




## EFFECT OF CHILDBIRTH PERCEPTIONS IN MOTHERS ON THE CHILDBIRTH FEARS OF THEIR SINGLE DAUGHTERS

### Annelerdeki Doğum Algısının Bekâr Kızlarındaki Doğum Korkusuna Etkisi

Sibel AKGÜL<sup>1</sup> , Esra SABANCI BARANSEL<sup>2</sup> , Tuba UÇAR<sup>3</sup> 

<sup>1</sup>Hakkari University, Faculty of Health Sciences, Hakkari

<sup>2,3</sup>Inonu University, Faculty of Health Sciences, Malatya,

Geliş Tarihi / Received: 04.08.2022

Kabul Tarihi / Accepted: 17.11.2022

### ABSTRACT

This study, it was aimed to determine the effect of the childbirth perceptions of mothers on fear of birth in their single daughters. This cross-sectional study was conducted via social media (Facebook, Instagram) between 03.01.2022 and 31.01.2022 using a web-based questionnaire. The study was completed with 794 voluntary participants (397 mothers, 397 daughters). While collecting the data, a Personal Information Form, the Childbirth Fear – Prior to Pregnancy Scale (CF-PPS), and the Perception of Traumatic Childbirth Scale (PTCS) were used. When the mean CF-PPS score of the daughters was compared according to the PTCS levels of the mothers, it was found that the difference between the mean CF-PPS scores of the girls according to the PTCS levels of the mothers was statistically significant ( $p < 0.05$ ). It was determined that the mean scores of mothers aged 45 years and younger were higher than those aged 46 and over, mothers with the highest PTCS mean score were those with a history of abortion, and the difference between the groups was statistically significant ( $p < 0.05$ ). In addition, in the correlation analysis, it was determined that as the PTCS score of the mothers increased, the scores of their daughters increased in the CF-PPS, and there was a positive and weak significant relationship between PTCS and CF-PPS. It is thought that the PTCS levels of the mothers during their pregnancy have a positive relationship with the fear of childbirth in single daughters, therefore it has an effective role in transferring the fear of childbirth from mothers to their daughters.

**Keywords:** Childbirth experience, Daughter, Fear of childbirth.

### ÖZ

Araştırmada annelerdeki doğum algısının bekâr kızlardaki doğum korkusuna etkisini belirlemek amaçlanmıştır. Kesitsel nitelikte tasarlanan bu araştırma sosyal medya aracılığıyla (Facebook, Instagram) 03.01.2022 - 31.01.2022 tarihleri arasında web tabanlı bir çevrimiçi anket formu kullanılarak yürütüldü. Çalışma 794 (397 anne, 397 kız) gönüllü katılımcı ile tamamlandı. Veriler toplanırken Kişisel Bilgi Formu, Gebelik Öncesi Doğum Korkusu Ölçeği (GÖDKÖ) ve Travmatik Doğum Algısı Ölçeği (TDAÖ) kullanıldı. Annelerin TDAÖ düzeylerine göre kızlarının GÖDKÖ puan ortalamaları karşılaştırıldığında annelerin TDAÖ düzeylerine göre kızların GÖDKÖ puan ortalamaları arasındaki farkın istatistiksel açıdan önemli olduğu bulundu ( $p < 0.05$ ). 45 yaş ve altında yer alan annelerin TDAÖ'den aldıkları puan ortalamalarının 46 yaş ve üzerindekiilere göre daha yüksek olduğu, aynı zamanda en yüksek TDAÖ puan ortalamasına sahip olan annelerin küretaj öyküsü olanlardan oluştuğu ve gruplar arasındaki farkın istatistiksel olarak anlamlı olduğu belirlenmiştir ( $p < 0.05$ ). Ayrıca yapılan korelasyon analizinde annelerin TDAÖ puanı arttıkça kızlarının da GÖDKÖ'den aldıkları puanın arttığı, TDAÖ ile GÖDKÖ arasında zayıf düzeyde, pozitif yönde anlamlı ilişki olduğu belirlendi ( $p < 0.05$ ). Annelerin gebelik dönemlerine ait TDAÖ düzeylerinin bekâr kızlarındaki doğum korkusu ile aralarında pozitif yönde ilişki olduğu bu nedenle doğum korkularının annelerden kızlarına aktarılmasında etkili role sahip olduğu düşünülmektedir.

