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(RESEARCH ARTICLE)

Self-efficacy, perceived social support and fertility related problems among women with primary infertility: A cross- sectional study from a tertiary care hospital in south India

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Abstract

Background: Infertility in women is a stressful experience and a critical period. Social support plays a key role in how an individual adjusts to a life crisis that ultimately affects their self-efficacy.

Objectives: The study aimed to assess the Self-efficacy, Perceived Social support and fertility related stress among women with primary Infertility.

Methodology: Using quantitative approach, a descriptive design was used to collect data from 150 samples using convenience sampling technique after getting informed consent. The respondents were asked to fill questionnaires on general self-efficacy scale, multidimensional scale of perceived social support and fertility problem stress scale which are standardized and validated tools and data was analyzed using descriptive statistics, correlation and chi-square in SPSS 17.0.

Results: High fertility related stress 78% was in personal domain and 64.7% in social domain. There is a significant positive correlation between perceived social support and self-efficacy ($r = 0.046$, $p < 0.05$), negative correlation between self-efficacy and fertilityrelated stress ($r = -1.92$; $p<0.05$). There was also significant association between self-efficacy, social support ($p<0.05$) and fertility related stress with selected demographic and clinical variables.

Conclusion: Women with primary infertility experienced high self-efficacy and social support. Infertility stressful situation can influence on personal control, self-efficacy and social support therefore nurses must have the confidence and skills required to perform treatment process, provide psychological and family centered care directed toward improving their quality of life.

Keywords: Self efficacy; Social support; Fertility related stress; Primary infertility

1. Introduction

Infertility is a huge psychological burden on infertile couples. Infertility experience is different for men and women. The inability to conceive a child is experienced as a stressful situation by women all around the world. Many women perceive motherhood to be a central component of identity that enhances life satisfaction. Difficulties in conceiving lead to stress and subjects the women to contempt and exploitation resulting in severe psychological and physical trauma affecting her physical, mental and social health (1)

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These feelings of distress, sometimes combined with an experienced lack of social support, may result in several physiological and psychological symptoms of distress, such as health complaints, depression, anxiety and even complicated bereavement. (2) (3) (2) Research has shown that this experienced distress is greater for women than for men. (4)

When infertility occurs, the whole family becomes involved and uses social resources to deal with the infertility related stress. The importance of social support in helping women to deal with fertility treatment has also been highlighted.(5) Social support from families, friends and significant others should be critical to help individuals with infertility. Social support can considerably reduce one's feeling of abandonment, strengthen coping skills, modify views and habits towards treatment. Lack of social support leads to low self-efficacy in women who is undergoing infertility.

Self-efficacy refers to an individual's confidence on his or her ability to achieve a task or goal – the stronger people's self-efficacy is, the greater the effort they will exert to achieve their desired goal. (6) Because perceived self-efficacy enables an individual to manage selfcare, make correct decisions influencing their health and exhibit behavior consistent with these decisions, it is a key concept in nursing(7). Cousineau et al., 2006 assert that perceived self-efficacy also influences women's abilities to cope with infertility.(8) It has been determined that infertility, together with its treatment processes, decreases perceived self-efficacy in women (9) (9)

Infertility in women is a stressful experience and a critical period. By losing the chance to become pregnant, women's level of psychological distress and anguish increases and their psychological well-being decreases. Globally 1.9% women are affected by primary infertility and 10.5% women are affected by secondary infertility between the age group of 20-44 years (10)

Berg, Wilson, & Weingartner, (1991) found tension, depression, anger, decrease in sexual functioning, mood disturbances, cognitive disturbances expressed in excessive worrying and a tendency for self-blame, low energy level, and overeating are frequent responses in infertile couples. (11) Leiblum, (1993) found infertility to be a serious source of stress and anxiety that causes the couple to feel offended, lower body image, and decreases psychological and financial resources.(12) When it comes to social support, women who don't undergo treatment perceives less support than those who undergo treatment for infertility. It cannot be excluded that social relations place another burden on couples struggling with infertility. Infertile women feel social pressure to have a biological child. People struggling with childlessness very often internalize social norms and stigmatize themselves for not having a child (13).

Fertility- problem stress was found to have a stronger negative impact on a women's sense of sexual identity and self-efficacy than on a man's. (13) Psychosocial support programmes increase perceptions of self-efficacy, adjustment levels and psychosocial well-being of women with infertility. (8) Thus, health professionals should explore the quality of social networks and encourage seeking positive support from family and partners. Findings suggest it might prove useful for counselors to use coping skills training interventions, by retaining active-avoidance coping into meaning-based and active-confronting strategies. (5) Nursing care of women with infertility should address their physiological, psychological, emotional and social needs. So, investigator felt the need for exploring about the needs and problems of the women with infertility.

