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The relationship between gender perception levels and infertility distress of infertile women in a university hospital, Turkey

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Abstract

Purpose – This study was conducted to analyze the correlation between gender perception and infertility distress of infertile women.

Design/methodology/approach – This was a descriptive-analytical study conducted with 255 women receiving treatment in the in vitro fertilization unit of a medical faculty hospital in Turkey. Study data were collected using sociodemographic questions as well as the Perception of Gender Scale (PGS) and the Infertility Distress Scale (IDS).

Findings – It was found that the PGS mean score was 69.65 and the IDS mean score was 53.1. It was determined that there was a negative, moderate and significant correlation between gender perception and infertility distress levels of women in the infertility treatment process ($r = -0.263$, $p < 0.001$).

Originality/value – As a result of the study, a negative, moderate, significant correlation was detected between gender perception and infertility distress.

Keywords Infertility, Turkish women, Gender, Infertility distress

Paper type Research paper

Introduction

Gender is a social value that may change over time, from culture to culture and even from family to family, and is related to sociocultural values created by individuals that can be altered [1]. The society in which individuals live determines how women and men should act in certain circumstances [2]. According to gender roles, the most important duty of a man is to make a living for his family while on the other hand, the most important duty of a woman is to raise her children and maintain family life [3].

Infertility is a global problem affecting women's health in a variety of ways [4]. It is a great life crisis causing serious psychological problems and negative experiences [5–7]. Indeed, infertility has a significant negative impact on the psychological and emotional well-being of both men and women [8]. Several studies on this topic have underlined that the inability to have a biological child is considered to be a personal tragedy and is described as an experience that induces stress both in the individual and in the couple [8]. Individuals affected

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by infertility might report loss of self-esteem, sexual distress or stress, depression, guilt, anxiety, frustration, emotional distress and relationship problems with their partners [8].

Although both genders are emotionally affected by infertility, women suffer from greater distress and pressure [7,9,10]. Infertility can be a sudden and unexpected situation in a woman's life and causes unexpected changes in relationships with family and the community [11]. Having a child is associated with the culture [12]. It is well-known that women without children are excluded, stigmatized and exposed to discrimination in many cultures [13–15]. In some cultures, infertile women are stigmatized as "fruitless trees" or "barren lands" [13]. From this point of view, being a mother is perceived as the most important and natural consequence of being a woman in traditional/patriarchal cultures [14,16]. In many societies, infertility is considered to be not only a health problem but also a deficiency in women [17,18]. For example, in Cameroon, a woman's status and value are measured by her fertility. Cameroonian women without children are usually abandoned by their husbands and have to struggle to live alone [19]. In Turkish culture, "motherhood" which is synonymous with "womanhood" is considered as a natural consequence of marriage, a means of gaining social status and proving oneself and is perceived as an important factor for a person to have authority within the family [20]. In tradition-bound regions of Turkey, infertility is not perceived as a health problem but as the woman's mistake, deficiency or a shameful and humiliating condition [20,21]. Studies conducted in Turkey have reported that failure to bear children results in loss of status, stigmatization and social isolation for Turkish women [9,14,20,21].

Parents transfer gender roles and social norms to their children commencing from their birth. For individuals who grow up with these cultural transfers, infertile women will fail to meet the motherhood expectations of society and be exposed to social pressure [14]. Social pressure increases infertility distress [4,22]. Some studies have indicated that distress has a significant effect on the success of infertility treatment [23–25]. In a study by Gourounti *et al.* [26], it was stated that increased distress during treatment negatively affected pregnancy rates. Thus, distress negatively affects the success rates of women's treatments. It is thought that the underlying cause of social pressure, which is one of the most important factors increasing distress, is the concept of gender. However, there are no studies in the literature analyzing the correlation between infertility and the concept of gender which is the primary reason for social pressure on infertile women. Knowledge of the correlation between gender and infertility will contribute to the revelation and prevention of social pressure on infertile women because social pressure causes not only distress during the infertility and treatment process but also behavioral and psychological problems which make the treatment of infertile women even harder for healthcare professionals [26]. Therefore, it is believed that the determination of a gender perception, that may develop psychopathology in infertile women and complicate their adaptation, can offer appropriate ways of coping to women. This study aimed to examine the correlation between gender perception and infertility distress of infertile women.

