primary Fears of Childbirth of Couples Who have not Yet had Children in Türkiye

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ABSTRACT

Objective: This study aims to describe and compare the fear of primary childbirth (FOC) among women and partners who have not yet experienced childbirth according to various demographic characteristics.

Methods: This cross-sectional descriptive study was conducted between July and August 2020 including couples residing in metropolitan or district regions. The 289 participants had the age period of 18–35 and had never been pregnant before. The FOC among the couples and their demographic characteristics were compared in terms of readiness for pregnancy, birth, postpartum period, baby care, breastfeeding, and readiness to provide social support in coping with FOC. Individual descriptive forms and the Women and Men Childbirth Fear – Prior to Pregnancy Scale (WCF-PPS/MCF-PPS) were used for evaluation of the responses.

Results: The findings of this study reveal that women experience a higher level of fear of childbirth compared to men. The fear of childbirth among women was slightly above average, while it was at a moderate level among men. No significant relationship was found between the WCF-PPS/MCF-PPS scores and FOC scores of women and men ($p>.05$). WCF-PPS/MCF-PPS and FOC scores were not found to differ significantly based on age, place of residence, income level, or educational status ($p>.05$). Also it was found to have a significant impact on WCF-PPS/MCF-PPS scores at a 0.05 significance level. Specifically, a one-unit increase in the score for FOC question 4 was associated with a 0.864-unit increase in the WCF-PPS/MCF-PPS score.

Conclusions: The study reveals that no significant difference was found between men and women in terms of fear of childbirth and the level of FOC was found to be moderate among couples. This study reveals that couples who have never had children yet need more information about the pregnancy and birth process. Incorporating the FOC criteria into the content of pre-pregnancy and pre-conception counselling as well as providing information packages to couples can help to reduce pre-pregnancy FOC. Providing information to this population that is individualized and culturally sensitive may ensure that this information is more internalized by couples.

Keywords: The fear of Childbirth (FOC), Childbirth, Couples, Fear, Demographic

1. INTRODUCTION

Tokophobia, which is called the fear of childbirth (FOC), is a pathological fear of pregnancy and may lead to avoidance of childbirth (1). It is classified as primary or secondary types. Primary FOC is the fear of childbirth in a woman with no previous pregnancy experience whereas the secondary one is the morbid fear of childbirth that develops after a traumatic obstetric experience in previous pregnancies (2). The primary one may develop in childhood or adolescence (3,4) and can be in very mild or severe forms (5,6).

FOC is categorized as a serious anxiety disorder that closely concerns women and couples' decisions regarding pregnancy and delivery (7). It is observed in 13.6% of pregnant women and 3.5% of men (8). The same rate in Turkey is determined to be 82.6% for women and 54.3% for their partners (9).

The couple's fear can be generalised as fear of excessive labour pain, harm or death of the baby, inability to cope with vaginal delivery, and an assumption of indifferent attitudes from healthcare personnel. However, unlike women, men experience fears while performing wrong interventions during childbirth. The necessity of interventions (such as vacuum, forceps, or caesarean section), the inability to provide sufficient support to their partners, and the adverse effects on their sexual lives (8-13) are other factors to experience fear.

The present study addresses the experiences linked to the FOC in various circumstances. During pregnancy, FOC can result in a preference for either voluntary abortion or caesarean delivery. During labour, FOC is linked to dystocia,

the requirement for interventional delivery, difficulties in managing vaginal delivery, and a feeling of losing control (14-16). In addition, FOC has been associated with hypertension and the occurrence of 'toxaemia' during childbirth (13), as well as extended labor (17), heightened risk of asphyxia (17, 18), and poorer Apgar scores in newborns (19, 20).

FOC can negatively impact the parental role, attachment to the baby (13), and the couple's relationship, potentially leading to postpartum depression. Women who have previously experienced it are five times more likely to have a bad birth experience (21). This fear undermines their self-confidence, frequently leading to a predilection for caesarean delivery and prolonged hospitalization (12). To an extreme degree, individuals may completely abstain from pregnancy and childbirth (2).

