

Original Research / Orijinal Araştırma

## The Relationship Between Fear of Childbirth and The Desire to Avoid Pregnancy among Young Unmarried Women

### Genç Bekar Kadınlarda Doğum Korkusunun Gebelikten Kaçınma Arzusuyla İlişkisi

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#### Abstract

**Objectives:** This study was conducted to determine the relationship between fear of childbirth among young unmarried women and their desire to avoid pregnancy. **Materials and Methods:** The study was carried out using a web-based survey shared with young unmarried women through young unmarried women's groups on social media and communication platforms (WhatsApp, Facebook Messenger, Instagram, etc.). The sample of the study consisted of 551 women who voluntarily agreed to fill out the survey. To collect the data, a Personal Information Form, the Desire to Avoid Pregnancy (DAP) Scale, and the Childbirth Fear - Prior to Pregnancy Scale (CF-PPS) were used. **Results:** According to the results of the study, there was a positive, weak, and statistically significant relationship between CF-PPS and DAP ( $p<0.001$ ). It was found that the participants had moderate levels of fear of childbirth and moderate levels of desire to avoid pregnancy. Additionally, it was determined that the fear of childbirth and desire to avoid pregnancy levels of the participants who were not working and those who were at or over the age of 24 were the lowest, and the fear of childbirth and desire to avoid pregnancy levels of the participants who had not witnessed/watched childbirth before and those who did not envision their labor were high. **Conclusions:** Consequently, it was determined that women who experience the fear of childbirth may display behaviors of avoiding pregnancy. Accordingly, it may be argued that reducing the childbirth fear levels of young unmarried women is highly important for their experience of healthy pregnancies. Thus, it is recommended to provide effective counseling for young unmarried women regarding pregnancy and childbirth.

**Key words:** desire to avoid pregnancy, fear of childbirth, midwife, unmarried women

#### Özet

**Amaç:** Bu araştırma, genç bekâr kadınlarda doğum korkusunun gebelikten kaçınma arzusuyla ilişkisini belirlemek amacıyla yapıldı. **Gereç ve Yöntem:** Araştırma sosyal medyada (WhatsApp, Facebook Messenger, Instagram gibi) genç bekâr kadın grupları aracılığıyla, web tabanlı bir çevrimiçi anket kullanılarak gerçekleştirildi. Araştırmanın örneklemini anketi doldurmaya gönüllü 551 kadın oluşturdu. Araştırma anketleri Google formları uygulaması kullanılarak geliştirildi. Veriler toplanırken Kişisel Bilgi Formu, Gebelikten Kaçınma Ölçeği (GKÖ) ve Kadın Gebelik Öncesi Doğum Korkusu Ölçeği (KGÖ-DKÖ) kullanıldı. Bulgular: Çalışma sonucuna göre KGÖ-DKÖ ve GKÖ arasında pozitif yönde, zayıf düzeyde ilişki olduğu ve bu ilişkinin istatistiksel olarak önemli olduğu belirlendi ( $p<0.001$ ). Araştırmaya katılan bekâr kadınların orta düzeyde doğum korkusu yaşadığı ve yine orta düzeyde gebelikten kaçınma arzusuna sahip oldukları belirlendi. Ayrıca, çalışmayan ve 24 yaş ve üzerindeki bekâr kadınların doğum korkusu ve gebelikten kaçınma düzeylerinin en düşük olduğu, daha önce doğum görmeyen/izlemeyenlerin ve kendi doğumunu hayal etmeyenlerin doğum korkusu ve gebelikten kaçınma düzeylerinin ise yüksek olduğu belirlendi. **Sonuçlar:** Çalışma sonucunda doğum korkusu yaşayan kadınların gebelikten kaçınma davranışı sergileyebilecekleri belirlendi. Buna göre genç bekâr kadınların doğuma yönelik korkularının azaltılmasının, sağlıklı gebelik yaşamalarında oldukça önemli olduğu söylenebilir. Bundan dolayı genç bekâr kadınlara, gebelik ve doğuma yönelik etkin danışmanlık yapılması önerilir.

