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Research Article

# Investigation of the Relationship between Fertility Adjustment and Spousal Support in Women with Infertility

## İnfertil Olan Kadınlarda Fertilite Uyumu Ve Eş Desteği Arasındaki İlişkinin İncelenmesi

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**Abstract**

**Aim:** The study aims to determine the relationship between fertility adjustment and perceived spousal support in women with infertility.

**Material and Methods:** The correlational, descriptive type this research was conducted in eastern Turkey between December 2019 and September 2020. The study sample consisted of infertile women registered in five Family Health Centers, selected by cluster sampling method (n:139). The data were collected using the Participant Information Form prepared by researcher the Fertility Adjustment Scale (FAS), and the Spousal Support Scale. In addition to descriptive statistics, correlation and regression analyses were used in the data analysis.

**Results:** In the study, it was found that the mean score of women in the FAS was 23.30±1.35, and the mean score in the Spousal Support Scale was 65.41±10.41. In the correlation analysis performed between fertility adjustment and spousal support in the study, a negative, weak, but significant relationship was found, and the regression analysis showed that total spousal support, financial support, and appreciation dimension explains fertility adjustment by 11%, 13%, and 10%, respectively ($p<0.001$). In the study, it was found that there was a statistically very weak significant relationship between emotional support, which is one of the sub-dimensions of spousal support, and fertility adjustment, and the regression analysis showed that emotional support explains fertility adjustment by 0.06% ($p<0.05$).

**Conclusion:** In the study, it was found that fertility adaptation increases as spousal support increases, and the advanced analysis showed that spousal support explained fertility adjustment by 11%. It is recommended that counseling activities to be provided to couples should be enriched within this framework.

**Keywords:** Spousal support, fertility adjustment, infertility, women

**Öz**

**Amaç:** Araştırma, infertil olan kadınlarda fertilite uyumu ile algılanan eş desteği arasındaki ilişkiyi belirlemeyi amaçlamaktadır.

**Materyal ve Metot:** İlişkisel, tanımlayıcı tipte olan bu araştırma, Aralık 2019 ile Eylül 2020 tarihleri arasında Türkiye'nin doğusunda yürütülmüştür. Araştırmanın örneklemini, küme örnekleme yöntemiyle seçilen beş Aile Sağlığı Merkezine kayıtlı infertil kadınlar oluşturmuştur (n=139). Veriler, araştırmacı tarafından hazırlanan Katılımcı Bilgi Formu, Fertilite Uyum Ölçeği (FUÖ) ve Eş Desteği Ölçeği kullanılarak toplanmıştır. Verilerin analizinde tanımlayıcı istatistiklerin yanı sıra korelasyon ve regresyon analizleri kullanılmıştır.

**Bulgular:** Araştırmada kadınların FUÖ puan ortalaması 23.30±1.35, Eş Desteği Ölçeği puan ortalaması 65.41±10.41 bulunmuştur. Araştırmada fertilite uyumu ile eş desteği arasında yapılan korelasyon analizinde negatif, zayıf düzeyde anlamlı bir ilişki bulunmuş ve regresyon analizinde eş desteği toplam, maddi destek ve takdir boyutunun fertilite uyumunu sırasıyla %11, %13 ve %10 oranında açıkladığı görülmüştür ($p<0,001$). Çalışmada eş desteğinin alt boyutlarından biri olan duygusal destek ile fertilite uyumu arasında istatistiksel olarak çok zayıf anlamlı bir ilişki olduğu bulunmuş ve yapılan regresyon analizi sonucunda duygusal desteğin doğurganlık uyumunu %0,06 oranında açıkladığı görülmüştür. ($p<0.05$).

**Sonuç:** Çalışmada eş desteği arttıkça fertilite uyumunun arttığı ve yapılan ileri analizlerde eş desteğinin fertilite uyumunu %11 oranında açıkladığı görülmüştür.

