



Psychometric characteristics of core FertiQoL questionnaire in a Spanish sample of infertile women

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Título: Características psicométricas del módulo general de cuestionario FertiQoL en una muestra española de mujeres infértiles.

Resumen: *Antecedentes:* El diagnóstico y el tratamiento de la fertilidad repercuten en la calidad de vida de las personas. FertiQoL es un cuestionario desarrollado internacionalmente para medir la calidad de vida específica de la fertilidad. La obtención de información fiable sobre el impacto de los problemas de fertilidad permite a los sistemas sociales y sanitarios desarrollar una atención integrada centrada en el valor. *Objetivo:* El objetivo del presente estudio es examinar la dimensionalidad, validez y fiabilidad del Core FertiQoL en una muestra de mujeres españolas en tratamiento de fertilidad. *Método:* Se realizó un estudio transversal, administrando el cuestionario Core FertiQoL a 564 mujeres con problemas de fertilidad. Se realizaron análisis descriptivos de los datos sociodemográficos y clínicos de la muestra. Se comprobaron las propiedades psicométricas del FertiQoL realizando análisis factoriales confirmatorios, calculando los valores medios de la varianza extraída, la validez, la fiabilidad y los coeficientes de correlación entre escalas. *Resultados:* Se obtuvieron cuatro factores (Emocional, Mente/Cuerpo, Relacional y Social). Todos los estadísticos presentaron valores adecuados (RMSEA y SRMR inferiores a 0.09 y CFI y TLI superiores a 0.9). La fiabilidad quedó demostrada con el índice CR de cada factor superior a 0.7 y el AVE superior a 0.5. *Conclusiones:* El Core FertiQoL presenta un ajuste aceptable para las mujeres españolas con problemas de fertilidad. Ofrece un canal de comunicación entre profesionales y pacientes, así como información precisa en sus subescalas sobre áreas que pueden reflejar deterioro de la CdV. El FertiQoL básico es un instrumento que permite identificar áreas que requieren apoyo, proporcionando información valiosa para el diseño de programas sociosanitarios eficientes centrados en valores para personas con infertilidad.

Palabras clave: Mujer. FertiQoL. Infertilidad. Calidad de vida. Análisis factorial confirmatorio.

Abstract: *Background:* Fertility diagnosis and treatment have an impact on the quality of life (QoL) of individuals. FertiQoL is an internationally developed questionnaire to measure fertility-specific QoL. Obtaining reliable information on the impact of fertility issues enables social and health care systems to develop value-centered integrated care. *Objective:* The aim of the present study is to examine the dimensionality, validity and reliability of Core FertiQoL in a sample of Spanish women undergoing fertility treatment. *Methods:* A cross-sectional study was conducted, administering the Core FertiQoL questionnaire to 564 women with fertility problems. Descriptive analyses were performed on sociodemographic and clinical data of the sample. The psychometric properties of the FertiQoL were tested by performing confirmatory factor analyses, calculating the average values of the variance extracted, validity, reliability and correlation coefficients between scales. *Results:* Four factors (Emotional, Mind/Body, Relational and Social) were obtained. All statistics presented adequate values (RMSEA and SRMR lower than 0.09 and CFI and TLI higher than 0.9). Reliability was demonstrated with the CR index of each factor higher than 0.7 and the AVE higher than 0.5. *Conclusions:* Core FertiQoL presents an acceptable adjustment for Spanish women with fertility problems. It offers a communication channel between professionals and patients, as well as accurate information in its subscales on areas that may reflect QoL impairment. Core FertiQoL is an instrument that allows the identification of areas requiring support, providing valuable information for the design of efficient social-health value-centered programs for people with infertility.

Keywords: Woman. FertiQoL. Infertility. Quality of life. Confirmatory factor analysis.

Introduction

Infertility is a global public health issues and the proportion of infertile couples worldwide is increasing (World Health Organization [WHO], 2020). It is estimated that 48 million couples and 186 million people worldwide have fertility problems (WHO, 2020). Infertility is considered as a condition of the male or female reproductive system defined by the inability to achieve pregnancy after 12 months or more of regular unprotected intercourse (WHO, 2018). This translates into fertility issues affecting 8-12% of couples of reproductive age (Vander & Wyncs, 2018).

