Original Research / Orijinal Araştırma

Personality Characteristics of Women of Reproductive Age and Fear of Childbirth
Doğurganlık Çağındaki Kadınların Kişilik Özellikleri ve Çocuk Doğurma Korkusu

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Abstract

Introduction: Women's reproductive years affect their personal and societal lives. Childbirth, one of the most significant events of this age, is biological, psychological, social, and cultural.

Objective: This study aimed to determine the relationship between personality traits, demographic variables, obstetric characteristics, and fear of childbirth in women of reproductive age.

Method: This descriptive, cross-sectional study was conducted online with 394 women of reproductive age between May and November 2024. Data were collected using the "Personal Information Form", "Cervantes Personality Scale (CPS)", and "Childbirth Fear Scale (CFS)". Descriptive statistics, Mann–Whitney U test, the Kruskal–Wallis test, and Spearman's correlation test were used to analyze the data.

Results: Mean sub-dimension scores on the Cervantes Personality Scale were 11.57 ± 3.49 for Extraversion/Introversion, 28.65 ± 7.52 for Emotional Stability/Instability, and –6.92 ± 7.66 for Consistency/Inconsistency. The overall mean score on the Childbirth Fear Scale (CFS) was 51.67 ± 8.40. Age, educational level, place of residence, marital status, employment status, income, and family type significantly influenced the subdimension scores of the Childbirth Fear Scale. Regarding obstetric variables, having children, birth preference, number of pregnancies, and number of miscarriages/curettages were found to exert significant effects on fear of childbirth.

Conclusion: Pregnant women who were neurotic or exhibited inconsistent personality traits experienced higher levels of fear of childbirth. Women characterized by neurotic and inconsistent personalities should therefore be assessed more carefully with respect to fear of childbirth.

Keywords: Fear of childbirth; personality traits; women.

Özet

Giriş: Kadınların üreme yaşı, kişisel ve toplumsal yaşamlarını etkiler. Bu çağın en önemli olaylarından biri olan doğum, biyolojik, psikolojik, sosyal ve kültüreldir.

Amaç: Bu araştırmanın amacı doğurganlık çağındaki kadınların kişilik, demografik ve obstetrik özellikleri ile çocuk doğurma korkusu arasındaki ilişkiyi belirlemektir.

Yöntem: Bu tanımlayıcı kesitsel çalışma, Mayıs-Kasım 2024 tarihleri arasında üreme çağındaki 394 kadınla çevrimiçi olarak yürütülmüştür. Veriler "Kişisel Bilgi Formu", "Cervantes Kişilik Ölçeği (CKÖ)" ve "Doğum Korkusu Ölçeği (DKÖ)" kullanılarak toplanmıştır. Verilerin analizinde betimsel istatistikler, Mann-Whitney U testi, Kruskal-Wallis testi ve Spearman korelasyon testi kullanılmıştır.

Bulgular: Cervantes Kişilik Ölçeği alt boyut puan ortalamaları Dışadönüklük/İçedönüklük için 11.57 ± 3.49, Duygusal Kararlılık/Kararsızlık için 28.65 ± 7.52 ve Tutarlılık/Tutarsızlık için -6.92 ± 7.66 idi. Kadınlarda Doğum Korkusu Ölçeği genel puan ortalaması 51,67 ± 8,40'tır. Yaş, eğitim düzeyi, ikamet edilen yer, medeni durum, çalışma durumu, gelir ve aile tipi doğum korkusu ölçeğinin alt boyut puanlarını anlamlı olarak etkilemektedir. Obstetrik değişkenlerden çocuk sahibi olma, doğum tercihi, gebelik sayısı ve düşük/kürtaj sayısının doğum korkusu üzerinde anlamlı etkileri olduğu bulunmuştur.

Sonuç: Nevrotik veya tutarsız kişilik özellikleri sergileyen gebeler daha yüksek düzeyde doğum korkusu yaşamaktadır. Bu nedenle nevrotik ve tutarsız kişilik özelliklerine sahip kadınlar doğum korkusu açısından daha dikkatli değerlendirilmelidir.