**Anahtar kelimeler:** Doğum algısı, Doğum korkusu, Kız çocuk.

---

## INTRODUCTION

While childbirth is a natural process involving biological, psychological, and cultural components, it is also a complicated experience that gives the mother-to-be excitement, happiness, and fear and may lead to positive and negative psychological responses. Additionally, giving birth and becoming a mother is one of the most critical events in a woman's life, and memories of childbirth are persistent for all women (Olde, Van Der Hart & Kleber, et al., 2006; Simkin 1992; Simkin, 1996).

Studies have shown that 7% to 35% of women perceive childbirth as a negative experience (Aydın & Yıldız 2018). More importantly, due to negative events and interventions, they experience during childbirth, approximately half of women describe childbirth as a traumatic event (Gökçe İsbir & İnci, 2016; Modarres, Afrasiabi, Rahnama & Montazeri, 2012). As a consequence of perceiving the experience of childbirth negatively, the woman may develop conditions such as postpartum depression, posttraumatic stress disorder, preference for cesarean section in later pregnancies, sexual dysfunction, inadequate mother-infant attachment, breastfeeding problems, and neglect for her baby. While perceptions of childbirth may be shaped by a woman's character, culture, and beliefs (Gökçe İsbir & İnci, 2016), her obstetric history is also among the factors that affect her childbirth perceptions. Women may have different perceptions of the childbirth process, and they may make sense of the event of childbirth differently from each other. While a negative or difficult childbirth experience is defined as traumatic by some women, some women may perceive this experience as usual. Among women who experience a childbirth process that does not meet their expectations and is traumatic, some may perceive this experience as a positive outcome after they have held their healthy baby (Yalnız Dilcen & Ekti Genç, 2019). Variations in childbirth perceptions may originate from the personality characteristics of women and the meaning attached to the event of childbirth by the society in which they live (Gökçe İsbir & İnci, 2016).

Childbirth trauma is defined as severe physical injury to the mother and/or baby, death, or the threat of these during labor. Although childbirth is a natural process, many women experience fear of childbirth because most cases of childbirth have unknown, unpredictable, and uncontrollable aspects. The main reasons for this fear include thoughts of losing control during labor, tearing, emergency cesarean section requirement, and having a disabled baby or stillbirth (Kjærgaard, Wijma, Dykes & Alehagen, 2008). While fear of childbirth may lead to minute concerns about giving birth, it may also lead to childbirth-related trauma that has a significant effect on the lives of women and their mental health (Bakshi, Mehta, Mehta &

Sharma, 2008). It was reported that mothers experiencing fear of childbirth avoid talking about or reading on issues related to childbirth or pregnancy. More importantly, in addition to negative emotions such as self-blame, shame, and anger, women fearing childbirth may also experience serious problems such as the desire to self-isolate, termination of a healthy pregnancy, hiding their pregnancy or denying it, and refusing to prepare for childbirth (O'Connell et al., 2019; Olde et al., 2006). Moreover, fear of childbirth is likely to affect the rest of women's lives and the childbirth-related perceptions of the next generations (Yalnız Dilcen & Ekti Genç, 2019).

Studies conducted in recent years have revealed that traumatic events are transmitted from generation to generation through chemical changes (Yalnız Dilcen & Ekti Genç, 2019). Considering this important finding, it has been stated that unchecked and untreated traumatic childbirth perceptions in women not only damage their family relationships but also may result in emotional, cognitive, and behavioral disorders in their children in the long term (Yalnız Dilcen & Ekti Genç, 2019; Yılmaz, Sel & Şahin, 2021). In light of this information, in this study, it was aimed to determine the effects of childbirth perceptions among mothers on fear of childbirth in their single daughters.

#### Research question

Do the childbirth perceptions of mothers lead to fear of childbirth in their single daughters?