While fertility issues are not disabling or life-threatening, its diagnosis has been associated with substantial psychological distress, negative feelings, social isolation, bereavement, stress and other mental health issues, elements closely related

to quality of life (QoL) (Schweiger et al., 2018; Biringier, et al., 2018; Ma et al., 2018; Kitchen et al., 2017; Luk Bh-K & Loke, 2015; Gameiro et al., 2013; Chachamovich et al, 2010). The World Health Organization Quality of Life assessment (WHOQOL) defines QoL as: "an individual's perception of his or her position in life within the cultural context and value system in which he or she lives and with respect to his or her goals, expectations, standards and concerns" (TWHOQOL, 1995).

Regarding the impact of fertility issues and its treatment using assisted reproductive techniques (ART) on QoL, most of the studies have been conducted in women, as women are the main recipients of ART (Bakhtiyar et al., 2019; Jung, 2017; Valsangkar et al, 2011). The literature shows that infertility and its treatment may affect women in terms of stress, anxiety, depression, and feelings of failure and loss of control (Kamboj et al., 2023; Kiani, et al., 2020; Rooney & Dumar, 2018; Gdańska et al., 2017) and in terms of self-esteem, identity, partner relationship, sex life, mental and physical health, work, and social life (Gameiro et al., 2017). In addition, fertility issues may have a negative impact on women's

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social support and social networks, making women feeling isolated and stigmatized due to their fertility issues, which at the same time can affect their emotional and social well-being (Jagadeeswari et al. 2022; Kiesswetter et al. 2020; Greil et al., 2018; Abraham, et al. 2019).

Because of the above, there is a strong need to ensure that reproductive health systems and their professionals consider the potential impact of fertility issues and fertility treatment on women's QoL. Thus, the evaluation of the QoL of women experiencing fertility issues and/or undergoing ART is essential to offer comprehensive and high-quality care (Kulaksiz et al., 2022; Wadadekar et al., 2021; Hubens et al., 2018; Kitchen et al., 2017; Bunting et al., 2010; Keramat et al., 2014; Mousavi et al., 2013; Boivin et al., 2005).

It is also necessary, when evaluating QoL, to use specific instruments for the fertility context, instead of generic instruments on QoL because these may not capture the specific experience of people with fertility issues or undergoing ART (Pedro et al., 2019).

One of the most popular specific tools to evaluate QoL in the fertility context is the FertiQoL (Boivin et al., 2011). FertiQoL was developed by the European Society of Human Reproduction and Embryology (ESHRE) and The American Society of Reproductive Medicine (ASRM). The FertiQoL questionnaire has been validated evidencing good overall psychometric characteristics (Dura et al., 2023; Koert et al. 2021 ; Volpini et al., 2020; Pedro et al., 2019; Sexty et al., 2018; Maroufizadeh et al., 2017; Aarts et al., 2011). In addition, it has been translated into 46 languages, which are available on the Cardiff University website (<http://sites.cardiff.ac.uk/fertiqol/download/>). FertiQoL measures the impact of infertility on QoL through questions grouped into personal QoL, interpersonal QoL, treatment related QoL, and overall satisfaction with physical health and QoL. The questionnaire is divided into two modules. The first module, Core FertiQoL, consists of 24 questions that are grouped into 4 subscales, which assess quality of life in 4 aspects: emotional (individual experiences commonly associated with fertility problems, envy, resentment, depression); mind and body (refers to physical symptoms such as pain and fatigue and cognitive or behavioral disorders, such as lack of concentration, etc.); relational (indicates problems in relationships with partners, sexual, communication and coexistence); and social (measures affectation in social interactions, social inclusion, stigma, support, expectations, etc.). The second module, FertiQoL Treatment, consists of 10 questions and assesses the perception of treatment in two subscales: treatment environment and treatment tolerability. Each of the questions is rated on a Likert scale from 0 to 4, with the higher value corresponding to a higher quality of life. Using the "FertiQoL Scoring", we will obtain a value from 0 to 100 for each of the aspects of quality of life and treatment, and a value from 0 to 100 for overall quality of life and treatment (2 modules). For the overall score of the two questionnaires (Core FertiQoL and Treatment FertiQoL) and for the score of the two tests combined, the range of fi-

nal scores is from 0 to 100. A higher score translates into a higher quality of life (Boivin et al., 2011; Aarts et al., 2011).

