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# EFFECT OF ONLINE CHILDBIRTH PREPARATION TRAINING ON CHILDBIRTH FEAR AND CHILDBIRTH

Online Doğuma Hazırlık Eğitimlerinin, Doğum Korkusu ve Doğuma Etkisi

# PhD Student. Emel GÜDEN (Correspond Author)

Kayseri Provincial Health Directorate. Kayseri City/Turkey

ORCID ID: 0000-0003-3492-4298

## Dr. Alin Cristinel COTIGA

Department Of Psychology, University Of Bucharest, Bucharest, Romania ORCID ID: 0000-0002-7882-0514



#### **ABSTRACT**

Objective: This study investigated the effect of online childbirth preparation training provided to primiparous pregnant women on the degree of childbirth fear.

Design: This quasi-experimental study was carried out with women in their first pregnancy, who were under the supervision of family physicians in a family healthcare center.

Adjustment: Childbirth preparation training was provided through an online application. The groups that received and did not receive the training were compared.

Methods: A total of 38 pregnant women, who were able to participate in the training, had access to the Internet, computers, and mobile phones, and agreed to participate in the study constituted the experimental group; and 48 women, who did not meet these criteria, were included in the control group. Pregnant women with a pregnancy period of 20 weeks and longer were administered a 10-week training module. W-DEQ Version A was delivered to both the experimental and control groups as of week 29 via the online platform, and the results were evaluated in the statistics software.

Results: In the study group, the mean childbirth fear score was 66.33 (experimental group: 63.5 & control group: 69.8), and 8.1% had a clinical degree of childbirth fear. Of the women who had a clinical degree of childbirth fear, 71.4% were those who did not receive childbirth preparation training.

Conclusion: Online childbirth preparation classes were observed to have positive effects on childbirth fear. It is important and beneficial to continue the training online in cases where childbirth training programs cannot be administered face-to-face.

Keywords: Online Training, Childbirth Preparation Training, Childbirth Fear.

#### ÖZET

Amaç: Bu araştırmada, primipar gebelere verilen online doğuma hazırlık eğitiminin doğum korkusu düzeyine etkisi araştırılmıştır.

Tasarım: Yarı deneysel nitelikte bu çalışma bir aile sağlığı merkezindeki aile hekimlerine bağlı ilk gebeliği olan kadınlarla yapılmıştır.

Ayar: Çevrimiçi uygulama üzerinden doğuma hazırlık eğitimi verilmiştir. Eğitim alan ve almayan gruplar karşılaştırılmıştır.

Yöntem: Çevrimiçi eğitime katılabilecek, internet, bilgisayar ve telefona sahip olup, araştırmayı katılmayı onaylayan 38 gebe deney, bu şartları sağlayamayan 48 gebe ise kontrol grubunu oluşturmuştur. 20. hafta ve üzeri gebelik süresine sahip olan gebelere 10 hafta süren ve Sağlık Bakanlığı'nın belirlemiş olduğu eğitim modülü uygulanmıştır. Hem deney, hem kontrol grubuna 29. haftadan itibaren Wijma Doğum Beklentisi/Deneyimi Ölçeği A Versiyonu online platformdan gönderilmiş ve sonuçları istatistik programında değerlendirilmiştir.

Bulgular: Araştırma grubunda doğum korkusu puan ortalaması 66,33 dir (deney grubu: 63,5& kontrol grubu: 69,8) ve %8,1'i klinik düzeyde doğum korkusu yaşayanların %71,4'ünü doğuma hazırlık eğitimi almayanlar oluşturmaktadır.

Sonuç: Çevrimiçi doğuma hazırlık sınıflarının doğum korkusu üzerine olumlu etkileri olduğu görülmüştür. Doğuma hazırlık eğitim programlarının yüz yüze yapılamadığı veya gebelerin katılma sorunu yaşadığı durumlarda eğitimlerin online olarak devam etmesi sağlık hizmetinin sürekliliği açısından önemli ve faydalıdır.