**Anahtar kelimeler:** bekar kadınlar, doğum korkusu, ebe, gebelikten kaçınma arzusu

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## **Introduction**

In recent years, a striking increase has been witnessed in the number of studies published on the fear of childbirth.<sup>1</sup> Fear of childbirth is an experience that involves varying levels of fear, from mild to severe. Mild fear of childbirth is described as a reasonable concern that prepares the woman for pregnancy. Having mild concern about childbirth indicates a woman needs help coping with her fears and may not be able to get past them on her own. Severe fear of childbirth refers to a level of concern that reduces the courage of the woman to give vaginal birth or have a baby and may even lead to mental illnesses. Tokophobia is the case where the fear experienced by the woman drives her towards avoiding pregnancy or childbirth or sometimes terminating her pregnancy.<sup>2,3</sup> While studies have focused on the fear of childbirth among pregnant women, less is known about the fear of childbirth among unmarried women. The prevalence of fear of childbirth was found among 13.6% of unmarried university students in Canada. Those who reported high fear levels stated that they were afraid of getting physically injured during childbirth and that childbirth would induce unbearable pain; thus, they felt defenseless when they thought about childbirth.<sup>4</sup> It was determined that women who had tokophobia wanted to avoid pregnancy, and preferred using contraceptive methods with high protection rates to avoid getting pregnant.<sup>5</sup> Therefore, it is essential to understand the childbirth-related attitudes and fears of young unmarried women who plan to have children in the future, determine the factors leading to the desire to avoid pregnancy, and examine these factors.<sup>1</sup>

The fear of childbirth experienced by unmarried women may affect the pregnancy, childbirth, and postpartum periods to be experienced in the future and may even result in the avoidance of pregnancy. Thus, determining the relationship between the fear of childbirth and the desire to avoid pregnancy among young unmarried women may allow the implementation of early psychological interventions.<sup>6</sup> This way, it may help them have favorable outcomes in their future pregnancies. Despite this, not enough attention is paid to this relationship among unmarried women, and this issue is usually neglected. In this context, this study aimed to identify the relationship between fear of childbirth among young unmarried women and their desire to avoid pregnancy. Following are the questions that were sought for answers:

- 1) What are the levels of fear of childbirth and desire to avoid pregnancy among unmarried women?
- 2) Is there a relationship between the fear of childbirth and the desire to avoid pregnancy?
- 3) What factors lead to fear of childbirth and the desire to avoid pregnancy in unmarried women?

## **Material and Method**

This cross-sectional study was carried out in Turkey between April 15 and May 15, 2022. We collected data using a web-based survey shared with women through young unmarried women's groups on social media (e.g., WhatsApp, Facebook Messenger, Instagram) (<https://docs.google.com/forms>). The survey, prepared on the Google Forms system, was shared via messages sent to women in groups on the relevant social media and communication platforms. Participants were sent a consent form that included a brief description of the study's purpose and content and specified that they voluntarily agreed to participate. The study included women who approved the consent form and met the inclusion criteria (ages 18-24, and not married before). The number of replies to the web-based survey was 572. Incompletely filled, unsubmitted, or incorrectly coded survey forms were identified, and the forms filled out by 21 women were left out of the analyses due to ineligibility. As a result, the study sample included a total of 551 young unmarried women.

## **Data Collection Tools**

In this study, the participants filled out the data collection forms on the Google Forms platform. Several questionnaires were used to collect data, including the Personal Information Form, the Desire to Avoid Pregnancy (DAP) Scale, and the Childbirth Fear - Prior to Pregnancy Scale (CF-PPS).

## **Personal Information Form**

The researchers created this form to collect information on some sociodemographic characteristics of the participants (e.g., age, education status, income status).<sup>2,4-6</sup>

## **Desire to Avoid Pregnancy (DAP) Scale**

DAP was developed by Rocca et al. (2019) and tested for validity and reliability in Turkish by Karataş Okyay et al.<sup>5,7</sup> It is a 14-item scale that measures the preferences, thoughts, and feelings of women regarding a future pregnancy and childbirth. Items 3, 7, 9, 11, 12, 13, and 14 are inversely scored, while items 1, 2, 4, 5, 6, 8, and 10 are directly scored. On the 5-point Likert-type scale, each item has response options of 'absolutely agree',

'agree', 'undecided', 'disagree', and 'absolutely disagree'. While 'absolutely agree' is given 4 points for the inversely scored items, 'absolutely disagree' is given 4 points for the directly scored items. After the scores of the inversely scored items are reversed, all item scores are added, and the result is divided by 14 to obtain an average score. In this case, 0 and 4 are the minimum and maximum scores. High scores indicate higher levels of desire to avoid pregnancy. In the internal consistency analysis of DAP that was conducted to test its reliability, its Cronbach's alpha coefficient was reported as 0.94.<sup>7</sup> An internal consistency coefficient of 0.958 was found for the scale in this study.