Therefore, the objective of this study is to investigate the dimensionality, validity, and reliability of the first module (Core) of the FertiQoL questionnaire in a sample of women with fertility issues. This study aims at providing evidence of the use of FertiQoL as a gold standard tool for the measurement of QoL for women experiencing fertility issues (whether in treatment or not). The use of this tool will allow health and social professionals to assess the psychosocial impact of fertility issues and, thus to provide comprehensive and high-quality care for women with infertility problems.

Method

Study design and participants

This cross-sectional design study was nested within a broader longitudinal research project on Spanish heterosexual couples who rely on medical assisted reproduction techniques to achieve parenthood at a public Assisted Reproductive Unit.

In particular, in this study the target population are women attending fertility centre to be diagnosed or undergoing Assisted Reproduction Techniques (ART). Participants were recruited by researchers at the Assisted Reproduction Unit of the Hospital Universitario y Politécnico (HUP) La FE de Valencia (Spain) between February 2018 and December 2022.

The inclusion criteria for the research project were: having fertility problems during at least twelve months, being over 18 years of age, and having enough knowledge of the Spanish language to be able to sign the informed consent.

Of the 1,604 subjects that met the inclusion criteria for this study and were recruited and participated in the research, 802 were women. Of those, 564 (70.32%) completed the Core FertiQoL questionnaire without missing data. These 564 women were included in the analyses of the current study.

Ethical approval

The Ethics Committee of the HUP La FE (reference: 2018/0383) and the University of Valencia (reference: H1524729602626) provided ethical approval for the study. All study participants signed the informed consent documents.

Measures

The Fertility Quality of Life Questionnaire (FertiQoL) (Boivin et al., 2011) was used in the study. In particular, it has been translated into 46 different languages and has good psychometric properties: The FertiQoL in Spanish maintains a high internal consistency with Cronbach's alpha coefficients above 0.80 in the Core and treatment subscales. Con-

firmatory factor analyses performed in Spanish-speaking populations have shown a factor structure similar to the original, validating its use to measure the impact of infertility on quality of life (Boivin et al., 2011). The Spanish version as provided by its authors (<http://sites.cardiff.ac.uk/fertiqol/files/2015/02/fertiqol-Spanish.pdf>).

The FertiQoL is a 36-item questionnaire, composed of two modules, the Core Module and the Treatment Module, which aims to evaluate quality of life in persons experiencing infertility problems. Of the two modules of FertiQoL, only the Core Module (Core FertiQoL) was involved in this study.

The Core FertiQoL contains 24 items organised into four subscales with six items in each of them: Emotional subscale, Mind-Body subscale, Relational subscale and Social subscale. Each item is responded to on a five-point Likert type scale ranging from 0 to 4. Higher scores indicate better fertility-specific quality of life.

Sociodemographic and clinical characteristics of participants were also collected.

Data analysis

Descriptive analyses (frequency, percentages, means and standard deviation) were performed to describe the characteristics of the study participants.

Using the MPlus program (version 8.4), a Confirmatory Factor Analysis (CFA) was performed to test the fit of the original four-factor structure of Core FertiQoL in our Spanish women sample ($N = 564$). The Weighted Least Square Mean and Variance Corrected (WLSMV) method was employed to estimate the model and to overcome the non-normality and ordinal nature of the items (Finney & Di Stefano, 2006).

Goodness of fit was determined through the estimated factor loadings which are significant when associated p -values of t -test are lower than .001, and via use of the following statistics: Chi-square (χ^2), Root Mean Square Error of Approximation (RMSEA); Standardized Root Mean Square Residual (SRMR); Comparative Fit Index (CFI); Tucker Lewis Index (TLI). The overall model fit is considered to be acceptable if: chi-squared, RMSEA and SRMR are lower than 0.09 and CFI and TLI are over 0.9 (Hu & Bentler, 1999).

The Discriminant and convergent validity of the model were assessed using Average Variance Extracted (AVE). The Discriminant validity of the construct considered occurs when the square root of the AVE between each pair of factors is higher than the estimated correlation between those

factors. On the other hand, AVE values higher than 0.5 indicate good convergent validity (Hair et al., 2010).