## **MATERIAL AND METHOD**

This is a cross-sectional study. The study was conducted between 03.01.2022 and 31.01.2022 using a web-based survey form on social media platforms (Facebook, and Instagram). The population of the study consisted of single women of reproductive age who were on Facebook groups and Instagram and their mothers. While the girls, who were reached via social media, filled out their own part of the questionnaire, their mothers also filled out their own part in the same questionnaire. The sample consisted of those in the population who agreed to participate and were literate in Turkish. Individuals with missing data were excluded. To evaluate the adequacy of the sample size, a post-hoc-power analysis was carried out. The OpenEpi version 3.0 open-access statistical software was used for the power analysis (<https://www.openepi.com>). With an error margin of 5%, a two-tailed significance level and in a 95% confidence interval, the power of the study was calculated as 80% for the 397 participants who were included in the sample. The research was completed with 794 voluntary participants (397 mothers, and 397 daughters) who volunteered to participate in the research without choosing a sample. All participants provided informed consent. Before starting the study,

ethical approval was obtained from the Non-Interventional Studies Ethics Committee of the Rectorate of Inonu University (Decision No: 2022/2842).

### **Data Collection Instruments**

The study's data were collected using a Personal Information Form prepared by the researchers in line with their review of the relevant literature, the Childbirth Fear – Prior to Pregnancy Scale (CF-PPS), and the Perception of Traumatic Childbirth Scale (PTCS).

#### **Personal Information Form**

This form was prepared by the researchers in line with the relevant literature. It was designed to collect information on the participants' sociodemographic (e.g., age, marital status, education status) and obstetric characteristics.

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

CF-PPS is a scale developed by Stoll et al. (2016) to measure the childbirth fear levels of young women and men before pregnancy and can be filled out individually by the respondent. Its validity and reliability in Turkish were tested by Uçar and Taşhan (2018). Higher scores indicate higher childbirth fear levels. It is a 6-point Likert-type scale where each item is scored between 1 and 6, and the minimum and maximum total scores of the scale are 10 and 60 (Uçar & Taşhan, 2018). The Cronbach's alpha internal consistency coefficient of the scale was reported as 0.89. In our study, this coefficient was found as 0.96.

#### **Perception of Traumatic Childbirth Scale (PTCS)**

The scale, which was developed by Yalnız et al. (2016) to measure traumatic childbirth perceptions among women (18 to 40 years old), is a unidimensional scale consisting of 13 items. Responses to each item are scored from 0 representing “none” to 10 representing “the most severe”. Higher scores indicate higher levels of perceiving childbirth as traumatic. The Cronbach's alpha coefficient of the scale was reported as 0.89 (Yalnız et al., 2016), while it was found as 0.93 in our study.

### **Statistical Analysis**

The data were analyzed using the SPSS 25 (Statistical Package for the Social Sciences) program. Normality distribution was evaluated with the Kolmogorov-Smirnov test. In the comparisons of the data, independent-samples t-tests were used to compare two groups, analysis of variance (ANOVA) was used to compare three or more groups for the normally distributed variables, and the Kruskal-Wallis H test was used to compare three or more groups

for the non-normally distributed variables, Tukey's HSD test was used to identify the source of the difference among multiple groups, and reliability was calculated using the Cronbach's alpha internal consistency test. Correlation analysis was carried out to test the relationship between the PTCS and CF-PPS scores of the participants. Participants with missing data were excluded from the analyses.

## RESULTS

The results of comparing the mean PTCS scores of the mothers based on their descriptive characteristics are shown in Table 1. Among the 397 mothers who participated in the study, the mean PTCS score of those who were 45 years old or younger was found significantly higher than the mean score of those who were 46 years old or older ( $p < 0.05$ ). The highest mean PTCS score was found as  $70.43 \pm 26.78$  among the mothers who had a history of curettage, and this score was significantly higher than the mean score of those with no such history ( $p < 0.05$ ).