Until now, the studies on FOC have primarily focused on women who are pregnant or have given birth (12,16,21,22) but no specific studies conducted on couples without children. For this reason, the fundamental objective of this study is to provide a detailed and comparative analysis of the main fears experienced by couples during childbirth based on their demographic factors. The other objective is to reveal the knowledge and aspirations of individuals of reproductive age regarding their intentions for pregnancy and their perspectives on pregnancy, childbirth, and the period following childbirth. To accomplish these goals, the FOC scores were assessed and contrasted across various demographic factors.

2. METHODS

2.1. Ethical consideration

An ethics committee report was obtained from the Süleyman Demirel University of Medicine Clinical Research Ethics Committee with an Approval Number of 163 on June 4 2020.

2.2. Study design and setting

This cross-sectional comparison study was conducted between July 2020 and August 2020 in a metropolitan state hospital with high-level technical equipment and a district hospital.

2.3. Participants

Participants (n = 289) aged 18–35, residing in metropolitan (n = 189) and a district (n = 100), who had no prior pregnancies and no history of abortion, were included in the study. The district is a rural area located 72 km from the city, where residents primarily engage in agriculture and livestock breeding. These regions experience minimal migration and have limited sources of income.

Participants were volunteers from couples who visited the women's health outpatient clinics of hospitals, initially

between July 1 and August 15, 2020. The study was primarily conducted online due to the COVID-19 pandemic.

Couples who spoke Turkish, who were married or living together, were considered eligible for the study. Those who had dysmenorrhea, simple vaginal yeast infections, cystitis, received family planning counselling, had abortions, known psychiatric disorders, prolonged medicine use, and those who did not complete the questionnaire were excluded from the study.

The study was concluded with 289 participants. Only 36 of them were conducted face-to-face due to the pandemic. Researchers and citizens were restricted from going to hospitals because of this period so the researchers decided to continue running the study online. The couples who first participated in the survey were also contacted again by phone. At this stage, the researchers who conducted the research only called the participants to protect the confidentiality of the participants' contact addresses. Further participants were recruited by existing participants who were encouraged to refer any friends who may meet the study criteria.

Firstly, an informative phone message was sent to the new participants about the content and ethical aspects of the study. Then, the survey was sent to the couples who were considered eligible. Using this method, only 30 (n=60) couples were recruited. The rest of the participants were recruited from individual social circles of researchers, such as close and distant relatives, colleagues, relatives of students, and professional social media groups(n=199). Thus, the data were collected in three ways (face-to-face) n=36, phone calls n=60, and other communications n=199. Some participants (n=6) did not fill out the form so they were excluded from the analysis and the total number of participants was equal to n=289.

Written consent was obtained from the participants for face-to-face surveys in the hospital environment. Verbal consent was taken by phone for online participants before enrolment and was later recorded when they were confirmed as part of the survey.

2.4. Data Collection

The researchers prepared the Women and Men Childbirth Fear – Prior to Pregnancy Scale (WCF-PPS/MCF-PPS) and an individual descriptive form for before and after the pregnancy. The participants were asked seven questions, excluding demographic characteristics.

The online participant group was recruited and screened through phone calls while the rest were conducted online. While dealing with online participants, no means of personal information like name, address, telephone number, or e-mail address is asked. They are all recorded automatically as anonymous.

2.5. Measurements

The first form used in the study was the individual descriptive form, which gathered demographic information from participants, including age, place of residence, educational status, and economic status. This form also included seven questions about pregnancy planning and expectations, knowledge about pregnancy, birth, and postpartum, and thoughts on social support (Appendix 1).