The reliability (internal consistency) of the scale was demonstrated as good by Composite Reliability (CR) indices with values over 0.7 (Hair et al., 2010) and Cronbach's alpha with values higher than 0.7.

Results

The final sample was composed of 564 women with infertility problems with an average age of 34.96 years, being most participants married (62.4%) with an average duration of the relationship of 7.6 years. Regarding educational attainment, 46.8% of the women included in the study had a university degree and 36.7% had completed secondary education. About the employment situation, the majority of the sample (79.3%) was employed and only 19.9% was not in the labour force.

Regarding the clinical characteristics, participants presented an average duration of infertility of 3.95 years (ranging from one to 18 years). Infertility was due to a female factor in 27.8% of the cases, a male factor in 26.4%, and both male and female factors in 22%, while 20.8% was due to idiopathic factors. This information was missing for 3% of the sample. Most participants reported not having a previous pregnancy (77%), not having given birth (95%) and not having suffered an abortion (81.6%).

Regarding the phase of ART treatment that the woman was undergoing when she answered the questionnaire, 55.5% was in diagnostic phase (pre-treatment) and 44.5% was in a treatment phase. For those women undergoing fertility treatment, the mean duration of treatment was 1.41 years (ranging from one to eleven years) and the average number of cycles was 2.11 (ranging from one to 13). All of this sociodemographic and clinical data is explained in detail in Table 1.

Dimensionality

CFA has been used to test the fit of the original four-factor model of the Core Module of the FertiQoL. In line with the original model, four factors were obtained: Emotional, Mind/Body, Relational, and Social.

Despite the fact that the goodness of fit indexes of the original 24-item of the Core FertiQoL showed that all statistics presented appropriate values, namely: RMSEA and SRMR are lower than 0.09 and CFI and TLI are higher than 0.9 (Table 2), the principal component loadings of several items in the Core FertiQoL subscales were smaller than satisfactory (the principal component loadings of all 24 items in these four subscales ranged from 0.000 to 0.963).

Table 1
Sociodemographic and clinical characteristics of the study participants (n=564)

Characteristics	Study participants (n=564)
Age, mean (<i>SD</i>)	34.96 (3.86)
Marital Status, N (%)	
Married	352 (62.4%)
Not married	212 (37.6%)
Relationship duration (years), mean (<i>SD</i>)	7.59 (5.56)
Educational Attainment, N (%)	
Primary education	85 (15.1%)
Secondary education	207 (36.7%)
University	264 (46.8%)
Missing information	8 (1.4%)
Employment Situation, N (%)	
Employed	447 (79.3%)
Not in the labour force	112 (19.9%)
Missing information	5 (0.9%)
Infertility duration (years), mean (<i>SD</i>)	3.95 (2.60)
Infertility cause, N (%)	
Male factor	149 (26.4%)
Female factor	157 (27.8%)
Both male and female factors	124 (22.0%)
Idiopathic factors	117 (20.8%)
Missing information	17 (3%)
Previous pregnancy, N (%)	
Yes	130 (23.0%)
No	434 (77.0%)
Previous births, N (%)	
Yes	29 (5.1%)
No	535 (94.9%)
Previous abortions, N (%)	
Yes	104 (18.4%)
No	460 (81.6%)
Treatment Stage, N (%)	
Diagnostic	313 (55.5%)
Undergoing treatment	251 (44.5%)
For those women undergoing treatment	
Treatment duration (years), mean (<i>SD</i>)	1.41 (1.55)
Number of cycles, mean (<i>SD</i>)	2.11 (2.37)

Table 2
Goodness of fit indexes of the original 24-items Core FertiQoL model (N=564)

Model	χ^2	<i>p</i>	RMSEA (90% CI)	SRMR (90% CI)	CFI	TLI
24-items original Core FertiQoL	1351.586	.000	0.089	0.067	0.921	0.911

Note. χ^2 = Chi-square; *p* = probability of χ^2 ; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.

In particular, the principal component loadings of items Q4, Q5, Q6, Q11, Q14, Q15, Q21 and Q22 did not exceed the recommended value of 0.30 (Hair et al., 2010). Thus, a CFA was run again without those items with poor factor loading (Figure 1).

