



## ARAŞTIRMA / RESEARCH

# Dyadic adjustment and hopelessness levels among infertile women

## İnfertil kadınlarda çift uyumu ve umutsuzluk düzeyleri

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### Abstract

**Purpose:** Infertility is a health problem that causes psychological, physiological and social problems such as hopelessness, loneliness, anxiety, depression, social withdrawal, marital maladjustment, divorce etc. This study aims at identifying the relationship between dyadic adjustment and hopelessness among infertile women.

**Materials and Methods:** This study, which is a cross-sectional type study, was carried out at the Infertility outpatient clinics of Sakarya Education and Research Hospital. Research sample consists of 442 infertile women who have accepted to participate in the study. Data was collected with the "Interview Form", "Beck Hopelessness Scale" and "Dyadic Adjustment Scale".

**Results:** Socio-demographic characteristics such as age, family type, residence, chronic illness background and infertility type, affected the hopelessness level of infertile women. A negative relationship was found between the scores of infertile women in the Beck Hopelessness Scale and the Dyadic Adjustment Scale.

**Conclusion:** It can be said that provision of psychological support that improves dyadic adjustment to couples consulting to infertility polyclinics may be useful for continuity of treatment by reducing hopelessness.

**Key words:** infertility, dyadic adjustment, hopelessness

### Öz

**Amaç:** İnfertilite; umutsuzluk, yalnızlık, anksiyete, depresyon, toplumdan çekilme, çiftler arasında uyumsuzluk, boşanma gibi pek çok psikolojik, fizyolojik ve sosyal soruna yol açan bir sağlık sorunudur. Bu çalışmada infertil kadınlar arasında çift uyumu ile umutsuzluk arasındaki ilişkinin belirlenmesi amaçlanmıştır.

**Gereç ve Yöntem:** Kesitsel tipte olan bu çalışma Sakarya Eğitim Araştırma Hastanesi infertilite polikliniğinde gerçekleştirilmiştir. Çalışmanın örneklemini araştırmaya katılmayı kabul eden 442 infertil kadın oluşturmaktadır. Veriler "Görülme Formu", "Beck Umutsuzluk Ölçeği" ve "Çift Uyum Ölçeği" kullanılarak toplanmıştır.

**Bulgular:** Yaş, aile tipi, yaşanılan yer, kronik hastalık öyküsü, infertilite tipi gibi bazı sosyo-demografik özelliklerin infertil kadınlarda umutsuzluk düzeyini etkilediği belirlenmiştir. İnfertil kadınların Beck Umutsuzluk Ölçeğinden ve Çift Uyum Ölçeğinden aldıkları puanlar arasında negatif yönde ilişki olduğu saptanmıştır.

**Sonuç:** İnfertilite polikliniklerine başvuran çiftlere çift uyumunu artırıcı psikolojik desteğin sağlanmasının umutsuzluğu azaltarak tedavinin devamlılığı için yararlı olacağı söylenebilir.

**Anahtar kelimeler:** Çift uyumu, infertilite, umutsuzluk

## INTRODUCTION

Infertility is a health problem with medical, psychiatric, social, cultural, ethical and religious aspects that affects a great number of couples worldwide. Based on the data of the World Health Organization in 2004, it is stated that one in every four couples had been found to be affected by infertility, and similar results have been obtained from the data of 2012<sup>1</sup>. Although it is not very

definite, it is reported in the studies carried out in our country that the prevalence of infertility is 10-15%<sup>2,3</sup>.

The studies conducted have reported that infertile women gave greater physiological reaction than men and that infertility caused more psychiatric problems in women<sup>4,5</sup>. Furthermore, it was found in a study by Al-Homaidan that psychological symptoms among women were more widespread when the cause of infertility was the woman<sup>6</sup>. As it is the case

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in Turkey and also in other cultures where the word “woman” is used synonymously with “mother”, pregnancy and motherhood result in greater respect being given to women and infertility is considered as a loss of status<sup>3,4</sup>.

Infertility results in stress, depression, feeling of worthlessness, guilt, loneliness, social isolation and numerous other problems in individuals and affects future plans, self-esteem, sexual life and marriage relations of the couples<sup>2,3,7,8</sup>. In addition to infertility being a medical condition, it causes serious emotional problems in individuals and marital relations<sup>9</sup>.

