The Effect of Fear of COVID-19 on the Birth Preferences of Pregnant Women

COVID-19 Korkusunun Gebelerin Doğum Tercihlerine Etkisi

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ABSTRACT

Deciding on the mode of birth related to the pregnant woman's own body will increase her self-confidence. It will reduce the anxiety caused by the adverse conditions caused by the pandemic process. It was aimed to examine the effect of fear of COVID-19 on the birth preferences of pregnant women.

A descriptive cross-sectional study was conducted between January and April 2021 with 631 pregnant women who were followed up in an crowded pandemic hospital in Turkey. The data were obtained through the Google online platform, the Questionnaire Form and the COVID-19 Fear Scale.

This study 50.7% of the pregnant women gave vaginal birth before the COVID-19 pandemic, while 75.3% preferred vaginal birth during the pandemic. When the table is examined, the mother's fear of COVID-19 increased her choice of delivery method 96%.

According to the findings of this study, fear of COVID-19 affected birth choice.

Keywords: Birth Pattern, Birth Preference, Fear of COVID-19, Pregnancy.

ÖZ

Hamile kadının kendi vücudu ile ilgili doğum şekline karar vermesi özgüvenini artıracaktır. Pandemi sürecinin yol açtığı olumsuz koşulların yarattığı kaygıyı azaltacaktır.

COVID-19 korkusunun gebelerin doğum tercihlerine etkisinin incelenmesi amaçlandı.

Türkiye'de kalabalık bir pandemi hastanesinde takip edilen 631 gebe ile Ocak-Nisan 2021 tarihleri arasında tanımlayıcı kesitsel bir çalışma yapıldı. Veriler Google çevrimiçi platformu, Anket Formu ve COVID-19 Korku Ölçeği aracılığıyla elde edildi.

Bu çalışmada gebelerin %50,7'si COVID-19 pandemisi öncesinde vajinal doğum yaparken, %75,3'ü pandemi sırasında vajinal doğumu tercih etmiştir. Tablo incelendiğinde annenin COVID-19 korkusu doğum yöntemi seçimini %96 artırdı.

Bu çalışmanın bulgularına göre COVID-19 korkusu doğum seçimini etkiledi.

Anahtar Kelimeler: COVID-19 Korkusu, Doğum Modeli, Doğum Tercihi, Gebelik.

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INTRODUCTION

Viral respiratory infections can cause complications of mother and newborn during pregnancy. Physiological changes in pregnancy increase the risk of developing viral respiratory infections and severe infections in this process.[1] COVID-19 infection can cause serious complications such as death, as well as a high risk of transmission, affecting the lifestyles of pregnant women who are in special periods of their lives.[2] During the pandemic, pregnant women are positively impacted by contacting their healthcare providers, including routine checkups as their birth patern preferences change.[2-4]

Although childbirth is a physiological event, deciding how to give birth is a great source of stress for the woman.[5] It is important that the birth pattern, which is known to greatly affect the health of mother and child, is planned in accordance with the benefit of the mother and baby.[4] Most of the initial studies conducted during the COVID-19 pandemic indicated that women with active disease during childbirth had a high cesarean section rate of up to 81.8%.[6] Pregnant women with COVID-19 can have a vaginal birth without the risk of transmission of infection" can use instead. It is especially notable that maternal and perinatal outcomes are not adversely affected in COVID-19 positive pregnants with asymptomatic and mild symptoms.[7,8] Not only COVID-19 positivity but respiratory distress, severe pneumonia and respiratory failure caused by COVID-19 provide indications for cesarean section.[8-10] It is of great importance that the birth methods are explained to the pregnant woman by professional health workers and that the pregnant woman also takes an active role in determining the birth pattern.[11]

Deciding on the mode of delivery of women increases their self-confidence. It will also reduce anxiety caused by adverse conditions caused by the pandemi process and prevent the negative impact of the pregnancy process.[2,3] Studies in the literature show that the rates of fear, anxiety, depression and phobia due to COVID-19 increase in pregnant women.[4,12-15] However, there has been no research on the effect of COVID-19 fear on birth pattern preferences in pregnant women. This study was conducted to assess the impact of COVID-19 fear on pregnant women's birth preferences. For this purpose, answers to the following questions were sought.