The second form was the WCF-PPS/MCF-PPS, which was developed by Stoll et al. (8). In this study, a six-point Likert-type scale is designed to measure the prenatal fear of childbirth in young women and men. The scale, ranging from 10 (min.) to 60 (max.), comprises dimensions such as labour pain, loss of control, inability to cope with labour, complications, and irreversible physical damage where higher total scores indicate greater fear. Responses are scored from 1 (strongly disagree) to 6 (strongly agree). The original scale had a Cronbach's alpha value of 0.868. This scale was modified by Uçar and Taşhan (23) and used for university students in 2018. In their study, Cronbach's alpha internal consistency coefficient was 0.89 for the WCF-PPS and 0.84 for the MCF-PPS.

Cronbach's alpha is a measure of internal consistency and it indicates the close relation of items as a group. It is generally accepted that an alpha of 0.700 or above is indicative of good internal consistency while a value below this threshold suggests that the items may not be adequately measuring the same underlying construct. In this study, the Cronbach's alpha for the WCF-PPS was 0.075 while it was 0.072 for the MCF-PPS. Such results indicate that the data was reliable and are considerably lower than those reported in the original study by Stoll et al. (8), which documented a range of 0.81-0.89.

2.6. Data Analysis

The data obtained from 289 participants were analysed using appropriate statistical methods in IBM SPSS Statistics 22 (SPSS Inc., Chicago, IL) and AMOS 21.0 package programme. The study included demographic questions, the Preconception Fear of Childbirth Scale, and FOC questions compiled by the researcher from the literature on pregnancy planning and expectations, level of pregnancy-delivery-postnatal knowledge, and thoughts about social support. Before proceeding to the data analysis stage, skewness and kurtosis values were examined whether the data related to the scale questions were suitable for normal distribution. In the analysis of the data; descriptive categorical data were shown as number and percentage, quantitative data as mean and standard deviation values, skewness, kurtosis, minimum and maximum values. Confirmatory factor analysis was conducted to examine the validity of the FOC questions. In comparisons related to scale scores, Independent Sample T Test was used to compare the averages of two groups, One Way ANOVA test was used to compare the averages of more than two groups, and Pearson Correlation analysis was used to examine the relationship between scale scores. In the research, alpha=0.05 margin of error at 95% confidence

level was taken as a basis. Variance Inflation Factor (VIF) and tolerance values were analysed to determine the multicollinearity problem between independent variables. VIF is expected to be below 10 and tolerance value is expected to be above 0.2. Durbin-Watson (DW) analysis was performed to examine autocorrelation and the DW value in the range of 1.5-2.5 showed that there was no autocorrelation. Regression analyses were performed with WCF-PPS/MCF-PPS total score as the dependent variable and FOC questions as the independent variables.

3. RESULTS

It was observed that 16.3% of the female participants and 24.4% of the male participants were 30 years of age or older, 68.5% of the women and 58.1% of the men lived in metropolises. It was observed that 55.7% of the women and 55.8% of the men had an income equal to their expenses and the majority of the participants were university graduates. Almost half of the female participants stated that they did not want to have children in the next year (Table 1).

It was found that the pre-pregnancy fear of childbirth scale female and male scores and FOC questions scores showed normal distribution (Table 2).

In Figure 1, it is seen that χ^2/df of the model is a good fit, NFI, TLI, SRMR and RMSEA values are among acceptable fit index values ($\chi^2/df=2.374<5$, CFI=0.940<0.95, NFI=0.902<0.90, TLI=0.923>0.90, SRMR=0.055<0.10, RMSEA=0.069<0.08). In order to improve the goodness of fit indices of the model, modification was required by drawing covariance between the error terms between question 10 and question 11.