Anahtar Kelimeler: Online Eğitim. Doğuma Hazırlık Eğitimi. Doğum Korkusu.



### 1. INTRODUCTION

Pregnancy and childbirth are important transitional stages and existential processes in the lives of women. Childbirth is unique and special for every woman (Larkin et al., 2009:49). Since the pregnancy ends with the act of childbirth, the greatest stress a woman experiences after pregnancy is childbirth (Barut and Uçar, 2018).

Childbirth fear is a common health problem for women during pregnancy. It refers to feelings of uncertainty and anxiety arising from the expectations of women from the upcoming childbirth, and their experiences after childbirth. While the prevalence of childbirth fear in pregnant women has been defined as approximately 20-25%, 6-10% of expectant mothers have reported serious degrees of fear, impairing their daily activities as well as their abilities related to childbirth and coping with childbirth (Molgora et al., 2018: 119).

A positive childbirth experience is supported by a sense of personal satisfaction among new mothers, affecting their well-being as well as their emotional relationship with the newborns. Similarly, it affects their interactions with their partners and their sexual desires, including the desire to have more children in the future (Mukamurigo et al., 2017:181).

It has been globally agreed that providing pregnant women with information enables them to access accurate information about childbirth and the process after childbirth, and keeps them distant from risky situations. Childbirth fear is known to be caused by an unknown situation or a negative previous experience. There are many studies in the literature stating that pregnant women, who receive training, experience less childbirth fear. For this purpose, pregnancy training courses and classes have been developed in the public and private sectors (Stoll et al., 2015; Fenwick et al., 2015). The Republic of Turkey Ministry of Health planned to standardize educators, training topics, educational materials, and physical conditions by publishing a circular on pregnancy school, pregnancy information class, childbirth preparation, and counseling centers. Studies were initiated for these centers to be authorized by the Ministry of Health (Republic of Turkey Ministry of Health, 2018).

Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) was developed with the aim of determining and measuring childbirth fear in women and was tested for validity and reliability in Turkish. It is a widely known 33-item scale used for measuring childbirth fear, which has been translated and approved in various countries (Khwepeya et al., 2020).

This study evaluated whether there was a difference between the degrees of childbirth fear between women who had no previous experience of pregnancy, who received and who did not receive online preparation training, and who had been pregnant for more than 30 weeks. This is the first study conducted to evaluate the effectiveness of online childbirth preparation. The main purpose of this study was to determine the degree of childbirth fear in pregnant women, who received online childbirth preparation training and who did not receive any training.

# 2. MATERIALS AND METHODS

This study is a semi-experimental research, it was carried out with primiparous pregnant women identified in A Family Healthcare Center Kayseri City in Turkey, between February 1, 2021, and April 30, 2021. The trainings were conducted by the researcher, in order to prevent the difference; the difference between the educator, the educational material and pregnant women depending on their online participation time.

# Selection of the Participants

Participants were selected in a family healthcare center in Kayseri, which was known to have a higher number of primiparous childbirths compared to the other regions. The population of the study consisted of primiparous pregnant women registered with family physicians at the family healthcare center.

Concerning the experimental group of the study, the inclusion criteria included primiparous pregnancy, having a single fetus, having no medical history of infertility, being at 16 to 28 weeks of pregnancy, having routine prenatal follow-ups, not having medical problems (chronic disease and physical disability) that would require a cesarean section, not having any psychological problems, not having a medical history of miscarriage, and having consent to participating in the program, which was acknowledged by the researcher on the phone.

Inclusion criteria for the control group of the study included primiparous pregnancy, a single fetus, having no medical history of infertility, being at week 29 or further weeks of pregnancy, having routine prenatal followups, having no medical problems (chronic disease and physical disability) that would require a cesarean





section, having no psychological problems, having no medical history of miscarriage, and approving to participate in the program, which was acknowledged by the researcher on the phone.