1. Does the fear of COVID-19 affect the choice of birth style?
2. Are women's sociodemographic characteristics related to fear of COVID-19?
3. Are women's obstetric characteristics related to fear of COVID-19?

MATERIAL AND METHODS

STROBE was used in the design, planning, implementation and reporting of cross-sectional research.[16]

Population

The sample of the study consisted of 2500 pregnant women who were followed in a crowded pandemic hospital in Turkey. The sample size was calculated as 333 by using the method of sampling from known population. The sample size was calculated as 333, with a coefficient of 0.05 error (alpha=0.05) and a significance level of 0.05 (p=0.05, q=0.05) using the sampling method whose universe is known. Between January and April 2021 (92 days), the study was completed with 631 pregnant women who volunteered to participate and met the sample selection criteria.

Inclusion Criteria

- Who is willing to participate in the study,
- Followed in the pandemic hospital,
- Speaks, read and write Turkish

- 18-35 years old
- With a healthy singular pregnancy
- COVID-19 positive pregnant women,
- Pregnant women who did not have COVID-19 were included.
- Multiparous pregnant women.

Exclusion Criteria

- Pregnant women with any obstetric indication and requiring follow-up in the hospital,
- Pregnant women with any existing/previously known psychiatric disorders were excluded from the study.

Variables and Data Collection Tools

"Survey Form" and "COVID-19 Fear Scale " were used to obtain the data.

Survey Form

By scanning literature studies [2-4,6] the form created to collect data (a) consists of (a) 9 questions containing the socio-demographic characteristics of pregnant women, (b) 18 questions for obstetrics, (c) 8 questions about COVID-19-related concerns during pregnancy and a total of 35 questions. The data obtained was included in the study because no revision (adding or subtracting questions) was required in the pilot form before the data began to be collected.

COVID-19 Fear Scale

The COVID-19 Fear Scale (The Fear of COVID-19 Scale) developed by Ahorsu et al.[17] has been adapted to Turkish, validity and reliability by Satıcı et al[18]. All substances of the scale consisting of 7 questions are positively rated. 1-5 using a 5-type Likert scale in questions (1-I strongly disagree-5-I strongly agree) scored. There are no inverted points on the scale. The scale is scored between 7-35. Getting a high score indicates that the COVID pandemic fear level is 'high'. Cronbach Alpha value (α=.82) was found in the Turkish validity reliability study of the scale. As part of this study, cronbach alpha (α) value 0.87 found.

Data Collection Process

The researchers identified potentially eligible pregnant women as healthy pregnant women who were receiving or receiving clinical follow-up at the pandemic hospital to prevent any selection bias. Survey access links were shared with pregnant women and informed about how the questionnaire should be filled out and sent online. The survey was anonymous to protect privacy. Also, at the beginning of the questionnaire was a statement in which pregnant women confirmed in writing that they were willing to participate in the study. The participation of pregnant women was free; it was informed that there were no benefits or harms. The data obtained was included in the study because no revision (adding or subtracting questions) was required in the pilot form before the data began to be collected. The data was collected for 92 days from January to April 2021 through links generated through Google surveys.

Statistical Analyze

Statistical Package for Social Science (SPSS) version 21.0 for Windows software (SPSS, Inc., Chicago, IL, USA) was used for all statistical analyses. Kolmogorov-Smirnov test was used to evaluate the distribution of data before statistical analysis. Descriptive statistics including frequency, percentage for nominal variables, and mean and standard deviation for continuous variables were calculated. The effect of the participants' COVID-19 Fear of Scale on the mode of delivery was evaluated by logistic regression analysis. Significance level was determined as $p<0.05$.

Ethical Aspect of Research

Before starting to collect data, the necessary permissions were obtained from the Ethics Committee of Non-Interventional Clinical Research (Date:24.12.2020; Ethics Number: 198) and the institution where the participants were monitored on December 24, 2020. Written consent was obtained for pregnant women to participate voluntarily in the research. No incentives were offered for their participation in the study. The

questionnaire was anonymous, and the pregnant women were able to quit working at any time.