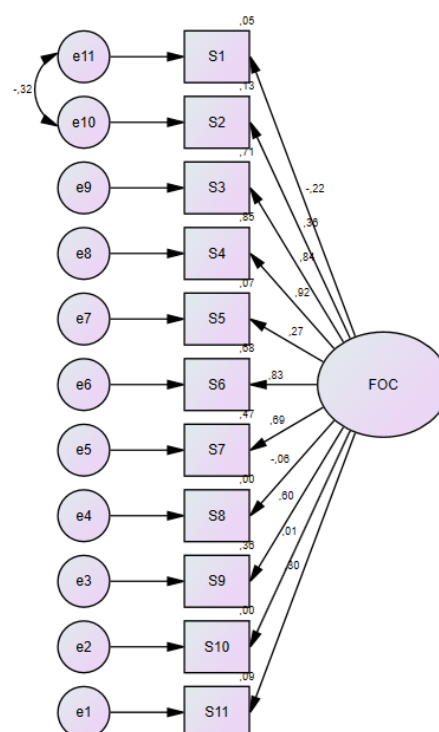


Figure 1. Confirmatory factor analysis for FOC questions

Table 1. Socio-demographic Properties (n = 289)

Variables		Categories	n	%
Age	Female	18-23 age	77	37.9
		24-29 age	93	45.8
		30 age and upper	33	16.3
	Male	18-23 age	23	26.7
		24-29 age	42	48.8
		30 age and upper	21	24.4
Residence	Female	Metropol	139	68.5
		District	64	31.5
	Male	Metropol	50	58.1
		District	36	41.9
Income Status	Female	Income is less than my expenses	48	23.6
		Income is equal to my expenses	113	55.7
		Income is more than my expenses	42	20.7
	Male	Income is less than my expenses	9	10.5
		Income is equal to my expenses	48	55.8
		Income is more than my expenses	29	33.7
Education Status	Female	High school and below	20	9.9
		University	159	78.3
		Master's degree-PhD	24	11.8
	Male	High school and below	14	16.3
		University	61	70.9
Master's degree-PhD	11	12.8		
Do you want to bear a child in the next year?	Female	No	144	49.8
		Uncertain	17	5.8
		Yes	42	14.5
	Male	No	45	15.5
		Uncertain	15	5.1
		Yes	26	8.9

Table 2. Descriptive statistics related to pre-pregnancy fear of childbirth scale and FOC questions (n = 289)

Scales	n	Mean±SD	Minimum	Maximum	Skewness	Kurtosis
Pre-Pregnancy Fear of Childbirth Scale (WCF-PPS/MCF-PPS)-Female	203	35.54±5.67	24	47	-0.125	0.244
Pre-Pregnancy Fear of Childbirth Scale (WCF-PPS/MCF-PPS)-Male	86	30.08±3.47	20	40	0.163	0.500
FOC Questions	289	28.12±4.64	15	40	0.230	0.120

A significant difference was found in the WCF-PPS/MCF-PPS mean scores of women and men (p<0.001). The mean WCF-PPS/MCF-PPS score of women was higher than that of men (Table 3).

Table 3. Comparison of women and men in terms of WCF-PPS/MCF-PPS and FOC scores (n= 289)

Scales	Sex	n	Mean SD	t	p
WCF-PPS/MCF-PPS	Female	203	35.294.36	10.776	0.001**
	Male	86	30.083.47		
FOC	Female	203	28.314.87	1.044	0.297
	Male	86	27.684.05		

t:Independent Sample T Test, **p<0.001

As a result of the comparison of WCF-PPS/MCF-PPS and FOC questions scores according to the demographic characteristics of the participants; it was observed that WCF-PPS/MCF-PPS and FOC scores of women and men did not differ according to age, residence, income status and educational status (p>0.05).

No significant correlation was found between WCF-PPS/MCF-PPS scores and FOC scores of women and men (p>0.05).

Regression analysis was performed with WCF-PPS/MCF-PPS total score as the dependent variable and FOC questions as the independent variables. As a result of the regression analysis, the explanation rate (R²) of the model was calculated as 0.4% and the F statistic was found significant (p<0.05). In addition, FOC question 4 (I do not have enough information about the moments of birth) was found to be effective on WCF-PPS/MCF-PPS at 0.05 significance level and a one unit increase in FOC question 4 caused a 0.864 unit increase in WCF-PPS/MCF-PPS score (Table 4).