Material and methods

Study design and setting

This is a descriptive cross-sectional study conducted in the infertility and in vitro fertilization clinic of a university hospital in Turkey.

Participants

The study population consisted of women diagnosed with primary infertility associated with female factors and applied to the infertility outpatient clinic of a medical faculty hospital in Eastern Turkey between August 1, 2017 and August 1, 2018. The study sample was composed of women who agreed to participate in the study, were at least literate, and had no

prior clinical diagnosis of any mental illness. The women were included in the study after being diagnosed with infertility associated with female factors as a result of evaluations following their admission to the infertility outpatient clinic. In Turkey, couples are required to be officially married in order to commence infertility treatment. Thus, marital status was not specifically indicated in the sample characteristics.

Design

Throughout the study, 354 women who were diagnosed with primary infertility associated with female factors and receiving treatment in the clinics where the study was conducted were invited to the study. 27 of these women were not included because they refused to participate in the study, 45 were not literate and 32 had been clinically diagnosed with a mental illness. The study was therefore completed with 255 infertile women participants.

In this study, power analyses were performed using G-Power software, version 3.1.9.4 [27]. Based on the mean scores and standard deviations from the scales calculated from the sample, post hoc and influence quantity were measured using a *t*-test. Following the results obtained from the study, post hoc was measured as 80%, $\alpha = 0.05$, and influence quantity was measured as 0.52 in the calculation based on the mean score from the acceptance of the Infertility Distress Scale (IDS), thus resulting in a sample size of 100. To enhance the reliability of the study, 255 infertile women who were contacted at the time of the study and met the inclusion criteria constituted the final sample total. At the end of the study, the effect size was 0.97 and the power of the study was calculated as 0.99.

Measures

Study data were collected using a personal information form including the descriptive characteristics of infertile women, Perception of Gender Scale (PGS) and IDS as well as the interview questions after making the necessary explanations to the women included in the study.

Perception of Gender Scale

Developed for measuring gender perception of adults, the PGS consists of a total of 25 items. The PGS whose validity and reliability test was conducted by Altınova and Duyan [28] includes 10 positive and 15 negative items. In the scale rated with the 5-point Likert scale, the participants are asked to express their opinions as; "Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1)". Accordingly, the lowest and highest scores from the scale were 25 and 125, respectively, with high scores indicating positive gender perception. The scale had only one subscale and the alpha reliability coefficient was 0.872.

Infertility Distress Scale

Developed by Akyuz *et al.* [29]; the scale inquired about how individuals felt about infertility as well as their mood. It consisted of a total of 21 items including 16 straight-scored and 5 reverse-scored items. Reversed items were items 3, 10, 13, 14 and 21. The scale was rated on the 4-point Likert scale. While positive items were scored from 1: never to 4: always, negative items are scored vice versa. The lowest and highest scores to be obtained from the scale were 21 and 84, respectively. The scale had no cut-off point. High scores indicated high infertility distress. In addition, the scale had no subscale. The reliability coefficient of scale item scores was determined as 0.93 [29].

Data analysis

The data were evaluated using SPSS 16.0 packaged software. Tests were used to evaluate the data, percentage distribution, and mean were used to analyze the descriptive characteristics

of individuals, and Pearson's correlation analysis was used to determine the correlation between the mean scores of PGS and IDS. *p*-value was accepted as <0.05 for the statistical significance.

Ethical considerations

In order to implement the study, ethical approval was gained from the Dicle University Medical Faculty Non-Invasive Clinical Trials Ethics Committee (17.04.2017), permission from the head physician of the hospital where the study was conducted, and written consent from the patients who participated in the study were obtained.

Results

General characteristics

Table 1 presents the sociodemographic characteristics of the women participating in the study. It was determined that the average age of participants was 34 ± 5.26 years, 29.8% were high school graduates, 54.1% were employed, 55.3% had middle income, 89% had social security and 69% lived in a city center.

Infertility-related characteristics of women

Table 2 shows the infertility-related data of women participating in the study. It was determined that the women's average duration of infertility diagnosis was 7.18 years and the average duration of treatment was 4.66 months. In addition, the *in vitro* fertilization-Embryo transfer (IVF-ET) method was applied to 70.6% of the women.