Limitations

The limitations of the study are as follows:

-Since data is collected voluntarily from participants through an online app, caution should be taken when making some generalizations.

-The fact that the research was carried out in a certain time period, the perception and psychosocial status of individuals according to the situation that changes over time, the measures taken and practical practices throughout the country include other limitations**.**

RESULTS AND DISCUSSION

It has been stated that it is necessary to personalize the way of cooling according to obstetric indications and women's preferences during the pandemic process. Unless there is maternal or fetal indication, as in normal practice, the manner of birth should not be affected by the presence of COVID-19.[18,19] This study was conducted to assess the impact of COVID-19 fear on pregnant women's birth preferences.

The study was completed with 631 pregnant women. It was found that the average number of pregnancies was 2.17±1.72; the mean year of marriage was 3.72±1.20. It was determined that 37.4% of pregnant women had a high school degree, 68.3% did not work, 51.2% had low income levels and 60.1% had planned pregnancies. While 50.7% of pregnant women had vaginal birth before the COVID-19 pandemic, 75.3% preferred vaginal birth during the pandemic (Table 1).

Table 1. Distribution of Sociodemographic and Obstetric Characteristics of Pregnant Women (N=631)

Parameters		**Mean±SD [min-max]**	
Age (years)		28.56±6.36 [27.00-28.00]	
Marriage time (years)		3.72±1.20 [3.00-5.00]	
Number of pregnancy		2.17 ± 1.72 [1.00-3.00]	
COVID-19 Fear Scale Score		22.07±4.13 [18.00-26.00]	
Parameters	**n (%)**	**COVID-19 fear scale score Mean±SD**	**t\F p**
Education			
Primary education	27(4.2)	22.40 ± 2.84	F=5.91
Secondary education	128 (20.2)	18.27 ± 3.70	**0.001**
High School	231 (36.6)	18.83 ± 3.42	
University and up	246(38.8)	19.81 ± 0.84	
Working status			
Working	200 (31.7)	19.39 ± 1.92	t=0.35
Not working	431 (68.3)	19.29 ± 1.68	**0.001**
Level of income			
Low-income family	323 (51.2)	18.97 ± 2.55	
Middle-income family	272 (43.1)	20.02 ± 5.92	F=3.267
High-income family	76 (5.7)	18.55 ± 3.05	**0.039**
Type of family			
Nuclear family	535 (84.8)	20.69 ± 5.84	t=5.116
Large family	96 (15.2)	16.97 ± 6.36	**0.001**
Planning pregnancy			
Yes	379 (60.1%)	19.64 ± 5.10	t=1.167
No	252 (39.9%)	19.13 ± 5.82	0.2444

Tablo 1. (Continue)			
Pre-COVID-19 mode of birth			
Vaginal birth	320 (50.7)	19.18 ± 5.33	t=1.152
Cesarean section	311 (49.3)	19.68 ± 5.47	0.250
Birth preference during COVID-19			
Vaginal birth	475 (75,3)	19.61 ± 5.34	t=1.454
Cesarean birth	156 (24.8)	18.88 ± 5.58	**0.001**
Who determined birth preference during COVID-19	354 (56.1%)	26.67 ±4.51	
Doctor	71 (11.3%)	23.03±4.56	F=.356
Midwifery	136 (21.6%)	22.96±4.48	**0.001**
The pregnant woman	70 (11.1%)	29.75±4.59	
Family and other			

Data are expressed as number (percentage of the total number) and mean±standard deviation [95% Confidence Interval] t: Independent t test

It was determined that there was a significant relationship between the average score and the birth pattern of the pregnant women on the COVID-19 Fear Scale (p<.001). Pregnant women who were afraid of COVID-19 were found to prefer vaginal birth. It was determined that there was a significant relationship between the total score average of the COVID-19 Fear Scale of pregnant women and the disruption of their control and anxiety about the institution in which they would give birth. The parameters of pregnant women for the methods of prevention from COVID-19 during their pregnancy; The COVID-19 Fear Scale was found to be related to the average score and the use of mask and taking care of hand hygiene, and thinking that there is a difference between your pregnancy during COVID-19 and your other pregnancies (p<0.001) (Table 2).

