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Even miracle takes a little time; you have to believe what are the factors associated with quality of life of infertile couple?

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Abstract

Pregnancy and childbirth plays an important role for women all over the globe but Infertility put unfavorable effects on quality of life (QoL) of couple. The current study aims to evaluate factors associated with Quality of life of infertile couple. This study is a systematic review of research studies conducted on factors associated with Quality of life of infertile couple. The current literature review search was undertaken using multiple databases selected from articles pertinent to the study. The selection of subjects was undertaken from 2011 through 2019. We searched for reviews that reported the quality of life of infertile couple and factors that affect their physical as well as mental health status which include original studies on Quality of life and general health of infertile couple. Sample obtained from the general population, clinics and hospitals (3) cross-sectional, comparative or longitudinal studies. Studies that are published and available for free access from 2011 to 2019. The studies utilizes the WHOQOL, Ferti QOL and SF 36 questionnaire to assess the quality of life ; along with this other domains like general health of Infertile women (GHQOL 28), Linda berg Questionnaire for sexual Satisfaction, Social Support Scaling, Beck's inventory for depression. In addition, the mean age of males and females in the review studies were 34.54 ± 8.54 and 29.28 ± 6.71 years respectively and the mean duration of infertility of couples were 5.66 ± 3.54 years. It was observed that Women had lower overall quality of life than men. Women and men who were married for fewer than 10 years had a significantly lower emotional score. Women who had a history of infertility treatment, men who have lived in the town or village men with primary infertility and men who have had primary education or lower, had lower scores for mind/body subscale. Social scores were found lower in women under the age of 30, women with middle or low income, men who were married for fewer than 10 years, men who did not have children for 5 years or more and men with primary infertility. Also Self-esteem scores were lower in the couples with longer infertility duration. Infertility had influenced all the domains of infertile couples but it had major impact on the emotional domain and the factors were found that affect the QOL status in infertile couples were Higher Education, Monthly Income, Urban residence, Number of IVF Treatment, Duration of Infertility, Increased Age, Self-esteem, social support, sexual satisfaction and marital satisfaction.

Keywords: Quality of life, infertile couple

Introduction

Pregnancy and childbirth plays an important role for women all over the globe. The failure to become pregnant despite having frequent, unprotected sexual intercourse for one year for most couples is known as Infertility. It may result from an issue with either male or female, or a combination of factors that prevent pregnancy. Causes of male infertility include abnormal sperm production or function, Problems with the delivery of sperm and Overexposure to certain environmental factors whereas causes of female infertility include Ovulation disorders, Uterine or cervical abnormalities, Fallopian tube damage or blockage, Endometriosis, early menopause etc. Various studies revealed that infertility can negatively influence the sense of satisfaction. A growing body of research suggests that both infertility and its treatment represent a negative psychological burden to affected couples and this can has a considerable impact on their quality of life (QoL), life satisfaction and well-being. Fortunately, there are many safe and effective therapies that significantly improve the chances of getting pregnant. Infertile women report lack of marital satisfaction whereas men may experience less intercourse satisfaction,

perhaps because of the psychological pressure of trying to conceive or the forced timing of intercourse around the woman's ovulatory cycle.

Purpose of the Study

- This systemic review aims to receive the available studies on quality of life and general health of infertile couple

Methodology

Inclusion and exclusion criteria

We searched for reviews that reported the quality of life of infertile couple and factors that affect their physical as well as mental health status ^[1] original studies on Quality of life and general health of infertile couple. ^[2] Sample obtained from the general population, clinics and hospitals ^[3] cross-sectional, comparative or longitudinal studies ^[4] studies that are published and available for free access from 2011 to 2019.

The exclusion criteria were as follows: ^[1] studies that did not report the quality of life of infertile couple ^[3] case reports, Editorials, and reviews; and ^[4] Studies with incomplete or unclear information.