### **Childbirth Fear - Prior to Pregnancy Scale (CF-PPS)**

CF-PPS was developed by Stoll et al. (2016) to measure the childbirth fear levels of young men and women prior to pregnancy.<sup>1</sup> Both men and women use the same scale form developed by Stoll et al. Both men and women were analyzed separately in Uçar and Timur Taşhan's (2018) Turkish adaptations. The form of CF-PPS that is used in women includes dimensions that lead to childbirth fear in young women, such as labor pain, loss of control, inability to cope with labor pain and childbirth, complications, and irreversible physical injuries. It is a 10-item, 6-point Likert-type scale, where each item has response options from 1 to 6, and the minimum and maximum total scores are 10 and 60. High total scores show high levels of fear.<sup>8</sup> In this study, Cronbach's alpha internal consistency coefficient of the scale was found as 0.892.

### **Statistical Analysis**

Study data were analyzed using SPSS 25.0 for Windows software (SPSS, Chicago, IL, USA). Statistics are presented in the form of frequencies, percentages, standard deviations, minimums, and maximums. A t-test with independent samples was used to compare two groups, one-way analysis of variance (ANOVA) was used to compare more than two groups, and Pearson's correlation analysis was used to analyze the relationships between variables. It was determined that the difference between the groups was due to Tukey's test, and  $p < 0.05$  was accepted as the level of statistical significance.

### **Ethical Aspect of the Study**

Following its ethical approval, the study was approved by the Health Sciences Non-Interventional Clinical Studies Ethics Committee of ..... (Decision No: 2022/3416). Additionally, before they started to respond to the data collection forms, the participants were provided with an information text about the study and data collection forms, and they provided consent.

### **Results**

**Table 1. The participants' descriptive characteristics (n=551)**

<b>Characteristic</b>	<b>n</b>	<b>%</b>
<b>Age (years); Mean ± SD</b>	21.56±3.49	
<b>Educational level</b>		
≤12	100	18.1
>13	451	81.9
<b>Employment status</b>		
Employed	91	16.5
Unemployed	460	83.5
<b>Income status</b>		
Low	179	32.5
Moderate	317	57.5
High	55	10.1
<b>The state of experiencing pain during the menstrual period</b>		
Yes	464	84.2
No	87	15.8
<b>Experience of watching a labor</b>		
Yes	226	41.0
No	325	59.0
<b>The state of dreaming of your birth</b>		
Yes	322	58.4
No	229	41.6
<b>Partner presence</b>		
Yes	206	37.4
No	345	62.6

SD: Standard Deviation

The distributions of some descriptive characteristics of the participants are presented in Table 1. Accordingly, 81.9% of the participants had university or higher degrees, 83.5% were not working, and the income levels of 57.5% were equivalent to their expense levels. Moreover, 84.2% experienced pain during menstruation, 59.0% had witnessed/watched childbirth before, 58.4% envisioned their childbirth, and 62.6% did not have boyfriends (Table 1).

**Table 2. CF-PPS and DAP scores of the participants and correlations between these scores**

	<b>Mean±SD (min-max)</b>
<b>CF-PPS</b>	44.14±10.36 (10-60)
<b>DAP</b>	2.32±1.11 (0-4)
	<b>r* / p</b>
<b>CF-PPSS / DAP</b>	.167 / 0.000

CF-PPS: Childbirth Fear - Prior to Pregnancy Scale; DAP: Desire to Avoid Pregnancy Scale

SD: Standard Deviation

\*Correlation is significant at the 0.05 level (2-tailed).

As seen in Table 2, the mean CF-PPS score of the participants was found as 44.14±10.36, while their mean DAP score was 2.32±1.11. The min-max scores of the participants on CF-PPS and DAP were 10-60 and 0-4, respectively. A positive, weak, and statistically significant relationship was found between CF-PPS and DAP ( $p<0.001$ ) (Table 2).