Table 2. Comparison of Some Variables of Women Regarding Pregnancy and Childbirth with the Total Score of the COVID-19 Fear Scale (N=631)

Variables		**COVID-19 fear scale score**		**t* p**
		n	**Mean±SD**	
How it was born	**Vaginal**	321	19.18±4.74	1.152
	Cesarean	310	19.46±3.76	**.000**
Have you delayed your pregnancy checks due to the pandemic?	**Yes**	460	19.60±3.76	13.095
	No	171	18.34±3.69	**.000**
Did being in the pandemic hospital affect your birth choice?	**Yes**	288	20.09±3.85	35.312
	No	343	18.83±4.68	**.000**
The desire to give birth at home	**Yes**	52	20.03±3.79	.743
	No	579	19.32±5.76	.243
I didn't go out unless I needed to to avoid getting Covid-19	**Yes**	589	19.53±4.73	.885
	No	42	17.43±5.96	**.015**
In order not to catch Covid-19, I consumed foods that strengthen immunity	**Yes**	515	19.39±4.79	.317
	No	116	19.53±0.88	.573
I used a mask to avoid getting Covid-19 and took care of hand hygiene	**Yes**	575	29.04±4.73	9.573
	No	56	20.03±3.03	**.002**
Consider terminating a pregnancy due to COVID-19	**Yes**	26	17.36±3.08	.185
	No	605	19.06±4.88	.675
Thinking that there is a difference between your pregnancy during COVID-19 and your other pregnancies	**Yes**	459	19.74±3.69	39.678
	No	173	18.69±3.91	**.000**

*Abbreviations: SD, standard deviation (Bonferroni-corrected chi-squared); t: Independent t test; Bold values denote statistical significance at the *p<.005 ** p<.001*

Women's choice of place of birth has changed during the pandemic process. On social media, it is seen that women who want to give birth at home are increasing day by day. The reason for this increase is that the risk of infection in pandemic hospitals is perceived as high by women. In this context, home birth services have become an issue that should be carefully considered and regulated in terms of legal grounds and standards.[20,21] According to these study findings, it was determined that there was a significant corral between the average total score of the COVID-19 Fear Scale and the anxiety about where to give birth. It is seen that the research findings and the literature are similar. This can be explained by the fact that pregnant women cause concern due to the belief that the risk of transmission may be higher in hospitals. During the pandemic process, pregnant women are advised to avoid unnecessary travel, crowding, public transport and contact with sick people, and more importantly, to apply and maintain personal and social hygiene rules. It is recommended to reduce the frequency of follow-up of pregnant women and, if possible, to continue monitoring by phone or online. [8,22,23] According to these study findings, it was determined that there was a significant relationship between the total score average of the COVID-19 Fear Scale and the disruption of their control. In a study, it was reported that approximately 57% of pregnant were worried about being infected during the COVID-19 pandemic, 89.6% preferred online counseling and 28.3% wanted to reduce the frequency of appointments.[12] It was seen that the research findings and the literature findings were in parallel. These results are thought to be due to the belief that pregnant women will increase the risk of transmission in the hospital environment.

In the table 3, the coefficients of the independent variables in the logistic regression model, the standard errors of these coefficients, Wald statistics, free degrees, significance levels and odds rates are given. It is seen that the difference between the fear of COVID-19 and its effect on the choice of birth method is significant according to the logistic regression analysis results ($p<0.018$). The pregnant woman's fear of COVID-19 increases her preference for vaginal delivery by 96% (compared to cesarean delivery) (Table 3).