Table 4. Analysing the effect of FOC questions on WCF-PPS/MCF-PPS

Dependent variable	Independent variables		t	p
WCF-PPS/MCF-PPS Total Points	Constant term	32.187	15.438	0.001
	S1	-0.347	-1.124	0.262
	S2	0.073	0.148	0.882
	S3	-0.180	-0.294	0.769
	S4	0.864	2.557	0.011
	S5	-0.286	-0.549	0.584
	S6	0.839	1.827	0.069
	S7	-0.063	-0.182	0.855
	S8	-0.195	-0.436	0.663
	S9	0.008	0.026	0.979
S10	-0.051	-0.117	0.907	
R ² =0.043, F=1.245, p<0.05				
WCF-PPS/MCF-PPS =32.187*+ 0.864* S4				

Multiple linear regression R²: 0.043, p;0.05

In the regression equation in which the dependent variable was determined as WCF-PPS/MCF-PPS total score and the independent variables were determined as FOC questions,

the coefficient of determination (R^2) was calculated as 0.043 and the F statistic was found significant ($p < 0.05$). Accordingly, it can be said that the rate of independent variable explaining the dependent variable is 0.4%. In addition, it was determined that FOC4(I do not have enough information about the moments of birth) question contributed to the model at 0.05 significance level on WCF-PPS/MCF-PPS. In the model; while the other variable is fixed, it can be said that a one unit increase in FOC question 4 causes a 0.864 unit increase in WCF-PPS/MCF-PPS. In this case, FOC question 4 shows an enhancing effect on WCF-PPS/MCF-PPS (Table 4).

4. DISCUSSION

The findings of this study indicate that women tend to greater fear of childbirth than men. The scores obtained show that fear of childbirth was slightly above average in women participating in this study and at a moderate level in men. In the study conducted by Gür et al. (25) on women and men who had not yet had children, the mean total score of WCF-PPS/MCF-PPS was 40.25 for women and 33.83 for men, and the results were similar to the results of this study (24). In a study conducted by Onchonga et al. (32) with 376 pregnant women, it was reported that 40.4% of women had moderate fear (25). Moderate fear of labour experienced during pregnancy and before pregnancy may be related to individuals' ability to cope with problems.

Interestingly, in this study half of the participating women did not want to become pregnant in the coming year. Only eight percent of men wanted to get pregnant. This may be due to the fact that this study coincided with the COVID 19 pandemic closure period.

There is no significant correlation was identified between women's and men's fear of childbirth and factors such as education level, economic status, residence of places and age in present study. Even though the results are like this women with higher levels of education (university or postgraduate) tended to have higher FOC, though this result was not statistically significant in this study. Some studies have suggested that a lower education is associated with more FOC (26,27). While the study of Serçekeş et al. (9) indicated that men with higher education levels experienced higher FOC, studies by Fairbrother et al. (28) and Žigić et al. (2018) did not find a significant relationship between educational status and FOC in women (24,28). The contrasting results between education levels and FOC in this study could be due to differences in the participants' demographic, perinatalogical, and cultural characteristics. Additionally, the results should be influenced since the majority of the participants are university graduates. Culturally, highly educated women are expected to contribute to the workforce in Turkish society. For this reason, the conflict between career aspirations and the responsibilities of pregnancy or child-rearing for highly educated women may affect their FOC.

This present study found no correlation between women's and man's income level with FOC and WCF-PPS/MCF-PPS.