2. Methodology

2.1. Study type and setting

A Quantitative, descriptive design was used. The study was undertaken in Christian Medical College, Vellore. The Christian Medical College, Vellore is a tertiary care center for providing multi- specialty health services. It is a 2964 bedded hospital. The study is conducted in Reproductive Medicine Unit. The Unit has general and private consultancies which functions every Tuesday and Friday of the week and follow up clinic that functions from Monday to Saturday which is attended by 50 to 60 patients on an average.

2.2. Sampling and sample size

A total of 150 women with primary infertility were included in this study, Convenience sampling technique was used in selecting the samples. The inclusion criteria were Women who are diagnosed with primary infertility, who can read and understand English, Bengali, Tamil, Telugu and Hindi and the Exclusion criteria Pregnant women who are coming for follow up and Women with secondary infertility. The instruments used in the study were general self-efficacy scale, multidimensional scale of perceived social support and fertility problem stress scale which are standardized and validated tools.

3. Results

Table 1 Distribution of women with primary infertility based on socio-demographic variables (n= 150)

Socio-demographic variables	Mean	Std Deviation	Frequency	Percentage
Age(years)	28.79	4.76		
18-25			38	25.3
26-30			56	37.3
31-35			43	28.7
36-40			13	8.7
Education				
Primary			7	4.7
High school			31	20.7
Higher secondary			33	22.0
Graduate			50	33.3
Post graduate			29	19.3
Occupation				
Employed			30	20
Home maker			120	80
Place of residence				
Urban			90	60
Rural			60	40
Religion				
Christian			14	9.3
Muslim			20	13.3
Hindu			115	76.7
Others			1	0.7
Type of family				
Nuclear			71	47.3
Joint			79	52.7
Monthly income(rupees)				
<2000			2	1.3
2000-5000			13	8.7
5001-10000			49	32.7
>10000			86	57.3
Years of marriage				
1-2			16	10.7
2-4			36	24.0
4-6			41	27.3
>6			57	38.0

Table 1 shows that 37.3% were in the age group of 26 - 30 years. Most of them (33.3%) of them have had graduate education, a great number (80%) of them were homemakers and belonged to Hindu religion (76.7%). Most of them reside in urban area (60%) and were living in joint family (52.7%). Majority (38%) of them were married for more than 6 years. Majority of subjects (57.3%) had monthly income of >Rs. 10,000.

Table 2 Distribution of women with primary infertility based on clinical variables (n= 150)

Clinical variables	**Frequency**	**Percentage**
Duration of infertility(years)		
<2	16	10.7
2-4	36	24.0
4-6	41	27.3
>6	57	38.0
Duration of infertility treatment (years)		
1-2	46	30.7
2-5	62	41.3
>5	42	28.0
Etiology of infertility		
Male factor	44	29.3
Female factor	46	30.7
Both	44	29.3
Unexplained	16	10.7
Co-morbidity affecting fertility		
Diabetes mellitus	6	4.0
Diabetes mellitus and Hypothyroidism	1	0.7
Hypothyroidism	24	16.0
Pituitary adenoma	1	0.7
Nil	118	78.6
Previous treatment for infertility		
Yes	134	89.3
No	16	10.7

Table 2 depicts that 38% of women had infertility with duration of more than 6 years and maximum subjects took treatment for infertility for 2- 5 years (41.3%). The cause of infertility was mainly due to female factor (30.7%). Most of them didn't have any co-morbidity affecting fertility (78.6%) and a great number of them had previously treated for infertility (89.3%).

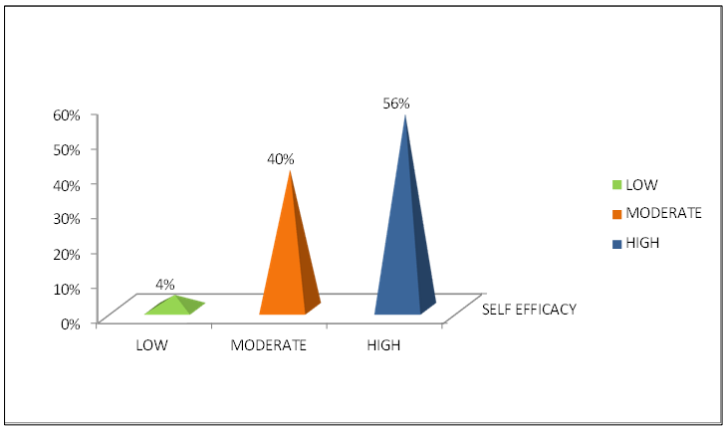

Figure 1 Distribution of level of self-efficacy among women with primary infertility (n=150)

Figure 1 shows that maximum number of the women 84 (56%) with primary infertility had high self-efficacy.

