Journal of Positive School Psychology http://journalppw.com
2023, Vol. 7, No. 10, 121-132

The Psychometric Characteristics Of The Health-Related Quality Of Life Questionnaire For Women With Polycystic Ovary Syndrome (PCOSQ)

Chourouk Hmidi[1], Hind Ghedhaifi [2]

[1]Laboratory of Social Cognitive Neuropsychology, University of El Oued, Algeria.
[2]Laboratory of Social Development and Community Service, University of El Oued, Algeria.

Received : 02/03/2023 ; Accepted : 27/09/2023 ; Published : 25/10/2023

Abstract:

The current study aimed to determine the psychometric properties of validity and reliability for the Health-Related Quality of Life Questionnaire for women with Polycystic Ovary Syndrome (PCOSQ). The questionnaire, consisting of 26 items, was developed by CRONIN, GUYATT, and others and adapted to the Algerian context. The original version of the questionnaire was translated into Arabic, and the Arabic version was applied to 50 women diagnosed with PCOS after ensuring the translation's accuracy.

The results regarding the questionnaire's validity indicated high internal consistency and significant correlations between items, dimensions, and the total score. Two items were removed, resulting in a final questionnaire with 24 items. The translated questionnaire demonstrated high reliability, with Cronbach's alpha coefficients ranging from 0.72 to 0.82. The stability coefficient, assessed using the split-half method, was 0.81.

The study concluded that the questionnaire is valid for assessing health-related quality of life in women with Polycystic Ovary Syndrome in clinical settings.

Keywords: Polycystic Ovary Syndrome, quality of life, health-related quality of life, psychometric properties.

Introduction

Polycystic Ovary Syndrome (PCOS) is one of the most common chronic endocrine disorders, affecting approximately 8% to 13% of women of reproductive age. It manifests with a range of clinical symptoms, such as obesity, infertility, hirsutism, and general biochemical and hormonal disturbances. These symptoms are often associated with decreased self-esteem and body image, consequently impacting the health-related quality of life (HRQoL) of affected women, particularly in psychological and social aspects.

Health-Related Quality of Life (HRQoL) is a multidimensional concept widely used in medical research, with its application increasing in routine medical practice. It is defined as "an individual's perception of their life in the context of their culture, beliefs, goals, and personal interests." Important domains include physical health, mental health, and social relationships in assessing health-related quality of life. Over the years, there has been a growing trend to integrate HRQoL assessment in clinical studies and routine clinical management of Polycystic Ovary Syndrome.

Consequently, numerous studies conducted worldwide have shown an association between health-related quality of life and the presence of Polycystic Ovary Syndrome in women. Women diagnosed with PCOS may be more prone to experiencing a decrease in health-related quality of life. (María L, María T. and others 2020).

The treatment of polycystic ovary syndrome (PCOS) typically focuses on alleviating its symptoms. Effective treatment can reduce the burden of these symptoms, as well as the accompanying psychological and social stress, thus

improving health-related quality of life (HRQL) in women.

Therefore, the assessment of health-related quality of life (HRQL) can provide vital information for evaluating the effectiveness of interventions in clinical trials and scientific studies for polycystic ovary syndrome. The PCOS HRQL questionnaire represents a novel scale for women with PCOS and encompasses five domains: emotions, body hair, infertility, weight, and menstrual problems. Women's responses to questions regarding the impact of PCOS-related issues led to the final selection of questionnaire items. (CRONIN, G. GUYATT, and others, 1998, p. 1976).

It is likely that the questionnaire will be beneficial in measuring the impact of interventions designed to improve health-related quality of life (HRQL) in women with polycystic ovary syndrome.

On this premise, our current study aimed to translate the Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ) for women with polycystic ovary syndrome, validate it, and extract its psychometric properties after its application. This is done to utilize it in psychological studies and research fields in the Arabic environmental context. Based on the aforementioned, the following questions were posed:

1. Does the translated Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ), conducted by the researcher, exhibit acceptable validity coefficients that align with the good properties of the scale after its application on a sample of patients with polycystic ovary syndrome?

2. Does the translated Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ), conducted by the researcher, exhibit acceptable reliability coefficients that align with the good properties of the scale after its application on a sample of patients with polycystic ovary syndrome?