**Table 1.** Comparison of Mothers' Descriptive Characteristics and PTCS Mean Score (n=397)

Variables	n	(%)	Mean±SD	Test and p value
<b>Age (years)</b>				
≤ 45	196	(49.4)	68.86±28.24	t= 2.802
≥ 46	201	(50.6)	61.22±26.06	p= <b>0.005</b>
<b>Education status</b>				
Primary education	281	(70.8)	65.45±26.80	t= 0.517
≥ high school and above	116	(29.2)	63.88±28.85	p= 0.606
<b>Employment status</b>				
Yes	39	(9.8)	63.10±34.85	t= 0.365
No	358	(90.2)	65.20±26.50	p= 0.717
<b>Number of pregnancies</b>				
≤ 2	32	(8.1)	69.81±34.66	F= 0.545
3	68	(17.1)	64.19±28.60	p= 0.580
≥ 4	297	(74.8)	64.65±26.27	
<b>Number of living children</b>				
≤ 2	54	(13.6)	68.74±29.60	F= 0.680
3	93	(23.4)	65.47±28.09	p= 0.507
≥ 4	250	(63.0)	64.00±26.66	
<b>Presence of stillbirth</b>				
Yes	92	(23.2)	69.90±29.21	t= -1.967
No	305	(76.8)	63.51±26.69	p= 0.050
<b>Low presence</b>				
Yes	135	(34.0)	66.64±27.79	t= -0.861
No	265	(66.0)	64.14±27.19	p= 0.390
<b>Presence of curettage</b>				
Yes	79	(19.9)	70.43±26.78	t= -1.978
No	318	(80.1)	63.64±27.41	p= <b>0.049</b>

t: Independent samples *t*-test

The mean PTCS scores of the mothers did not differ significantly based on their education levels, numbers of pregnancies, numbers of living children, or history of stillbirth or miscarriage ( $p>0.05$ ) (Table 1).

**Table 2.** Comparison of Girls' CF-PPS Mean Scores According to Mothers' PTCS Levels (n=397)

PTCS levels	n	(%)	Mean± SD	Test and p value
Very low	36	(9.1)	36.32±11.59	KW=36.064 <b>p=0.000</b>
Low	94	(23.7)	37.91±12.22	
Middle	134	(33.8)	38.67±13.11	
High	104	(26.2)	42.63±14.65	
Very high	29	(7.3)	48.58±14.93	

KW: Kruskal–Wallis test

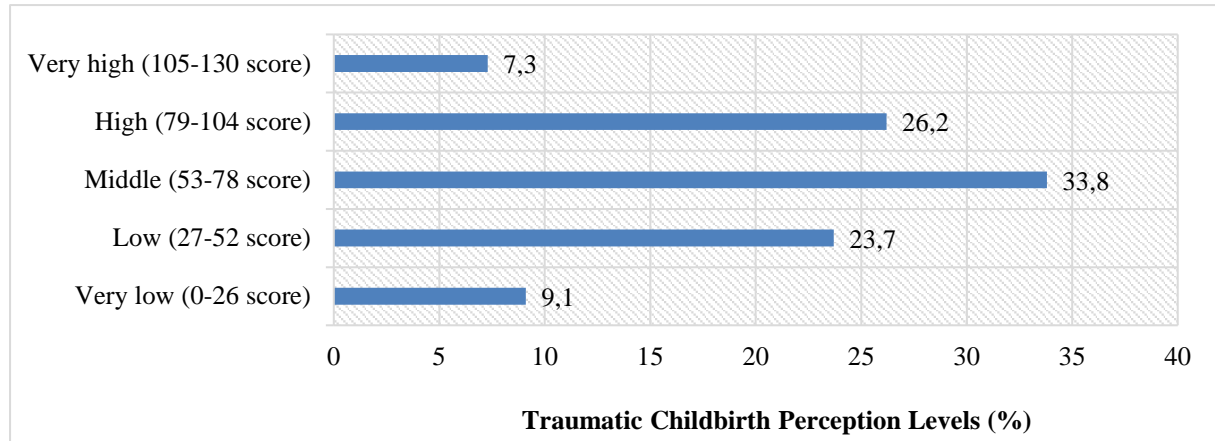
Table 2 presents the results of comparing the mean CF-PPS scores of the daughters based on their mothers' traumatic childbirth perception (TCP) levels. The mean CF-PPS scores of the daughters, were found as 37.91±12.22 among those with mothers who had very low TCP, 36.32±11.59 among those with mothers who had low TCP, 38.67±13.11 among those with mothers who had moderate TCP, 42.63±14.65 among those with mothers who had high TCP, and 48.58±14.93 among those with mothers who had very high TCP. The difference among the daughters' mean CF-PPS scores based on their mothers' TCP levels was statistically significant ( $p<0.05$ ; Table 2).