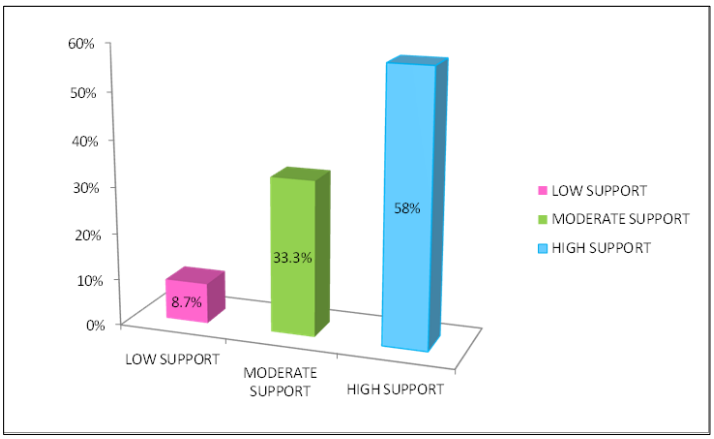

Figure 2 Distribution of level of perceived social support among women with primary infertility (n =150**)**

Figure 2 shows that most of the women 87 (58%) with primary infertility have high social support.

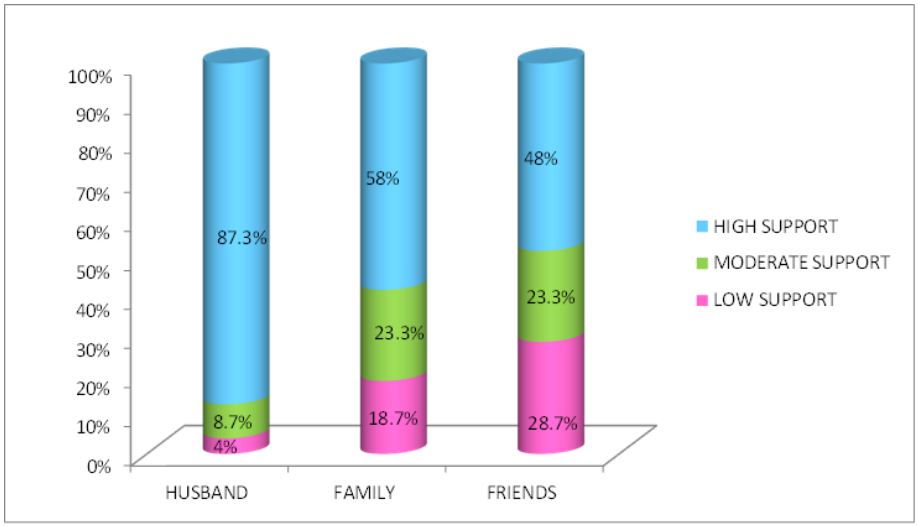

Figure 3 Distribution of level of perceived social support from husband, family and friends among women with primary infertility (n =150)

Figure 3 shows that a great number of women received high support from husband 131 (87.3%) and family 87(58%).

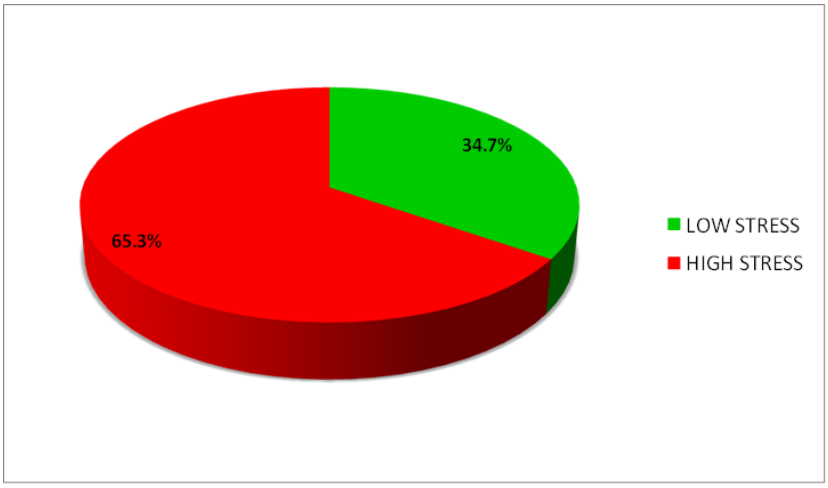

Figure 4 Distribution of level of fertility related stress among women with primary infertility (n =150)

Figure 4 shows that majority of the women 98 (65.3%) with primary infertility has high fertility related stress.