- Study Objectives:

The significance of the study lies in providing a translated and validated scale in the Algerian context that can be used after verifying its standard and psychometric properties.

- Enriching the psychological literature, especially in the clinical and health psychology field, with a tool that measures the health-related quality of life for women with polycystic ovary syndrome, which meets the scientific requirements of good psychological tests. This contributes to facilitating scientific research and supporting the work of psychologists.

- Significance of the Study:

The main objective of the study is to standardize the Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ) and develop an Arabic version of the questionnaire that is suitable for application in the Algerian context.

- Translating and validating the questionnaire to make it suitable for use in the Algerian context.

- Studying and extracting the psychometric properties of the Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire for women with polycystic ovary syndrome, including validity and reliability coefficients.

Study Limitations:

- Human limitations: This study was conducted on a sample of (50) women diagnosed with polycystic ovary syndrome.

- Spatial limitations: The study was conducted in several gynecology and obstetrics clinics in the state of El Oued, both in-person and electronically, to enable sample collection.

- Temporal limitations: The study was conducted from July 6, 2023, to February 15, 2024.

- Procedural Definition of Study Variables:

- The health-related quality of life specific to women with polycystic ovary syndrome is procedurally defined by the score obtained by a patient with polycystic ovary syndrome in the PCOSQ questionnaire used in the study.

- Patients with polycystic ovary syndrome: In this study, they are defined as women diagnosed with polycystic ovary syndrome after undergoing the necessary clinical and laboratory examinations.

- Previous Studies:

There are several studies that have examined the psychometric properties of the Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ) in various settings, including:

1. ELIZABETH et al. (2008) conducted a study to verify the reliability and assess the properties of the questionnaire in the Swedish context. The study included 69 women diagnosed with polycystic ovary syndrome. The results indicated high internal consistency coefficients for the five domains, ranging from 0.79 to 0.96, indicating its suitability for use. - ELIZABETH, JAN KOWALSKI, & ELISABET (2008).

2. ZM VAN DER SPUY and PS STEYN (2015) also aimed to verify the psychometric properties of the PCOSQ in South Africa and compare it with the Health-Related Quality of Life questionnaire (HRQOL). The study included 105 women with polycystic ovary syndrome and a retest of 67 women. The results showed statistically significant Pearson correlation coefficients for all questionnaire domains, and Cronbach's alpha coefficients above 0.7 for all domains except the menstrual problems domain (0.65). It was concluded that the questionnaire is valid for measuring health-related quality of life for women with polycystic ovary syndrome in clinical settings. - ZM VAN DER SPUY and PS STEYN (2015).

Theoretical Background:

- Definition of Health-Related Quality of Life:

The concept of Health-Related Quality of Life (HRQOL) and its determinants have evolved since the 1980s to encompass aspects of overall quality of life that clearly impact both physical and mental health.

The World Health Organization (WHO) defines Health-Related Quality of Life (HRQOL) as a state of well-being that includes physical, mental, and social aspects, and is not merely the absence of disease or disability (Zaatout, 2014, p.3).

Maldon and Barjor emphasize that the concept of Health-Related Quality of Life relies on the individual's self-assessment of their health status, considering it as a reflection of how the individual perceives and interacts with their health condition and other non-health-related aspects of their life (Hashem, 2001, pp. 128-129).

Definition of Polycystic Ovary Syndrome:

Polycystic Ovary Syndrome (PCOS) is a common disorder of the endocrine system in women and the main cause of female infertility. It is a complex hormonal disorder often associated with infertility and countless health issues.

According to Sigrid Elsenbruch, Susanne Hahn, and others (2003), PCOS is characterized by the thickening of the ovarian cortex, resulting in the growth of multiple small cysts instead of a single dominant follicle. Due to this overcrowding, none of the follicles reach the required size, leading to infertility.

The definition of Polycystic Ovary Syndrome was mentioned in a meeting between the European Society of Human Reproduction and Embryology and the American Society for Reproductive Medicine in Rotterdam, the Netherlands, in 2003. According to this definition, a person with PCOS should meet at least two of the following three criteria:

1. Reduced or absent ovulation.

2. Clinical or laboratory evidence of elevated blood androgens.

3. Presence of polycystic ovaries on ultrasound imaging (Youssef and Mohamed, 2016, p.11).

1- Polycystic Ovary Syndrome is a psychophysical disorder often referred to as a "lifestyle disorder" due to its chronic nature. It is the most common endocrine disorder in reproductive-age women. It intersects with metabolic, endocrine, and

reproductive functions, affecting the pituitary gland, ovarian hormones, leading to infertility, menstrual problems, hyperandrogenism, insulin resistance, and excessive body hair growth in females (Sampada Pawar and Swati Gaikwad, 2020, p. 699).