Anahtar kelimeler: Doğum korkusu; kişilik özellikleri; kadın.

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Introduction

Negative emotions, experiences, and expectations associated with pregnancy might hinder adaptation to this phase, render birth as an uncertain and unpredictable occurrence, and foster a fear of childbirth.[1] Women may periodically encounter worry and apprehension concerning the birthing process. This emotional condition varies from mild anxiety to severe fear and phobia and is characterized in the literature as "fear of childbirth."[2-4] Fear of childbirth has been documented to affect roughly 20% of expectant women.[5,6] The condition in which dread escalates to the degree of phobia is termed "tokophobia," and its prevalence differs among nations. The average prevalence of tokophobia is stated to be 14%.[7] The global prevalence of fear of childbirth is thought to be between 5% and 40%.[8-10] A meta-analysis conducted by O'Connell and associates indicated that tokophobia prevalence is highest in Iran at 42.9%, whereas in Turkey, it is 15.7%.[11] The reduction in birth rates and fertility in Turkey (2024) is believed to be significantly influenced by the fear of delivery.[12]

The literature has frequently investigated the factors influencing fear of childbirth during pregnancy. Sociodemographic factors (age, level of education, income level), obstetric factors (gestational age, parity, desired pregnancy, negative birth experiences, fetal health status, etc.), and psychosocial factors (social support, spousal support, etc.) significantly influence the fear of childbirth in pregnant women.[13-15] The personality traits of pregnant women, together with gestational anxiety, depression, and self-efficacy perceptions concerning labor, have been shown to affect the fluctuations in fear of childbirth over this period.[14,16,17] Furthermore, it has been established that the spiritual well-being of pregnant women influences their anxiety about childbirth.[18] A study involving pregnant women indicates that those showing higher fear of childbirth tend to possess a more neurotic personality, whilst those with an extroverted personality demonstrate reduced fear of childbirth.[19-21] The study by Asselmann et al. (2021) utilized prospective-longitudinal data to assess the influence of personality traits on the prenatal and postnatal experiences of pregnant women, focusing on the gap between subjective and prior delivery experiences. The study demonstrated that diminished emotional stability in pregnant women resulted in an increased fear of childbirth.[22]

Considering the decline in birth rates in our country, we advocate for research that will support health policies focused on reducing childbirth fear among women of reproductive age, identifying relevant factors, and strengthening deficiencies. In this context, an evaluation of women's fear of childbirth and its influencing factors indicates a strong correlation with their personality traits, demographic characteristics, and obstetric history.[23] Personality traits are enduring characteristics of individuals and can be difficult to change.[24] An individual typically encounters greater difficulties when exposed to stress. Pregnancy and childbirth can serve as significant stressors.[25] Personality traits, including neuroticism and extraversion, have been linked to health outcomes.[26] It has been noted that women's personality traits influence their emotions, thoughts, expectations, and experiences throughout the childbirth process and the postpartum period.[27] Reports indicate that women with specific personality traits hold an intense fear of childbirth, perceiving both the childbirth and postpartum periods as stressful.[28] Saisto et al. (2001) discovered that women exhibiting neurotic characteristics are less inclined to experience a positive childbirth and are at a higher risk for postpartum depression. Study indicates that fear of childbirth is more prevalent among women with low self-esteem, increased sensitivity, depressive personality traits, and neurotic characteristics.[29] Yılmaz et al.'s (2021) study showed that women's traits influence the perception of traumatic childbirth.[30]

The personality traits of women are often overlooked in the planning and execution of preconceptional, prenatal, and postpartum care. Nevertheless, inadequate management of this process might result in many issues. Our proposed study aims to elucidate the correlation between fear of childbirth and the personality traits, demographic, and obstetric characteristics of women of reproductive age. This is expected to improve the interventions and support offered to women, helping them manage the fear of childbirth throughout the preconception period. This study aimed to determine the correlation between the personality traits, demographic, and obstetric characteristics of women of reproductive age and their fears of childbirth.

