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QUALITY OF LIFE AMONG INFERTILE WOMEN, MINIA DISTRICT.

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Abstract:

Background: Infertility and its related problems negatively affect the quality of life.

Methods: Across sectional study among infertile females who attended gynecology clinic in Minia university hospital was conducted**.** The FertiQoL was used to assess quality of life among 384 women.

Results: The mean of mind subscale was 40.2 (the lowest of all), while the relational subscale had the highest mean 72.5. The mean of the total FertiQol scale was 56.7.The internal consistency (Cronbach's alpha) was 0.63 for the total FertiQol scale.

Conclusion: The infertile women obtained lower total mean score of quality of life, this indicate that infertility reduces quality of life.

Keywords: Quality of life, Infertile women

Introduction:

Infertility is a critical component of reproductive health, and has often been neglected in these efforts (1).

Every human being has a right to enjoy the highest attainable standard of physical and mental health. Individuals and couples have the right to decide the number, timing and spacing of their children (2).

The Sustainable Development Goals mark tremendous progress in addressing women's sexual and reproductive health and reproductive rights. For the first time, an international development framework includes targets on services (target 3.7) and target that address the barriers and human rights based dimensions (target 5.6) (3).

Demographic definition of infertility is an inability of those of reproductive age (15-49 years) to become or remain pregnant with a live birth within five years of a consistent union status, lack of contraceptive use, non-lactating and maintaining a desire for a child (4).

The prevalence of infertility is seen in approximately one of six couples, and it is estimated to affect ∼10–15% of couples after regular marital life. (5)

In Egypt, According to a study conducted by the Egyptian Fertility Care Society and sponsored by the World Health Organization (WHO), infertility in Egypt affects 12% of Egyptian couples. Of these women, 4.3% suffer from primary infertility and 7.7 % suffer from secondary infertility (6).

Infertility may work as a painful emotional experience. It can cause a lot of psychological issues including stress, anxiety, and depression, diminished self-esteem, declined sexual satisfaction, and reduced quality of life. The resulted psychosocial issues affect the women adversely more than men, especially in societies where there are prejudices against women (7).

As such, an infertile woman may show a relatively high level of frustration and anger which affect her relationship with family, friends and even her spouse and may lead to social isolation. Likewise,

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infertile women are more likely to develop mental illnesses, marital dissatisfaction, and impaired quality of life compared to the individuals of fertile group [8].

Methods:

Study design and sample size:

This study was a cross sectional study among infertile females who attended gynecology clinic in Minia university hospital. The study population was infertile females in the child bearing period (18 - 45 years) who attended the clinic in this hospital. A Convenience sample of infertile females was recruited from gynecology clinic during the period from October 2019 till September 2020.

Data collection:

Gynecology clinic in Minia university hospital was visited three times weekly; Saturday, Monday and Wednesday for recruitment of infertile females after having verbal consent.

Data collection tool:

A well-structured aided questionnaire was designed for quality of life. The FertiQoL was produced in English and translated into 20 languages, including Arabic, the Arabic version of the FertiQoL questionnaire was used in the present study

The questionnaire included:

- Sociodemographic characteristics of the participants.
- Fertility Quality of Life Questionnaire (FertiQoL)

The FertiQoL questionnaire consists of two parts: the Core and the Treatment parts. The Core-FertiQoL part contains 24 questions categorized into four subscales, including the Emotional, Mind/Body, Relational, and Social subscales. The treatment-FertiQoL part contains 10 questions categorized into two subscales including the Treatment Environment and Treatment Tolerability subscales [9]

Data management and analysis:

After filling the questionnaires in the field, the data were gathered and entered into Statistical Package of Social Science (SPSS), version 25 weekly. All analyses were done using (SPSS), version 25. Cleaning of data as a first step was done to detect variables that could be missed or invalid.

Ethical consideration:

Approval of The University Ethical Committee and approval of the director of Minia university hospital were taken

Results

Table (1): Demographic characteristics of the studied groups, in Minia district, October 2019 to September 2020.

Demographic characteristics	Mean ± SD or N (%)
Age (years)	29 ± 6.2
Residence Urban Rural	 39 (10.2%) 345 (89.8%)

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Education	
Illiterate	192 (50%)
Read and write	63 (16.4%)
Secondary	109 (28.4%)
University or above	20 (5.2%)
Occupation	
Not working	351 (91.4%)
Manual worker	8 (2.1%)
Employee	16 (4.2%)
Professional	9 (2.3%)
Husbands' occupation	
Not working	202 (52.6%)
Manual worker	51 (13.3%)
Employee	49 (12.8%)
Professional	82 (21.4%)
Husbands' education	
Illiterate	161 (41.9%)
Read and write	55 (14.3%)
Secondary	133 (34.6%)
University or above	35 (9.1%)

Table (1) half of the studied women, whose mean age were 29 years, were illiterate, more than one third of them were educated till secondary or above and the majority of the studied women were not working, whereas; about half of their husbands were working and 44% of the husbands had education till secondary or above.

Table (2): Infertility characteristics of the studied group, in Minia district, October 2019 to September 2020.

