



Fear of childbirth and some related factors in the COVID-19 pandemic

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ABSTRACT

We aimed to reveal fear of childbirth among primiparous women followed up in family health centers and related factors during the pandemic. We conducted this cross-sectional, epidemiological study between September and November 2020 with 117 women (95.1%) conveniently selected within the target population of primiparous women followed up in fifteen family health centers. In the data collection, we used an introductory information form for the pregnant and the Wijma Delivery Expectancy/Experience Questionnaire - Version A (W-DEQ-A). We utilized one-way analysis of variance and independent samples t-test to compare the group, and $p < 0.05$ was considered statistically significant. The findings revealed that about half of the participants (52.1%) were 18-25 years, and 43.6% had primary or secondary school education. We found the mean W-DEQ-A score to be 64.69 ± 19.44 . We concluded that those aged 34-41 years had significantly lower W-DEQ-A scores than those aged 18-25 and 26-33 years ($p < 0.001$). Overall, the participants had a moderate fear of childbirth. Besides, age, educational attainment, place of residence for the last six months, monthly household income, and pregnancy planning status were the variables associated with fear of childbirth.

Keywords:

COVID-19, fear of childbirth, pregnant.

1. INTRODUCTION

Unfortunately, the novel coronavirus pandemic is still affecting the whole world adversely. The World Health Organization (WHO) announced the disease caused by the virus as a pandemic in February 2020 (1). Devastating effects and rapid spread of the virus still require adopting strict measures such as wearing a mask, keeping physical distance, and ensuring hygiene. Furthermore, the sensitive nature of pregnancy mandates the pregnant to comply with the necessary protective measures against the disease and watch themselves. Thus, the pregnant

must comply with prevention and treatment protocols of the disease to facilitate the disease management and ensure mother-infant health (2).

One cannot fully control pregnancy and delivery and predict the resulting situations (3). Accordingly, between 6% and 80% of the pregnant experience fear of childbirth, the research reported (4). The level of fear of childbirth varies among women and may appear mild in some and severe in others (3,5). Even it was reported that fear of childbirth is greater among those who have never given birth/will give birth for the first time (6). Apart from the first-time delivery,

harm or death of the baby/mother, pain at delivery, distrust for healthcare staff, undesirable attitudes of healthcare staff, loss of control during delivery, and panic also affect fear of childbirth (7). It was also indicated that fear of childbirth increases pain perception, the risk of interventional delivery, and the preference for epidural analgesia or cesarean section and causes postpartum depression, mother-infant problems, sexual problems, and negative thoughts for future births (8, 9).

Healthcare professionals, particularly midwives, undertake significant responsibilities in alleviating fear and anxiety of birth among the pregnant, preparing them for delivery, and ensuring a positive, regular delivery experience (10). In this sense, midwives/nurses are considered among those engaging in interactions with couples the most in this process (10, 11). Family physicians, midwives, gynecologists, and obstetricians perform the follow-ups of the pregnant in Turkey. Antenatal Care Management Guide, published by the Ministry of Health in 2014, envisages a total of four pregnancy follow-ups in family health centers (FHC). During these follow-ups, in addition to personal information, relevant staff are obliged to seek the medical and obstetric background of the applicants, ask them questions about their current pregnancy, perform their physical examinations, and provide them with information and counseling on specific pregnancy issues (12). Pregnancy is not only about the current health conditions of the mother or infant but also is a situation directly linked with family and community health. Hence, pregnancy care is considered essential to hinder complications during pregnancy and childbirth and reduce mother-infant mortality. Besides, the degree of anxiety in and perception of pregnancy and the care and follow-up needs may also differ among the pregnant (13). The research spotlights are mostly on complications and diseases during pregnancy and the development of the fetus (14,15). In this study, we aimed to investigate fear of childbirth among primiparous (giving birth for the first time) women in the COVID-19 pandemic.

Research hypotheses:

1. The COVID-19 pandemic affects primiparous women's fear of childbirth.
2. Primiparous women's fear of childbirth in the COVID-19 pandemic differs by age, educational attainment, place of residence, and household income.