**Anahtar Kelimeler:** Eş desteği, fertilite uyumu, infertilite, kadın

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## INTRODUCTION

Infertility is defined as the absence of pregnancy, despite unprotected and regular sexual intercourse of couples of childbearing age for at least one year (1). The incidence of infertility varies among countries, and the incidence reported by the World Health Organization (WHO) is 15% (2). Similarly, in Turkey, 10-20% of couples is believed to be diagnosed with infertility (3,4). Infertility is a period of vital crisis that causes physical, mental, and social problems in couples, as well as affecting the cultural values, beliefs and class aspects of couples (3-6). However, methods and interventional procedures applied in the infertility treatment process can also cause the couple to be affected by the process (7). Treatment methods applied can cause women to experience different emotions, especially. These moods can negatively affect the couple's adherence to treatment and fertility. There are also studies that show that social support is effective in coping with the negative circumstances experienced (8). One of the variables that are believed to help cope with the infertility process is spousal support. Since the infertility process affects both women and men, spousal support becomes extremely important for couples. Spousal support is affected by numerous variables during marriage and is defined as the fact that spouses support each other as needed (9). Studies have shown that perceived spousal support is associated with marital satisfaction (9,10). Infertility can also affect couples' marital relationships. Health professionals who serve and communicate with couples at every stage of the infertility process are midwives and nurses. Therefore, one of the main goals of care is to evaluate couples with a holistic approach and provide care for the problems identified. Looking at the studies conducted, the psychosocial effects of infertility seems to be investigated more often (11,12). It is thought that it will be important for midwives and/or women's health nurses who care for women to evaluate their spouses together when evaluating the infertility problem. However, there was no study in a literature review that investigates the relation of fertility adjustment with spousal support. This study was conducted to investigate the relationship between fertility adjustment and perceived spousal support in women with infertility.

## MATERIAL AND METHOD

This correlational, descriptive type research was conducted in FHCs located in a province in eastern Turkey between December 2019 and September 2020.

### Study Population and Sampling

The study population consisted of infertile women registered in 5 FHCs located in the provincial center, selected by cluster sampling method. The whole study population was studied without performing any sample selection. However, 53 women were excluded from the study since 29 women did not meet the research inclusion criteria, 16 women refused to participate in the study, and 8 women were not available. Thus, the research was completed with 139 females.

The study inclusion criteria

- Living with her partner
- Diagnosed with primary infertility

The study exclusion criteria

- Women who did have any diagnosed psychiatric conditions

Data Collection Instruments: In the study, the data were collected using the Participant Information Form prepared by the researcher, The Fertility Adjustment Scale (FAS), and the Spousal Support Scale.

Participant Information Form: The form contains items to determine the age of women and their spouses, their level of education, family type, income status and the duration of marriage.

Spousal Support Scale: The spousal support scale used to measure the social support that married individuals receive from their spouses was developed by Yıldırım (2004) and its validity and reliability studies were conducted (9). The 27-item 3-point Likert type scale is scored over "Agree", "Somewhat agree", and "Disagree" options. A high score on the scale indicates a higher perceived spousal support from their partner, while a low score indicated lesser perceived spousal support. Analysis results show that the scale consists of four dimensions: emotional support, financial support and information support, appreciation support and social Interest support. Within the scope of the reliability of the scale, the scale's Cronbach's alpha reliability coefficient was found to be .95. The Cronbach's alpha coefficient was calculated as .94 in this study.

Fertility Adjustment Scale: The scale was developed by Glover et al. in 1999 to standardize the measurement of psychological adjustment in infertility (13). The scale was adapted into Turkish by Bilgiç et al. in 2016. The original scale consists of 12 items, and a 10-item structure was obtained as a result of Turkish validity and reliability study (14). The 4-point Likert type scale scored in the range of 10 to 40 points (1- Strongly disagree, 2- Disagree, 3- Agree, 4- Strongly agree). Items are balanced in terms of positive and negative expressions so as not to affect responses. Positive items 1, 4, 7, 8 and 10 are reverse coded. The total score is obtained by scoring on individual items. There is no cutoff point in this scale. The higher scores indicate an insufficient adjustment (7,14). The scale's Cronbach's alpha reliability coefficient was found to be .63 (14). This study Cronbach's alpha coefficient was calculated as .84.

Data Evaluation and Analysis: The data obtained as a result of the study were evaluated in a computer environment using the statistical package for social sciences (SPSS) 22.0 program. In addition to descriptive statistical methods (number, percentage, mean, standard deviation), advanced analysis methods such as pearson correlation

and linear regression analysis were also used to evaluate study data, p<0.05 and p<0.01 were accepted as the level of significance.

## RESULTS

In the study, the mean age of women was 33.71±8.00 years, the mean age of their spouses was 37.94±8.32 years, and the mean duration of marriage was 11.24±8.58 years. Of the females, 38.1% was primary school graduate, and 30.2% of the spouses was high school graduate. Looking at the family type of the women, most of them was living in a nuclear family (Table 1).