**Table 3.** Correlation Between PTCS and CF-PPS Scores of the Participants (n=794)

Scales	Mean± SD	r / p
PTCS	64.99±27.39	0.203 / <b>0.000</b>
CF-PPS	39.81±13.62	

r: Pearson Korelasyon test

Table 3 shows the participants' mean total PTCS, and CF-PPS scores and the correlation between these scores. The mean total PTCS score of the mothers was 64.99±27.39, while the mean total CF-PPS score of the daughters was 39.81±13.62. As the PTCS scores of the mothers increased, the CF-PPS scores of their daughters also increased, and there was a positive significant relationship between PTCS and CF-PPS ( $p<0.05$ ; Table 3).



**Figure 1.** Traumatic Childbirth Perception Levels of Mothers

## DISCUSSION

The perceptions of women regarding childbirth and the meanings they attribute to childbirth vary from person to person (Simkin, 1996). Therefore, the prevalence of traumatic childbirth perceptions has not been clearly identified in the literature. In this study, conducted with mothers and daughters in Turkey, it was found that 67.3% of the mothers had traumatic childbirth perceptions, and 33.5% of these mothers had high or very high levels of traumatic childbirth perceptions. This rate varied between 20% and 48% in studies conducted in other countries (Ford & Ayers, 2011). While the rates of traumatic childbirth perceptions were reported as 37% in the United States, 37% in Iran, 7% in Sweden, 16% in the Netherlands, and 21.1% in Norway (Ghanbari-Homayi et al., 2019; Henriksen et al., 2017). Another study in Turkey revealed that 23.6% of women have high levels of traumatic childbirth perceptions (Aktaş 2018).

Among the 397 mothers who participated in this study, the mean PTCS score of those who were 45 years old or younger was significantly higher than the mean score of those who were 46 years old or older ( $p < 0.05$ , Table 1). Similarly, several studies in the literature have reported significant relationships between age and traumatic childbirth perceptions. Yılmaz et al. (2021) determined higher levels of traumatic childbirth perceptions among individuals under the age of 40 (Yılmaz et al., 2021). The relationship between education levels and traumatic childbirth perceptions has not been completely clarified yet. While some studies in the literature have revealed that education level affects traumatic childbirth perceptions, others have shown no such effect. In this study, it was seen that as education levels increased, traumatic childbirth perceptions levels decreased, and the participants who had high school or more advanced

degrees had lower levels of traumatic childbirth perceptions. Still, the difference among the groups was not statistically significant ( $p>0.05$ , Table 1). Likewise, as in the reports of other studies in the literature, although the differences were statistically insignificant, it was found that the non-working mothers had higher traumatic childbirth perception levels than the working mothers (Yılmaz et al., 2021), and higher numbers of pregnancies and a history of stillbirth or miscarriage (Şahin, 2020) increased their mean PTCS scores. In this study, the mean PTCS score of the mothers who had curettage in their obstetric history was found significantly higher than the mean score of those with no curettage in their obstetric history ( $p<0.05$ , Table 1). Şahin (2020) also reported that a history of abortion raises the level of traumatic childbirth perceptions (Şahin, 2020). Again similarly, in their meta-analysis study, Taheri et al. (2018) reported that a history of abortion increased traumatic childbirth perception levels (Taheri et al., 2018).