Data extraction and analysis

The researchers searched, collected, extracted, and evaluated the information from each individual study included in the review as per the inclusion criteria. The information extracted from the individual studies included; the name of the author including the year of publication, where the study was conducted, research design of the study, attributes of the samples size, the type of instrument uses for data collection and the result of the studies. The results were analysed under these headings such as the distribution of quality of life of infertile couples as per gender, factors affecting physical and mental health. The search identified 30 studies on quality of life of infertile couples. Studies at international level are included. After 15 duplicates were removed, titles and abstracts were screened, and the full text of 15 articles was retrieved. Further, in

depth screening was done for each individual study and the factors such as inclusion & exclusion criteria and risk of bias was considered. Finally, 10 studies were accepted for the systematic review.

Results

Of the 10 studies, many findings and observations were present in each study with regard to the broad objectives of this systematic review. The initial computer-based search identified 30 eligible articles, 15 duplicates were located and excluded. These duplicates were due to the comprehensive search strategy in different databases. The additional online search was able to identify two articles that included a quality of life measure as part of a broad assessment. These studies were included for in-depth examination. 10 studies were included in the systematic review. Of these, one paper reported a validated quality of life measure in the context of an infertility treatment, of which baseline data were reviewed in this study. Some studies that enrolled subjects with previous IVF attempts were kept in the systematic review, since these subjects are representative of the normal course of infertility and reproductive health interventions. In fact, one reviewed studies included subjects who had undergone to assisted reproduction techniques in the past. Table I describes the reviewed studies.

All included studies had a cross-sectional design and other designs too. Also, more than half were carried out in a clinical setting, mostly infertile services. Researchers usually identify and enroll infertile subjects who seek investigation and/or treatment in a clinic for assisted reproduction and the factors associated with Quality of life of infertile couple. Typically, most of the subjects have experienced infertility for a long period and have received previous treatment. The mean age of males and females in the review studies were 34.54 ± 8.54 and 29.28 ± 6.71 years respectively and the mean duration of infertility of couples were 5.66 ± 3.54 years. It is important to observe that study included for the reviewed that fulfilled inclusion criteria centered its findings in the development of a new instrument to assess the factors associated with Quality of life of infertile couple.

Table 1: Summary of the study

S. N.	Author (s)	Tool	Case	Control	Result
1.	Katayoun Bakhtiyar: effects of infertility on Women's quality of life:case-control study:2019	WHOQOL-BREF questionnaire	180 Infertile Women	540 Fertile women (1:3)	*An infertile woman practice a relatively lower scores in QOL sub-scales of mental, physical and environmental health; while they experience a higher social health score than a fertile woman.
2.	Suhabalousha Quality of life among infertile couples at IVF center : 2018	Fertility quality of life questionnaire (FertiQoL)	191 Infertile women(382 Infertile couples)	191 Infertile Men	*The mean males' scores of FertiQoL and its subscales (emotion, mind/body, social, core, tolerability and treatment) were significantly higher than females' scores ($p < 0.05$). *The mean total of FertiQoL increased with better education, however, decreased with increase of age, duration of marriage, duration of infertility and number of IVF attempts
3.	Saeedian Marzieh: Analyze quality of life and some effective factors on infertile couples: 2017	WHOQOL-BREF and Beck's Depression Inventory	162 Infertile women (324infertile couples)	162Infertile men	*Regarding various aspects of the QOL, men gained higher scores in the two physical and mental aspects rather women, which are significant statistically ($P < 0.05$). *intensity of depression scale indicated that women in contrast to men suffer from a higher level of depression
4.	Ashraf Direkvand-Moghadam: compare the quality of life in fertile and infertile women: 2013	SF-36 questionnaires	225Infertile women	225 Fertie women	*Mean scores of all Mental dimensions of quality of life were higher in fertile women in comparison with infertile women