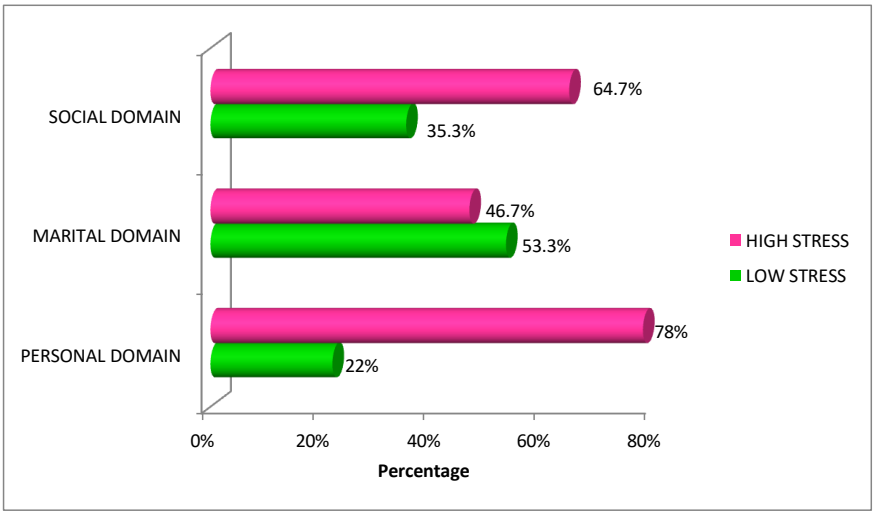

Figure 5 Distribution of level of fertility related stress in personal, marital and social domain among women with primary infertility (n =150)

Figure 5 shows that a great number of the women have high fertility related stress in (78%) personal and (64.7%) social domain. Most of them have (46.7%) low fertility related stress in marital domain.

Table 3 Correlation of perceived social support and self-efficacy with fertility related stress

Variables	**Perceived social support**		**Self-efficacy**	
	Spearman's correlation coefficient	***p value***	***Spearman's correlation coefficient***	***p value***
Personal	-0.182	0.026*	-1.92	0.018*
Marital	-0.173	0.034*	-0.223	0.006*
Social	-0.156	0.057*	-0.115	0.163

Note: *p<0.05, ** p<0.005, ***p<0.001 statistically significant.

Table 3 shows that there is a statistically significant weak negative correlation between perceived social support and personal domain (r = -0.182; p<0.05), marital domain (r = -0.173; p<0.05) and social domain (r = -0.156; p<0.05) of fertility related stress. There is a statistically significant strong negative correlation between self-efficacy and personal

domain of fertility related stress (r = -1.92; p<0.05). There is a statistically significant weak negative correlation between self-efficacy and fertility related marital domain (r = -0.223; p<0.05) and social domain (r = -0.115; p = 0.163).

Table 4 Association of self-efficacy with selected socio-demographic variables among women with primary infertility (n=150)

Variables	**Low**		**Moderate**		**High**		**Total (n)**	**χ^2**	**P Value**
Education	n	%	n	%	n	%			
Primary	2	28.6	3	42.8	2	28.6	7	15.148	0.056*
High school	2	6.4	10	32.3	19	61.3	31		
Higher secondary	2	6.1	15	45.5	16	48.4	33		
Graduate	-	-	18	36	32	64	50		
Post graduate	-	-	14	48.3	15	51.7	29		

Note: *p<0.05 statistically significant

Table 4 shows that there is a significant association between self-efficacy and socio- demographic variables such as education (p= 0.056) of women with primary infertility.

Table 5 Association of perceived social support with selected socio-demographic variables among women with primary infertility (n= 150)

Variables	**Low**		**Moderate**		**High**		**Total**	**χ^2**	**P Value**
Years of marriage (years)	**n**	**%**	**n**	**%**	**n**	**%**	**(n)**		
1-2	1	6.2	3	18.8	12	75	16	13.352[b]	0.038*
2-4	4	11.1	11	30.6	21	58.3	36		
4-6	1	2.4	10	24.4	30	73.2	41		
>6	7	12.3	26	45.6	24	42.1	57		

Note: *p<0.05 statistically significant

Table 5 shows that there is a significant association between perceived social support and demographic variable such as years of marriage (p<0.05) of women with primary infertility.