2. MATERIALS AND METHODS

2.1. Research design and sample

This cross-sectional, epidemiological study was carried out in 15 FHCs (Abdurrahmanlar, Yukarikocayatak, Tonguclu, Gebiz, Candir, Orta Mahalle, No. 1, No. 2, No. 3, No. 4, Bogazkent Ahmediye, Kadriye, Belek Gazel, Karadayi, Belkis) in the Serik district of Antalya. The target population consisted of all primiparous women followed up in the above-mentioned FHCs between September and November 2020. We did not select a sample in the study but attempted to reach all pregnant women followed up in these 15 FHCs. Thus, we recruited 117 pregnant women agreeing to participate in the study voluntarily (95.1%).

2.2. Pilot study

We initially administered an introductory information form to 10 primiparous women not included in the study to check its intelligibility. After the pilot study, we made some corrections to the items in the form.

2.3. Data collection tool

The data were collected using an introductory information form for the pregnant (17 items) and the Wijma Birth Expectation/Experience Scale - version A (W-DEQ-A) (33 items).

2.3.1. Wijma Birth Expectation/Experience Scale - version A

K. Wijma, B. Wijma, & Zar (1998) developed the W-DEQ to measure fear of childbirth among women during pregnancy and childbirth. It covers items about women's antenatal expectations (version A) and postpartum experiences (version B). In the original study, the split-half reliability of the W-DEQ was found to be 0.87 (16).

The 33-item W-DEQ - version A, designed to reveal fear of childbirth before/during pregnancy, is a single-factor 6-point Likert-type scale (0 = not at all, 5 =

extremely). The scale includes reverse-scored items (2, 3, 6, 7, 8, 11, 12, 15, 19, 20, 24, 25, 27, and 31) (16). Körükçü (2009) adapted the W-DEQ - version A into Turkish and indicated four degrees of fear of childbirth: low (< 37), moderate (38-65), severe (66-84), and phobic (> 85). In the adaptation study, the researcher calculated its internal consistency coefficient to be 0.89 and split-half reliability coefficient to be 0.91 (17).

2.4. Procedure

Initially, we reached out to all primiparous women with the help of the healthcare staff in the FHCs and learned when they would plan a follow-up visit to the relevant FHCs. Those coming for the scheduled follow-up and providing written consent were recruited to face-to-face interviews and asked to fill out the questionnaires. The whole procedure took 20-25 minutes.

2.5. Data analysis

In data analysis, we presented descriptive statistics as means and percentages. Since the Shapiro-Wilk test resulted in a normal distribution ($p > 0.05$), we utilized parametric tests to analyze the data. Accordingly, we performed independent samples t-test, one-way analysis of variance (ANOVA), and post hoc tests (Turkey HSD) to test our hypotheses. We used SPSS 22.0 to perform the analyses and accepted a p-value <0.05 as statistically significant.

RESULTS

The findings revealed that 52.1% of the participants were 18-25 years, 43.6% had primary or secondary school education, 59.0% lived in the district center, 46.2% were employed, and 52.9% had a monthly income of TRY 1501-3000. About half of the participants (42.7%) were 14-27 weeks pregnant (Table 1).

Table 1. Distribution of the participants by some of their sociodemographic and clinical characteristics (n=100)

Variables		n	%
Age	18-25 years	61	52.1
	26-33 years	46	39.3
	34-41 years	10	8.5
Educational attainment	Primary-Secondary school	51	43.6
	High school	28	23.9
	Undergraduate	38	32.5
Place of residence for the last six months	District center	69	59.0
	Village	48	41.0
Employment status	Never employed	20	17.1
	Employed	54	46.2
	Unemployed	43	36.8
Smoking	Yes	13	11.1
	No	104	88.9
Monthly household income	TRY 1501-3000	62	52.9
	TRY 3001-5000	23	19.7
	TRY 5001 TL and above	32	27.4
Gestational week	First trimester (first 13 weeks)	22	18.8
	Second trimester (14-27 weeks)	50	42.7
Follow-up institution*	Third trimester (27-40 weeks)	45	38.5
	State hospital	75	34.7
	Private hospital	38	17.6
	Family health center	103	47.7

* More than one option ticked.