As expected, the results of the second CFA –excluding items Q4, Q5, Q6, Q11, Q14, Q15, Q21 and Q22– improved the fit of the reduced version of the model (Table 3).

The goodness of fit indexes of this reduced version of Core FertiQoL presented satisfactory values (significant chi-squared; RMSEA and SRMR were lower than 0.09; CFI and TLI were higher than 0.9), as shown in Table 3.

Figure 1

The four factor model of Core FertiQoL. Standardized factor loadings and correlations of subscales are presented. ** $p < .01$.

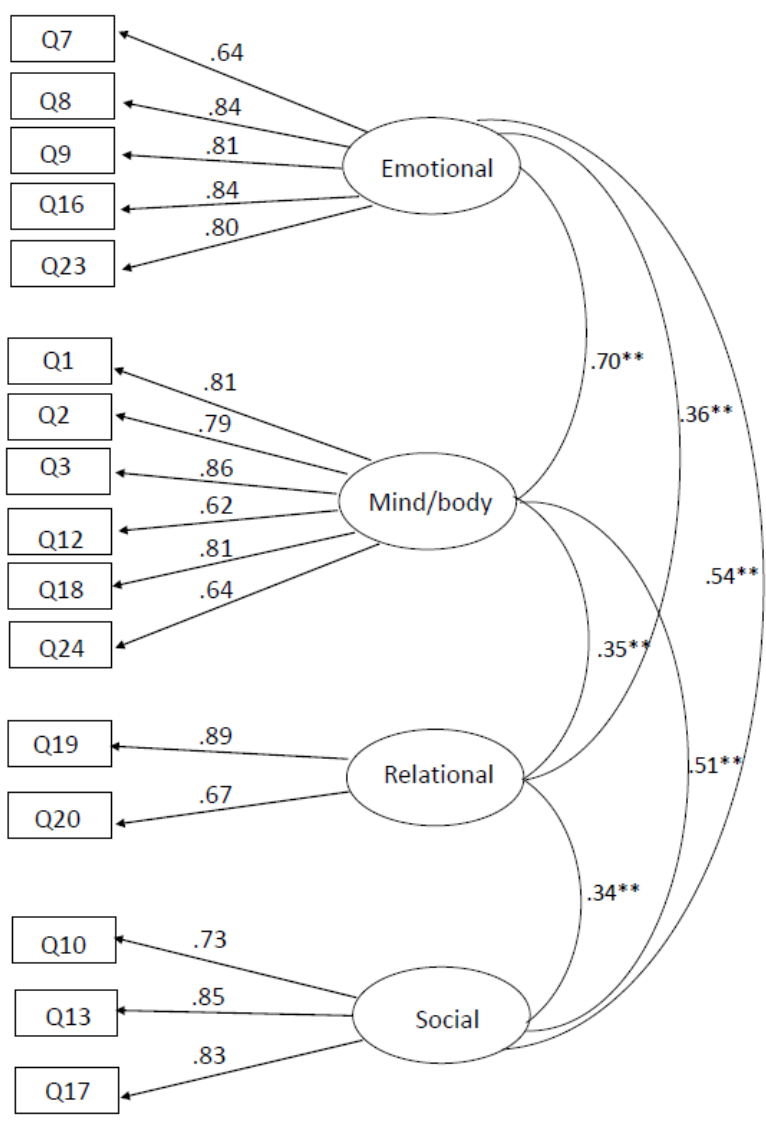


Table 3
Goodness of fit indexes of the reduced Core FertiQoL model (N = 564)

Model	χ^2	p	RMSEA (90% CI)	SRMR (90% CI)	CFI	TLI
Reduced Core FertiQoL	437.076	.000	0.078	0.039	0.972	0.966

Note. χ^2 = Chi-square; p = probability of χ^2 ; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; CFI = Comparative Fit Index; TLI = Tucker Lewis Index.

As presented in Table 4, all items showed a good factor loading in their corresponding subscale. However, after removing those 8 items from the original model, this model presented limitations in the Relational and Social subscales,

which included only two and three items, respectively. The convergent validity of the reduced version of the FertiQoL model was demonstrated since the AVE for each of the four factors was higher than 0.5, as well as the factor loadings

which present significant values over 0.6. Finally, as presented in Table 5, discriminant validity was confirmed because the square root of the AVE between each pair of factors was higher than the estimated correlation between those factors.