Table 6 Association fertility related stress with selected clinical variables among women with primary infertility (n= 150)

Variables	**Low**		**High**		**Total (n)**	**χ^2**	**P Value**
Previous treatment for infertility	**n**	**%**	**n**	**%**			
Yes	43	32.1	91	67.9	134	3.684[a]	0.055*
No	9	56.3	7	43.7	16		

Note: *p<0.05 statistically significant.

Table 6 shows that there is a significant association between fertility related stress and clinical variables such as previous treatment for infertility (p=0.055) of women with primary infertility.

Table 7 shows that there is significant difference in mean between personal domain (p < 0.005), marital domain (p<0.005), social domain (p<0.001) of fertility problem stress scale with previous treatment of infertility among women with primary infertility.

Table 7 Comparison of fertility related stress with socio demographic and clinical variables among women with primary infertility using independent t- test

Variables	**n**	**Personal domain**		**Marital domain**		**Social domain**	
Clinical variables *Previous treatment for infertility*		**Mean ±SD**	**p - value**	**Mean ±SD**	**p - value**	**Mean ±SD**	**p-value**
Yes	134	13.34±5.36	0.004**	4.07±3.97	0.005**	5.67±3.69	0.000***
No	16	9.88±3.94		1.88±2.50		2.81±2.16	

Note: *p < 0.05, ** p<0.005, ***p<0.001 statistically significant.

Table 8 Comparison of self- efficacy with socio demographic and clinical variables among women with primary infertility using ANOVA test (n= 150)

Variables	**Self-efficacy**		**F - value**	**p- value**
Education	**n**	**Mean ±SD**		
Primary	7	25.57±7.67	3.996	0.004*
High school	31	31.29±6.06		
Higher secondary	33	28.85±4.06		
Graduate	50	32.06±4.77		
Postgraduate	29	30.48±3.67		

Note: *p < 0.05, *p<0.001 statistically significant.

Table 8 shows that there is significant difference in mean between education (p <0.05) with self-efficacy among women with primary infertility.

Table 9 Comparison of perceived social support with socio demographic and clinical variables among women with primary infertility using ANOVA test (n= 150)

Variables	**Perceived social support**		**F - value**	**p- value**
Socio demographic variables	**n**	**Mean ±SD**		
Education			3.697	0.007*
Primary	7	3.51±1.97		
High school	31	5.33±1.20		
Higher secondary	33	5.13±1.38		
Graduate	50	5.54±1.28		
Postgraduate	29	5.16±1.34		
Monthly income (Rupees)			2.847	0.040*
<2000	2	3.87±3.83		
2000-5000	13	4.50±1.67		
5001-10000	49	5.11±1.40		
>10000	86	5.46±1.22		
Years of marriage (years)			6.079	0.001***
1-2	16	5.55±1.12		

2-4	36	5.20±1.47		
4-6	41	5.85±1.03		
>6	57	4.73±1.44		
Clinical variables				
Duration of infertility (years)			6.079	0.001***
<2	16	5.55±1.12		
2-4	36	5.20±1.47		
4-6	41	5.85±1.03		
>6	57	4.73±1.44		
Duration of infertility treatment			6.166	0.003**
(years)				
1-2	46	5.40±1.22		
2-5	62	5.53±1.31		
> 5	42	4.63±1.48		
Etiology of infertility			2.541	0.059*
Male factor	44	5.52±1.28		
Female factor	46	4.90±1.56		
Both	44	5.11±1.35		
Unexplained	16	5.79±0.87		

Note: *p < 0.05, ** p<0.005, ***p<0.001 statistically significant.

Table 9 shows that there is significant difference in mean between education (p <0.05), monthly income (p < 0.05), years of marriage (p < 0.005), duration of infertility (p < 0.001), duration of infertility treatment (p<0.001) and etiology of infertility (p < 0.05) with perceived social support among women with primary infertility.

