Postpartum Depression Levels in Women After the Application of Assisted Reproduction Techniques and Their Affecting Factors

Yardımcı Üreme Teknikleri Sonrası Anne Olan Kadınlarda Postpartum Depresyon ve Etkileyen Faktörler

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ABSTRACT

Objective: This study was carried out to determine postpartum depression levels and their affecting factors in women who became women after the application of assisted reproductive techniques.

Methods: The study is descriptive and cross-sectional and was conducted with mothers (n=93) who had babies as a result of treatment at the infertility clinic of Cukurova University Hospital. Research data were collected using the "Personal Information Form" and "Edinburgh Postpartum Depression Scale (EPDS)". In the analysis of the research data, descriptive statistics, independent samples t-test, Kruskall Wallis and Mann Whitney U test were employed.

Results: The EPDS mean score of the women in the study was determined to be 18.22± 3.22 and 94.6% of them were at risk for postpartum depression. Statistically significant differences were found between the EPDS mean score of the mothers and the gender of the baby they want to have, experiencing anxiety, and sharing problems with their spouse (p<0.05), and no statistically significant relationship was found with other variables (p>0.05).

Conclusion: It was determined that mothers who have a baby as a result of infertility treatment are at risk for postpartum depression. Although a healthy outcome of pregnancies obtained as a result of treatment is eagerly awaited by the mothers, it also poses a risk for postpartum infertile mothers

Keywords: Infertility, maternal health, postpartum period, depression, assisted reproduction techniques

ÖZ

Amaç: Bu çalışma, yardımcı üreme teknikleri sonrası anne olan kadınlarda postpartum depresyon ve etkileyen faktörlerin belirlenmesi amacıyla yapılmıştır.

Yöntemler: Araştırma tanımlayıcı ve kesitsel nitelikte olup, Çukurova Üniversitesi hastanesinin infertilite polikliniğinde tedavi sonucu bebek sahibi olan anneler (n=93) ile yürütülmüştür. Araştırma verileri "Kişisel Bilgi Formu" ve "Edinburgh Doğum Sonrası Depresyon Ölçeği (EDSDÖ)" kullanılarak toplanmıştır. Araştırma verilerinin analizinde, tanımlayıcı istatistikler, Independet T testi, Kruskall Wallis ve Mann Whitney U testleri kullanılmıştır.

Bulgular: Çalışmadaki kadınların EDSDÖ toplam puan ortalaması 18,22± 3,22 ve %94.6' sının postpartum depresyon yönünden risk altında olduğu belirlenmiştir. Annelerin EDSDÖ toplam puan ortalamaları ile sahip olmak istediği bebek cinsiyeti, kaygı yaşama ve eşle sorunları paylaşma değişkenleri arasında istatistiksel olarak anlamlılık saptanmış olup (p<0.05); diğer değişkenlerle istatistiksel olarak anlamlı bir ilişki saptanmamıştır (p>0.05)

Sonuç: İnfertilite tedavisi sonucu bebek sahibi olan annelerin postpartum depresyon yönünden risk altında oldukları saptanmıştır. Tedavi sonucu elde edilmiş gebeliklerin sağlıklı bir biçimde sonuçlanması anneler tarafından çok istekle beklense de postpartum dönem infertil anneler için de risk oluşturmaktadır. Tüm sağlık profesyonellerinin bakım verirken tüm ruhsal değişkenlere yönelik durumlar göz önünde bulundurmalıdır.

Anahtar Kelimeler: İnfertilite, anne sağlığı, postpartum dönem, depresyon, yardımcı üreme teknikleri

Introduction

For women, giving birth is a significant life experience. Mothers' physical and mental experiences from conception through the birth of the child have a substantial impact on them (Hoofmanand Banse,2021; Tianyi et al., 2022), which can result in emotional or mental issues in the postpartum period (Dolatian et al., 2013; Roy-Byrne et al., 2016). Women often experience postpartum depression. Serious intents or behaviors that might injure the mother or infant within the first six weeks of life may negatively impact the child's growth and development (Erdoğan and Hocaoğlu, 2020). The mother goes through changes in her physical, psychological, sexual and social status throughout this time, and she worries about the health of both her and her infant (Sharifipour et al, 2022). In the first year after giving birth, postpartum depression (PPD) is a severe concern for mothers' health globally. PPD in maternity patients aged 12-55 years is designated by the ICD code F53.0 in accordance with the 10th version of the International Classification of Diseases (ICD-10) (Erdoğan and Hocaoğlu, 2022).Worldwide about 10% of pregnant women and 13% of women who have just given birth experience a mental disorder, primarily depression. In developing countries this is even higher, i.e. 15.6% during pregnancy and 19.8% after child birth (WHO, 2024). In one study, this rate was reported as 9% and 51% in Türkiye (Karaçam, 2018).