2- Epidemiological Study of Polycystic Ovary Syndrome:

Polycystic Ovary Syndrome affects 8% to 13% of women of reproductive age and is associated with impaired ovulation, hyperandrogenism, and cardiovascular risks. It is attributed to lifestyle patterns and the stress of metabolic disorders (Kalpana Sharma, S.K Srivastava, 2020, p. 106).

- Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ):

Despite the availability of general tools to measure quality of life, they are not designed to assess the specific health-related issues experienced by women with Polycystic Ovary Syndrome (PCOS) or detect changes in these issues caused by effective interventions. Therefore, the first health status measure examining disease-related dysfunction in women with PCOS was designed for use in clinical trials and studies.

Design Principles of the Questionnaire: These principles include the following aspects:

1. Both physical and emotional health should be measured.

2. The items should reflect functional domains that matter to women with PCOS.

3. The summarized results should be amenable to statistical analysis.

4. The questionnaire should be relatively short, simple, and self-administered. (CRONIN, G. GUYATT and others, 1998, p. 1976).

This questionnaire represents a development of the Health-Related Quality of Life Questionnaire tailored for women with Polycystic Ovary Syndrome. It includes aspects that are relevant to them as well as aspects specific to the syndrome (such as hair, weight, menstrual problems, and infertility). (CRONIN, G. GUYATT and others, 1998, p. 1980).

- Field Study Procedures:

- Study Methodology: The current study adopted the exploratory descriptive methodology as the most suitable scientific approach to answer the study's questions. It provides the study with accurate information and data that reveal the psychometric characteristics of the Health-Related Quality of Life Questionnaire for women with Polycystic Ovary Syndrome.

- Study Sample: The researcher employed purposive sampling method in selecting the study participants. The study sample consisted of 50 women diagnosed with Polycystic Ovary Syndrome.

- Field Study Instrument: The Health-Related Quality of Life Questionnaire for women with Polycystic Ovary Syndrome (PCOSQ) was utilized as the field study instrument. The researcher translated the PCOSQ from English to Arabic with the assistance of professional translators. Reverse translation from Arabic to English was conducted to ensure semantic equivalence. Subsequently, it was subjected to expert review by five psychologists for validation.

Table (01) shows the items and dimensions of the questionnaire:

Questionnaire Dimensions	Items Number
After emotions	**(2-4-6-11-14-17-18-23)**
After weight	**(3-10-12-22-24)**
After body hair	**(1-9-15-16-26)**
After infertility and delayed childbearing	**(5-13-25)**

After a disruption of the menstrual cycle	**(21-20-19-8-7)**

The PCOSQ questionnaire consists of 26 items divided into 5 dimensions: Emotions (8 items), Body Hair (5 items), Weight (5 items), Infertility (3 items), and Menstrual Problems (5 items). Each question is linked to a 7-point Likert scale, where 7 represents optimal function and 1 represents the poorest function. The time frame for assessing function is 14 days. The Emotions domain includes items related to depression, easy fatigue, and anxiety. (CRONIN, G. GUYATT and others, 1998, p. 1980)

Presentation of Study Results

The aim of the current study was to adapt the Health-Related Quality of Life Questionnaire for women with Polycystic Ovary Syndrome (PCOS) to assess the effectiveness and psychometric properties of its items. The following discussion presents the results of the questionnaire item analysis and its psychometric properties:

Internal Consistency Reliability:

Internal consistency reliability was assessed to determine the validity of the scale in this study. It measures the correlation between item scores and the dimension to which they belong, as well as the correlation between dimension scores and the total scale score. The following tables provide details:

Table No. (02): Shows the correlation coefficient of the degree of the item with the degree of the dimension to which it belongs (emotions)

Significance level	Correlation coefficient	figure	Significance level	Correlation coefficient	figure
0.05	0.301	**14**	0.05	0.304	**02**
0.01	0.819	**17**	0.05	0.324	**04**
0.01	0.679	**18**	0.01	0.444	**06**
0.01	0.646	**23**	0.01	0.542	**11**

From Table 02, it is evident that the correlation coefficients between item scores and the corresponding dimension (Emotions) ranged from 0.301 to 0.819, all of which are statistically significant at the 0.01 level of significance. The remaining correlations were statistically significant at the 0.05 level.