Table 10 Comparison of fertility related stress with socio demographic and clinical variables among women with primary infertility using ANOVA test (n= 150)

Variables	**n**	**Personal domain**		**Marital domain**		**Social domain**	
Clinical variables		**Mean ±SD**	**p- value**	**Mean±SD**	**p- value**	**Mean±SD**	**p-value**
Duration of infertility (years)							
<2	16	11.44±4.91		2.88±3.50		4.44±2.98	
2-4	36	12.00±5.29	0.041*	2.92±3.41	0.158	5.36±3.65	0.611
4-6	41	12.24±5.76		3.98±3.67		5.17±3.96	
>6	57	14.53±4.86		4.60±4.33		5.77±3.66	
Duration of infertility treatment (years)							
1-2	46	11.24±5.01	0.000**	2.91±3.30	0.113	4.91±3.65	0.123
2-5	62	12.44±5.71		4.15±3.92		5.05±3.70	
> 5	42	15.64±3.98		4.40±4.35		6.33±3.52	
Etiology of infertility							
Male factor	44	13.16±4.61		3.55±3.78		5.27±3.71	
Female factor	46	12.63±5.71	0.787	3.61±3.39	0.798	5.91±3.06	0.610

Both	44	13.45±5.64		4.25±4.33		5.16±4.12	
Unexplained	16	12.06±5.40		4.19±4.52		4.63±3.96	

Note: *p < 0.05, **p<0.001 statistically significant.

Table 10 shows that there is significant difference in mean between years of marriage (p < 0.05) and duration of infertility (p<0.001) treatment with personal domain of fertility problem stress scale among women with primary infertility.

4. Discussion

This study was primarily aimed at identifying self-efficacy, perceived social support and fertility related stress among women with primary infertility. A descriptive approach was used. The study was conducted for a period of 6 weeks in the Reproductive Medicine Unit of Christian Medical College, Vellore with a sample size of 150. Data was collected by using a self-administered questionnaire from the subjects by employing convenience sampling technique. Data was analyzed using appropriate descriptive and inferential statistics using SPSS version 17.0.

4.1. Description of sociodemographic and clinical variables

The mean age of the study subjects was 28.79±4.76 years, with minimum age of 19 years and maximum age of 40 years. Investigator found that majority i.e. 37.3% of subjects were in the age group of 26-30 years. The demographics were almost similar to the prevalence of primary infertility were 1.9% were affected between the age group of 20-44years(10). 33.3% of them were graduates, 80% of them were homemakers, 38% of them were married for more than 6 years and had 57.3% monthly income of > Rs. 10,000. 38% of women had infertility with duration of more than 6 years and maximum subjects took treatment for infertility for 2- 5 years (41.3%). The cause of infertility was mainly due to female factor (30.7%). Most of them didn't have any co-morbidity affecting fertility (49.3%) and a great number of them had previously been treated for infertility (89.3%).

The first objective of this study was to assess self-efficacy, perceived social support and fertility related stress among women with primary infertility.

In the present study, factor like education of the women has improved the self-efficacy. The mean general self-efficacy score was found to be 30.59 ± 5.2 and the analysis of the levels of self-efficacy revealed that 6 (4%) had low self-efficacy, 60 (40%) had moderate self-efficacy and 84 (56%) had high self-efficacy. In a study done by Faramarzi et al., 2014 on A Survey of Correlation Infertility Self-Efficacy with Behavioral Health Scales in Infertile Women were most of participants did have totally high self-efficacy (53.9%), 41.6% had moderate self-efficacy and only 4.5% had low self-efficacy.(14)

The mean score for social support in this present study was 5.24±1.38. Further analysis revealed that 13 (8.7%) of the study participant with infertility has low social support, 50 (33.3%) of them had moderate social support and 87 (58%) of them had high social support.

Also analyses of the perceived social support domains revealed that the mean scores of each domain (Husband, family and friend's domain) were 6.33 ± 1.34, 4.97 ±1.99 and 4.47 ± 2.23 respectively. The findings depict that husband domain has highest mean among other domains related to social support which can be attributed to the fact that many women had a supportive and intimate relationship with their husbands. This finding is evident were 131 (87.3%) of them had high social support from their husbands, only 13 (8.7%) had moderate social support and 6 (4%) had low social support from their husbands respectively. In present study most of the participants expressed that their husbands are the only person who supports them in any situation in life and this is evident from the response that the participant made on the perceived social support scale were 114 (76%) of them very strongly agreed that "My husband is a real source of comfort to me" and 113 (75.3%) of them very strongly agreed that "My husband is there in my life who cares about my feelings".