Research questions

1. What is the impact of personality traits in women of reproductive age on their fear of childbirth?
2. What is the impact of the demographic and obstetric characteristics of women of reproductive age on their fear of childbirth?

Materials and Methods

Type of the Study

This research was designed as a descriptive, cross-sectional study.

Population and Sample

The study included reproductive-age Türkiye women. The Turkish Statistical Institute (TÜİK) (2023) reported 21,876,878 women aged 15-49.[31] Purposive sampling was used to select participants based on predefined inclusion

criteria. Using the known population calculation with 95% confidence and a 5% margin of error, the study had a minimum sample size of 385 women and ended with 394 participants.

$$n = \frac{Nt^2\ pq}{d^2(N-1) + t^2pq}$$

* N = population size,
* n = sample size,
* p = probability of the event,
* $q = 1 - p$,
* t = z-value for the chosen confidence level, and
* d = desired precision.

Substituting the values:

$$n = \frac{21{,}876{,}878 \times (1.96)^2 \times 0.5 \times 0.5}{(0.05)^2(21{,}876{,}878 - 1) + (1.96)^2 \times 0.5 \times 0.5} = 384{,}51$$

The inclusion criteria were as follows: women aged 18–49 years, without communication problems, in the reproductive period (not in surgical or physiological menopause), and willing to participate. Women with chronic diseases or diagnosed psychiatric disorders were excluded from this study. Marital status and parity (having children or not) were not considered as inclusion or exclusion criteria, since the study aimed to represent women of reproductive age as a whole. All participants provided written informed consent before participation.

Data Collection Tools

The data collection instruments were as follows.

Personal Information Form: Demographic (age, education status, marital status, income level, famil type etc.) and obstetric (number of children, miscarriages/curettages, gestational week) variables.[23,28,29,32]

Cervantes Personality Scale (CPS): Developed by Castelo-Branco et al.[33] and validated in Turkish by Demiröz Bal and Şahin in 2011.[34] This 20-item, six-point Likert scale measures Introversion/Extraversion, Emotional Stability/Instability (Neuroticism), and Consistency/Inconsistency. Higher scores indicate greater introversion, neuroticism, and inconsistency, while lower scores indicate greater extraversion, emotional stability, and consistency. In the present study, Cronbach's alpha values were 0.89 for Extraversion/Introversion, 0.93 for Emotional Stability/Instability (Neuroticism), and 0.94 for Consistency/Inconsistency.

Childbirth Fear Scale (CFS): Created by Nuraliyeva and Kaya (2019) to assess the fear of childbirth in women of reproductive age.[35] It comprises three sub-dimensions: Fear of Pregnancy, Childbirth, and the Maternal Role, Fear of Not Fulfilling Physical and Social Needs, and Fear of Pregnancy and Childbirth Problems. Items 4, 7, 9, 11, 13, 16, 18, and 19 were positively worded; the remainder were negative and reverse-scored. Lower scores denote greater fear of childbirth. The Cronbach's alpha for the total scale was 0.86, with subdimension alphas of 0.88, 0.76, and 0.75, respectively.[35] In the present study, Cronbach's alpha values were 0.95 for Fear of Pregnancy, Childbirth, and the Maternal Role, 0.92 for Fear of Not Fulfilling Physical and Social Needs, and 0.96 for Fear of Pregnancy and Childbirth Problems.

Data Collection

Data were gathered online from May to November 2024 using Google Forms distributed via multiple social media platforms (WhatsApp, Twitter, Instagram, Facebook, Pinterest, and Snapchat). Participant invitations were made on online platforms by adding an online form link to a research invitation letter prepared with clearly stated inclusion and exclusion criteria. No personal identifiers or e-mail addresses were collected, and the responses were stored anonymously. The first page of the online survey included an informed consent form that explained the purpose of the study as well as the inclusion and exclusion criteria.