After a while, feeling of hopelessness is observed in couples who cannot cope with this situation<sup>10</sup>. Under the light of the above findings, the couples applying for infertility treatment should be evaluated in psychological terms, and the findings of studies to be carried out on this subject will be of importance.

This study aims at contributing to the literature by assessment of the dyadic adjustment level of couples subjected to infertility treatment at Sakarya province.

## MATERIALS AND METHODS

### Sample

This study is a cross-sectional type study. All women applying to the infertility polyclinic of an education and research hospital in Sakarya between 1 March and 1 December 2015 constitute the population of the study. The sample of the study consists of 442 women, between ages 20-45 with infertility diagnosis at the infertility polyclinic, who have been treated at this polyclinic for minimum one month, and who are literate, who do not have communication problems and who agreed to participate in the study.

Study was started after the consent No. 63, dated 27.06.2014, was acquired from the Non-invasive Ethics Committee of Faculty of Medicine of Sakarya University.

### Instrument

The questionnaire form, which was prepared in line with the objective of the study with the use of literature, included scale questions related with certain socio-demographic characteristics of women, certain variables related with infertility, hopelessness and dyadic adjustment<sup>11</sup>. Following verbal informed consent of the individuals constituting the study

group, the questionnaire forms prepared in advance were filled by the researchers with the face to face interview method. Actions were taken in line with the rules set forth in the Helsinki Declaration during the data collection stage.

In this study, women, who were unable to conceive after regular sex in the last one year without using any contraceptive methods, were considered as “infertile”. Those who did not have any prior pregnancies were considered “primary infertile” and those with at least one pregnancy were considered as “secondary infertile”. Women working in an income-generating job is considered as “employed”. Family income status was accepted as poor, medium or good based on the perception of women. Women, living with their spouse or spouse and child at home (secondary infertility), are referred to as “nuclear family”, and those with a physician diagnosed illness are referred to as “having chronic illness.

Beck Hopelessness Scale was used in our study to determine the hopelessness level. This scale was developed by Beck et al. in 1974, and the validity and reliability studies were carried out by Seber et al. in Turkey<sup>12, 13</sup>. The BHS is a self-assessment tool consisting of 20 questions with “yes” and “no” options. The possible total score is between 0 and 20, and the level of hopelessness increases with the increasing total score.

Dyadic adjustment level was evaluated with the Dyadic Adjustment Scale. Dyadic Adjustment Scale, which was developed by Spainer in 1976 to assess the quality of marriages, adjustment and adjustment quality of couples, and adapted to Turkish by Fıfıloğlu and Demir in year 2000, is a 32-item scale that consists of 4 sub-dimensions, which can be used on both married and unmarried couples. Scale is Likert type and the points vary between 0-4; 0-5; and 0-6. Moreover, 2 items are in the form of yes/no questions<sup>14,15</sup>.

### Statistical Analysis

IBM SPSS (version 20.0) statistics package program was used in the assessment of data. In the assessment of factors affecting mean points of the scale Mann-Whitney U-test Kurskal-Wallis tests were used while Spearman U test, Kruskal-Wallis tests were used for analysis in the assessment of the relationship. Statistical significance was accepted as  $p \leq 0.05$ .

## RESULTS

Age of the women in the study group varied between 22-40 years with a mean age of  $29.92 \pm 4.85$ . 267 (60.4%) of women were in the group of 29 years and younger while 175 (39.6%) were in the group of 30 years and older.

The scores obtained by the women in the Beck Hopelessness Scale ranged between 4-9 and the mean score was  $5.30 \pm 1.80$ . Distribution of the mean scores (median) obtained by those in the study group in the Beck Hopelessness Scale by certain socio-demographic characteristics is presented in Table 1.