But men whose income exceeded their expenses had higher FOC levels than others, although not statistically significant. This suggests that men in better economic conditions fear childbirth more. A study found that the fear of birth scores among young women at all income levels was higher than among men (25,29). According to a study with nursing students, there was no relationship between income level and WCF-PPS – MCF-PPS scores in terms of FOC (30) but is linked to experiences of pregnancy and adapting to fatherhood roles (31) among prospective and new fathers. However, in this study, the fact that the fear of childbirth scores of the economically well-off young men who did not have children were higher than the others may be due to the difficulties they observed in their environment related to pregnancy and fatherhood. This situation may be attributed to their perception of fatherhood as a major source of stress, concerns about disruptions in their life arrangements, witnessing negative examples of pregnancy and birth, and concerns about possible decreases in the performance and subsequent income of those whose economic well-being depends on their jobs. Therefore, the extent to which these factors trigger FOC can be investigated in future studies.

In this study, gender was not a significant factor in the relationship between FOC. Similarly, Ataman and Berber's study found no significant difference in FOC levels between genders among university students (29). FOC is more common in men and women who are expecting a baby. The reason for this can be interpreted as the fact that they have a concrete reality in front of them that will result in the birth of the baby and that they are waiting for with excitement (9,32).

This FOC question 4 (I do not have enough information about the moments of birth) had an increasing effect on the WCF-PPS/MCF-PPS on the fear of childbirth. As a result, inadequate information about the birth processes increased the fear of childbirth in both men and women. Therefore, this result indicates that focusing on informing couples about childbirth in the pre-pregnancy period is an important factor in reducing the fear of childbirth. Studies show that receiving education about childbirth preparation during reproduction reduces the fear of childbirth (33,34). However, no source has yet been found that proves that the fear of childbirth before childbirth can be reduced with education.

Since the study was conducted during the COVID-19 pandemic, it is also possible that it has increased anxiety and depression levels and mental burnout in individuals (35,36) in addition to the FOC levels of individuals (37,38). Since most of the interviews were conducted via the internet, it became difficult to reach male participants, who were recruited through interpersonal communication.

Even though couples were invited to the study, women showed more interest. It is also possible that men did not answer the questionnaire due to birth privacy, which is considered a cultural taboo in Turkish society. In addition, it is also possible that some men were not interested in the subject and they believed that the FOC is only a concern for

the women. This reality prevented this study from equalising the number of male and female participants.

5. CONCLUSION

In this study, no significant difference was found between men and women in terms of fear of childbirth and the level of FOC was found to be moderate among couples. Future research should investigate whether counselling provided during the preconceptional period in non-pregnant couples can effectively reduce FOC. Such interventions may help prevent FOC or related problems during and after pregnancy and ultimately improve the well-being of mothers and their babies.

Reproductive health professionals and other relevant specialists should follow relevant guidelines and be knowledgeable about FOC to ensure early diagnosis. To reduce primary FOC in young individuals, it may be advantageous to include specific FOC-related criteria in preconceptional counselling procedures and develop comprehensive information packages.

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Author Contributions:

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Design of the study: HT

Acquisition of data for the study: HT, NU

Analysis of data for the study: HT, NU

Interpretation of data for the study: HT, NU

Drafting the manuscript: HT

Revising it critically for important intellectual content: NU

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Appendix 1. WCF-PPS/MCF-PPS and FOC questions

		Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)
1	I feel ready to be a parent				
2	I feel sufficiently informed about how to prepare for pregnancy (pre-pregnancy blood tests, dental treatment, etc.)				
3	I feel sufficiently informed about the pregnancy period				
4	I do not have sufficient information about the moments of birth				
5	I feel sufficiently informed about the situations experienced in the first 40 days after birth				
6	I feel sufficiently informed about baby care				
7	I attend a pregnancy school with my wife during pregnancy				
8	I feel sufficiently informed about the fact that the baby needs to be breastfed for 2 years				
9	I do not know the family planning methods that can be used to protect against pregnancy during the postpartum period				
10	I think that I can support my wife sufficiently as a parent during the postpartum period				
*Questions derived from reading the references cited (9, 11, 12, 22, 26, 27, 31)					