**Table 3. Comparison of the CF-PPS and DAP scores of the participants based on some of their characteristics (n=551)**

Characteristic	CF-PPS	Test and p-value	DAP	Test and p-value
<b>Age</b>				
16-19 age <sup>a</sup>	44.53±11.25	<b>p=0.025</b> <sup>§</sup>	2.62±1.14	<b>p=0.000</b> <sup>§</sup>
20-23 age <sup>b</sup>	44.80±9.97	F=3.697	2.36±1.10	F=18.389
24 age ve older <sup>c</sup>	41.68±9.94	<b>b&gt;c*</b>	1.78±0.91	<b>a&gt;c*</b>
<b>Educational level</b>				
≤12	45.28±10.75	t=1.207	2.26±1.22	t=-0.544
>13	43.89±10.26	p=0.228 <sup>†</sup>	2.33±1.09	p=0.587 <sup>†</sup>
<b>Employment status</b>				
Employed	42.14±11.13	t=-2.026	1.89±1.02	t=-4.108
Unemployed	44.54±10.17	<b>p=0.043</b> <sup>†</sup>	2.40±1.11	<b>p=0.000</b> <sup>†</sup>
<b>Income status</b>				
Low	44.89±10.72	p=0.364 <sup>§</sup>	2.25±1.02	p=0.460 <sup>§</sup>
Moderate	43.60±10.27	F=1.014	2.35±1.14	F=0.462
High	44.83±9.67		2.37±1.24	
<b>The state of experiencing pain during the menstrual period</b>				
Yes	44.23±10.07	t=0.450	2.28±1.20	t=-1.793
No	43.68±11.83	p=0.653 <sup>†</sup>	2.52±1.13	p=0.074 <sup>†</sup>
<b>Experience of watching a labor</b>				
Yes	42.23±10.95	t=-3.665	2.29±1.10	t=-0.476
No	45.48±9.72	<b>p=0.000</b> <sup>†</sup>	2.34±1.12	p=0.634 <sup>†</sup>
<b>The state of dreaming of your birth</b>				
Yes	43.28±10.77	t=-2.336	2.20±1.14	t=-2.947
No	45.36±9.64	<b>p=0.020</b> <sup>†</sup>	2.48±1.05	<b>p=0.003</b> <sup>†</sup>
<b>Partner presence</b>				
Yes	44.66±10.43	t=0.903	2.26±1.55	t=-1.015
No	43.84±10.32	p=0.367 <sup>†</sup>	2.36±1.09	p=0.310 <sup>†</sup>

CF-PPS: Childbirth Fear -Prior to Pregnancy Scale; DAP: Desire to Avoid Pregnancy Scale

\*Tukey's test

<sup>§</sup>Results of the one-way ANOVA

<sup>†</sup> Results of the independent samples t-test.

CF-PPS and DAP scores did not differ statistically significantly based on participants' income levels, education levels, pain during menstruation status, and boyfriend/partner status ( $p>0.05$ ). The differences in the mean CF-PPS and DAP scores of the participants based on their age were significant ( $p<0.05$ ). It was determined that the significant difference in the mean DAP scores was between the participants who were 16-19 years old and those who were 24 years old or older, where the former had significantly higher levels of desire to avoid pregnancy than the latter ( $b>a$ ). Regarding CF-PP, the significant difference was between the participants who were 20-23 years old and those who were 24 years old or older, where the former had significantly higher childbirth-related fear levels than the latter ( $b>c$ ). Significantly higher levels of both the fear of childbirth and the desire to avoid pregnancy were found in the participants who were not working, those who had not witnessed/watched childbirth before, and those who did not envision their childbirth process ( $p<0.05$ ) (Table 3).

## Discussion

In this study, which was conducted to investigate the fear of childbirth and the desire to avoid pregnancy among young unmarried women, the mean fear of childbirth score of the participants was 44.14, while their mean desire to avoid pregnancy score was 2.32. Considering the minimum and maximum scores of both scales, the participants of this study had moderate levels of fear of childbirth and moderate levels of desire to avoid pregnancy. Previous studies on the fear of childbirth in unmarried women prior to pregnancy have

provided similar results, indicating moderate levels of fear of childbirth.<sup>8,9</sup> In a study that was conducted to identify the desire to avoid pregnancy among unmarried women, the question 'what is the level of your desire to avoid getting pregnant in the future?' (0: none, ..., 5: would absolutely avoid it), half of the participants stated that they would like to avoid pregnancy.<sup>10</sup> Moreover, based on the mean age of the women who were included in our study, this result could be explained by the fact that they were of reproductive age and they were likely to experience pregnancy and childbirth sooner rather than later, considering the social structure of the country.