Since one of the purposes of marriage is perceived as having a child in many societies, reproduction is a cultural, social, and psychological need. Pregnancy after treatment in the infertility process is extremely valuable and precious. The postpartum period can create an atmosphere of anxiety for the infertile couple. Infertile women face many psychological and physical problems while they are holding their babies, which they prayed for, after the treatment process (KoçandKızılkaya, 2016).

Being infertile may bring about the feelings such as low self-esteem, stigma, social isolation, anxiety, depression, obedience, and fatalistic attitudes in many women (Hasanpoor-Azghdy et al., 2014). However, for some of the women who became pregnant after an infertility diagnosis, things did not go well with their conception. The situation may even become more complex. Women described their situation as "identity remaining as infertile, perceiving motherhood as surreal, feeling unprepared for the role of mother, being grateful for being a mother, needing to be a perfect mother, feeling censored, feeling inadequate, feeling lost and helpless, inconsistency between expected and real motherhood, infertility overshadows pregnancy and motherhood, pregnancy causes separation from infertility, and both infertility and pregnancy life coexist" (Ak Sözer, 2021). Mothers may have difficulties in the adaptation process due to the complex reasons they have experienced. This adaptation process can cause them to experience anxiety and then have psychological problems. This psychological situation may become a basis for postpartum depression. If the woman has experienced pregnancy losses in previous treatments, she may face problems such as fear of losing her baby and depression. (Ranjba et al, 2015; Ladores and Aroian, 2015).

It is important that couples who become pregnant after infertility treatment are well monitored by healthcare professionals in terms of depression. Because in women who become pregnant as a result of treatment, the occurrence of pregnancy as a result of a long wait may cause the woman to feel tired, and this may lead to depression (Koç and Kızılkaya, 2016). In addition, women who conceive thanks to the treatment are more likely to experience stress and anxiety than women who conceive naturally. Women who become pregnant with treatment are more concerned about their baby's survival and about a mishap during delivery. Women who became pregnant with the help of treatment have more psychological problems, and psychological support and counseling play an important role in this process (Koç and Kızılkaya, 2016; Demir K, 2022)

In the literature, the results of studies on the postpartum depression risks of women who become pregnant as a result of infertility treatment differ in the literature (Tianyi et al., 2022; Almutairi et al., 2023; Luo et al.,2023; Moya et al.,2023; Ladores and Aroian, 2015). In an auto ethnographic study conducted by Ak-Sözer (2021), in which postpartum depression was evaluated in an infertile mother, it was emphasized that the period in which women need the most support is the postpartum period. Although the participant in Ak Sözer's (2021) study knew about this period in which both physiological and psychological changes occur after birth, she expressed herself as if she had forgotten everything. In addition, the consideration of this process by healthcare professionals for all pregnant women and postpartum mothers emphasizes the importance of closely monitoring psychosocial health.

Every woman is at risk for depression in the postpartum period. However, women who have a baby as a result of treatment are expected to have positive emotions after delivery. Therefore, the risk of depression might be ignored. Therefore, postpartum depression should be screened and related factors should be revealed in individuals who become mothers after treatment. In this study, it was aimed to determine postpartum depression levels and their affecting factors in women who became mothers after assisted reproductive techniques. The results of the study would raise awareness in terms of determining the risks of postpartum depression in mothers who became pregnant as a result of the application of assisted reproductive

techniques. In addition, thanks to this study, midwives, nurses, and physicians serving in the field of infertility may be informed about determining the risks affecting postpartum depression and providing appropriate care for women with these risks.

Research Questions

In the study, answers to the following questions were sought.

Research Question 1: What are the postpartum depression levels of women's who have a baby after the application of assisted reproductive techniques?