**Table 1. Distribution of descriptive characteristics of the participants (n=139)**

| Descriptive characteristics | n | % |
|---|---|---|
| **Educational status** | | |
| Illiterate - Literate | 19 | 13.7 |
| Primary school | 53 | 38.1 |
| Secondary school | 28 | 20.1 |
| High school | 24 | 17.3 |
| University graduate | 15 | 10.8 |
| **Educational Status of the Spouse** | | |
| Illiterate - Literate | 19 | 13.7 |
| Primary school | 53 | 38.1 |
| Secondary school | 28 | 20.1 |
| High school | 24 | 17.3 |
| University graduate | 15 | 10.8 |
| **Income Status** | | |
| Income is higher than expenses | 25 | 18.0 |
| Balanced | 80 | 57.5 |
| Income is lower than expenses | 34 | 24.5 |
| **Family type** | | |
| Nuclear Family | 121 | 87.6 |
| Extended Family | 18 | 12.4 |
| | **X ± Sd / (min –max)** | |
| **Age** | 33.71 ± 8.00/ (20-59) | |
| **Mean age of the spouse** | 37.94 ± 8.32/ (21-63) | |
| **Duration of marriage** | 11.24 ± 8.58/ ( 1- 42) | |

X: Mean, Sd: Standard deviation

It was found that the mean score of women in the Fertility Adjustment Scale was 23.30±1.35, and the mean score in the Spousal Support Scale was 65.41±10.41 (Table 2).

**Table 2. Distribution of average scores that women receive from the fertility adjustment scale and spousal support scale and sub-scales (n=139)**

| Scale | n | % |
|---|---|---|
| **Fertility Adjustment Questionnaire Total** | 19-29 | 23.30 ± 1.35 |
| **Spouse Support Scale sub-scales** | | |
| Emotional support | 9 - 27 | 22.69 ± 4.25 |
| Financial support | 9 - 21 | 17.59 ± 2.65 |
| Appreciation | 10 - 24 | 19.97 ± 3.14 |
| Social Support | 3 - 9 | 7.58 ± 1.53 |
| **Spouse Support Scale Total** | 30 - 78 | 65.41 ± 10.41 |

X: Mean, Sd: Standard deviation

In the correlation analysis performed between fertility adjustment and spousal support in the study, a negative, weak, but significant relationship was found, and the regression analysis showed that spousal support explains fertility adjustment by 11% (p<0.001). In the study, it was found that there was a statistically very weak significant relationship between emotional support, which is one of the sub-dimensions of spousal support, and fertility adjustment, and the regression analysis showed that emotional support explains fertility adjustment by 0.06% (p<0.05). In the study, a statistically significant, but weak relationship was found between fertility adjustment and financial support, which is one of the sub-dimensions of spousal support, and the regression analysis showed that financial support explains fertility adjustment by 13% (p<0.001). In the study, it was found that there was a statistically significant, but weak relationship between fertility adjustment and appreciation, which is one of the sub-dimensions of spousal support, and the regression analysis showed that appreciation explains fertility adjustment by 10% (p<0.001). In the study, a statistically significant, but very weak relationship was found between fertility adjustment and social support, which is one of the sub-dimensions of spousal support, and the regression analysis showed that social support explains fertility adjustment by 0.06% (p<0.05, Table 3).

**Table 3. Explanation of the effect of spousal support level and sub-dimensions on adaptation to fertility through correlation and regression analysis**

| | Fertility Adjustment Questionnaire Total Score | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Regression | | | | | Correlation | | | |
| | R | $R^2$ | β | t | p | df1, df2 | F | r | p |
| Spouse Support Scale Total Score | 0.337 | 0.114 | -0.337 | -4.196 | 0.000** | 1, 137 | 17.608 | -.337 | 0.000** |
| Emotional Support | 0.249 | 0.062 | -0.249 | -3.015 | 0.003* | 1, 137 | 9.090 | -.249 | 0.003* |
| Financial Support | 0.373 | 0.139 | -0.373 | -4.712 | 0.000** | 1, 137 | 22.207 | -.373 | 0.000** |
| Appreciation Support | 0.324 | 0.105 | -0.324 | -4.007 | 0.000** | 1, 137 | 16.055 | -.324 | 0.000** |
| Social Support | 0.255 | 0.065 | -0.255 | -3.088 | 0.002* | 1, 137 | 9.538 | -.255 | 0.002* |

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.001 level (2-tailed)

## DISCUSSION

Infertility is a life crisis affecting couples with its physiological, psychological and socio-cultural dimensions (15). The findings of the study conducted to determine the relationship between fertility adjustment and perceived spousal support in women with infertility were discussed based on the relevant literature.