The survey opened only after participants selected "I agree." Filling out the forms takes approximately 15 minutes.

Data Analysis

Statistical analyses were performed using SPSS 25.0. Frequencies, percentages, means, and standard deviations were used to summarize demographic and obstetric data. Mean scores and score ranges for the Cervantes Personality Scale and the Childbirth Fear Scale in women were calculated means, standard deviations, minima, and maxima. The normality of continuous data distributions was examined using the Shapiro–Wilk test, as well as skewness and kurtosis coefficients and histogram plots. Since the data deviated from normality, non-parametric statistical methods were employed, consistent with methodological recommendations for skewed or ordinal data.[36] Relationships between Cervantes Personality Scale mean scores and Childbirth Fear Scale sub-dimension/total scores in women were evaluated with Spearman's correlation coefficient. The effects of women's demographic and

obstetric characteristics on Childbirth Fear Scale subscale and total scores were analyzed using the Mann–Whitney U test for two-group comparisons and the Kruskal–Wallis test for comparisons involving more than two groups.[37] Statistical significance was set at $\alpha = 0.05$; $p < 0.05$.

Results

The participants' average age was 22.28 ± 6.18 years (min-max=18.00-49.00). Of these, 51.5% (n = 203) had a primary-level education, 64.7% (n = 255) were married, 62.4% (n = 246) worked, and 42.9% (n = 169) lived in nuclear families. In terms of obstetric history, 87.6% (n = 345) did not have children, and 28.6% (n = 14) gave birth vaginally. When questioned about their desired mode of birth, 63.7% chose caesarean section (Table 1).

Table 1. *Demographic and Obstetric Characteristics of the Women (n = 394)*

Characteristic	**Mean**	**SD**	**Min-Max**
Age	22.28	6.18	18.00-49.00
	n	**%**	
Educational level			
Primary school	203	51.5	
Secondary school	42	10.7	
Associate/Undergraduate degree	149	37.8	
The place where you have spent most of your life			
Province	306	77.7	
District	88	22.3	
Marital status			
Married	255	64.7	
Single	139	35.3	
Employment status			
Employed	246	62.4	
Unemployed	148	37.6	
Income level			
Income exceeds expenditure	230	58.4	
Income equals expenditure	123	31.2	
Income below expenditure	41	10.4	
Family type			
Nuclear family	169	42.9	
Extended family	225	57.1	
Having children			
Yes	49	12.4	
No	345	87.6	
If you have given birth, previous mode of birth*			
Vaginal birth	14	28.6	
Cesarean birth	35	71.4	
Preference for birth mode			
Vaginal birth	143	36.3	
Cesarean birth	251	63.7	
	Mean	**SD**	**Min-Max**
Number of pregnancies	0.25	0.70	0.00-4.00
Number of miscarriages/curettages	0.05	0.29	0.00-3.00

**SD: Standard deviation, *n is not calculated out of 100%.*

Mean CPS sub-dimension scores were 11.57 ± 3.49 (Extraversion/Introversion), 28.65 ± 7.52 (Emotional Stability/Instability), and –6.92 ± 7.66 (Consistency/Inconsistency). Mean CFS sub-dimension scores were 30.12 ± 12.14, 10.69 ± 6.37, and 10.86 ± 6.84, with a total mean of 51.67 ± 8.40 (Table 2).

Table 2. *Mean Scores and Score Ranges for the Cervantes Personality Scale (CPS) and the Childbirth Fear Scale (CFS) (n = 394)*

	Mean ± SD	**Min-Max**
Cervantes Personality Scale (CPS)		
Extraversion / Introversion	11.57±3.49	2.00-26.00
Emotional Stability / Instability (Neuroticism)	28.65±7.52	9.00-35.00
Consistency / Inconsistency	-6.92±7.66	-24.00-0.00
Childbirth Fear Scale (CFS)		
Fear of Pregnancy, Childbirth, and the Maternal Role	30.12±12.14	9.00-42.00
Fear of Not Fulfilling Physical and Social Needs	10.69±6.37	6.00-30.00
Fear of Pregnancy and Childbirth Problems	10.86±6.84	5.00-25.00
Total	51.67±8.40	22.00-87.00