Research Question 2: What factors affect the postpartum depression level of women's who have a baby after the application of assisted reproductive techniques?

Methods

Research Design and Objective: The study was conducted in a descriptive cross-sectional type in order to determine postpartum depression levels and their affecting factors in women who became mothers after the application of assisted reproductive techniques in a university's research and training hospital in the Mediterranean region.

Location and Time of the Research: The population of the study consisted of women who conceived with assisted reproductive techniques (ART) in the infertility outpatient clinic of a Cukurova University Hospital located in the Mediterranean region of Türkiye. The sample consisted of women who met the inclusion criteria and agreed to participate in the study.

Inclusion Criteria:
1) Having a healthy baby,
2) Being within the first year after the delivery,
3) Having no communication problems,
4) Having no diagnosed psychiatric history,

Power analysis was performed to calculate the number of samples. In the study, using the GPower 3.1 (http://www.gpower.hhu.de/), Özdemir's (2021) study was taken as a reference, and when effect power is d=0.35 (medium level), α=0.05, and 90% of power, the sample size was calculated as 72. The sample of the study was determined by examining the patient records in the determined polyclinic between February 2018 and September 2022.

In patient records the total number of patients who applied to the hospital for infertility treatment is 235.Of the women who received IVF treatment, 149 had a healthy pregnancy.3 patients had psychiatric problems, 3 women did not know Turkish, 1 person lost their baby, 32 patients could not reach their phones and 17 patients did not want to participate in the study. The study was completed with 93 mothers in order to prevent possible data losses.

Data Collection: "Personal Information Form", which includes the descriptive and obstetric characteristics of infertile women, and the "Edinburgh Postpartum Depression Scale" (EPDS) to evaluate the incidence of postpartum depression and related factors in infertile mothers were used to collect the data. Contact information was obtained from the mothers who became pregnant as a result of the application of assisted reproductive techniques in the infertility outpatient clinic and gave birth in a healthy way. The data were collected on the phone by calling the mothers. Verbal consent was obtained from mothers.

Data Collection Tools

Personal Information Form: It consists of a total of 27 questions, which were prepared by the researchers in line with the literature, including the sociodemographic characteristics of the mothers (age, educational level, family type, etc.), questions about infertility treatment, obstetric characteristics, and psychological status (Almutairi et al., 2023; Luo et al.,2023; Moya et al.,2023; Ladores and Aroian, 2015;Özdemir,2021).

Edinburgh Postpartum Depression Scale (EPDS): The EPDS was developed by Cox et al. (1987), and it was prepared for screening purposes in order to determine the risk of depression in women in the postpartum period. The Edinburgh Postpartum Depression Scale (EPDS) is a 4-point Likert-type scale that is in the form of a self-assessment, and it consists of 10 questions. The answers, each of which consists of four options, are scored between 0 and 3, with the lowest score that can be obtained from the scale 0 and the highest score 30. The scoring of the questions is different from each other, the 3rd, 5th, 6th, 7th, 8th, 9th, and 10th questions are scored as 3-2-1-0, while the 1st, 2nd, and 4th questions are scored as 0-1-2-3. The total score of the scale is obtained by summing the scores of these items. The Turkish validity and reliability study of the scale was performed by Engindeniz in 1996, and Aydın et al. repeated it in 2004. In the two separate validity and reliability studies conducted in Türkiye, the cut-off point was shown to be 12, and people who score 12 points or more are considered as a risk group. In the validity and reliability study of Engindeniz, the internal consistency coefficient of the scale was found to be 0.79, and it was found to be 0.76 in the study of Aydın et al. In this study, it was found to be 0.84.

Data Analysis: SPSS 22 statistical program was used in the analysis of the data. In the significance tests, the significance value was accepted as less than .050. Number, percentage, minimum, maximum, mean, and standard deviation values were used in descriptive statistics. Parametric tests (independent samples t-test) and nonparametric tests (Kruskall Wallis-Mann Whitney U test) were used.

Ethical Considerations: Prior to the conduct of the study, the Ethics Committee Decision (2018/78-62) was obtained from Çukurova University. Verbal consent was obtained from the patients. Every stage of the study was conducted in accordance with the Declaration of Helsinki.