In the study, it was found that fertility adjustment increases as spousal support increases, and the regression analysis showed that spousal support explains fertility adjustment by 11%. In addition, it was found that the fertility adjustment of infertile women who were appreciated by their partners also increased, and that appreciation explained the fertility adaptation by 10%. As a matter of fact, studies have shown that women experience high levels of depression, despair symptoms, anxiety, loss of self-confidence, and lower quality of life during the infertility treatment, and that these psychiatric symptoms decrease in line with spousal support (16-18). Another study found that infertile women without spousal support experienced more anxiety and depression and were subjected to more stress (19). However, it has been noted that women experience more psychological problems such as anxiety, depression, despair, and decreased self-esteem than men during this difficult process (16, 20). Indeed, in a meta-analysis study conducted by Kiani et al., it was noted that infertile women experience more anxiety than men (12). This has shown that infertility affects women more negatively and therefore women need more support. Given these data, it is believed that women who receive support in the infertility process will experience less psychological disorders such as anxiety, depression, and their fertility adjustment will increase. Indeed, our research result also supports this finding, and it was found that women who received spousal support also had a high fertility adjustment. In addition, one of the main roles that gender perception imposes on women is the childbirth (16). Due to this perception and expectation, infertility has been reported to cause feelings such as decreased self-esteem, feelings of inadequacy and shame (21). For this reason, it is believed that women may experience more anxiety about breaking up with their partners if they cannot have children for a long time. It is therefore assumed that women may need more spousal support in the infertility process.

In the study, it was found that there was a significant relationship between emotional support, which is one of the sub-dimensions of spousal support, and adaptation to fertility. It is obvious that infertility affects both women and men physically, psychologically and socially. However, it has been noted that women are psychologically and emotionally challenged more than men (22). In addition, it was found that men experience fewer depressive symptoms in this process than women (16,18,20). However, a woman may experience more stress due to the inability to fulfill her social role in the form of motherhood/pregnancy, which our society imposes on a woman. In the study of Taşçı et al., (2008), it was found that half of infertile women needs psychological support (23). It is believed that this finding may be due to the negative impact that the traditional structure of Turkish society has on couples. In this case, it is assumed that the support that men will show to their partners will make it easier for them in the transition to a healthier fertility process by ensuring lesser psychological discomfort and increased fertility adjustment.

As a result of our research, it was found that the increase in financial support leads to increase in fertility adjustment, and financial support explains fertility adjustment by 13%. The infertility treatment is a long-lasting, expensive treatment, with unclear treatment outcome, worries infertile couples financially as much as it challenges them emotionally. It is believed that lack of financial means can

also affect the fertilization process (24). Failing treatment outcomes and prolongation of treatment, especially for low-income couples, may mean increased spending and more stress. Indeed, a meta-analysis study conducted by Kiani et al. found that the incidence of anxiety in middle- and low-income infertile women is almost twice as high in women living in high-income countries (12). Another study also found that infertile women with low income level had higher levels of despair (16). However, another study reported that marital adjustment increases in women with high income levels, and social stress associated with depression and infertility decreases (25). It is believed that the reduction of stress will contribute to the positive fertilization process.

In our research, a significant relationship was found between social support, which is one of the sub-dimensions of the spousal support scale, and adaptation to fertility. A study found that symptoms of depression and anxiety were also higher in infertile women who did not have social support (24). A study by Frederiksen et al. found that psychosocial support is effective both in reducing psychological stress and in increasing the chances of pregnancy in infertile couples (26). Another study found that social support in infertile women helps posttraumatic growth (27). Some studies have reported that infertile individuals often feel isolated and alienated and have difficulty accessing social support (28,29). A study has shown that social support is very important in reducing psychosocial problems caused by infertility (22, 30). Another study also reported that perceived social support may be useful in reducing infertility-related psychosocial problems (16). In addition, Karlıdere et al. reported that the frequency of depression and anxiety was higher in infertile women with insufficient social support (22). It is believed that this is due to the fact that social support has a buffer effect against stressors (31). This is thought to be due to the buffering effect of social support against stressors (31). It is thought that the social support that women will receive will play a protective role against all the negative situations they experience during the infertility process.

## CONCLUSION

As a result, infertility is a condition that affects a woman very negatively from a biological, psychological and social point of view. In this difficult life event, it is seen that the support of a woman's partner contributes positively to the adaptation of fertility. It is recommended that midwives and/or women's health nurses who provide care to women should plan training to women and their spouses to increase spousal support regarding the fact that perceived spousal support will facilitate the fertility adjustment process during the infertility. Moreover, it is recommended that counseling activities to be provided to couples should be enriched within this framework.

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***Ethical approval:*** In order to carry out the research, ethical approval was obtained from the Health Sciences Scientific Research and Publication Ethics Committee of the relevant university (No: 2019/48). In addition, before conducting the research, the research permit from the relevant Provincial Health Directorate affiliated to the Ministry of Health (No: E.25981) was obtained. In addition, before the data collection forms were completed, the participants were informed to protect their rights and their written and verbal consent was obtained using the "Informed Consent Form".

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