Table 2. Distribution of the participants by their views on the pandemic

Variables		n	%
Source applied to protect the self from COVID-19*	Midwife	84	30.4
	Physician	59	21.4
	Social media	91	33.0
	Friends	35	12.6
	Newspaper	7	2.6
Pregnancy-specific information/ service received from healthcare professionals since the very beginning of the pandemic*	I went to the hospital for my pregnancy follow-up.	100	54.0
	My physician informed me on the phone.	38	20.5
	A midwife informed me on the phone.	47	25.5
What desired to be learned regarding pregnancy during the pandemic*	Precautions to be taken against COVID-19	33	13.3
	Effects of COVID-19 on the pregnant	106	42.9
	Information about testing for COVID-19	11	4.5
	What method to give birth in the pandemic	48	19.5
	Effects of COVID-19 on breastfeeding	49	19.8
The most difficult situation due to pregnancy during the pandemic*	Loneliness/despair	11	3.0
	Having to go to the hospital due to pregnancy	75	20.7
	Not being able to go to the hospital due to fear of COVID-19	10	2.8
	Information pollution about COVID-19	27	7.5
	Having to work during the pandemic	17	4.7
	Giving birth during the pandemic	84	23.1
	Increased fear of childbirth due to the pandemic	43	11.8
	Possible adverse impacts of the pandemic on mental health	41	11.3
	Fear that something will happen to my baby during the pandemic	55	15.1

Considering the responses to the introductory information form, 47.7% of the participants used to visit an FHC for pregnancy follow-ups, 33.0% got online on social media to receive current information about the pandemic, 54.0% rushed a hospital for their follow-ups in the very beginning of the pandemic, 42.9% desired to learn the impacts of COVID-19 on pregnancy/expectant mothers, and 23.1% were afraid of giving birth during the pandemic (Table 2).

We calculated the participants' mean W-DEQ score to be 64.69±19.44. Besides, those aged 34-41 years scored significantly lower on the W-DEQ when compared to the women aged 18-25 years ($p < 0.001$) and 26-33 years ($p = 0.001$), respectively. When comparing the scores by educational background,

the participants with primary and secondary school education had significantly higher scores on the W-DEQ than the university graduates ($p = 0.002$). In addition, we compared the participants' scores by their place of residence for the last six months. The findings showed that those residing in a village scored significantly higher on the W-DEQ than the women living in a district ($p < 0.001$). Besides, we concluded that the participants with a monthly income of TRY 5001 TL and above had significantly lower W-DEQ scores than those with a monthly income of TRY 1501-3000 ($p < 0.001$) and 3001-5000 TL ($p = 0.030$), respectively. Finally, those having planned pregnancy in the pandemic had significantly lower W-DEQ scores than the women experiencing

Table 3: Participants' descriptives and W-DEQ scores

Variables (n=117)		n	W-DEQ			
			M ± SD	t	p	Post-hoc test
Age group	^a 18-25 years	61	69.65±19.62	9.072	¹ <0.001	a-c b-c
	^b 26-33 years	46	62.63±16.99			
	^c 34-41 years	10	43.90±13.86			
Educational attainment	^a Primary-secondary school	51	71.66±15.63	6.770	¹ 0.002	a-c
	^b High school	28	61.60±19.98			
	^c Undergraduate	38	57.60±20.91			
Place of residence for the last six months	District center	69	59.66±21.07	-3.761	² <0.001	-
	Village	48	71.91±14.15			
Monthly household income	^a TRY 1501-3000	58	71.19±17.39	12.090	¹ <0.001	a-c b-c
	^b TRY 3001-5000	23	64.65±22.01			
	^c TRY 5001 and above	32	52.12±15.08			
Pregnancy planning status in the pandemic	Planned pregnancy	87	60.28±19.35	-5.403	² <0.001	-
	Unplanned pregnancy	30	77.46±13.19			
Preferred mode of delivery	Vaginal delivery	83	66.32±17.81	1.426	² 0.157	-
	Caesarean delivery	34	60.70±22.75			
Changing the preferred mode of delivery due to the pandemic	Yes	44	68.09±15.97	1.475	² 0.143	-
	No	73	62.64±21.10			
Fear of giving birth due to the pandemic	Yes	10	64.66±19.43	-0.049	² 0.961	-
	No	89	65.00±20.77			

unplanned pregnancy in the pandemic ($p < 0.001$) (Table 3).