Results

The EPDS total score of the women's is min 7, max 24. The EPDS mean score of the women was determined as 18.22±3.22 (Table 1).

Table 1.
Comparison of Women's EPDS mean scores

	X̄ ±SD	Min	Max
EPDS	18.22± 3.22	7	24

The EPDS total score women's with a cut-off value of 12-restricted intended at risk from postpartum use94.6% of (Table 2).

Statistically significant differences were found between the demographic and obstetric characteristics of the women's and the EPDS mean score and the desired baby gender (*p*<.05); no statistically significant relationships were found with other variables (*p*>.05) (Table 3).

Table 2.
Distribution of postpartum depression risk when women's mean EPDS score is taken as the cut-off point of 12

EPDS	n	%
0-11 score (no risk)	5	5.4
12 over score (There is a risk)	88	94.6

93.5% of the women's received support during the postpartum period, 32.3% of them received support from their mothers, 96.8% of them did not have any mental illness history, 6.5% of them had a relative who had a mental illness history, 94.6% of them stated that motherhood itself means feelings of happiness and excitement. It is seen that 63.4% of the participants experience anxiety, 69.9% of them stated that they always share their problems with their spouses, and 31.2% of them stated that they were exposed to bad behaviors in the family.

Table 3.
Findings of the Demographic and Obstetric Characteristics of the Women's and the EPDS Mean Score

Demographic and obstetric characteristics	n	%	EPDS mean ± SS	Test and p value
Age				
24-28	33	35.5	18.09±3.14	
29-33	34	36.6	18.72±3.17	KW =1.974
34-38	24	25.8	17.86±3.21	*p*=.578
39 and above	2	2.2	17.79±3.15	
Education degree				
Literate	4	4.3	14.75±4.34	
Primary School	5	5.4	20.20±1.30	KW =6.109
Bachelor's degrees	47	50.5	17.80±3.69	*p*=.106
Graduate and above	37	39.8	18.86±2.20	
Working status				
Yes	78	83.9	18.14±3.36	MWU =-0.121
No	15	16.1	18.66±2.43	*p*=.903
Spouse's age				
24-30	23	24.7	17.95±3.98	KW =0.818
31-35	36	38.7	18.66±2.59	*p*=.664
>36	34	36.6	17.94±3.30	
Spouse's education status				
Literate	4	4.3	14.75±4.34	
Primary School	5	5.4	20.20±1.30	KW =6.109
Bachelor's degrees	47	50.5	17.80±3.69	*p*=.106
Graduate and above	37	39.8	18.86±2.20	
Occupation				
Officer	60	64.5	18.45±3.20	
Employee	14	15.1	17.00±4.05	KW =6.637
Self-employment	16	17.2	19.00±1.78	*p*=.084
Not working	3	3.2	15.33±3.78	

Where she lives				
Province	54	58.1	17.90±3.05	t=0.558
District	39	41.9	18.86±3.43	p=.457
Income rate				
Bad	47	50.5	18.42±3.35	f=0.019
Middle	46	49.5	18.02±3.10	p=.892
Social security				
Yes	85	91.4	18.35±3.15	MWU =-0.996
No	8	8.6	16.87±3.83	p=.319
How treatment fees are paid				
Own possibilities	20	21.5	17.50±3.23	KW =1.435
Social security	26	28.5	18.61±3.55	p=.488
Some of them are social security	47	50.5	18.31±3.04	
Married time				
1-5 year	28	30.1	18.00±3.55	KW =0.152
6-10 year	43	46.2	18.37±3.02	p=.927
11 year and above	22	23.7	18.22±3.29	
Time to be diagnosed with infertility				
1-5 year	56	60.2	18.12±3.56	
6-10 year	28	30.1	18.39±2.71	KW =0.034
11 year and above	9	9.7	18.33±2.69	p=.983
Infertility treatment time				
1-5 year	60	64.5	18.03±3.47	
6-10 year	26	28.0	18.42±2.80	KW =0.664
11 year and above	7	7.5	19.14±2.47	p=.717
Cause of infertility				
Woman	27	29.0	18.25±3.47	
Male	31	33.3	18.45±3.03	KW =0.629
Both of them	13	14.0	18.00±2.79	p=.890
Unexplained infertility	22	23.7	18.00±3.58	
Type of treatment applied				
IVF	40	43.0	18.10±3.50	t =0.000
IVF and vaccination	53	57.0	18.32±3.02	p=.995
Previous pregnancy				
Yes	29	31.2	17.86±3.95	MWU =-0.075
No	64	68.8	18.39±2.85	p=.940
Type of birth				
Normal	12	12.9	18.83±2.69	MWU =-0.538
Caesarean section	81	87.1	18.13±3.30	p=.590
Baby's gender				
Male	35	37.6	17.94±3.20	KW =3.488
Girl	42	45.2	18.02±3.33	p=.175
Multiple pregnancy	16	17.2	19.37±2.89	
Baby gender she wants to have				
Male	16	17.2	15.75±4.28	KW =14.908
Girl	22	23.7	17.50±3.46	*p*=.001
It doesn't matter	55	59.1	19.23±2.21	
t= Independent Samples testi , KW=Kruskall Wallis testi, MWU=Mann Whitney U testi.				