Fear of childbirth is seen in one in every ten women (Aktaş, 2018). One of the reasons for this fear experienced toward the act of childbirth is listening to the negative childbirth experience of another person (Olde et al., 2006). However, recent studies have suggested that fear of childbirth is epigenetically communicated due to chemical changes in DNA. Mothers' perceptions of childbirth as a traumatic event lead especially their daughters to experience high levels of fear of childbirth. The most noteworthy result of ours in this study was that as the mean PTCS scores of the mothers increased, the mean CF-PPS scores of their daughters also increased ( $p<0.05$ , Table 2), and PTCS and CF-PPS scores were determined to be positively and significantly related ( $p<0.05$ , Table 3). The transfer of the traumas of mothers to other generations through chemical mechanisms has been proven in several studies (Aktaş 2018; Aydın & Yıldız, 2018; Sack, 2014). Dr. Jamie Hackett, working at the University of Cambridge, argued in light of his research that genes store a part of past experiences (Aktaş 2018). After the terrorist attacks in the United States on 11 September 2001, the cortisol levels of the babies of mothers who experienced posttraumatic stress disorder were analyzed, these levels were determined to be risky, and it was reported that these babies tended to be afraid of loud sounds and strangers (Laber-Warren, 2009). In a study carried out in Afghanistan with the children of mothers who had developed posttraumatic stress disorder, it was determined that trauma symptoms developed at a rate of 30% in these children (Sack, 2014).

Starting in pregnancy, everything experienced in the intrauterine environment shapes our brains by influencing the development of our neural circuits and sets a foundation for the strength of emotional temperament and metacognition (Finch & Loehlin, 2021). Thus, as a



---

result of traumatic childbirth events experienced by mothers, the childbirth fears of the female children of these mothers are formed.

### **Limitations of the Study**

This study had some limitations. Most importantly, the fact that this study was carried out with a cross-sectional design prevents the identification of causality. On the other hand, this study was a strength that it was conducted online and not at a single center. Another strong aspect of our study was that there is no study in the literature that has determined the effects of childbirth perceptions in mothers on childbirth fears in their single daughters, and the results of this study set a basis for future studies on this subject.

### **CONCLUSION**

As a result of this study, it was determined that the traumatic childbirth perceptions of mothers significantly affected the childbirth fears of their single daughters. To reduce the increasing rates of elective cesarean section deliveries that are associated with fear of childbirth and associated risks, it will be an important step to shed light on this effect between mothers and daughters and ensure that this issue is taken into account by healthcare professionals.

It is seen that traumatic childbirth experiences have a risk of negatively affecting the family roles and future childbirth processes of women in the short term and the childbirth experiences of future generations in the long term. Therefore, for ensuring that all childbirth processes are experienced as positive events and preventing traumatic childbirth experiences, it is needed to make regulations in the contexts of the healthcare, policymaking, and institutional fields, as well as improvement efforts, regarding this issue. The responsibilities of midwives and all healthcare personnel include ensuring that all women experience healthy childbirth and postpartum process, evaluating women who are considered at risk of traumatic childbirth experiences before pregnancy if possible and during pregnancy if not possible, providing additional support to these women during labor, and ensuring that they receive support from others when they need it. Moreover, there is a need for further studies that will examine the effectiveness of midwifery interventions to prevent traumatic childbirth experiences, the intergenerational transfer of traumatic childbirth experiences, and the effects of these experiences. Particularly at primary healthcare institutions, important responsibilities fall upon midwives and other healthcare professionals in terms of informing current and future mothers on traumatic childbirth perceptions based on their sociodemographic characteristics.

### **Authors' Note**

This research was be presented as an oral presentation at the “8th International 12th National Midwifery Student Congress”, May 12-14, 2022, Ankara/ Turkey.