Table 3. Logistics Regression Analysis on Type of Birth with Fear of COVID-19

Dependent variable	Independent variable	β	Standard Error	Wald statistic	Degrees of freedom	p	Exp (β)
Type of birth	**Constant**	1.409	1.394	0.581	1	0.069	0.000
	COVID-19 fear scale	-0.032	0.080	.159	1	**0.018**	96.937

*Bold values denote statistical significance at the *p<.005 ** p<.001*

It is possible that the birth environment will take a more medicalized appearance due to the pandemic. In addition, the involvement of caregivers in the process with protective equipment such as masks, overalls and glasses made it difficult for the woman to perceive childbirth naturally and physiologically.[24] Most of the initial studies conducted during the COVID-19 pandemic indicated a high rate of cesarean sections of up to 81.8% in women with active disease during childbirth.[6] In a retrospective study, it was reported that approximately 79% of pregnant women diagnosed with COVID-19 in pregnancy were born by cesarean section.[25] In the following periods, studies on the safety of vaginal birth began to be carried out. A study found that 13 pregnant women diagnosed with COVID-19 had negative vaginal swabs. Since vaginal secretions do not contain viruses, it has been reported that vaginal birth can be performed safely.[4] According to the findings of this study, it was determined according to the regression analysis that pregnant women's birth preferences cesarean section changed

with the COVID-19 pandemic, and their preference for vaginal birth increased as the fear of COVID-19 increased. It is seen that the literature finding and the research finding are different. This situation suggests that pregnant women are affected by uncertainties and that there is a lack of evidence of the presence of viruses in vaginal fluids, especially in researches conducted at the beginning of the pandemic period. At the same time, increasing number of researches and the publication of evidence, decreased uncertainty about the disease can be explained by the acceptance among pregnant women of the awareness that vaginal birth is a natural choice.

The Lancet Breastfeeding Series reported that increasing breastfeeding in 2016 could prevent about 823.000 child deaths a year, and breastfeeding reduced morbidity and mortality in diarrhea by up to 64% and hospitalization by up to 72%.[26] These results show that breastfeeding may also be protective of the health of the newborn in the COVID-19 pandemic.[27] Another study of 22 others with COVID-19 in a hospital in Spain aimed at determining the risk of infection in the newborn. Twenty of the mothers included in the study chose to breastfeed their babies while in hospital. As a result of these cases where measures were taken, minimum maternal-neonatal complications occurred and no newborns were infected.[28] In a study involving COVID-19 positive, suspicious and negative mothers, it was reported that there was no difference in the infection of mothers and babies who fed their babies directly and by milking them with COVID-19.[29] According to the findings of this study, regression analysis found that pregnant women's fears of COVID-19 affected their breastfeeding in the postpartum period. While some of the literature is similar with the research findings, it is seen that some are different. This suggests that mothers are concerned about breastfeeding and infecting their babies. It may be recommended to educate pregnant women about the benefits of breastfeeding during the pandemic period.

CONCLUSION AND RECOMMENDATION

According to the findings of this study, it was determined that the preferences of pregnant women for the form of birth changed with the COVID-19 pandemic. According to the regression analysis, the mother's fear of COVID-19 increased her choice of delivery method 96%. As the COVID-19 afraid of pregnant women increased, it was seen that there was an increase in anxiety about the institution in which they would give birth and disrupting their control. Birth preferences are affected by many environmental factors. The increase in cesarean births is a universal problem. The negative impact of the pandemic process on women's health has been demonstrated by descriptive research findings, especially in developing countries. More than half of the births in Turkey take place by Caesarean section. With this study, it was aimed to define the effect of the pandemic period on women's birth preferences for midwives and gynecological nurses. These research findings will contribute to the improvement of the quality of care and intervention. This study revealed that COVID-19 affects the birth preferences of pregnant women in Turkey. Health professionals should question pregnant women about epidemics during pregnancy, identify incomplete and incorrect information and provide counseling. Further research is needed to establish more evidence on predictors by developing longitudinal study designs.