Reliability of FertiQoL

The reliability of FertiQoL was proven since the CR index of each factor was higher than 0.7 and the AVE higher than 0.5 (Hair et al., 2010) as shown in Table 4.

Table 4
Analysis of dimensionality, convergent validity and reliability of Core FertiQoL

Core FertiQoL Items	Factor loading	<i>p</i>	Cronbach's alpha
Emotional (AVE = 0.63 ; CR = 0.89)			0.743
Q7 Do your fertility problems cause feelings of jealousy and resentment?	0.642	.000	
Q8 Do you experience grief and/or feelings of loss about not being able to have a child (or more children)?	0.849	.000	
Q9 Do you fluctuate between hope and despair because of fertility problems?	0.815	.000	
Q16 Do you feel sad and depressed about your fertility problems?	0.843	.000	
Q23 Do your fertility problems make you angry?	0.808	.000	
Mind/Body (AVE = 0.58 ; CR = 0.89)			0.847
Q1 Are your attention and concentration impaired by thoughts of infertility?	0.818	.000	
Q2 Do you think you cannot move ahead with other life goals and plans because of fertility problems?	0.795	.000	
Q3 Do you feel drained or worn out because of fertility problems?	0.861	.000	
Q12 Do your fertility problems interfere with your day-to-day work or obligations?	0.626	.000	
Q18 Are you bothered by fatigue because of fertility problems?	0.813	.000	
Q24 Do you feel pain and physical discomfort because of your fertility problems?	0.642	.000	
Relational (AVE = 0.63 ; CR = 0.77)			0.642
Q19 Have fertility problems had a negative impact on your relationship with your partner?	0.899	.000	
Q20 Do you find it difficult to talk to your partner about your feelings related to infertility?	0.676	.000	
Social (AVE = 0.66; CR = 0.85)			0.769
Q10 Are you socially isolated because of fertility problems?	0.735	.000	
Q13 Do you feel uncomfortable attending social situations like holidays and celebrations because of your fertility problems?	0.852	.000	
Q17 Do your fertility problems make you inferior to people with children?	0.837	.000	

Note. AVE = Average Variance Extracted; CR = Composite Reliability

Table 5
Discriminant validity of FertiQoL

	Emotional	Mind/Body	Relational	Social
Emotional	0.794			
Mind/Body	0.707**	0.762		
Relational	0.365**	0.353**	0.794	
Social	0.541**	0.516**	0.343**	0.812

Note. Diagonal: Square root of AVE; below the diagonal: correlation estimated between the factors; ***p* < 0.01.

Discussion

The current study is the first to examine the psychometric properties of the Core FertiQoL module in a sample of Spanish women experiencing fertility issues. The confirmatory factor analysis supports the solution of 4 factors of the original FertiQoL (Boivin et al., 2011) that constitutes the 4 subscales of the Core Module (emotional, mind/body, relational and social) in line with other studies (Woods et al., 2023; Sexty et al., 2018). The factorial solution shows ac-

ceptable goodness-of-fit indices of the model eliminating several items due to their low factorial weights. A total of 8 items were excluded from the Spanish version of the Core FertiQoL corresponding to the Relational subscale (Q6, Q11, Q15 & Q21), Social subscale (Q5, Q14 & Q22) and Emotional subscale (Q4).

The results of the CFA excluding those 8 items resulted in better fit indices and AVE values for the reduced version of the model. These results are aligned with the ones also reported by Ariffin et al. (2020), Dura-Ferrandis et al. (2023),

Juniarto et al. (2021), and Wu et al. (2021) in recent validation studies of the FertiQoL in which items deletion has been proposed to increase the internal consistency of the respective subscales.

The convergent validity of the reduced version of the Core FertiQoL model in the present study was satisfactory, notwithstanding the limitations presented in the Relational and Social subscales, which included only two and three items, respectively. This limitation was also encountered in the study of Wu et al. (2021), in which Q4, Q5, Q11, Q14, Q15 and Q21 items were eliminated, reducing the Relational and Social subscales to four and three items, respectively.