**Table 1. Comparison of Beck Hopelessness Scale scores in study group with socio-demographic characteristics**

Variable	n	Beck Hopelessness Scale Median (min-max)	Test value z/KW; p	Multiple comparison	p
Age group (year)					
≤29	267	5 (4.0-9.0)	13.378;	-	-
≥30	175	4 (4.0-9.0)	0.000	-	-
Working status					
Not working	322	5 (4.0-9.0)	17.080;	-	-
Working	120	5 (4.0-9.0)	0.043	-	-
Family income status					
Middle	348	5 (4.0-9.0)	4.371;	-	-
High	94	4 (4.0-4.0)	0.000	-	-
Family type					
Nuclear	252	5 (4.0-9.0)	17.091;	-	-
Extended	190	5 (4.0-5.0)	0.000	-	-
Living places					
Town (1)	267	4 (4.0-9.0)	59.347;	1-2	0.000
City (2)	96	5 (5.0-5.0)		3-2	1.000
Metropolis (3)	363	5 (5.0-5.0)		1-3	0.000
Chronic disease					
No	428	5 (4.0-9.0)	1.211;	-	-
Yes	14	4 (4.0-4.0)	0.000	-	-
Total	442	5 (4.0-9.0)	-	-	-

Marriage term of the women in the study group varied between 2-18 years with a mean of  $6.48 \pm 3.03$  years. 57.0% (n=252) of the cases were with primary infertility. Number of women who had undergone infertility treatment previously were 270 (61.1%).

Distribution of mean scores (median) of women from the Beck Hopelessness Scale by certain characteristics related with marriage term and infertility condition is given in Table 2.

**Table 2. Comparison of Beck Hopelessness Scale scores in study group with infertility and marriage variables**

Variable	n	Beck Hopelessness Scale Median (min-max)	Test value z/KW; p	Multiple comparison	p
Marriage term (year)					
≤4 (1)	154	9 (5.0-9.0)	236.710;	3-1	0.000
5-9 (2)	250	4 (4.0-9.0)		3-2	0.196
≥10 (3)	38	4 (3.0-5.0)		1-2	0.000
Infertility treatment					
No	172	4 (4.0-5.0)	15.589;	-	-
Yes	270	5 (4.0-9.0)	0.000	-	-
Infertility type					
Primary	252	5 (4.0-9.0)	17.091;	-	-
Secondary	190	5 (4.0-5.0)	0.000	-	-
Total	442	5 (4.0-9.0)	-	-	-

The score of the “Dyadic Adjustment” sub-dimension of the Dyadic Adjustment Scale of women in this study varied between 35-48 with a mean score of  $42.90 \pm 5.01$ ; the scores of the “Dyadic Satisfaction” sub-dimension varied between 26-32 with a mean score of  $28.45 \pm 5.01$ ; the scores of the “Affectional Expression” sub-dimension varied between 9-12 with a mean score of

$10.40 \pm 1.18$ ; and the scores of Dyadic Cohesion varied between 11-21 with a mean score of  $16.13 \pm 3.33$ . General score of the Dyadic Adjustment Scale varied between 87-108 with the mean score being found as  $97.89 \pm 8.61$ . Correlation results of the mean scores of women from the Beck Hopelessness Scale and Dyadic Adjustment Scale sub-dimensions are presented in Table 3.

**Table 3. Correlation of Beck Hopelessness Scale and Dyadic Adjustment Scale sub-dimensions**

Dyadic Adjustment Scale subscale	Beck Hopelessness Scale	
	r	p
Dyadic Consensus Subscale	-0.037	0.432
Dyadic Satisfaction Subscale	0.589	0.000
Dyadic Cohesion Subscale	0.542	0.000
Affectional Expression Subscale	-0.505	0.000

A negative relationship was found between the scores of infertile women from the Beck Hopelessness Scale and the Dyadic Adjustment Scale ( $r = -0.243$ ;  $p = 0.000$ ).

## DISCUSSION

Infertility is a crisis situation that is difficult to cope with<sup>16</sup>. It leads to numerous psychological, physiological and social problems such as hopelessness, anxiety, depression, lack of self-confidence, withdrawal from the society, divorce etc.<sup>16,17</sup>. Hopelessness is an important problem in infertile women and many socio-demographic characteristics like education age, economic situation, education level etc. affect it. It was found in our study that the hopelessness level of those who are aged under 29 is greater than that of those over 30 ( $z/KW = 13.378$ ;  $p = 0.000$ ) as it is the case with those having a marriage term of less than 5 years being greater than those over 5 years ( $z/KW = 236.710$ ;  $p = 0.000$ ). This gives the impression that women adapt to their infertility condition as they get older and as their marriage term increases, and that their hopelessness level is reduced accordingly.