4. DISCUSSION

The ongoing COVID-19 pandemic entails washing hands, avoiding symptomatic people, and wearing a mask. The high rate of transmission and lethality of the virus has already caused social, financial, and psychological burdens on people (1). In this study, we attempted to examine fear of childbirth among primiparous women and related factors in the pandemic.

Prenatal fear of childbirth is a prevalent health problem negatively affecting women's affective state (18). Our findings uncovered that the participants had moderate fear of childbirth (64.69±19.44). Several studies previously reported the mean W-DEQ score as 41.53±12.49 (19), 55.42±12.1 (20), 50.97±25.77 (21), and 62.41 (22). Despite different levels of fear of childbirth reported in the literature, we revealed fear of childbirth among our participants greater than what was reported in the literature. A possible explanation for such a finding may be that the substantial

pandemic-initiated changes to almost every domain of life may have elevated fear of childbirth among women. In addition, women's socioeconomic status, cultures specific to the place of residence, primiparous pregnancy, and beliefs about childbirth may have contributed to women's fear of childbirth. Moreover, we found a relatively higher fear of childbirth among the young expectant mothers, those with inferior education, villagers, and those with a low monthly household income. Yet, some studies concluded that age (19, 23) and educational background (19, 23-25) do not affect women's fear of childbirth. In some other studies, fear of childbirth was found to be high in younger women (24) and women with low education (26). Despite controversial findings in the literature, we came up with that more sociodemographic variables affect fear of childbirth among our participants. The inconsistent findings may be ascribed to the cultural and location-specific differences. Besides, why more sociodemographic factors affected fear of childbirth in this study may be attributed to the pandemic-led situations causing

other unprecedented fears.

Another finding of this study pointed out that the women with an unplanned pregnancy had more fear of childbirth than their counterparts having planned their pregnancy. Similarly, the literature previously reported that women experiencing an unplanned pregnancy have a severe fear of childbirth (27-29). Thus, our findings with primiparous women are consistent with the literature. Whereas higher fear of childbirth is not surprising in unplanned pregnancies, expecting a child for the first time can be another factor boosting fear of childbirth among our participants.

5. CONCLUSION

We concluded that the participating women had a moderate fear of childbirth and that age, educational attainment, place of residence for the last six months, monthly income, and pregnancy planning status were the variables associated with fear of childbirth.

The reasons for elevated fear of childbirth among women should be investigated further, and future research may consider uncovering the impacts of the COVID-19 pandemic on women's fear of childbirth.

Relevant bodies should organize training, programs, and therapies for women to overcome their fear of childbirth. Besides, midwives bear important roles and responsibilities in guiding women to cope with their fear of childbirth. Hence, midwives or other healthcare professionals should hold all the activities above during the ongoing pandemic by complying with the physical distance rule, on time, and in line with the expectations of the pregnant. Finally, further research may consider recruiting larger samples to ensure the generalizability of our findings.

Limitations: The only limitation of the present study arises from collecting the data from primiparous women followed up in fifteen FHCs in a district.

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Conflicts of Interest: The authors declared that there is no conflict of interest.

Ethical Statement: The Non-Interventional Clinical

Research Ethics Committee of Burdur Mehmet Akif Ersoy University granted ethical approval to our study (Date: 08.20.2020; No: GO 2020/214). Moreover, we obtained relevant permissions from the Ministry of Health Scientific Research Evaluation Commission (2020-11-10T00-37-11.xml) for the study. In addition, all participants provided written informed consent to participate in the study, and their personal information was kept confidential.

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