Sociodemographic characteristics	*n* (%)	%
Age ($\bar{x}$±SD)	34.0 ± 5.26	
Educational background		
Literate	25	9.8
Primary school	44	17.3
Secondary school	73	28.6
High school	76	29.8
University and higher	37	14.5
Working condition		
Employed	138	54.1
Unemployed	117	45.9
Income status		
Low	52	20.4
Middle	141	55.3
High	62	24.3
Presence of social security		
Available	227	89.0
N/A	28	11.0
Residence place		
Village	25	9.8
Town	54	21.2
City center	176	69.0

Table 1. Socio-demographic characteristics of the women ($N = 255$)

The correlation between gender perception and infertility distress of infertile women

While the PGS mean score was 69.65, the IDS mean score was 53.1. A negative correlation was found between the PGS score and the IDS score (Table 3). It was determined that there was a negative, moderate and significant correlation between gender perception and infertility distress levels of the women receiving infertility treatment ($r = -0.263$, $p < 0.001$). As the gender perception of the women receiving infertility treatment increased, their infertility distress levels decreased.

Discussion

In many countries, failure to have children causes women to be stigmatized as "infertile", resulting in rejection by their society and family members, and exposure to extreme social pressure. Consequently, women's communication and interaction with their environment decreases, marital relationships gradually become unstable, the family bonds break down and marriages might end up in divorce [4].

It was found that as the gender perception of women receiving infertility treatment increased, their infertility distress levels decreased. In a qualitative study by Gonzalez, women stated that they felt stigmatized because they were unable to fulfill the roles required by social norms [30]. In another study, it was reported that women living in the United States felt the social pressure to have children. In this study, it was observed that the most important problem underlined by the infertile women was "the sense of inadequacy in fulfilling social norms". It was found that the failure to fulfill social norms caused individual identity conflicts and the women assessed it as a threat to their identities. These threats caused women to feel distressed [31]. In the study conducted by Guz *et al.* in Turkey; it was reported that anxiety and depression were encountered more frequently in women facing social pressure [20]. These results support the results of the present study.

Women's gender roles have been identified according to their maternal characteristics. Women who are invested in gender roles consider infertility as a failure and thus may experience more distress in case of infertility experiences. The results of some studies state that the multifaceted impact of infertility on women's health increases even further during the

Table 2. Infertility-related characteristics of the women ($N = 255$)

Characteristics	*n* (%)
Duration of diagnosis (year; $\bar{x} \pm$SD)	7.18 ± 3.67
Duration of treatment (month; ±SD)	4.66 ± 3.38
Treatment type	
In vitro fertilization-Embryo transfer (IVF-ET)	180(70.6)
Ovulation induction (drug therapy)	53(208)
Artificial insemination (AI)	13(5.1)
Ovulation induction (drug therapy)+AI	7(2.7)
Ovulation induction (drug therapy)+ IVF-ET	2(0.8)

Table 3. The correlation between gender perception and infertility distress of infertile women ($N = 255$)

Scale	$\bar{x} \pm$ SSD	Perception of Gender Scale (PGS)	Infertility Distress Scale (IDS)
PGS	69.65 ± 8.03	–	*−263**
IDS	53.19 ± 6.73	*−263**	–

Note(s): *Pearson correlation: $p < 0.05$ (two-tailed test)

treatment process [32,33] and infertility leads to distress and consequently impairs the quality of life [34]. Embracing the distress caused by gender perception and developing appropriate interventions will enable women to overcome this process in a healthier manner and have a higher chance of treatment success.

Conclusion

Gender perception affects infertility distress. Women with higher gender perception are less affected by infertility. According to these results; given that infertility is the most challenging crisis faced by infertile couples throughout their lives, especially by women, it is recommended that a collaboration between psychiatrists and reproductive health clinical specialists could improve the situation. Through such a collaboration, it would be possible to determine the gender perception levels in a psychosocial evaluation and develop appropriate interventions for the related distress. Through such a collaboration, it would also be possible to conduct consultancy services in infertility treatment centers for women to realize the impact of gender perception while coping with infertility and intervene in the gender perception faced by women in society with national action plans.

Conflict of interest: There is no conflict of interest.

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