In addition to its psychological impacts on the families, infertility also brings a great burden on the economy of couples. How the infertile women consider their income levels was inquired in our study and it was found that the hopelessness level of those perceiving their income level as medium was higher than those who perceived it as good ( $z/KW = 4.371$ ;  $p = 0.000$ ). In a study by Ünal et al.

conducted in 2010, it was found that those who had a poor income status were psychologically affected at a higher rate from infertility compared to those with a medium and good income<sup>18</sup>.

Our study revealed that those who have an extended family have a significantly lower level of hopelessness compared to those with a nuclear family ( $z/KW = 17.091$ ;  $p = 0.000$ ) just like the case with those living in subprovinces compared to those in metropolitan cities and the city ( $z/KW = 59.347$ ;  $p = 0.000$ ). It is known that, notwithstanding its cause, level of hopelessness, stress and anxiety decreases as the social support increases<sup>19,20</sup>. Moreover, it was found that family support resulted in reduction of the infertility stress in infertile women<sup>21</sup>. We can say that the relations are intimate among individuals with extended families and individuals living in small settlements and that cohesion and social support is increased, which in turn reduces the feeling of hopelessness. Need for social support varies between the sexes. It is reported in literature that women express their feelings more than men and that women feel the need for greater social support<sup>4</sup>. Considering that our study group consists of women, it is expected that the hopelessness level will be higher in those with a nuclear family and those living in cities and metropolitan cities, where the relations are much more limited. On the other hand, the Beck Hopelessness Scale scores of those who have been treated for infertility previously are significantly higher than those who not been treated ( $z/KW = 15.589$ ;  $p = 0.000$ ). Previous infertility treatment of individuals without success results in

experiencing severe level of hopelessness. Primary infertility refers to inability to become pregnant while secondary infertility refers to occurrence of pregnancy at any time in the past<sup>2</sup>. We can conclude from this study that women with primary infertility have a greater level of hopelessness than women with secondary infertility. Psychological problems such as hopelessness, depression, loneliness etc. are seen frequently in infertile individuals. In the study of Gökler et al., the loneliness level of women with primary infertility is found to be significantly higher than the loneliness level of women with secondary infertility<sup>3</sup>. Feeling of loneliness is associated as it entails the notions of hopelessness and unhappiness<sup>22</sup>. In studies conducted with different populations, it has been found that hopelessness and loneliness are associated, and that loneliness increased with the increase in hopelessness<sup>23,24</sup>. Under the light of the above information, it is natural to expect that women with primary infertility will think that they will be unable to conceive as they had never been able to conceive in the past.

Infertility is an important health problem that affects the couples in social, cultural and psychological terms<sup>9</sup>. Examination of the studies conducted on the subject reveals that there are studies that report positive effects of infertility on the marriage relationship of couples along with studies indicating that it disrupts the marriage relationship of couples<sup>5,10</sup>. We have found in our study that hopelessness increased as the dyadic adjustment decreased ( $r=-0.243$ ;  $p=0.000$ ). There are studies in literature reporting that support of the spouse is very important for infertile women and even that women needed the other supports less when spouse support was sufficient and that they manage their lives and activities more effectively during the infertility treatment process<sup>21,25</sup>. Based on the above information, we can say that spouse support and dyadic adjustment is important in addition to the social support from the close environment, and that couples with high dyadic adjustment experienced lower level of hopelessness.

The fact that the study is carried out only with women and only in one province, and determination of the dyadic adjustment with a scale constitute the limitations of our study.

It was determined in this study that certain socio-demographic characteristics such as age, perception of income situation, family type, etc. affected the hopelessness level of infertile women. It can be said

that increase of dyadic adjustment will reduce hopelessness and thus, provision of psychological support that improves dyadic adjustment to couples consulting to infertility polyclinics may be useful for continuity of treatment by reducing hopelessness.

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