Statistically significant differences were found between the other characteristics of the mothers and the EPDS mean score and the variables of experiencing anxiety and sharing problems with their spouses (*p*<.05); no statistically significant relationships were found with other variables (*p*>.05) (Table 4).

Discussion

In the current study, the results of EPDS of women's who gave birth after the application of assisted reproductive techniques were discussed in line with the literature. Considering the EPDS mean score of the women's, it can be said that almost all of the infertile mothers have a moderate

risk of postpartum depression. When the studies in the literature are examined, the results of the studies differ. The studies of Huang et al (2020), Kamışlı et al (2021), and Ghaedrahmat et al (2018) are similar to the results of the present study and it was reported that pregnancy with the application of ART increases the frequency of postpartum depression. In a study by Özdemir (2021), in which postpartum depression levels of ART-induced and spontaneously pregnant women were evaluated, no statistically significant difference was found among women in terms of the incidence of depression. In the study of Barber and Steinberg (2022), no significant relationship was found that being pregnant as a result of infertility treatment increases the risk of postpartum depression. Contrary to the present study's results, in the study of Sevenson et al. (2019), it was observed that receiving infertility treatment had no effect on the incidence of depression in mothers. In a cohort study by Malling et al. (2021), in which women between 1995 and 2009 evaluated the use of any antidepressant for depression in the postpartum period, no conclusion was reached that whether being pregnant with ART increases the use of antidepressants. In Muruganandam, Shanmugam, and Ramachandran's (2020) study evaluating the prevalence of postpartum depression in women who became pregnant as a result of infertility treatment, no statistically significant difference was found. In the study of Tianyi et al. (2022), which was conducted with 235.127 women between 1991 and 2013, examining the incidence of depression in the postpartum 12 months of women who became pregnant as a result of treatment and spontaneously, it was determined that receiving treatment did not affect the incidence of depression.

Table 4.
Findings of the Other Variables of the Women's and the EPDS Mean Score

Other variables	n	%	Mean ± SD	Test and p value
Getting support in baby care				
Yes	87	93.5	18.28±3.24	MWU =-0.924
No	6	6.5	17.33±2.94	*p*=.355
Support person				
None	6	6.5	17.33±2.94	
Mom	30	32.3	18.86±2.52	KW =1.150
Mother-in-law	18	19.4	18.33±3.10	*p*=.765
Relatives	25	26.9	18.04±3.11	
Partner	14	15.1	17.42±4.83	
Mental illness history relatives				
Yes	6	6.5	19.66±2.42	MWU =-1.003
No	87	93.5	18.12±3.25	*p*=.316
What does it mean to be a mother				
Happiness and excitement Fear, inadequacy, uncertainty	88	94.6	18.27±3.09	MWU =-0.508
	5	5.4	17.40±5.50	*p*=.612
Experience anxiety				
Yes	59	63.4	17.33±3.55	t =10.898
No	34	36.6	19.76±1.72	***p*=.001**
Share their problems with spouses				
Yes, always	65	69.9	19.00±2.80	KW =15.216
Often	25	26.9	16.48±3.30	***p*=.002**
Never share	3	3.2	16.00±5.56	
Exposed to bad behaviors in the family				
Yes, always	5	5.4	17.60±5.98	KW =8.926
Often	24	25.8	16.83±3.37	*p*=.063
None	64	68.8	18.79±2.76	
t= Independent Samples testi , KW=Kruskall Wallis testi, MWU=Mann Whitney U testi				