Exclusion criteria included failure to meet the inclusion criteria, and being multiparous.

## Preparation of Training Groups

Primiparous pregnant women (N: 99) were grouped as 16-19 weeks (n: 18), 20-24 weeks (n: 15), 25-28 weeks (n: 12), and 29 weeks and above (n: 54) according to the name and contact information obtained from the family healthcare center by the researcher. The primiparous pregnant women were contacted by phone according to the name list. During the phone conversation, the training program was introduced and the purpose and the type of implementation were described. It was also explained that the program was free of charge, Internet access was a requirement, and a questionnaire would be administered at the end of the training. A total of 13 women stated that they did not desire to participate in the study due to reasons such as not having their own phone or Internet access (n: 5), thinking that they did not need education (n: 3), disliking surveys (n: 2), and not trusting links (n: 3). Having agreed to participate in the study and met the inclusion criteria, 38 women constituted the experimental group, and 48 women constituted the control group. WhatsApp groups were created for enabling communication with groups. Before the training, explanations were made in the WhatsApp groups about downloading and installing Zoom software. A meeting link was sent to the groups once a week before the training, and the training classes were created. During the 10-week training program, additional training days were created for the women, who had not been able to attend, and the entire curriculum was delivered to all participants.

## Content of Training

The childbirth preparation training module determined by the Ministry of Health was administered in this study. The training topics included physiology of pregnancy and childbirth, and psychological changes; support of spouses and relatives; family support in pregnancy and childbirth; stages of childbirth; methods of coping with childbirth pain without medication; problems that may occur during pregnancy, childbirth and the postpartum period, and early diagnosis; signs of danger in pregnancy and methods to be followed in emergencies; benefits of natural childbirth for mother and newborn; postpartum period; reproductive health methods that can be used after childbirth; and newborn care.

Additional topics were also integrated upon the request of the participants (pregnancy and breastfeeding during COVID-19, what is the delivery room environment like?), and question-answer activities were also held.

Since none of the participants had given birth at the time of writing this article, the data on childbirth methods were not evaluated.

## Administration of the Questionnaire and Statistical Evaluation

After the training, the Wijma Delivery Expectancy/Experience Questionnaire Version A, which was tested for validity and reliability in Turkish in 2019 (Körükcü, 2009), was sent online to the primiparous pregnant women in the experiment group (n:38), and primiparous pregnant women at week 29 and further weeks of pregnancy in the control group (n:48). In our study, the Cronbach's Alpha value of the questionnaire was 0.93. The compatibility of the data to normal distribution was evaluated using the One-Sample Kolmogorov-Smirnov Test in order to compare the mean scores obtained by the pregnant women, who received and did not receive training, from the Wijma Delivery Expectancy/Experience Questionnaire. The nonparametric test techniques of the Kruskal Wallis Test and Mann Whitney U tests were used in the evaluation of the data, which was determined to be incompatible with a normal distribution (p<0.05) and non-homogeneous (p0.05).

### Research Ethics

The study was conducted in accordance with the World Medical Association Declaration of Helsinki, upon the permission of the Ethics Committee of Kayseri City Hospital dated 21 January 2021 and numbered 277. Participants were asked to participate in the study by approving an introductory text containing information and informed consent

# 3. RESULTS

A total of 86 pregnant women participated in the study (experiment: 38 - control: 48), and the mean age was  $28.04 \pm 4.48$  (min: 19 - max: 40). The mean age of the spouses of the pregnant women was  $30.36 \pm 4.24$  (min: 22 - max: 43). The mean duration of pregnancy was  $33.38 \pm 3.28$  (min: 27-max: 38). All participants had social security, and other demographic data were presented in Table 1.