REFERENCES

1. Xu, H, Zhong, L. and Deng, J. (2020). "High Expression of ACE2 Receptor of 2019-nCoV on the Epithelial Cells of Oral Mucosa." Int J Oral Sci., 12 (1), 1-5. https://doi.org/10.1038/s41368-020-0074-x
2. Zaigham, M. and Andersson, O. (2020). "Maternal and Perinatal Outcomes with COVID-19: A Systematic review of 108 pregnancies." Acta Obstetricia et Gynecologica Scandinavica, 99 (7), 823–829. doi.org/10.1111/aogs.13867
3. Yassa, M, Birol, P. and Yirmibeş, C. (2020). "Near-term Pregnant Women's Attitude Toward, Concern about and Knowledge of the COVID-19 Pandemic." The Journal of Maternal-Fetal & Neonatal Medicine, 33 (22), 3827–3834. https://doi.org/10.1080/14767058. 2020.1763947
4. Wu, Y, Zhang, C. and Liu, H. (2020). "Perinatal Depressive and Anxiety Symptoms of Pregnant Women along with COVID-19 Outbreak in China." American Journal of Obstetrics and Gynecology, 223b (240), e1–9. https://doi.org/10.1016/j.ajog.2020.05.009
5. Parazzini, F, Bortolus, R, Mauri, PA, Favilli, A, Gerli, S. and Ferrazzi, E. (2020). "Birth in Pregnant Women İnfected with SARS-CoV-2: A Fast Review." International Journal of Gynecology & Obstetrics, 150 (1), 41–46. https://doi.org/10.1002/ijgo.13166
6. Qi, H, Chen, M, Luo, X, Liu, X, Shi, Y. and Liu, T. (2020). "Management of a Birth Suite during the COVID-19 Epidemic." European Journal of Obstetrics & Gynecology and Reproductive Biology, 250,250-2. https://doi.org/10.1016/j. ejogrb.2020.05.031.
7. Sharma, J.B, Sharma, E, Sharma, S. and Singh, J. (2020). "Recommendations for Prenatal, Intrapartum, and Postpartum Care during COVID-19 Pandemic in India." American Journal of Reproductive Immunology, 84 (5), e13336. https://doi. org/10.1111/aji.13336
8. Royal College of Obstetricians and Gyneacologist. (2020). "COVID-19 Virus Infection and Pregnancy. Occupational Health Advice for Employers and Pregnant Women during the COVID-19 Pandemic" Available from: https://www.rcog.org.uk/en/ guidelines-research-services/. (Date of Access: 10.04.2021)
9. Boelig, R.C, Lambert, C, Pena, J.A, Stone, J, Bernstein, P.S. and Berghella, V. (2020). "Obstetric Protocols in the Setting of a Pandemic. Seminars in Perinatology". Elsevier.
10. Lin, C, Chu, S.M, Hsu, J.F, Hsu, C.C, Chang, Y.L. and Lien, R. (2021). "Delivery Management of Suspected or Confirmed COVID-19 Positive Mothers." Pediatrics & Neonatology, 62(5), 476-482., https://doi.org/10.1016/j.pedneo.2021.06.004
11. Çalık, K.Y, Küçük, E. and Beydağ, K.D. (2021). "Pregnant Women Voice their Concerns and Birth Method Preferences during the COVID-19 Pandemic in Turkey." J Reprod Infant Psychol, 30, 1-12. doi: 10.1080/02646838.2021.1931071.
12. Karaahmet, A.Y. and Tanrıverdi, F.Ş. (2021). "Worry and Concerns of Pregnant Women in Turkey about the COVID-19 Outbreak: A Cross-Sectional Study." Halic Uni J Health Sci, 4 (3), 213-224 Doi: 10.48124/husagbilder.983417
13. Demir, E.T. and Kilic, F. (2020). "Determination of the Anxiety Level in Pregnant Women who Administer to the Obstetrics Clinic within The COVID-19 Pandemia Period." Selcuk Med J, 3, 6 (4), 352-356. DOI : 10.30733/std.2020.01468
14. Durankuş, F. and Aksu, E. (2020). "Effects of the COVID-19 Pandemic on Anxiety and Depressive Symptoms in Pregnant Women: a Preliminary Study." J Matern Fetal Neonatal Med., 18, 1-7 https://doi.org/10.1080/14767058.2020.1763946
15. Karkın, P.Ö, Sezer, G, Sen, S. and Duran, M. (2020). "Comparison of Coronavirus-19 Phobia in Pregnant and Non-pregnant Women." Kocaeli Medical Journal, 10 (Supp: 2), 176-180. DOI: 10.5505/ktd.2021.81084