5.	Azam Namdar: Quality of life and general health of infertile women: 2017	General health (GHQ28), and the QOL Questionnaire	146 Infertile women	-----	*The general health of 57 (39%) patients was normal and that of 89 (61%) patients showed a degree of impairment*The QOL was economically ($P = 0.027$), emotionally ($P = 0.004$), sexually ($P = 0.017$), physically ($P = 0.037$), and psychologically ($P = 0.001$) less for the women living in rural areas than other infertile women. *However, university education ($P = 0.015$) and higher income per month ($P = 0.008$) had positive associations with QOL.
6.	AsliGoker: Quality of life in Turkish infertile couples and related factors:2016	(FertiQoL) scale	63 Infertile Women 126 infertile couples	63 Infertile Men	*Women had lower overall quality of life than men. *Social scores were found lower in women under the age of 30, women with middle or low income, men who were married for fewer than 10 years, men who did not have children for 5 years or more and men with primary infertility
7.	Su Xiaoli: Assessing the quality of life of infertile Chinese women:2016	WHOQOL-100	81 Infertile Women	81 Fertile women	Infertile women showed lower QoL scores in the facets of spirituality /religion /personal beliefs, self-esteem, financial resources, and accessibility to and quality of health and social care, as well as increased pain and discomfort,* as well as higher anxiety scores, compared with fertile controls.
8.	AfsanehKeramat: Quality of Life and Its Related Factors in Infertile Couples:2012	WHO-QoL-BREF and FertiQoL tools Lindaberg questionnaire (Sexual satisfaction) Social Support Scaling	385 infertile couples		The QoL status in infertile couples is directly associated with their self-esteem, social support, sexual satisfaction, and marital satisfaction.
9.	Mohammad Amiri :Quality of Life Among Fertile and Infertile Women: 2013	Persian Version of SF36 quality of life questionnaire	511 infertile women	1017 fertile women	*The infertile women had significantly lower mean scores in the subscales of mental health and general health than the fertile women.
10.	Rebecca Dillu: Assess the Quality of Life of Infertile Couples at Selected Infertility Clinics in Haryana: 2013	FertiQol tool	100 infertile couples		*Male partners had better quality of life than the infertile female partners in all the domains of quality of life i.e. emotional, mind/body, relational, social, environmental and tolerability domain and there was a significant difference in the quality of life of infertile male and female partners.

Discussion

In the present study the authors documented the quality of life of infertile couple and the factors associated with it. The purpose of the systematic review is to analyze the factors associated with quality of life of infertile couples. We have synthesized 30 studies during the last 08 years (2011 to 2019) on quality of life of infertile couples. The details of the 10 studies included for this review is present at Table No. 01. The studies were conducted in various countries and its vided distribution ensures the conformity of the results of this study. In the present systematic review data has been collected from various past studies conducted on the quality of life. The four studies [1, 4, 7, 9] which have been included compared the quality of life of Infertile Women with Fertile women and Six studies [2, 3, 5, 6, 8, 10] compared the quality of life of infertile women with infertile men as an infertile couples. As well these studies utilizes the WHOQOL, Ferti QOL and SF 36 questionnaire to assess the quality of life ; along with this other domains like general health of Infertile women (GHQOL 28), Linda berg Questionnaire for sexual Satisfaction, Social Support Scaling, Beck's inventory for depression were also used. The mean age of males and females in the review studies were 34.54 ± 8.54 and

29.28 ± 6.71 years respectively and the mean duration of infertility of couples were 5.66 ± 3.54 years.

The studies [1, 4, 7, 9] which revealed the quality of life of infertile women in comparison of fertile women showed that an infertile woman practice a relatively lower scores in QOL sub-scales of mental, physical and environmental health; Mean scores of all mental dimensions of quality of life were higher in fertile women in comparison with infertile women. Infertile women showed lower QoL scores in the facets of spirituality /religion /personal beliefs, self-esteem, financial resources, and accessibility to and quality of health and social care, as well as increased pain and discomfort, while also experiencing positive QoL adjustments in terms of mobility, daily living activities, work capacity, sexual activity, freedom, physical safety, security, and transport. Also the mean scores of mental health and general health were higher in the fertile women than in the infertile.

