Infertility and Health Related Quality of Life: Minireview of the Literature

Ali Montazeri M.P.H., Ph.D., F.F.P.H.

Iranian Institute for Health Sciences Research, Tehran, Iran.

Received October 2007; Revised and accepted December 2007

Abstract

Objective: Since health related quality of life is an important issue for infertile couples a review was conducted to examine the literature.

Materials and methods: This was a minireview of the literature covering all full publications that have been appeared in the English language biomedical journals. The search strategy included a combination of key words 'quality of life', 'infertility, and 'infertile' in title.

Results: A total of 8 citations were identified and were examined in this minireview. The major findings are summarized and presented in several headings including instruments used, and findings from each individual study.

Conclusion: There were quite a few studies that reported on health related quality of life in infertile couples. It seems that there is need to conduct more studies on the topic using valid and standard measures.

Keywords: Infertility, Infertile, Quality of life, Literature review

Introduction

Health related quality of life is now considered as an important outcome measure in many clinical settings. Quality of life can further indicate the directions that are needed to treat different patient populations more efficiently. Since infertility and its treatment has several psychosocial effects on infertile couples, studying health related quality of life in these group of people is very crucial (1,2).

Undoubtedly the clinical efforts and technology improved outcomes in infertile couples. However, concerns about quality of life in this group of people because of the nature of the disease and its treatment remind us to realize that although the treatment of infertility is important but the quality of life of our patients also are equally important. This minireview of the literature aimed to investigate the extent to which quality of life studies contributed to the reproductive health and infertility literature. It was hoped that this review could contribute to the existing knowledge, indicate achievements and discrepancies, help both researchers and clinicians to have a better insight into the topic, and consequently aid to improve quality of life in infertile couples.

Materials and methods

A minireview of the literature on quality of life and infertility was carried out using the MEDLINE search engine. The intention was to review all full publications that have been appeared in the English language biomedical journals during 1982 to 2007. The year 1982 was chosen because the first study on quality of life and infertility was published in 1982.

Correspondence:
Professor Ali Montazeri, Iranian Institute for Health Sciences Research, P.O. Box 13185 1488, Tehran, Iran.
E-mail: montazeri@acecr.ac.ir

Table 1: A list of studies on quality of life and infertility

Author(s)	Year of publication	Country	Study sample	Main focus
Fekkes et al. (4)	2003	Netherlands	447 women + 425 men	Quality of life in couples planning IVF treatment
Khayata et al. (11)	2003	United Arab Emirates	269 infertile women	Factors influencing quality of life
Monga et al. (10)	2004	USA	18 infertile couples + 12 couples seeking sterilization	Impact of infertility on quality of life, marital adjustment, and sexual function
El-Messidi et al. (12)	2004	Canada	3 groups of 50 couples	Effects of repeated treatment failure on quality of life
Schmid et al. (6)	2004	Austria	49 women	Infertility caused by polycystic ovarian syndrome and quality of life
Ragni et al. (5)	2005	Italy	1000 couples	IVF and quality of life
Chachamovich et al. (9)	2007	Brazil	177 women	Factors predicting quality of life
Ghasemzad and Farzadi (13)	2007	Iran	192 women	Quality of life and its correlates

The search strategy included a combination of key words 'quality of life', 'infertility, and 'infertile' in title. It was though this might help to carry out a more focused investigation. This provided the initial database for the review. The initial search was carried out in early 2007 and updated twice in October 2007 and once for final check in 15 November 2007.

Results

Statistics

A total of 8 citations were identified, 5 citations containing the key words 'quality of life and infertility' and 3 citations containing 'quality of life and infertile' in their title. Of these, one study (3) was excluded since neither the paper nor its abstract was available for the review. However, instead a study was found by manual search and included in this review (4). The results are shown in Table 1. Here, the major findings are summarized and presented in upcoming headings.