The family domain findings mean were lesser than husband domain because most the women expressed that they don't get enough support from their in-law's family and most of them were accused for their inability to produce children. This finding is evident in this study that 87 (58%) of them got high social support, 35 (23.3%) had moderate social support and 28 (18.7%) of them had low social support from their families respectively. In present study only 57 (38%) of them very strongly agreed that "I get the emotional help and support I need from my family."

The friends' domain has the least score of mean comparing the other domains of perceived social support, and this could be attributed to the fact that many of the women loose contact with their friends after marriage where family becomes priority to them due to the cultural practices followed in our society, which could lead in low friend support. This finding is evident were only 72 (48%) of them had high friends support, 35 (23.3%) of them had moderate friend support and 43 (28.7%) of them had low friend support respectively. In present study the response made by the participants on perceived social support scale revealed that 40 (26.7%) very strongly disagreed that "My friends really try to help me."

Further analysis of the fertility problem stress scale domains revealed that the mean score of each domain (personal, marital and social) were 12.97 ± 5.32, 3.84 ± 3.89 and 5.37 ± 3.66 respectively. The findings depict that personal domain has the highest mean among other domains related to fertility related stress which can be attributed to the fact that infertility has produced stress which affects their physical and mental health. This finding is evident were 117 (78%) of them had high stress and 33 (22%) of them had low stress in personal domain, this is evident from the response that the participants made on the fertility problem stress scale, were 71 (47.3%) of them strongly agreed that "My life has been disturbed because of this fertility problem" and 83 (55.3%) of them strongly agreed that "It is very stressful for me to deal with this fertility problem."

The social domain mean was lesser than personal mean due to adequate social support from their family, friends and workmates and lesser stress than personal domain. This finding is evident were 97 (64.7%) of them had high stress and 53 (35.3%) of them had low stress in social domain. This is evident from the response that the participants made on the fertility problem stress scale, were 62 (41.3%) of them expressed that they have no stress with their relationship with their families and 64 (42.7%) of them expressed that they have no stress with their relationship with their friends.

The marital domains stress scale reveals the least amount of stress experienced by the infertility women which can be due to high social support they receive from their husbands. This finding is evident were 80 (53.3%) of them had low stress and 70 (46.7%) of them had high stress in marital domain. This is evident from the response that the participants made on the fertility problem stress scale were 119 (79.3%) of them strongly disagree that "The childlessness has caused thoughts about divorce" and 73 (48.7%) of them strongly disagreed that "The childlessness has caused crisis in our relationship".

The second objective of this study was to find relationship between self-efficacy, perceived social support and fertility related stress among women with primary infertility.

The present study brought into light that there is a significant positive correlation between perceived social support and self-efficacy of the study participants ($r = 0.046$; $p < 0.05$). It indicates that, with increased social support, self-efficacy increases. Further analysis of the domains of the fertility stress scale and perceived social support scale reveals that there is a weak negative correlation between perceived social support and the domains of fertility related stress ($r = -0.182$: $p<0.05$). There is a significant correlation between fertility problem stress domains and perceived social support ($p<0.05$). This finding is in accordance with the results of study done by Martins, Peterson, Almeida, & Costa, 2011 on direct and indirect effects of perceived social support on women's infertility-related stress among 213 couples reveals that partner support was negatively associated with two infertility stress domains, namely relationship stress and sexual stress. The analysis also indicated a negative relationship between family support and infertility social stress.(15)

Analysis of the self-efficacy and fertility stress scale reveals that there is a statistically significant strong negative correlation between self-efficacy and personal domain of fertility related stress ($r= -1.92$; $p<0.05$). There is a statistically significant weak negative correlation between self-efficacy and fertility related marital ($r = - 0.223$; $p<0.05$) and social domain ($r= -0.115$; $p = 0.163$). This finding is in accordance with the result of a study done by Faramarzi et al., 2014 on A survey of correlation infertility self-efficacy with behavioral health scales in Infertile women showed the negative correlation between ISE and some of dimensions of Fertility Problem Inventory (FPI) such as social, marital, and sexual concerns. The infertile women with higher ISE score had the less social and marital concerns.(14)

Thus, my study findings support the hypothesis that there exists a significant relationship between self-efficacy, perceived social support and fertility related stress among women with primary infertility.

The third objective of this study was determining association between self-efficacy, perceived social support and fertility related stress with selected socio- demographic and clinical variables among women with primary infertility.

4.1.1. Self-efficacy with selected socio demographic and clinical variables

Analysis of socio demographic variables with respect to self-efficacy reveals that there is significant difference in self-efficacy among women with primary infertility in relation to their education ($p < 0.05$). Self-efficacy was found to be highest (64%) among graduate women.