**SD: Standard deviation*

Correlation analysis revealed a moderate negative association between extraversion/ introversion and fear of pregnancy, childbirth, and maternal role ($\rho = -0.44$, $p = 0.000$) and moderately positive associations with both Fear of Not Fulfilling Physical and Social Needs ($\rho = 0.52$, $p = 0.000$) and Fear of Pregnancy and Childbirth Problems ($\rho = 0.49$, $p = 0.000$). Emotional Stability/Instability showed a strong positive correlation with Fear of Pregnancy, Childbirth, and the Maternal Role ($\rho = 0.86$, $p = 0.000$) and strong negative correlations with the other two subdimensions ($\rho = -0.79$ and -0.84, respectively; $p = 0.000$). The Consistency/Inconsistency subdimension displayed similarly strong correlations (Table 3). No significant relationship was found between the total CFS score and CPS subdimensions.

Table 3. *Relationships Between Mean Scores on the Cervantes Personality Scale (CPS) and Sub-dimension/Total Scores of the Childbirth Fear Scale (CFS) (n = 394)*

	Cervantes Personality Scale (CPS)		
Childbirth Fear Scale (CFS)	Extraversion / Introversion	Emotional Stability / Instability (Neuroticism)	Consistency / Inco nsistency
Fear of Pregnancy, Childbirth, and the Maternal Role	ρ=-0.44, *p*=0.000*	ρ=0.86, *p*=0.000*	ρ=0.85, *p*=0.000*
Fear of Not Fulfilling Physical and Social Needs	ρ=0.52, *p*=0.000*	ρ=-0.79, *p*=0.000*	ρ=-0.81, *p*=0.000*
Fear of Pregnancy and Childbirth Problems	ρ=0.49, *p*=0.000*	ρ=-0.84, *p*=0.000*	ρ=-0.84, *p*=0.000*
Total	ρ=0.08, *p*=0.102	ρ=0.03, *p*=0.587	ρ=0.01, *p*=0.886

Note: ρ=Spearman correlation coefficient, **p* < 0.05

The effects of obstetric and demographic factors on the CFS subdimension and overall scores are shown in Table 4. The sub-dimension scores were strongly influenced by age, education, place of residence, marital status, employment, income, and family type. Obstetrically, the subdimension scores were strongly impacted by having children, birth choice, number of pregnancies, and number of miscarriages/curettages. Only the overall CFS score was significantly impacted by income (Table 4).

Table 4. *Effects of Women's Demographic and Obstetric Characteristics on Sub-dimension and Total Scores of the Childbirth Fear Scale (CFS)*