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Table 1. Demographic indicators of all participants

	Pre-Birth Training	/ Experimental	Non-Birth Preparation Training /					
	Group	p	Control G					
	Number	%	Number	%				
Age								
20 and ↓	0	0	3	6,2				
21-25	12	31,6	12	25				
26-30	19	50	18	37,5				
31-35	7	18,4	9	18,8				
36-40	0	0	6	12,5				
Education Status								
High School	17	44,7	30	62,5				
University	21	55,3	18	37,5				
Family Type								
She only lives with his partner	31	81,6	42	87,5				
She lives with family elders and other family								
members	7	18,4	6	12,5				
Job								
Unemployed	21	55,3	23	47,9				
Employee	17	44,7	25	52,1				
Partner's support for pregnancy								
Yes	19	50	33	68,7				
Partial	19	50	15	31,3				
No	0	0	0	0				
Total	38	44,2	48	55,8				

Table 2. Mean Wijma Delivery Expectancy/Experience Questionnaire Scores of Experimental and Control Groups

	Receiving Child Trainin	birth Prepar g (N: 38)	ration	Not Receiving Childbirth Preparation Training (N: 48)		
Scale Score	Number	%	Number	%	Total	%
Women with a low degree of						
childbirth fear (W-DEQ Score < 37)	7	18,4	6	12,5	13	15,2
Women with a moderate degree of						
childbirth fear (W-DEQ Score: 38-65)	18	47.4	9	18,8	27	31.4
Women with a severe degree of						
childbirth fear (W-DEQ Score: 66-84)	11	28,9	28	58.3	39	45.3
Women with a clinical degree of						
childbirth fear (W-DEQ Score >85)	2	5,3	5	10,4	7	8,1
Mean Score	$63.5 \pm 2$	1.28		$69.8 \pm 23.57$	66.33	± 22.4
	min: 9 m	ax: 80		Min: 23 max: 92	min: 9	max: 92
Total	38	44.2	48	55.8	86	100

Kruskal-Wallis Test: 0.027 Statistically significant (P < 0.05).

In the study group, 8.1% of the study group had a clinical degree of childbirth fear, and 71.4% of this group consisted of women who did not receive childbirth preparation training (Table 2). According to the study, there was a significant difference between the women, who received online childbirth preparation training, and the women, who did not receive online childbirth preparation training.

According to the results of the comparison between mean Wijma Delivery Expectancy/Experience Questionnaire scores of the pregnant women and their demographic characteristics, the degrees of childbirth fear was found to be more severe in women, who had university degrees, who lived in extended families, who partial supported from partner, who had an unplanned pregnancy, who planned to have a cesarean section or had not planned any childbirth methods (Table 3). Among the participants, 84.9% stated that they were prepared for this pregnancy and it was a planned pregnancy, while 15.1% mentioned that they did not feel prepared yet and it was an unplanned pregnancy. Nonetheless, it was determined that all the participants and their spouses were pleased with this pregnancy, and they desired to have their babies. It was observed that 12.8% of the pregnant women had a chronic disease (migraine, 4.7%; skin diseases, 4.6%; asthma, 2.3%; and HT, 1.2%). The proportion of women, who stated that they had medical problems related to their pregnancy, was 5.8%. It was observed that 5.3% of women, who reported health problems experienced nausea and vomiting, 2% had edema problems, and the majority of their medical problems occurred in the first months. The proportion of pregnant women, who stated that they received support from their spouses for their medical problems, was 88.4%.

The question of "Would you like to give birth at home if it was possible?" was responded as "never" by 33.7% of the participants, as "maybe" by 58.1%, and as "yes" by 7%. Of the women, who received childbirth preparation training, 18.4% stated that they could give birth at home if it was possible, and 68.4% stated that



they might prefer home birth. No participants in the control group mentioned that they would like to give birth at home (p<0.05).

The mean value for visiting the obstetrician for pregnancy follow-up during pregnancy was  $8.2 \pm 2.8$ , and the mean value for visiting the family physician was  $3.9 \pm 1.3$ . Of the pregnant women, 77.9% mentioned that they planned to give birth in a private hospital, and 12.8% of them planned to give birth by cesarean section.