4.1.2. Perceived social support with selected socio demographic and clinical variables

Analysis of socio demographic variables with respect to perceived social support reveals that there is significant difference in social support among women with primary infertility in relation to their years of marriage ($p < 0.05$). Social support was found to be highest (75%) among women who were married for 1-2 years.

Further analysis also revealed that there is a significant association between perceived social support and clinical variables such as duration of infertility ($p = 0.038$) of women with primary infertility. Social support was highest (75%) among women with duration of infertility of less than 2 years.

4.1.3. Fertility related stress with selected socio demographic and clinical variables

Analysis of clinical variables with fertility related stress reveals that there is a significant difference in fertility related stress among women with primary infertility in relation to their previous treatment for infertility ($p<0.05$). Fertility related stress was found to be high (67.9%) among women who a had previous history of infertility treatment.

4.2. Analysis by comparison of means using independent t- test

4.2.1. Fertility related stress and socio-demographic and clinical variables

Analysis by comparing the means score of personal, marital and social domain of fertility stress scale reveals that there is significant difference in mean between personal domain ($p < 0.005$), marital domain ($p<0.005$), social domain ($p<0.001$) of fertility problem stress with previous treatment of infertility among women with primary infertility. The analysis reveals that there is high stress among women who had previous treatment for infertility in personal domain (13.34 ± 5.36), marital domain (4.07 ± 3.97) and social domain (5.67 ± 3.69) respectively.

4.3. Analysis by comparison of means using ANOVA

4.3.1. Self-efficacy and socio-demographic and clinical variables

Analysis by comparing the mean score of self-efficacy with socio demographic and clinical variables reveals that there is significant difference in mean between education ($p < 0.05$) with self-efficacy among women with primary infertility. These findings were contradicting by the study findings done by Faramarzi et al., (2014) on A Survey of Correlation Infertility Self-Efficacy with Behavioral Health Scales in Infertile Women reveals that self-efficacy is high among the women who completed graduate education (32.06 ± 4.77). The employed infertile women had twice higher self-efficacy than unemployed women (62.7% vs 37.9%) and those who lived in the city had a higher level of confidence (75% vs. 53%). The infertile women with older age, higher education, and the more duration of infertility had the lower self-efficacy.(14)

4.3.2. Perceived social support and socio-demographic and clinical variables

Analysis by comparing the mean score of perceived social support with socio demographic and clinical variables reveals that there is significant difference in mean between education ($p < 0.05$), monthly income ($p < 0.05$), years of marriage ($p < 0.005$), duration of infertility ($p < 0.001$), duration of infertility treatment ($p<0.001$) and etiology of infertility ($p < 0.05$) with perceived social support among women with primary infertility.

A further analysis reveals that there is high social support among the women who completed graduate education (5.54 ± 1.28) and monthly income of above Rs.10,000 (5.46 ± 1.22), years of marriage and duration of infertility between 4-6 years (5.85 ± 1.03). Women who had unexplained infertility had higher social support (5.79 ± 0.87) and those took infertility treatment for 2-5 years (5.53 ± 1.31) respectively.

4.3.3. Fertility related stress and socio-demographic and clinical variables

Analysis by comparing the mean score of fertility related stress with socio demographic and clinical variables reveals that there is significant difference in mean between years of marriage ($p < 0.05$), duration of infertility ($p < 0.05$) and duration of infertility ($p<0.001$) treatment with personal domain of fertility stress scale among women with primary infertility.

A further analysis reveals that there is high stress among women with primary infertility who is married for more than 6 years and who has infertility for more than 6 years (14.53 ± 4.86) in personal domain of fertility stress scale. Women who took treatment for infertility for more than 5 years (15.64 ± 3.98) had high stress in personal domain and it was highly statistically significant ($p<0.001$). There is no statistically significant difference in mean between other socio-demographic and clinical variables with marital and social domains of fertility stress scale.

Thus, my study findings support the hypothesis that there exists a significant association between self-efficacy, perceived social support and fertility related stress with selected socio- demographic and clinical variables among women with primary infertility.

5. Conclusion

Women with primary infertility experienced high self-efficacy and social support. Infertility stressful situation can influence on personal control, self-efficacy and social support. Therefore, nurses must have the confidence and skills required to perform treatment process, provide psychological and family centered care directed toward improving their quality of life.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare no conflicts of interest.

Statement of ethical approval

This study was conducted after approval by the College of Nursing Research and Ethical Clearance Committee held on 12th august 2017.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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