## REFERENCES

- Aktaş, S. (2018). Multigravidas' perceptions of traumatic childbirth: Its relation to some factors, the effect of previous type of birth and experience. *Medicine Science*, 7(1), 203-209.
- Aydın, N. & Yıldız, H. (2018). Travmatik doğum deneyiminin etkileri ve nesiller arası aktarımı. *Journal of Human Sciences*, 15(1), 604-618.
- Bakshi, R., Mehta, A., Mehta, A. & Sharma, B. (2008). Tokophobia: fear of pregnancy and childbirth. *The Internet Journal of Gynecology and Obstetrics*, 10(1), 9.
- Finch, C. E. & Loehlin, J. C. (1998). Environmental influences that may precede fertilization: A first examination of the prezygotic hypothesis from maternal age influences on twins. *Behavior Genetics*, 28(2), 101-106.
- Ford, E. & Ayers, S. (2011). Support during birth interacts with prior trauma and birth intervention to predict postnatal post-traumatic stress symptoms. *Psychology & Health*, 26(12), 1553-1570.
- Ghanbari-Homayi, S., Fardiazar, Z., Meedya, S., Mohammad-Alizadeh-Charandabi, S., Asghari-Jafarabadi, M., Mohammadi, E. & Mirghafourvand, M. (2019). Predictors of traumatic birth experience among a group of Iranian primipara women: a cross sectional study. *BMC Pregnancy and Childbirth*, 19(1), 1-9.
- Gökçe İsbir, G. & İnci, F. (2016). Travmatik doğum ve hemşirelik yaklaşımları. *KASHED*, 1(1), 29-40.
- Henriksen, L., Grimsrud, E., Schei, B., Lukasse, M. & Bidens Study Group. (2017). Factors related to a negative birth experience—a mixed methods study. *Midwifery*, 51, 33-39.
- Kjærgaard, H., Wijma, K., Dykes, A-K. & Alehagen, S. (2008). Fear of childbirth in obstetrically low-risk nulliparous women in Sweden and Denmark. *Journal of Reproductive and Infant Psychology*, 26, 340-50.
- Laber-Warren, E. (2009). A Fateful First Act-Scientists are discovering that in-utero events can have lifelong effects. Why our earliest home could be the most important one. *Psychology Today*, 42(3), 82.
- Modarres, M., Afrasiabi, S., Rahnama, P. & Montazeri A. (2012). Prevalence and risk factors of childbirth-related post-traumatic stress symptoms. *BMC Pregnancy and Childbirth*, 12, 88.
- O'Connell, M. A., O'Neill, S. M., Dempsey, E., Khashan, A. S., Leahy-Warren, P., Smyth, R. M. & Kenny, L. C. (2019). Interventions for fear of childbirth (tocophobia). *The Cochrane Database of Systematic Reviews*, 2019(5).
- Olde, E., Van Der Hart, O., Kleber, R. & Van Son M. (2006). Posttraumatic stress following childbirth: A review. *Clinical Psychology Review*, 26, 1–16.
- Sack, D. (2014). When emotional trauma is a family affair, where science meets the steps (blog). *Psychology Today*, 5, 2014.
- Simkin, P. (1992). Just another day in a woman's life? Part II: Nature and consistency of women's long-term memories of their first birth experiences. *Birth*, 19, 64.
- Simkin, P. (1996). The experience of maternity in a woman's life. *J Obstet Gynecol Neonatal Nurs*, 25, 247.
- Stoll, K., Hauck, Y., Downe, S., Edmonds, J., Gross, M. M., Malott, A., ...Hall, W. A. (2016). Cross-cultural development and psychometric evaluation of a measure to assess fear of childbirth prior to pregnancy. *Sexual & Reproductive HealthCare*, 8, 49-54.

- 
- Şahin, M. (2020). Gebelerde travmatik doğum algısı ve anne bağlanması ilişkisi (Yayımlanmamış yüksek lisans tezi). Ordu Üniversitesi, Ordu.
- Taheri, M., Takian, A., Taghizadeh, Z., Jafari, N. & Sarafraz, N. (2018). Creating a positive perception of childbirth experience: systematic review and meta-analysis of prenatal and intrapartum interventions. *Reproductive health*, 15(1), 1-13.
- Uçar, T. & Taşhan, S. (2018). The Turkish version of the childbirth fear – prior to pregnancy scale: the validity and reliability study in men and women. *Acıbadem University Health Sciences Journal*. 9, 289-296.
- Yalnız, H., Canan, F., Genç, R. E., Kuloğlu, M. A. & Geçici, Ö. (2016). Development of a scale of traumatic childbirth perception. *Turk Med J*, 8(3), 81-88.
- Yılmaz, B., Sel, İ. & Şahin, N. H. (2021). Kadınların kişilik özelliklerinin travmatik doğum algısına etkisi. *Dokuz Eylül Üniversitesi Hemşirelik Fakültesi Elektronik Dergisi*, 14(4), 423-432.
- Yalnız Dilcen, H. & Ekti Genç, R. (2019). Travmatik doğumun önlenmesinde ebeğin rolü. *Life Sciences*, 14(3), 64-73.