We found that participants' desire to avoid pregnancy increased as their childbirth-related fear levels increased, as indicated by the correlation analysis of our study. Previous studies have also reported that negative emotions about childbirth may lead to outcomes such as pregnancy avoidance.<sup>11,12</sup> James (2015) determined that women displayed avoidant behaviors regarding the control of childbirth-related threats and symptoms.<sup>13</sup> Other studies have revealed that 13% to 16% of women postpone or avoid pregnancy due to fear of childbirth,<sup>14</sup> and fear of childbirth causes decisions to terminate pregnancy<sup>9,15</sup> and elective cesarean section deliveries in future pregnancies.<sup>4,16-18</sup> In the study conducted with unmarried students by Hauck et al. (2016), the participants had higher rates of preferring cesarean section deliveries because childbirth is risky and affects the female body.<sup>19</sup> Although these results do not present an exact causality relationship between the fear of childbirth and the desire to avoid pregnancy, they show that early interventions are needed to prevent unmarried individuals from avoiding pregnancy in the future due to their fears of childbirth. According to the results of this study, the lowest levels of fear of childbirth and the desire to avoid pregnancy were among the participants who were not working and those who were at or over the age of 24. Previous studies have reported higher levels of fear of childbirth and the desire to avoid pregnancy at early ages among individuals who are not working.<sup>10,20-22</sup> The association between young age and fear of childbirth was explained by the higher number of unknowns about childbirth, the idea that one's plans in life would be interrupted, and low childbirth-related self-efficacy.<sup>23</sup> The reasons for the association between young age and the desire to avoid pregnancy have been listed as feelings of inadequacy regarding baby care, low socioeconomic status, and the possibility of interruptions in work, career goals, and education.<sup>10,24</sup> The reasons for fear of childbirth and the desire to avoid pregnancy in non-working individuals have been reported as low socioeconomic status and the associated inadequacy in accessing current and accurate information about pregnancy and childbirth.<sup>10,22</sup> In line with this information, it may be argued that age and working status are significant variables related to fear of childbirth and the desire to avoid pregnancy.

In this study, higher levels of fear of childbirth and desire to avoid pregnancy were identified among the participants who had not witnessed/watched childbirth before and those who did not envision their childbirth. Previous studies have also implicated unknowns about pregnancy and childbirth among the most significant reasons for fear of childbirth and the desire to avoid pregnancy.<sup>25,26</sup> Having accurate information about pregnancy and childbirth plays a vital role in the decisions of young individuals to decide to get pregnant in the future and their beliefs about childbirth. It may be stated that being knowledgeable about these issues is a parameter that increases the awareness levels of individuals, provides them with a sense of avoidance of unnecessary maternal and fetal health interventions and directs them toward what is natural and best. This way, as individuals' awareness and knowledge levels increase, they will become more capable of making decisions on their health and pregnancy and experience lower levels of fear of childbirth.<sup>9</sup> These results again showed how important it is to provide sufficient information and counseling services to young unmarried women regarding pregnancy and childbirth.

### **Strengths and Limitations of The Research**

This study has several significant limitations. First, data were collected via self-report based on self-report. In addition, the fear of childbirth and pregnancy avoidance levels of young girls are limited to the qualities measured by the scales applied in the study. Finally, the factors examined in our study (such as birth-related variables) might change over time. For future studies, a prospective or longitudinal approach may be preferable to a retrospective approach. However, this study provides solid evidence that fear of childbirth is associated with a desire to avoid pregnancy in young single women.

### **Conclusion and Recommendations**

Consequently, it was determined that women who experience fear of childbirth might display behaviors of avoiding pregnancy. Accordingly, it may be argued that reducing the childbirth fear levels of young unmarried women is highly important for their experience of healthy pregnancies. Hence, it is recommended for

midwives, who have critical roles in reducing childbirth-related fear levels and changing behaviors of pregnancy avoidance, in providing effective counseling for young unmarried women to correct their misconceptions about pregnancy and encourage them to share their fears.

**Ethical Approval:** Before collecting the research data, the ethical endorsement was obtained from the Health Sciences Non-Invasive Clinical Trials and Publications Ethics Committee (Endorsement no. 2022/3416, Date: 12-04-2022).

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