Table 3. Wijma Delivery Expectancy/Experience Questionnaire Scores of Pregnant Women, Who Received and Did Not Receive

Childbirth Preparation Training, According to Their Demographic Characteristics

Demographic Characteristics					Moderate degree of birth fear (W-DEQ 38-65)				Severe degree of birth fear (W-DEQ 66-84)				Clinical degree of birth fear (W-DEQ >85)				Total		Statistical analysis
	Stu	-		trol	Stu	•		trol	Stu	-		trol	Stu			ıtrol			
Age	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	$X^2/u$ P
20 ↓	0	0	0	0	0	0	0	0	0	0	3	100	0	0	0	0	3	3,5	
21-25	4	13,8	0	0	5	17,2	2	6,9	6	20,7	8	27,6	2	6,9	2	6,9	29	33,7	
26-30	3	8,8	6	17,6	7	20,7	4	11,8	3	8,8	8	23,5	0	0	3	8,8	34	39,5	
31-35	0	0	0	0	4	30,7	2	15,4	2	15,4	5	38,5	0	0	0	0	13	15,1	$x^2=4,409*0,353$
36-40	0	0	0	0	2	28,6	1	14,3	0	0	4	57,1	0	0	0	0	7	8,2	
<b>Education Status</b>																			
High School	7	16,7	6	14,2	7	16,7	4	9,5	4	9,5	12	28,6	0	0	2	4,8	42	48,8	u=653,500 0,002
University	0	0	0	0	11	25	5	11,4	7	15,9	16	36,4	2	4,5	3	6,8	44	51,2	Z -3,093
Family Type																			·
She only lives with	_		_		4.0	22.5		10.5	_	44.0	~-	22.0			_	2.5		00.4	100 000 0 001
his partner	7	9,2	6	7,9	18	23,7	8	10,6	9	11,8	25	32,9	1	1,3	2	2,6	76	88,4	u=180,000 0,001
She lives with																			
family elders and											_				_				
other family	0	0	0	0	0	0	1	10	2	20	3	30	1	10	3	30	10	11,6	Z -4,813
members																			
Income level																			
Adequate	0	0	0	0	5	33,4	2	13,3	2	13,3	6	40	0	0	0	0	15	17,4	
Middle	7	11.9	6	10.2	10	16,9	5	8,5	6	10,2	19	32,2	2	3,4	4	6,7	59	68.6	x <sup>2</sup> =0.141 0.707
İnadequate	ó	0	0	0	3	25	2	16,7	3	25	3	25	0	0	1	8,3	12	13,9	X =0,141 0,707
Pregnancy		0	U		3	23		10,7	3	23	3	23			•	0,5	12	13,7	
planning																			
Planned																			
pregnancy	7	8,9	6	7,6	18	22,8	8	10,1	10	12,7	28	35,4	0	0	2	2,5	79	91,8	u:180,000 0,001
Unplanned																			
pregnancy	0	0	0	0	0	0	1	14,3	1	14,3	0	0	2	28,6	3	42,8	7	8,2	Z -4,813
Partner's																			
support for																			
<b>pregnancy</b> Yes	3	5,3	6	10,5	6	10.5	2	3,5	10	17,5	27	47,4	2	3,5	1	1,8	57	662	u: 709,500 0,037
Partial	4	13,8	0	0	12	10,5 41,4	2 7	24,2	10	3,4	1	3,4	0	3,3 0	1 4	13,8	29	66,3 33,7	u: 709,300 0,037 Z -2,09
	4	15,6	U	U	12	41,4	/	24,2	1	3,4	1	3,4	U	U	4	13,6	29	33,1	Z -2,09
Choosing how to give birth																			
0																			
If all goes well,	7	14	6	12	14	28	4	8	4	8	13	26	1	0,2	1	0,2	50	58,1	
vaginal birth	0	0	0	0	_	0	2	10.2	_	27.2	4	26.4	_		2		١.,	10.0	2 01 406 0 001
Cesarean	0	0	0	0	0	0	2	18,2	3	27,3	4	36,4	0	0	2	18,2	11		x <sup>2</sup> =21,426 0,001
Unplanned	0	0	0	0	4	14,4	3	11,5	4	15,4	11	42,3	1	3,8	2	7,7	26	30,2	
Total	7	8,1	6	7	18	20,9	9	10,5	11	12,8	28	32,6	2	2,3	5	5,8	86	100	
x2=Kruskal-Wallis, u= Mann-Whitney Test, Statistically significant (P < 0.05).																			