16. .von Elm, E, Altman, D.G, Egger, M, Pocock ,S.J, Gøtzsche, P.C. and Vandenbroucke, S.(2008). "STROBE Initiative. the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: Guidelines for Reporting Observational Studies." j Clin Epidemiol, 61 (4),344-9. https://doi.org/10.7326/0003-4819-147-8-200710160-00010-w1
17. Ahorsu, D.K, Lin, C.Y, Imani, V, Saffari, M, Griffiths, M.D. and Pakpour, A.H. (2020). "The Fear of COVID- 19 Scale: Development and Initial Validation." International Journal of Mental Health and Addiction, 1, 20, 1537–1545 https://doi.org/10.1007/s11469-020-00270-8
18. Satici, B, Gocet-Tekin, E, Deniz, M.E. and Satici, S.A. (2020). "Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey" International Journal of Mental Health Addiction, 19, 1980–1988 https://doi.org/10.1007/s11469-020-00294-0
19. United Nations Population Fund (UNFPA). (2020). "COVID-19 Technical Brief for Maternity Services." Available from: /resources/COVID-19-technicalbrief-maternity-services (Date of Access: 10.04.2021)
20. Royal College of Paediatrics and Child Health. (2020). "COVID-19 Guidance for Paediatric Services. RCPCH." London. Available from: https://www.rcpch.ac.uk/sites/default/files/generatedpdf/document/COVID-19---guidance-for-paediatricservices. (Date of Access: 10.04.2021)
21. Rocca-Ihenacho, L. and Alonso, C. (2020). "Where do Women Birth during a Pandemic? Changing Perspectives on Safe Motherhood during the COVID-19 Pandemic." Journal of Global Health Science, 2 (e4).
22. American College of Obstetricians and Gynecologists. (2021). "COVID-19 FAQs for Obstetrician-Gynecologists Obstetrics" Available from: https://www.acog.org/clinical-information/physician-faqs/COVID-19-faqs-for-ob-gyns-obstetrics. (Date of Access: 10.04.2021)
23. T.C. Ministry of Health. (2021). "During the Period of Prevalence of COVID-19 (SARS-CoV-2 infection) Respiratory Diseases, Pregnancy Follow-up in Health institutions." Available from: https://COVID19.saglik.gov.tr/Eklenti/41676/0/COVID-19solunumsistemihastaliklaryayginoldugudonemdesaglikkurulus.pdf (Date of Access: 10.04.2021)
24. Aydin, R, Kizilkaya, T, Hancioglu, Aytaç, S. and Taşlar, N. (2020). "In the COVID-19 Pandemic; Women's Social Support Needs and Midwife Approaches During Pregnancy, Childbirth and End-of-Birth Period." Turkish Studies, 15 (4), 679-690. https://dx.doi.org/10.29228/TurkishStudies.44489
25. Er, İ, Kaç, H. and Akturk, H. (2021). "Perinatal Characteristics and Clinical Follow-up of Babies Born to Mothers Diagnosed with COVID-19 in Kocaeli Province Pandemic Hospitals: 4-Month Retrospective Study Results." Kocaeli Medical Journal, 10 (Supp: 1), 61-71.
26. Victora, C.G, Bahl, R, Barros, J, França, G.V, Horton, S. and Krasevec, J. (2016). "Lancet Breastfeeding Series Group. Breastfeeding in the 21st Century: Epidemiology, Mechanisms, and Lifelong Effect." Lancet, 387 (10017), 475-90.
27. Aydin, R. and Aktaş, S. (2021). "COVID-19 and Breastfeeding: A Review of Clinical Practice." Turkey Clinics J Health Sci, 6 (3), 675-81.
28. Pereira, A, Cruz-Melguizo, S, Adrien, M, Fuentes, L, Marin, E. and Forti, A. (2020). "Breastfeeding Mothers with COVID-19 Infection: A Case Series." Int Breastfeed J, 15 (1), 1–8
29. Peng, S, Zhu, H, Yang, L, Cao, L, Huang, X. and Dynes, M. A. (2020). "Study of Breastfeeding Practices, SARS-CoV-2 and its Antibodies in the Breast milk of Mothers Confirmed with COVID-19. The Lancet regional health. Western Pacific, 4, 100045. https://doi.org/10.1016/j.lanwpc.2020.1000