In the studies of Simoni et al. (2022) and Joelsson et al. (2017), no significant difference was found in terms of the prevalence of depression between spontaneous pregnancy and ART-induced pregnancy. In a cohort study conducted by Dayan et al. (2022) between 2006 and 2014, it was reported that becoming pregnant as a result of treatment increased the incidence of In our study, the high incidence of postpartum depression in women was due to the patriarchal structure of society; in this context, it is thought that perceiving the infertility problem as trouble resulting from women, even if it is not caused by women, creates a greater burden on mothers in the postpartum period. In addition, it can be argued that all the moral and material resources spent for years to have a baby with great effort, the inability to care for the child enough, and the possibility of feeling hopeless due to the fear of losing the baby may have increased the incidence of depression in women. These results are interpreted as the need for further research to evaluate postpartum depression in mothers who became mothers after the application of ART.

In the present study, a significant relationship was found between the gender of the baby that the mothers wanted to have and the incidence of postpartum depression. Other studies' results in the literature differ. In the systematic review of Ahmad, Alkhatip, and Luo (2021), it was found that the gender of the baby affects postpartum depression.In a systematic review conducted by Ay et al (2018) between 2000 and 2017, in which the factors affecting postpartum depression were determined, it was found that the gender of the baby affected postpartum depression in 28.2% of the cases and in 41.1% of the cases it did not indicate a relationship with gender.In the studies conducted by Tahaoğlu et al (2015) and Taştekne (2019) with women with spontaneous pregnancies, it was determined that gender did not affect postpartum depression. Even if women do not express an opinion about gender during pregnancy, there is a gender they want to have in this process. When the stress caused by ART and the thoughts about whether the process will end in a healthy way are added, it is thought that gender selection is effective. It can be said that another reason why there are different results regarding gender in the literature is related to different societies and cultural structures.

In the current study, a significant relationship was found between receiving spousal support and the risk of postpartum depression in infertile mothers. It was determined that women who receive spousal support have a higher risk of postpartum depression. This finding contradicts with the literature. In the studies conducted by Civan and Beydağ (2023) and Armini and Tristiana (2017), it was determined that women who received spousal support during the postpartum period were easier to adapt to the process. In the study of Adeyemo et al. (2020), it was determined that the risk of postpartum depression is higher in those who do not receive spousal support. In the treatment and post-treatment period of infertility, women generally expect the greatest support from their spouses. It is easier for those with good spousal support to adapt to the postpartum period. It is thought that the difference between the present study's results and the literature is that women do not receive adequate and desired support, and this type of support may be perceived as stress and burden by women, and this situation also increases the severity of depression

Conclusion and Recommendations

The risk of being diagnosed with mental illness within a year after giving birth is somewhat greater in pregnant women with a history of subfertility than in pregnant women without such a history. Although the relationship is small and unlikely to be causative, it may nevertheless be able to pinpoint a population that needs greater monitoring for potential mental health issues. If additional resources should be explored for these people to improve peripartum mental health, that has yet to be decided. Future research should examine whether people planning pregnancies who already have mental illnesses have access to infertility therapies. After infertility treatment, it is necessary to evaluate the pregnant woman in every aspect during pregnancy, especially in terms of psychosocial health. Since women who become pregnant after infertility treatment need support groups to protect their psychosocial health, it is important to provide good information, establish counseling services, and provide services effectively. In order to support the results of the study, it is recommended to expand the sample, make it more comprehensive, conduct it in many centers, repeat it with different scales, and develop a scale that measures postpartum depression levels specific to the individuals who became mothers as a result of infertility treatment.Breastfeeding strengthens the mother-baby bond and is reported to reduce the rate of PPD. In your study, the breastfeeding status of the newborn was not reported. Breastfeeding is reported to strengthen mother-infant bonding and reduce the postpartum depression rate. It is recommended to conduct studies in which breastfeeding and postpartum depression are studied together. In addition, the data of the study were collected once in the postpartum period. It is recommended to repeat the data at different time periods in the postpartum period of women. In addition, studies evaluating postpartum depression in infertile and fertile women together may be conducted in the future.