		Childbirth Fear Scale (CFS)			
Characteristic		Fear of Pregnancy, Childbirth, and the Maternal Role	Fear of Not Fulfilling Physical and Social Needs	Fear of Pregnancy and Childbirth Problems	Total
Age		ρ=-0.26, *p*=0.000*	ρ=0.29, *p*=0.000*	ρ=0.24, *p*=0.000*	ρ=0.02, *p*=0.692
		Mean ± SD	**Mean ± SD**	**Mean ± SD**	**Mean ± SD**
Educational level	Primary school	40.73±2.26	6.17±1.49	5.19±1.63	52.10±0.86
	Secondary school	18.64±6.81	15.33±6.12	16.79±4.69	50.76±11.32
	Associate/Undergraduate degree	18.89±7.26	15.54±6.03	16.90±4.87	51.33±12.26
		KW=308.820, *p*=0.000*	KW=287.961, *p*=0.000*	KW=314.821, *p*=0.000*	KW=0.874, *p*=0.646
The place where you have spent most of your life	Province	33.60±11,05	9.30±5.58	9.11±6,27	52.02±6,60
	District	18.01±6,90	15.52±6.60	16.91±5.08	50.44±12.82
		U=4366.500, *p*=0.000*	U=5562.500, *p*=0.000*	U=4790.000, *p*=0.000*	U=13457.000, *p*=0.994
Marital status	Married	36.39±9.48	7.99±4.90	7.36±5.19	51.75±6.01
	Single	18.61±6.97	15.64±5.75	17.26±4.44	51.51±11.60
		U=4143.500, *p*=0.000*	U=4499.500, *p*=0.000*	U=3521.000, *p*=0.000*	U=16462.000, *p*=0.206
Employment status	Employed	37.36±8,56	7.84±4.63	7.17±5.03	52.37±5.90
	Unemployed	18.07±6,17	15.44±6.03	16.98±4.73	50.49±11.34
		U=2924.500, *p*=0.000*	U=4808.000, *p*=0.000*	U=3603.000, *p*=0.000*	U=17791.000, *p*=0.683
Income level	Income exceeds expenditure	37.99±8.30	7.01±3.62	6.30±3.92	51.30±5.22
	Income equals expenditure	18.87±7.24	15.41±5.80	16.92±4.63	51.20±11.68
	Income below expenditure	19.71±6.21	17.17±5.57	18.24±4.18	55.12±10.36
		KW=223.189, *p*=0.000*	KW=249.548, *p*=0.000*	KW=265.506, *p*=0.000*	KW=16.226, *p*=0.000*
Family type	Nuclear family	38.81±6.82	7.00±3.54	6.24±3.78	52.05±4.00
	Extended family	18.54±6.86	15.62±5.95	16.99±4.89	51.15±11.97
		U=2214.500, *p*=0.000*	U=3272.000, *p*=0.000*	U=2293.500, *p*=0.000*	U=18010.500, *p*=0.332
Having children	Yes	19.98±7.03	16.14±6.49	16.29±5.37	52.41±14.09
	No	31.56±12.04	9.92±5.97	10.08±6.68	51.56±7.27
		U=4279.000, *p*=0.000*	U=3643.000, p=0.000*	U=3987.000, *p*=0.000*	U=7678.000, *p*=0.260
Preference for birth mode	Vaginal birth	18.51±7.11	15.56±6.16	16.49±4.94	50.56±12.42
	Cesarean birth	36.73±9.06	7.92±4.58	7.65±5.58	52.29±4.71
		U=3826.000, *p*=0.000*	U=4724.000, *p*=0.000*	U=4765.500, p=0.000*	U=17402.000, p=0.587
Number of pregnancies		ρ=-0.31, *p*=0.000*	ρ=0,33, *p*=0.000*	ρ=0.31, *p*=0.000*	ρ=0.02, *p*=0.644
Number of miscarriages/curettages		ρ=-0.13, *p*=0.010*	ρ=0.14, *p*=0.006*	ρ=0.14, *p*=0.007*	ρ=0.02, *p*=0.642

Note: SD: Standard deviation, ρ: Spearman correlation coefficient, KW: Kruskal-Wallis test, U: Mann-Whitney U test, **p<0,05

Discussion

The study investigating the impact of personality traits, demographic factors, and obstetric characteristics on women's fear of childbirth showed that such worry was modest among women of reproductive age. The introverted, emotionless, and inconsistent personality traits of women were found to contribute to their fear of pregnancy, childbirth complications, and the inability to meet physical and social requirements. Furthermore, demographic characteristics of women, including their age, level of education, and marital status, alongside obstetric factors such as the number of pregnancies, events of miscarriages or curettage, and preferred mode of delivery, were identified as influencing distinct aspects of childbirth fear.

The women in our study showed a moderate level of fear of childbirth. Studies with pregnant women have highlighted that they frequently experience the fear of childbirth.[13-15,38] Nonetheless, similar to our sample group, the phenomenon of fear of childbirth is frequently referenced in studies, including women of reproductive age who are not currently pregnant.[30,39] Pregnancy can cause uncertainties and increased fears.[40] Measuring the levels of fear for childbirth during the preconception period in women of reproductive age may enhance their preparedness. Thus, it is believed that the groundwork for pregnancy, childbirth, and parenthood would be prepared.