Instruments used to measure quality of life

Several instruments were used to measure quality of life in infertility researches. One study (4) used the Hopkins Symptom Checklist, the Sickness Impact Profile, the Irrational Beliefs Inventory, and the Irrational Parenthood Cognitions Scale. The Italian study (5) measured quality of life using the Short Form Health Survey (SF-36). The Austrian investigators (6) used the Polycystic Ovary Syndrome Questionnaire (P.C.O.S.Q.), a questionnaire developed to measure the health-related quality of life of women with polycystic ovary syndrome (7,8). This is a 26-items questionnaire measuring five areas of health related quality of life: emotions (8 items), body hair (5 items), weight (5 items), infertility problems (4 items) and menstrual problems (4 items). The Brazilian study (9) used the SF-36 and the shorter version of the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF). Monga et al. (10) reported that they used Quality of Well-being Scale-Self Administered, Locke Wallace Marital Adjustment test, and Brief Index of Sexual Functioning for Women and International Index of Erectile Function for men in their study in the USA. However, others (11,12,13) used *ad hoc* instruments to measure quality of life in this population.

Findings from the Netherlands

The study findings showed that young men and women (aged 21-30 years) planning IVF had more short-term social and emotional problems than people of the same age group in the general population. No substantial differences were found in cognitive and physical functioning for all age groups of men or women planning IVF compared with the general population. A high level of irrational parenthood cognition accounted for a less optimal score on all the different domains of quality of life (4).

Findings from United Arab Emirates

Parameters that most affected quality of life in

women attending the assisted reproduction clinic were mood related issues mainly in women above 30 years of age, with primary and female factor infertility (11).

Findings from the USA

Eighty-three percent of couples reported feeling societal pressures to conceive. The marital adjustment score compared to control was lower for infertile women but this was not the case fore men. In addition lower quality of life scores was noted for women but not in the men (10).

Findings from Canada

The study found that quality of life score for control group (a couple with least one child and no history of infertility) was higher than the scores reported by the couples with repeated failure treatment and the couples who never attempted any medical treatment. In addition the study results showed that there were no significant differences in quality of life score reported between the couples with repeated failure treatment and the couples who never attempted any medical treatment or between male and female partners (12).

Findings from Austria

Studying a group of native Austrian and Moslem immigrant women showed that in term of polycystic ovarian syndrome (PCOS) the typical heterogeneity of PCOS could be found in both subgroups with no differences. However, health-related quality of life of women with Islamic background was affected to a greater degree than that of Austrian women although no differences in symptoms were found (6).

Findings from Italy

Male quality of life scores as measured by the SF-36 was higher than female. Duration of infertility and previous IVF treatment significantly affected health related quality of life. However, performing a robust statistical analysis the study findings showed that there were no significant differences between quality of life of infertile couples and the normal population both for men and women (5).

Findings from Brazil

The study found that some dependent variables could predict quality of life in infertile women. The analysis showed that some independent variables such as age (for better general health and physical functioning), previous reproductive tract surgery (for worse general health but higher environmental scores), advanced education (for higher vitality, mental health, and environmental health but worse for social relationships) and perception of worse sexual life (for lower overall quality of life score) were predicting factors of quality of life in Brazilian women experiencing infertility (9).

Findings from Iran

A study of 192 Iranian infertile women showed that 12 percent of the study sample had poor and nearly half had good quality of life. The study findings did not show any significant correlations between age, length of marital life, type of infertility, or duration of treatment time. However the study indicated that there was an inverse correlation between irrational parenthood cognitions and quality of life scores (13).

Discussion

This minireview of the literature indicated that there is need to conduct more studies in quality of life in infertile women or infertile men or for both. This, however, indicates a requisite condition that emerges from having standard instruments to measure quality of life in these groups of population. This review indicated that only one study (6) used a specific measure and the remaining papers reported that either used general measures such the SF-36 and the WHOQOL-BREF or they synthesized an ad hoc instrument tailored to their study objectives. At present the PCSQ for infertile women (8) and TLMK [an instrument for measuring quality of life in male patients with involuntary childlessness] (14) are among the recent existing instruments for measuring quality of life in infertile couples.

One important aspects of studying quality of life in infertile couple relates to irrational parenthood cognition. As suggested patients with high levels of irrational parenthood cognitions are at risk of less optimal quality of life and thus as suggested a short cognitive counseling therapy is essential for patients with high levels of these cognitions (4, 13).