The reliability of the Spanish version of the Core FertiQoL was also acceptable, as described in the update research of the tool (Koert et al. 2021), with Cronbach's alpha values ranging between 0.64 and 0.85. In particular, similar results on the internal consistency of the Emotional subscale were found in other studies (Kahyaoglu Sut & Kaplan, 2015; Li et al., 2016; Sexty et al., 2016); for the Mind/Body subscale (Li et al., 2016); for the Relational subscale (Asazawa & Mori, 2015; Donarelli et al., 2016; Kahyaoglu Sut & Kaplan, 2015; Maroufizadeh et al., 2018); and for the Social subscale (Asazawa & Mori, 2018; Boivin et al., 2011; Kahyaoglu Sut & Kaplan, 2015; Maroufizadeh et al., 2017).

Regarding the discriminant validity of the Core FertiQoL, the correlational analysis showed that the different subscales are strongly associated with each other but represent different dimensions of fertility-specific quality of life. The correlations are stronger between Emotional and Mind/Body subscales, followed by correlations between Emotional and Social subscales, and Social and Mind/Body subscales. Moderate but significant associations were found between Relational and Emotional, and between Relational and Mind/Body subscales. These results are in line with the correlations found for the Core FertiQoL in other studies (Dura-Ferrandis et al., 2023; Pedro et al., 2019; Sexty et al., 2018; Donarelli et al., 2016).

These results appear to support the validity of the FertiQoL Core for assessing the set of components that may affect the quality of life of women experiencing fertility problems or undergoing ART. In addition, this study confirms the original four-factor structure of this overall FertiQoL module. However, from this study it is suggested that by removing some items the psychometric properties of the tool can be improved. In this sense, it is specifically recommended the elimination of the items corresponding to the Relational subscale (Q6, Q11, Q15 & Q21), Social subscale (Q5, Q14 & Q22) and Emotional subscale (Q4). Therefore, it can be concluded that further research is needed to address the psychometric properties of the Core FertiQoL.

Limitations

Some limitations were found in the present study. The sample size was adequate for the Core FertiQoL validity study; however, it is limited to a specific population group in

a Spanish city (Valencia). The sample consisted of heterosexual women attending a public hospital in the city of Valencia. For this reason, the results could not be extrapolated to all women experiencing fertility issues and/or undergoing ART in Spain.

The study focused on women experiencing fertility issues and/or ART but did not consider their sexual status. For future studies, it is necessary to broaden the scope of the study to include the different LGBTBIQ+ groups.

Also, the study could be extended to couples in order to know the differences, if any, in the impact of infertility on QoL and coping strategies of the couple.

Implications for Practice and/or Policy

An active approach from health care institutions and its professionals in assessing QoL among women experiencing fertility issues and/or undergoing ART allows to monitor and detect psychosocial needs. It has been shown that the monitoring and evaluation of the psychosocial status of patients can reduce the consumption of services or drugs in the future (Chu, et al. 2017; Goetz & Schork, 2018).

In addition, monitoring fertility-related quality of life conveys a supportive environment where clinicians are open to communication, providing psychosocial resources, and introducing strategies to improve coping mechanisms and communication within an identified support system, as well as it helps to provide a more comprehensive intervention to these patients (Jestrovic & Mihic, 2020).

For this reason, Core FertiQoL is positioned as an effective tool that allows policymakers and health practitioners to assess the QoL of the population with fertility problems. This will enable the design of more efficient health care programs and systems, fostering comprehensive value-centered care.

Conclusions

The results conclude that Core FertiQoL has an acceptable fit in its 4 factors for Spanish women who have fertility problems. Further research is also needed to investigate some aspects related to the values of the subscales that show less consistent measurements.

The Core FertiQoL instrument may offer an opportunity to generate and reinforce a communication channel between professionals and patients. As well as, provide data of interest for the provision of health services to mitigate the consequences of fertility issues or ART on the QoL of women.

The subscales of the FertiQoL provide a more precise determination of problematic areas that can lead to an impaired quality of life, like relational or emotional concerns. Clinicians can use the FertiQoL to identify areas in need of intervention and offer additional support or resources when possible.

Complementary information

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