The results of these studies [2, 3, 5, 6, 8, 10] showed that in general in infertile couples which compared the quality of life of infertile women with infertile men revealed that the mean males' scores of FertiQoL and its subscales (emotion, mind/body, social, core, tolerability and treatment) were significantly higher than females' scores ($p < 0.05$). The mean total of FertiQoL increased with better education,

however, decreased with increase of age, duration of marriage, duration of infertility and number of IVF attempts. In infertile couples men enjoys a higher QOL which is significant statistically ($P < 0.05$). Regarding various aspects of the QOL, men gained higher scores in the two physical and mental aspects rather women, which are significant statistically ($P < 0.05$). However, there was no difference between men and women in terms of social relations and environmental health. In infertile men, there was a significant relationship between age and infertility period, for women, there was a significant relationship between the level of education and treatment period and QOL ($P < 0.05$).

Assessing intensity of depression scale indicated that women in contrast to men suffer from a higher level of depression as the average scores of depression in men and women were 10.24 and 15.1 respectively which was significant statistically ($P < 0.001$). Moreover, the general health of 61% patients showed a degree of impairment. The scores for depression and physical symptoms were the highest and lowest, respectively. The total QOL scores had maximum correlation with GHQ anxiety ($r = -0.596$, $P < 0.001$) and general health scores had the highest correlation with physical QOL ($r = -0.637$, $P < 0.001$). The QOL was economically ($P = 0.027$), emotionally ($P = 0.004$), sexually ($P = 0.017$), physically ($P = 0.037$), and psychologically ($P = 0.001$) less for the women living in rural areas than other infertile women. However, university education ($P = 0.015$) and higher income per month ($P = 0.008$) had positive associations with QOL. General health of more than half of the infertile women indicated a degree of disorder. These women face the risk of anxiety, social dysfunction, and depression. Educational status, monthly income, and rural/urban residency are the major factors influencing the QOL.

It was observed that Women had lower overall quality of life than men. Women and men who were married for fewer than 10 years had a significantly lower emotional score. Women who had a history of infertility treatment, men who have lived in the town or village men with primary infertility and men who have had primary education or lower, had lower scores for mind/body subscale. Social scores were found lower in women under the age of 30, women with middle or low income, men who were married for fewer than 10 years, men who did not have children for 5 years or more and men with primary infertility. Also Self-esteem scores were lower in the couples with longer infertility duration. The social support mean score was lower in low income couples. Those with higher educational level, shorter infertility duration, and higher income were more satisfied from their marital relationships. Besides, we revealed that the previous failed efforts for treatment of infertility were adversely associated with the lower social support and sexual satisfaction. The higher educational level, higher monthly income, living in urban area, shorter duration of marriage and infertility, and male gender were associated with better. QoL status in the most components. Associations between QoL and self-esteem, social support, sexual satisfaction, and marital satisfaction were significant ($P < 0.05$). The QoL status in infertile couples is directly associated with their self-esteem, social support, sexual satisfaction, and marital satisfaction. The male partners had better quality of life than the infertile female partners in all the domains of quality of life i.e. emotional, mind/body,

relational, social, environmental and tolerability domain and there was a significant difference in the quality of life of infertile male and female partners. The correlation between the various domains of infertile male and female partners showed that the emotional domain was positively correlated to other domains (except the environmental domain in female partners). Infertility had influenced all the domains of infertile couples but it had major impact on the emotional domain. There was a significant association between levels of Fertility Quality of life scores and occupation of male partners and age, religion, type of family, age at marriage, duration of marriage, trying for conception self and with doctor's help and number of miscarriages of female partners.