When introversion increases in women of reproductive age, fear of pregnancy, childbirth, and the maternal role increase, while fear of not fulfilling physical and social needs and fear of pregnancy and childbirth problems decrease. Literature indicates that individuals with extraverted personality qualities exhibit reduced fear of childbirth.[29-44] Calpbinici et al. (2021) examined the correlation among perceived social support, personality traits, and self-esteem in pregnant women experiencing fear of childbirth, finding that extraverted pregnant women exhibited reduced fear of childbirth.[20] These findings corroborate the outcomes of the present study. Extraversion encompasses positive emotionality, assertiveness, and sociability. The energy and optimism needed to start and sustain coping mechanisms may improve problem-solving, support-seeking, cognitive restructuring, and distraction.[45-47] Individuals with more worries are known to socialize less and adhere less to social norms, while also exhibiting increased aggression and conflict.[48] Introverted individuals are characterized as reclusive, averse to socializing, maintaining distance from others, often silent, shy, and reserved.[49] This method suggests that introverted women tend to engage in higher self-reflection over their roles in pregnancy, childbirth, and parenting, which worsens their fears about these responsibilities and hinders their acceptance of new roles. However, it can be argued that introverted people experience less fear in this area because they must engage in solitary activities because of their introverted personality traits, take care of their needs on their own, and handle problems without expressing them to others.

The current study showed that women exhibiting neurotic personality traits experienced higher fears around fear of not fulfilling physical and social needs and fear of pregnancy and childbirth problems. Unexpectedly, it was discovered that women's fear of pregnancy, childbirth, and the maternal role diminished with an increase in the neuroticism personality trait. The research by Handelzalts et al. revealed a substantial correlation between higher fear of childbirth and increased neuroticism.[44] In studies, it has been stated that increased vulnerability, neuroticism, depression, physical complaints[29] and subjective birth experiences (such as preterm birth experience)[22] cause women to experience more fear of childbirth. Furthermore, another study revealed that the fear of childbirth experienced by pregnant women exhibited a positive correlation with the neurotic personality trait.[20] Conrad and Trachtenberg (2021) investigated the influence of different factors on women's subjective birth experiences, showing that neuroticism, fear of childbirth, and self-efficacy were correlated with these experiences.[49] Neuroticism includes negative behaviors linked to emotional distress, with elevated levels related to emotional instability, impatience, changes in mood, sadness, and a tendency for fear. All of these factors may worsen neurotic personality traits, leading to an increased fear of childbirth. Individuals exhibiting neurotic personality traits, characterized by stress and anxiety, indicate that women with such features possess a higher likelihood of experiencing fear of childbirth. The unexpected finding of fewer fears regarding pregnancy, childbirth, and the maternal role in individuals with neurotic personalities is attributed to the fact that this study focused on women of reproductive age. The fear regarding the role of motherhood or possible problems, referred to as specific concerns, may not have been fully comprehended by women who are not pregnant.

It was determined that the fear of pregnancy, childbirth, and the maternal role increased in the case of having consistent personality traits, but the fear of not fulfilling physical and social needs and the fear of pregnancy and childbirth problems decreased. The decrease in the sub-dimensions of fear of not fulfilling physical and social needs and fear of pregnancy and childbirth problems, which are among our study results, presents similar results to the literature. It was determined that the higher the level of coherence, the lower the level of fear of childbirth.[29,43] Fear of pregnancy and vaginal delivery may be linked to women's general predisposition to anxiety, dissatisfaction with their lives, and lack of skills to cope with changing and challenging life circumstances.[29] The use of health-related behaviours, and active coping strategies is considered to be associated with coherence.[50] Coherence refers to personal characteristics related to the tendency to conform to social norms in terms of impulse control, and