#### 4. DISCUSSION

This is the first study conducted to evaluate the effect of online childbirth preparation training on childbirth fear. Wijma Delivery Expectancy/Experience Questionnaire was administered to 86 women, who were pregnant for the first time, who had mean 33 weeks of pregnancy, who received childbirth preparation training (n: 38), and who did not receive childbirth preparation training (n: 48). Mean Wijma Delivery Expectancy/Experience Questionnaire scores of the participants was  $66.33 \pm 22.4$  (Experimental Group:  $63.5 \pm 21.28$  & Control group:  $69.8 \pm 23.57$  p<0.05). The prevalence of severe childbirth fear (W-DEQ 66-84) was 45.3% (Experimental: 28.9% & Control: 58.3%), and the prevalence of clinical degree of childbirth fear (W-DEQ  $\geq 85\%$ ) was 8.1 (Experimental: 5.3% & Control: 10.4%).

In this study, it was determined that women, who received online childbirth preparation training, obtained lower childbirth fear scores compared to the women, who did not receive training. According to the results of the face-to-face training carried out in previous studies conducted in Turkey (on primiparous women in Kayseri, on primiparous and nulliparous women in Aydın and Muş), it was reported that pregnant women, who received childbirth preparation training, experienced less childbirth fear compared to the pregnant women, who did not receive training; and the results were similar to the results of our study (Bıyıklı and Aslan, 2020; Kızılırmak, 2011; Akın et al., 2018).



In a study conducted with nulliparous women in Israel, it was reported that women, who received childbirth preparation training had lower degrees of childbirth fear and had a more positive birth experience. It was demonstrated that women, who received childbirth preparation training in Iran experienced higher degrees of happiness and satisfaction in their overall quality of life and health (Gluck et al, 2020; Bahrami et al., 2013). Contrary to the results of our study, a study conducted in İzmir determined that childbirth preparation training had no effect on childbirth fear (Mete et al., 2017).

In our study, the effect of the demographic characteristics of pregnant women on childbirth fear was evaluated. It was found that the degrees of childbirth fear were found to be significantly higher in pregnant women, who were university graduates, who lived in an extended family, who had an unplanned pregnancy, who had not determined a childbirth method, compared to the other women. In a study conducted in Kenya, it was reported that individuals with personal characteristics such as first pregnancy and high level of education had high degrees of childbirth fear. It was also reported that the women, who had regular followups in the medical institutions (with no specifi number), had lower degrees of childbirth fear (Onchonga et al., 2020). The idea of unplanned and uncontrolled childbirth can be more frightening for individuals with high education levels and individuals, who carry out their work under control and in a planned manner. Likewise, the negative stories of childbirth and the thoughts of meeting or failing to meet the expectations of the elderly in the family could cause childbirth fear in individuals, who live in extended families. It is estimated that the women, who visit the obstetrician more frequently compared to the other women despite having no medical problems, have higher levels of anxiety; however, no questions were asked to determine the levels of anxiety in pregnant women in the present study. It is assumed that questioning the level of anxiety would be a determinant factor in future studies.