Table (03): The correlation coefficient of the grade of the item with the degree of the dimension to which it belongs (weight)

Significance level	Correlation coefficient	figure	Significance level	Correlation coefficient	figure
0.01	0.835	**22**	0.01	0.441	**03**
0.01	0.900	**24**	Non-function	0.924	**10**
/	/	/	0.01	0.491	**12**

According to Table 03, the correlation coefficients between item scores and the corresponding dimension (Weight) ranged from 0.441 to 0.900. The majority of these correlations were statistically significant at the 0.01 level of significance. However, item 10 was not statistically significant and was therefore excluded from the analysis.

Table (04): The correlation coefficient of the grade of the item with the degree of the dimension to which it belongs (body hair)

Significance level	Correlation coefficient	figure	Significance level	Correlation coefficient	figure
0.01	0.909	**16**	0.01	0.930	**01**
0.01	0.909	**26**	Non-function	0.271	**09**
/	/	/	0.01	0.940	**15**

From Table 04, it is evident that the correlation coefficients between item scores and the corresponding dimension (Body Hair) ranged from 0.909 to 0.940. The majority of these correlations were statistically significant at the 0.01 level of significance. However, item 09 was not statistically significant and was therefore excluded from the analysis.

Table No. (05): Shows the correlation coefficient of the grade of the item with the degree of the dimension to which it belongs (infertility)

Significance level	Correlation coefficient	figure	Significance level	Correlation coefficient	figure
0.01	0.554	**25**	0.01	0.376	**05**
/	/	/	0.01	0.707	**13**

According to Table 05, the correlation coefficients between item scores and the corresponding dimension (Infertility) ranged from 0.376 to 0.764. All of these correlations were statistically significant at the 0.01 level of significance.

Table (06): Shows the correlation coefficient of the grade of the item with the degree of the dimension to which it belongs (menstrual problems)

Significance level	Correlation coefficient	figure	Significance level	Correlation coefficient	figure
0.01	0.618	**20**	0.01	0.626	**07**
0.01	0.861	**21**	0.01	0.861	**08**
/	/	/	0.01	0.568	**19**

According to Table 06, the correlation coefficients between item scores and the corresponding dimension (Menstrual Problems) ranged from 0.618 to 0.861. All of these correlations were statistically significant at the 0.01 level of significance.

Table (07): Shows the correlation of the degree of dimension with the total degree of quality of life scale

Axles	Correlation coefficient	Significance level
Emotions	0.4680	0.01
Weight	0.5340	0.01
Body hair	0.5790	0.01
Infertility	0.422	0.01
Menstruation problems	0.4120	0.01

From Table 07, we observe that the dimensions comprising the scale are significantly correlated with the total score, with correlation coefficients ranging from 0.412 to 0.579. The highest correlation coefficient was found between the Body Hair dimension and the total score (0.579), followed by the Weight dimension with a correlation coefficient of 0.534. The Emotions dimension showed a correlation coefficient of 0.468 with the total score, while the Infertility dimension had a correlation coefficient of 0.422, and finally, the Menstrual Problems dimension had a correlation coefficient of 0.412. All these correlations are statistically significant at the 0.01 level.

This indicates that the dimensions are consistent with the total score of the scale, demonstrating a positive relationship between the dimensions and the overall scale. This suggests that the scale possesses an acceptable degree of validity, as these correlation coefficients are sufficiently high to allow us to accept and consider the scale as valid.