coherent people are goal-oriented, planned, not easily satisfied with the outcome, and follow norms and rules.[51] Consistent individuals are focused and strong-minded. Such individuals tend to behave obediently, have self-discipline and pursue success based on a certain standard or external expectations.[52] In these approaches, it can be said that the reason for the increase in pregnancy, birth, and motherhood role fears in the case of being consistent in these approaches is that there are fears about what will develop outside of their control, which is outside the mould of the consistent personality traits. In all of these approaches, it is thought that consistent individuals will endeavour to acquire strategies that they can use to cope with the fear of childbirth.

It was determined that age, educational status, place of residence, marital status, employment status, income level, and family type had a significant effect on the mean scores of the fear of childbirth scale sub-dimension among the demographic characteristics of women of reproductive age. In contrast to our findings, Bilge et al. (2022) found that sociodemographic traits such age, income level, and educational position had no bearing on pregnant women's fear of childbirth and the variables associated with these worries.[13] This situation did not change in Aktaş Reyhan and Dağlı's study, in which they evaluated the relationship between the personality traits of pregnant women and fear of childbirth, birth satisfaction and postpartum depression. In the study, it was found that other demographic factors other than the employment status of pregnant women did not have a significant effect on fear of childbirth.[21] The sample group has been proposed to be the primary cause of these disparate outcomes. The demographics of women who are of reproductive age and those who are not pregnant are expected to have a substantial impact on their fear of childbirth and even their intents. However, it is anticipated that a variety of factors could influence pregnant women's anxiety of giving birth. In addition, Turkey is a centre where many different cultures come together and form different structures. The act of birth holds significant value in traditional societies. Therefore, the birth process may be shaped by many traditions, beliefs, customs, and ceremonies. It is thought that the differences in the fear of childbirth score caused by demographic characteristics are due to changes in the social, cultural, and environmental conditions of women.

When evaluated in terms of obstetric characteristics, it was found that the status of having children, birth preference, number of pregnancies, and number of miscarriages/curettage had a significant effect on the mean scores of the fear of childbirth scale subscale. Aktaş Reyhan and Dağlı (2024) found that those with planned pregnancies had a higher fear of childbirth.[21] Bilge et al. (2021) found that pregnant women in the second trimester and women with no pregnancy experience had higher fear of childbirth compared to others.[13] Although similar results were found with our study results in terms of several factors, it is possible that the fear of childbirth in pregnant women and women of reproductive age may be affected by different obstetric characteristics.

Limitations

The descriptive and cross-sectional methodology may restrict the evaluation of attitudes and feelings that can vary over time and among different reproductive experiences. Although the data was collected at a single point in time, it was unable to capture changes in women's perceptions or fears about childbirth as they progressed through their reproductive lives or in response to new experiences. As a result, the findings must be interpreted with caution about causality. Future research utilizing longitudinal or repeated-measures techniques is necessary to enhance comprehension of the interplay between women’s personality traits, demographic factors, and obstetric features with delivery anxiety across time.

Conclusion

Our findings suggest that it is advisable to measure women's personality traits and the fear of childbirth during the preconception period. Women exhibiting neurotic or inconsistent personality traits necessitate careful assessment as well as individual interventions. Women may be able to manage and integrate their fear into daily life with the use of techniques like breathing and relaxation exercises. In instances of intense fear, cognitive restructuring and referral to mental health professionals are necessary. Employing personalized strategies may enhance women's readiness for childbirth and overall reproductive health outcomes.

Artificial Intelligence

The authors confirm that no artificial intelligence (AI) tools or AI-assisted technologies were used in the writing or preparation of this manuscript.

Ethical Considerations

Ethics approval was obtained from the Sinop University, Non-Interventional Research Ethics Committee (02 May 2024; decision 2024/89). Online informed consent was obtained from all participants. Confidentiality was strictly maintained.

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Conflict of Interest

The authors declare that they have no conflicts of interest.

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