Limitations of the Study: This study clearly has some limitations. One is that the findings are not generalizable to all women because the study was conducted in only one hospital. The postpartum period is a long process and another limitation of the study is that the data were

collected only once. Another limitation of the study is that only infertile women were included and fertile women were not included. Another limitation is the collection of data by telephone due to the emergence of the COVID-19 pandemic. Another limitation of the study is that it did not include questions about health professionals during pregnancy and postpartum period. The limitations include the fact that women's prenatal care services, participation in childbirth preparation classes, and sources of information about pregnancy were not evaluated.

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Genişletilmiş Özet

Annelerin gebe kalmalarından çocuğun doğumuna kadar geçen sürede yaşadıkları fiziksel ve zihinsel deneyimler, doğum sonrası dönemde duygusal veya zihinsel sorunlara yol açabilecek önemli bir etkiye sahiptir. Kadınlar sıklıkla doğum sonrası depresyonu yaşarlar.Yaşamın ilk 6 haftası içinde anneye veya bebeğe zarar verebilecek ciddi niyetler veya davranışlar çocuğun büyüme ve gelişimini olumsuz etkileyebilir.Anne bu süre boyunca fiziksel, psikolojik, cinsel ve sosyal durumunda değişiklikler yaşar ve hem kendisinin hem de bebeğinin sağlığı konusunda endişelenir.Her kadın doğum sonrası dönemde depresyon riski altındadır.Bu nedenle depresyon riski göz ardı edilebilmektedir.İnfertilite sonrası gebe kalan çiftlerin sağlık çalışanları tarafından depresyon açısından iyi izlenmeleri önemlidir.Çünkü tedavi sonucu gebe kalan kadınlarda uzun bir bekleyiş sonucu gebeliğin oluşması, kadının yorgun düşmesine sebep olabilir ve bu da depresyona yol açabilir.Ayrıca tedaviyle gebe kalan kadınlarda stres ve anksiyeteye doğal yoldan gebe kalan kadınlara göre daha fazla oranda rastlanır.Tedaviyle gebe kalan kadınlar bebeğinin hayatta kalmasına yönelik ve doğum sırasında bir aksilik yaşanacağına dair daha fazla endişe duyar.Tedaviyle gebe kalan kadınlar daha fazla psikolojik sorunlara sahiptir ve bu süreçte psikolojik destek ve danışmanlık önemli rol oynar.Bu nedenle tedavi sonrası anne olan bireylerde doğum sonrası depresyon taranmalı ve ilişkili faktörler ortaya çıkarılmalıdır. Bu çalışmada, yardımcı üreme teknikleri sonrası anne olan kadınlarda doğum sonrası depresyon düzeylerinin ve etkileyen faktörlerin belirlenmesi amaçlanmıştır. Çalışmanın sonuçları, yardımcı üreme tekniklerinin uygulanması sonucu gebe kalan annelerde doğum sonrası depresyon risklerinin belirlenmesi açısından farkındalık yaratacaktır.Ayrıca bu çalışma sayesinde infertilite alanında hizmet veren ebe, hemşire ve hekimler aşağıdaki konularda bilgi sahibi olabilirler. Çalışma, Akdeniz bölgesinde bir üniversitenin eğitim ve araştırma hastanesinde yardımcı üreme teknikleri uygulandıktan sonra anne olan kadınlarda doğum sonrası depresyon düzeylerini ve etkileyen faktörleri belirlemek amacıyla tanımlayıcı kesitsel tipte yapılmıştır. Verilerin toplanmasında infertil kadınların tanımlayıcı ve obstetrik özelliklerini içeren "Kişisel Bilgi Formu" ve infertil annelerde postpartum depresyon sıklığını ve ilişkili faktörleri değerlendirmek için EPDÖ kullanılmıştır.İletişim bilgileri, infertilite polikliniğinde yardımcı üreme teknikleri uygulaması sonucu gebe kalan ve sağlıklı bir şekilde doğum yapan annelerden elde edilmiştir.Veriler telefonla anneler aranarak toplanmıştır.Verilerin değerlendirilmesinde, SPSS 22 istatistik programı kullanılmıştır.