The literature contains studies demonstrating that primiparous pregnant women have a higher degree of childbirth fear compared to nulliparous pregnant women as well as studies that have found higher degrees of childbirth fear due to multiple births or previous childbirth trauma (Onchonga et al., 2020; Rouhe et al., 2009; Lukasse et al., 2014). Regardless of the number of pregnancies, the mean W-DEQ scores of pregnant women were 62.8 in Sweden and 51.9 in Thailand (Nieminen et al., 2010; Phunyammalee et al., 2019). In the study conducted in Norway, which included both primiparous and nulliparous pregnant women, the frequency of severe childbirth fear (W-DEQ>100) was 5.5%, while the proportion of women, who experienced severe childbirth was 11% according to the study conducted in six European countries. In the primiparous pregnant women participating in our study, the rate of severe childbirth fear was 8.1%. In the control group, this rate was 5.3%, and the rate of the trained group was lower compared to the control group (p<0.05) (Lukasse et al., 2014; Heimstad et al., 2006). Uncertainty and the thought of inability to control are believed to further increase the fear in women experiencing their first pregnancy. Therefore, childbirth fear should be reduce in pregnant women by providing psychological support with a visual explanation of physical changes such as the physiology and anatomy of pregnancy and childbirth. Further studies should be conducted on the causes of childbirth fear in nulliparous pregnancies, with particular focus on healthcare personnel and medical history of trauma. There is a need for training interventions for healthcare workers involved in childbirth in order to reduce the incidences of traumatic childbirth.

In our study, the rate of pregnant women, who stated that they would prefer cesarean section, was 12.8% (Experimental: 7.9%, Control: 12.5%); and all of these pregnant women had scores indicating severe and clinical degrees of childbirth fear. In a study conducted in Canada, the rate of pregnant women, who stated that they preferred cesarean section, was reported as 14%; 27% of these women had scores indicating a high degree of childbirth fear. In addition, it was reported that women, who received childbirth preparation training had lower degrees of childbirth fear, and their vaginal childbirth preferences were higher compared to the others (Stoll et al., 2015). In Australia, it was stated that there was less problematic feedback regarding childbirth thanks to the provision of childbirth preparation training and that these women preferred to have a natural childbirth in a future pregnancy (Fenwick et al., 2015). In Thailand, it was reported that the childbirth fear in women with an unplanned pregnancy was significantly higher compared to the women with planned pregnancy (Phunyammalee et al., 2019). We also obtained similar results in our study (Table 3). One study found that the Dutch had a high percentage of home births and low rates of medical intervention, while in Belgium home births were less common and medical practices were used more widely, pregnant women in the Netherlands had lower degrees of childbirth fear, despite the fact that the two countries were culturally quite close. It was determined that the history of intervention and medical procedures at childbirth increases the fear of childbirth in pregnant women (Christiaens et al., 2011).



Midwives need to be competent in resolving the childbirth fears of pregnant women during the antenatal period. Routine prenatal care is also recommended in order to provide appropriate expert support by using a valid assessment tool for determining the degree of childbirth fear in women. Coordination between midwives, psychologists, and obstetricians should be established based on the holistic care of the pregnant women, in order to provide timely and effective care for women with high or severe degrees of childbirth fear (Striebich et al., 2018).

## 5. CONCLUSION AND RECOMMENDATIONS

It has been observed that childbirth preparation training has positive effects on childbirth and childbirth preferences. It has been determined to reduce the fear of birth, affect childbirth preference, and prepare the women for the postpartum period. In cases where childbirth preparation training programs cannot be performed face-to-face or pregnant women have a problem of participating (situations requiring isolation such as the COVID-19 pandemic, women living in rural areas or abroad with problems of access to training, women who cannot participate in regular training programs due to working life, women with a second baby, who have problems with caregivers), continuing the training online is important and beneficial in terms of continuity of health services.

### 6. CONFLICT OF INTEREST

The author has declared that there are no conflicts of interest related to the research, authorship and/or publication of this article.

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