



Gender Differences in Self-Efficacy, Resilience, and Social Support among Infertile Iranian Couples: A Dyadic Approach

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Dear Editor-in-Chief

Infertility is a common health problem recognized worldwide by WHO and affects about 9% of reproductive-age couples (1). Infertility has been known to cause negative psychological, social, and emotional distress worldwide especially in developing countries like Iran. Most often cited consequences of infertility are depression, anxiety, stigma, sexual dysfunction, marital dissatisfaction, and impaired quality of life (2). This study aimed to examine the gender differences in self-efficacy, resilience, and social support among infertile Iranian couples using a dyadic approach. We performed this cross-sectional study on couples with infertility undergoing fertility treatment in Royan Institute, Tehran, Iran during Aug and Sep 2017. Self-efficacy, resilience, and social support were measured using the Infertility Self-Efficacy Scale (ISE) (3), 10-item Connor-Davidson Resilience Scale (CD-RISC-10) (4), and Multidimensional Scale of Perceived Social Support (MSPSS) (5), respectively. A paired *t*-test was used to examine the gender differences in study variables. Furthermore, Cohen's *d*, which estimated the magnitude of the difference was calculated. Cohen's *d* values of 0.2, 0.5 and 0.8 corre-

spond to small, medium and large effect size, respectively. Data analysis was carried out using IBM SPSS Statistics for Windows, ver. 22.0 (IBM Corp., Armonk, NY, USA).

Overall, 180 couples with infertility participated in this study. The wives, on average, were 3.77 yr younger than their husbands ($P < 0.001$), but had a similar education level as their husbands ($P = 1.000$). The mean duration of infertility was 4.83 (SD=3.61) (Table 1). The gender differences in self-efficacy, resilience, and social support of infertile couples are presented in Table 2. Wives reported lower level of infertility self-efficacy ($P < 0.001$, Cohen's $d = 0.47$) and resilience ($P < 0.001$, Cohen's $d = 0.47$) and higher level of social support ($P = 0.006$, Cohen's $d = 0.21$) compared to their husbands. Similar results were also observed for MSPSS subscales, except for Friend subscale ($P = 0.369$, Cohen's $d = 0.07$). These differences indicate that women may be more considerably affected than men by infertility problem. These findings are in line with previous studies (6, 7).



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Clinicians should consider these gender differences when designing psychosocial interventions

and support systems for infertile couples.

Table 1: Demographic and clinical characteristics of the men and women dyads (n=180 couples)

<i>Variable</i>	<i>Male</i>	<i>Female</i>	<i>Test statistic</i>	<i>P</i>
Age (yr)	34.31 ± 5.01	30.54 ± 5.39	$t_{(179)}=11.94$	<0.001
Educational level			$\chi^2_{(1)}=0$	1.000
Non-academic	96 (53.3)	95 (52.8)		
Academic	84 (46.7)	85 (47.2)		
Duration of infertility (years)	4.83 ± 3.61	-		
Cause of infertility				
Male factor	81 (45.0)	-		
Female factor	31 (17.2)	-		
Both	23 (12.8)	-		
Unexplained	45 (25.0)	-		
Failure of previous treatment				
No	95 (52.8)	-		
Yes	85 (47.2)	-		
History of abortion				
No	140 (77.8)	-		
Yes	40 (22.2)	-		
Type of infertility				
Primary	134 (74.4)	-		
Secondary	46 (25.6)	-		

Values are given as number (percentage) for categorical variables and as mean ± standard deviation for continuous variables

Table 2: Gender differences in self-efficacy, resilience, and social support among infertile Iranian couples

<i>Scales and Subscales</i>	<i>Gender</i>		<i>t</i>	<i>P</i>	<i>Cohen's d</i>
	Male	Female			
ISE	105.69 (22.89)	91.58 (22.81)	6.34	<0.001	0.47
MSPSS	57.08 (14.50)	60.81 (13.87)	-2.81	0.006	0.21
Family	20.13 (6.04)	21.86 (5.18)	3.44	0.001	0.26
Friends	15.62 (6.98)	16.23 (6.96)	0.90	0.369	0.07
Significant Other	21.33 (5.50)	22.72 (4.86)	-2.78	0.006	0.21
CD-RISC-10	28.25 (7.49)	23.47 (7.61)	6.24	<0.001	0.47

ISE: Infertility Self-Efficacy Scale; CD-RISC-10: 10-item Connor-Davidson Resilience Scale; MSPSS: Multidimensional Scale of Perceived Social Support

Values are given as mean (standard deviation)

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Conflict of interest

The authors have no conflicts of interest.

References

1. Boivin J, Bunting L, Collins JA, et al (2007). International estimates of infertility prevalence and treatment-seeking: potential need and demand for infertility medical care. *Hum Reprod*, 22(6):1506-12.
2. Schmidt L (2009). Social and psychological consequences of infertility and assisted reproduction—what are the research priorities? *Hum Fertil (Camb)*, 12(1):14-20.
3. Cousineau TM, Green TC, Corsini EA, et al (2006). Development and validation of the Infertility Self-Efficacy scale. *Fertil Steril*, 85(6):1684-96.
4. Campbell-Sills L, Stein MB (2007). Psychometric analysis and refinement of the Connor–Davidson resilience scale (CD-RISC): validation of a 10-item measure of resilience. *J Trauma Stress*, 20(6):1019-28.
5. Zimet GD, Dahlem NW, Zimet SG, Farley GK (1988). The multidimensional scale of perceived social support. *J Pers Assess*, 52:30-41.
6. Maroufizadeh S, Ghaheri A, Almasi-Hashiani A, et al (2018). The prevalence of anxiety and depression among people with infertility referring to Royan Institute in Tehran, Iran: A cross-sectional questionnaire study. *Middle East Fertil Soc J*, 23(2):103-6.
7. Omani-Samani R, Ghaheri A, Navid B, et al (2018). Prevalence of generalized anxiety disorder and its related factors among infertile patients in Iran: a cross-sectional study. *Health Qual Life Outcomes*, 16(1):129.