Factors that predicting quality of life may vary in different infertile populations, different gender and different ethnic backgrounds. Thus, the identification of factors associated with better or worse quality of life in different domains is vital in order to propose and test scientifically based interventions for infertile populations (9). It is argued health professionals should be sensitive to the ethnicity, religious and

cultural background of their patients to provide the best possible medical support when treating infertile women (6). In addition, it should be noted that different treatment modalities might result in different quality of life outcome. Thus the results from different treatments should not be generalized to all other treatment types. For example in the case of IVF treatment the treatment itself might not affect the quality of life but duration of infertility and failure to achieve pregnancy through IVF might have a negative impact on patients' quality of life (5).

This was a minireview of the literature with a limited objective. It is quite possible to suggest that the other search strategies would have been resulted in more citations. This review only focused on quality of life, infertility and infertile keywords in title. In addition only the MEDLINE search engine was examined. Thus still there is a potential to carry out a similar review with much more extensive search strategy using different search engines.

Finally, despite the existence of an extensive body of the literature on psychological aspects of the infertility, this minireview, although limited in many aspects, indicates that there are quite a few studies on quality of life in reproductive health including infertility literature. Indeed, there is need to conduct more studies on the topic using valid and standard measures.

References

1. Greil AL. Infertility and psychological distress: a critical review of the literature. Soc Sci Med 1997; 45 1679-1704.
2. Fassino S, Piero A, Boggio S, Piccioni V, Garzaro L. Anxiety, depression and anger suppression in infertile couples: a controlled study. Hum Reprod 2002; 17: 2986-2994.
3. Leiberman JR, Insler V. Physician's right to refuse treatment of infertility: preserving quality of life. Med Law 1982; 1: 33-38.
4. Fekkes M, Buitendijk SE, Verrips GHW, Braa DDM, Brewaeys AMA, Dolfing JG, et al. Health-related quality of life in relation to gender and age in couples planning IVF treatment. Hum Reprod 2003; 18: 1536-1543.
5. Ragni G, Moscom P, Baldini MP, Somigliana E, Vegetti W, Caliari H, Nicolosi AE. Health-related quality of life and need for IVF in 1000 Italian infertile couples. Hum Reprod 2005; 20 1286-1291.
6. Schmid J, Kirchengast S, Vytiska-Binstofer E, Huber j. Infertility caused by PCOS-health-related quality of life among Austrian and Moslem immigrant women in Austria. Hum Reprod 2004; 19 2251-2257.
7. Cronin L, Guyatt G, Griffith L, Wong E, Azziz R, Futterweit W, et al. Development of a health-related quality of life questionnaire (PCOSQ) for women with polycystic ovary syndrome (PCOS). J Clin Endocrinol Metab 1998; 83: 1976-1987.
8. Jones GL, benes K, Clark TL, Denham R, Holder MG, Haynes TJ, et al. The Polycystic Ovary Syndrome Health-related Quality of Life Questionnaire (PCOSQ): a validation. Hum Reprod 2004; 19: 371-377.
9. Chachamovich JR, Chachamovich E, Zachia S, Knauth D, Passos EP. What variables predict generic and health-related quality of life in a sample of Brazilian women experiencing infertility? Hum Reprod 2007; 22: 1946-1952.
10. Monga M, Alexandrescu B, Katz SE, Stein M, Ganiats T. Impact of infertility on quality of life, marital adjustment, and sexual function. Urology 2004; 63: 126-130.
11. Khayata GM, Rizk DE, Hasan MY, Ghazal-Awad S, Asaad MA. Factors influencing the quality of life of infertile women in United Arab Emirates. Int J Gynaecol Obstet 2003; 80: 183-188.
12. El-Messidi A, Al-Fozan H, Lin Tan S, Farag R, Tulandi T. Effects of repeated treatment failure on the quality of life of couples with infertility. J Obstet Gynaecol Can 2004; 26: 333-336.
13. Ghasemzad A, Farzadi L. Quality of life and its correlates among a group of infertile Iranian women. Med Sci Monit 2007; 13: 313-317.
14. Schanz S, Baeckert-Sifeddine IT, Braeunlich C, Collins SE, Batra A, Gebert S, et al. A new quality of life measure for men experiencing involuntary childlessness. Hum Reprod 2005; 20: 2858-2865.