Önemlilik testlerinde anlamlılık değeri .050'nin altı kabul edilmiştir. Tanımlayıcı istatistiklerde sayı, yüzde, minimum, maksimum, ortalama ve standart sapma, değerler kullanılmıştır.Parametrik testler ve nonparametrik testleri kullanılmıştır.Annelere veriler toplanmadan önce araştırmanın amacı açıklanarak, gönüllülük ve gizlilik ilkesi doğrultusunda sözel onamları alınmıştır. Kadınların EDSDÖ toplam puan ortalaması ise 18,22± 3,22 olarak belirlenmiştir EDSDÖ puan ortalamasının kesme değeri 12 alındığında kadınların %94.6'sının postpartum depresyon yönünden risk altında olduğu belirlenmiştir.Annelerin demografik ve obstetrik özellikleri ile EDSDÖ toplam puan ortalamaları ile sahip olmak istediği bebek cinsiyeti değişkeni arasında istatistiksel olarak anlamlılık saptanmış olup; diğer değişkenlerle istatistiksel olarak anlamlı bir ilişki saptanmamıştır (p>0.05). Annelerin %93.5'inin postpartum dönemde destek aldığı, %32.3'ünün annesi tarafından destek aldığı, %96.8'inin herhangi bir ruhsal öyküsünün olmadığı, %6.5'inin ailesinde ruhsal öykü olduğu, %94.6'sının anneliğin kendisinde mutluluk ,heyecan duyguları anlamına geldiği, %63.4'ünün kaygı yaşadığı, %69.9'unun eşiyle sorunlarını her zaman paylaştığı, %31.2'sinin ise ailede kötü davranışlara maruz kaldığı görülmektedir. Annelerin diğer özellikleri ile EDSDÖ toplam puan ortalamaları ile kaygı yaşama ve eşle sorunları paylaşma değişkenleri arasında istatistiksel olarak anlamlılık saptanmış olup; diğer değişkenlerle istatistiksel olarak anlamlı bir ilişki saptanmamıştır (p>0.05). Doğumdan sonraki bir yıl içinde ruhsal hastalık tanısı alma riski, subfertilite öyküsü olan gebe kadınlarda, böyle bir öyküsü olmayan gebe kadınlara göre biraz daha yüksektir. Bu ilişki küçük ve nedensel olma olasılığı düşük olsa da, yine de potansiyel ruh sağlığı sorunları açısından daha fazla izlenmesi gereken bir popülasyonu belirleyebilir. Gelecekteki araştırmalar, halihazırda ruhsal hastalıkları olan ve gebelik planlayan kişilerin infertilite tedavilerine erişimi olup olmadığını incelemelidir. İnfertilite tedavisi sonrasında gebelik süresince gebenin her açıdan, özellikle psikososyal sağlık açısından değerlendirilmesi gerekmektedir.İnfertilite tedavisi sonrası gebe kalan kadınlar psikososyal sağlıklarını korumak için destek gruplarına ihtiyaç duyduklarından iyi bilgilendirme yapılması, danışmanlık hizmetlerinin oluşturulması ve hizmetlerin etkin bir şekilde sunulması önemlidir. Çalışmanın sonuçlarının desteklenmesi için örneklemin genişletilmesi, daha kapsamlı hale getirilmesi, çok sayıda merkezde yapılması, farklı ölçeklerle tekrarlanması ve infertilite tedavisi sonucu anne olan bireylere özgü postpartum depresyon düzeylerini ölçen bir ölçek geliştirilmesi önerilmektedir. Emzirmenin anne-bebek bağını güçlendirdiği ve PPD oranını azalttığı bildirilmektedir. Çalışmamızda yenidoğanın emzirme durumu rapor edilmemiştir.Emzirmenin anne-bebek bağını güçlendirdiği ve doğum sonrası depresyon oranını azalttığı bildirilmektedir.Emzirme ve doğum sonrası depresyonun birlikte çalışıldığı çalışmaların yapılması önerilmektedir. Ayrıca çalışmanın verileri doğum sonrası dönemde bir kez toplanmıştır.Verilerin kadınların doğum sonrası dönemlerinde farklı zaman dilimlerinde tekrarlanması önerilmektedir. Ayrıca gelecekte infertil ve fertil kadınlarda postpartum depresyonu birlikte değerlendiren çalışmalar yapılabilir.