Major Findings of the Study: The results showed that infertility affected couples in the following four aspects of their life: psychological well-being, marital relationships, sexual relationships, and quality of life and the factors associated with infertile QOL were as follows:

- An infertile woman practices relatively lower scores in QOL sub-scales of economically, emotionally, sexually, physically and psychologically (mental, physical and environmental health) along with the facets of spirituality /religion /personal beliefs, self-esteem, financial resources, and accessibility to and quality of health and social care, as well as increased emotional pain and discomfort along with General health score were also lower in the infertile women and these women face the risk of anxiety, social dysfunction, and depression besides Infertile women in contrast to men suffer from a higher level of depression and lower QOL and its sub-scales.
- Even though QOL sub-domains score were lower for the women living in rural areas than other infertile women.
- The QOL score increased with better educational status, monthly income, Urban residence and treatment period.
- The mean total of QOL decreased with increase of age, duration of marriage, duration of infertility and number of IVF attempts which affects the self esteem, social support, marital relationships.
- There was a significant difference in the quality of life of infertile male and female partners as well as in contrast with fertile women.

Conclusion

Evidences indicate important QOL or HRQOL impairments in infertile women; Infertility had influenced all the domains of infertile couples but it had major impact on the emotional domain and the QOL status in infertile couples is directly associated with their Higher Education, Monthly Income, Urban residence, Number of IVF Treatment, Duration of Infertility, Increased Age, Self-esteem, social support, sexual satisfaction and marital satisfaction. Hence health professionals should be aware of the factors affecting the quality of life (QoL) and give counseling to improve couples' quality of life at infertility clinics; also need to include assessment of psychological symptomatology to plan more efficient interventions to infertile patients.

References

1. Bakhtiyar K, Beiranvand R, Ardalan Aet al. An investigation of the effects of infertility on Women's

- quality of life: A case-control study. *BMC Women's Health* 2019;19:114.
<https://doi.org/10.1186/s12905-019-0805-3>.
2. Suha Baloushah, Samira Barjasteh, Aymen Elsous *et al.* Quality of Life among Infertile Couples in Gaza City, Palestine, 02 March 2020, Preprint (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-15541/v1>]
 3. Marzieh S, Nikvarz F, Zangiabadizadeh M. The quality of life and some effective factors on infertile couples. *Annals of Tropical medicine and public health* 2017;1(4):928-938.
 4. Moghadam AD, Delpisheh A, Moghadam A. Effect of Infertility on the Quality of Life, A Cross- Sectional Study. *Journal of Clinical diagnostic Research* 2014;8(10):oc13-0c15.
 5. Namdar A, Naghizadeh MM, Zamani M *et al.* Quality of life and general health of infertile women. *Health Qual Life Outcomes* 2017-2019;15:139.
<https://doi.org/10.1186/s12955-017-0712-y>
 6. Asli Goker, Emre Yanikkerem, Ozer Birge, Naci Kemal Kuscu. Quality of life in Turkish infertile couples and related factors, *Human Fertility* 2018;21(3):195-203. DOI: 10.1080/14647273.2017.1322223
 7. Su Xiaoli, Li Mei, Bao Junjun, Ding Shu, Wei Zhaolian, Wang Jin *et al.* Assessing the quality of life of infertile Chinese women: A cross-sectional study, *Taiwanese Journal of Obstetrics and Gynecology* 2016;55(2):244-250.
 8. Keramat A, Masoomi SZ, Mousavi SA, Poorolajal J, Shobeiri F, Hazavhei SM. Quality of life and its related factors in infertile couples. *Journal of research in health sciences* 2014;14(1):57-63.
 9. Amiri M, Chaman R, Sadeghi Z, Khatibi MR, Ranjbar M *et al.* Quality of Life Among Fertile and Infertile Women, *Iran J Psychiatry Behav Sci* 2017;11(1):e5641.
 10. Rebecca Dillu, Poonam Sheoran, Jyoti Sarin. An Exploratory Study to Assess the Quality of Life of Infertile Couples at Selected Infertility Clinics in Haryana, *Journal of Nursing and Health Science* 2013;2(3):45-51.