Infertility characteristics	N=384 N (%)
Married for	
<5 years	161 (41.9%)
5-10 years	141 (36.7%)
>10 years	82 (21.4%)
Seek treatment for	
<5 years	246 (64.1%)
5-10 years	102 (26.6%)
>10 years	36 (9.4%)
Type of infertility	
Primary	167 (43.5%)
Secondary	217 (56.5%)
Have live children (n=217)	
Yes	111 (51.2%)
No	106 (48.8%)

In **table (2)**, 42% of studied women married for 5 years or less and about one tenth of them looked for treatment for more than10 years. It was also found that more women had secondary infertility and about half of them had live children.

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Table (3): FertiQol Scales of the studied group, in Minia district, October 2019 to September 2020.

FertiQol Scales	Cronbach's alpha	N=384 Mean ± SD
Core FertiQol		
Emotional subscale	0.61	46.58 ± 12.85
Mind subscale	0.75	40.2± 14.95
Relational subscale	0.56	72.54± 10.1
Social subscale	0.42	68.75± 11.32
Treatment FertiQol		
Environmental subscale	0.80	71.2± 8.2
Tolerability subscale	0.84	41.02± 15.05
Total scale	0.63	56.70± 7.29

This table showed the FertiQol scales for the studied women, the mean of mind subscale was 40.2 (the lowest of all), while the relational subscale had the highest mean 72.5. This for core FertiQol, and for treatment FertiQol, the mean for environmental subscale is higher than tolerability subscale. The mean of the total FertiQol scale was 56.7.The internal consistency (Cronbach's alpha) for FertiQol subscales range from 0.42 to 0.84, it was 0.63 for the total FertiQol scale.

Table (4): The relation between some studied women characteristics and their FertiQol Scales in Minia district, October 2019 to September 2020.

Women characteristics	Total scale	T test or F (DF) P- value
Residence		
Urban	56.4± 7.9	1.55 (382) 0.122
Rural	56.7± 7.3	
Education		
Illiterate	55.8± 6.9	
Read and write	58.4± 8	3.4 (2) 0.035
Secondary or above	57.2± 7.3	
Occupation		
Not working	56.5± 7.3	-1.15 (382) 0.250
Working	58.1± 6.7	

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Seek treatment for		
<5 years	57.6± 7.6	
5-10 years	55.7± 6.6	7.4 (2) 0.001
>10 years	53.1± 4.9	
Type of infertility		
Primary	56.5± 7.4	
Secondary with no children	55.2± 6.1	5.7 (2) 0.004
Secondary with no children	58.4± 7. 9	

In this table, total scale for urban women was 56.4 and for rural women was 56.7 and also there was no significant difference between them. The total FertiQol scale for working women was greater than not working women with no significant difference. The total score for FertiQol scale was highest among secondary infertility women with children (p=0.004) and those who seeking treatment for <5 years.

Discussion:

Since the adverse effect of infertility on mental and social health of infertile females, the assessment of quality of life has become as important as the treatment of infertility [10, 11]

Infertility has been shown to impact negatively on the quality of life of women affected by it [12, 13]

The present study revealed that 90% of infertile women from rural areas and 50% of them were illiterates and about 91% of women were not working, this is may be due to highly educated women who were working and live in urban areas mostly go to private clinics not to Minia university hospital.

In the present study, about 64% of women asked for treatment of infertility for less than 5 years. The study included 43.5% primary infertile women and 56.5% secondary infertile women. About half of secondary infertile women had live children**.**

According to FertiQol of infertile women, the present study illustrated that infertility reduced the quality of life, the mean of total FertiQol of infertile women was 56.70± 7.29, the highest subscale was for relational subscale.

This similar to a study conducted by **Ismail NI and Moussa AA,** and revealed that the infertility reduces quality of life, where the infertile women had lower total mean score of quality of life 59.37 ± 15.79 [14]

On other hand, a comparative study of quality of life in infertile and fertile women in Jahrom infertility clinics was conducted by Parnian et al showed that fertile women had slightly higher scores of quality of life than infertile ones [15].

In the present study, there was no significant difference in FertiQol subscales for urban and rural women. In contrast to, a study conducted by **Ismail NI and Moussa AA** revealed that the infertile women who live in urban areas had significantly higher mean score of total quality of life compared to those who live in rural areas [14].

In this study, illiterate women had the lowest total score of FertiQol scale than the others. This finding is in accordance with **Ismail NI and Moussa AA** who revealed that the highly educated infertile women had significantly higher mean score of total quality of life compared to low educated ones. This was may be due to that higher educated women used problem-solving skills better. They can deal with daily stressors and use new methods to deal with the problems [14]

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The present study revealed that working women had higher total score of FertiQol scale than those not working. This was with **Bakhtiyar et al.** who found that, employed infertile women had a higher overall score of quality of life compared to others [7].

In this study, secondary infertile women with children had higher total score of FertiQol scale than others. This was in agreement with **Ismail NI and Moussa AA** who found that the women with primary infertility had significantly lower mean of total score of quality of life than those with secondary infertility [14].

Conclusion:

The importance of quality of life as one of the aspects of health has attracted the attention of many researchers. Quality of life has become one of the important issues today and is seen as one of the measurable criteria for evaluation of treatment. The current study showed that the infertile women obtained lower total mean score of quality of life, this indicate that infertility reduces quality of life.

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