Reliability:

The reliability coefficient of the scale was computed using the Cronbach's alpha method, which was calculated for each dimension and for the overall scale. The following Table 07 illustrates the reliability coefficients of the utilized questionnaire:

Table (08): Shows the stability coefficients by the Cronbach alpha method

Axles	Number of items	Cronbach alpha value
Emotions	08	0.81
Weight	05	0.78
Body hair	05	0.82
Infertility	04	0.80

Menstruation problems	04	0.72
Scale	26	0.80

Table number (08) indicates that these coefficients ranged from 0.72 to 0.82 concerning the reliability coefficients of the scale used in this study. The reliability coefficients for the dimensions were as follows: the highest coefficient was found for the Body Hair dimension with a value of 0.82, followed by the Emotions dimension with a value of 0.81, then the Infertility dimension with a value of 0.80, the Weight dimension with a value of 0.78, and finally the Menstrual Problems dimension with a value of 0.72. These coefficients were obtained using Cronbach's alpha, indicating that the scale demonstrates a high degree of reliability.

Furthermore, the split-half reliability method was employed, where the items were divided into odd and even sets, and the correlation coefficient between the two halves of the scale was calculated. The results are presented in the following table:

Table (09): Shows the value and significance of the correlation between the two halves of the health-related quality of life scale

Jetman	**Spearman Brown**	**Correlation of the two parts**	**Phrases**	**Scale**
0.81	0.81	0.71	13	**First half**
			13	**Second half**

According to Table 09, the correlation coefficient between the first half and the second half of the health-related quality of life scale is estimated to be 0.83. After applying the Spearman-Brown and Guttman split-half correction formulas, the reliability coefficient was estimated to be 0.81. This high value indicates that the scale is stable and consistent. This indicates that the scale possesses a high degree of reliability. The elevated reliability coefficients allow us to accept and consider the scale as stable. The high reliability coefficient suggests that the scale consistently measures the intended construct and produces reliable results.

Extraction of result interpretation criteria:

It is undeniable that the raw score obtained by an individual on any psychological or achievement test has no meaning on its own. This raw score alone cannot inform us about the individual's level of possessing a certain trait or characteristic. Therefore, applying the scale to an individual becomes futile without a method to interpret this score. To address this issue, the raw score is converted into another score that allows us to compare the individual's score with others in the test population or a reference group. This converted score is called a criterion or standard.

One commonly used method for conversion is to transform the raw score into standardized scores, such as z-scores or T-scores, which enable us to compare the individual's score to other scores in the same distribution. This provides us with a framework or reference group for comparing the individual's score to others.

The method of calibration to standardized scales, such as Echelles en écart réduit (EER), has been chosen because it is the easiest and most suitable for communities with a moderate distribution. It has been ensured that the community's distribution is moderate through the following table:

Table (10): Shows the torsion coefficient of the study population

flattening	Sprain	Standard deviation	Average	Broker
-0.15	-0.22	13.02	87.42	86.5

Since the skewness coefficient is estimated to be -0.22, which is close to zero, it can be concluded that the distribution of the study population is close to being symmetrical. The range of skewness values extends from -1 to +1, and the closer the value is to zero, the more indicative it is of a symmetrical distribution. Therefore, the skewness coefficient of -0.22 being close to zero suggests that the distribution of the sample individuals' scores is symmetrical, indicating that the population is also symmetrical.

Having confirmed that the distribution of scores is symmetrical, we can now proceed to calculate the deviation standards. The following table illustrates this:

Table (11): Showing the frequency and relative distribution of quality of life scores related to raw health

Rate %	Iteration	Grade	Rate %	Iteration	Grade
4	2	88	4	2	60
4	2	89	4	2	64
2	1	90	2	1	69
4	2	92	2	1	70
2	1	93	2	1	71
2	1	94	2	1	73
2	1	97	4	2	77
2	1	98	2	1	78
2	1	99	2	1	79
2	1	100	4	2	80
12	6	101	4	2	82
2	1	102	2	1	83
2	1	103	2	1	84
2	1	104	10	5	85

4	2	115	4	2	86
/	/	/	2	1	87

In order to derive a scale of five standardized deviation categories, Echelle en écart-réduit de 5 classes, the category boundaries must be determined as follows:

There are four boundaries in this scale, with a distance of 2/1 standard deviations from the mean, which are: 3/2, 2/1-, 2/1, and 2/3.

Boundary score = Mean + Distance × Standard Deviation

First boundary = 87.42 + (-3/2) × 13.02 = 67.89

Second boundary = 87.42 + (2/1-) × 13.02 = 80.91

Third boundary = 87.42 + (2/1) × 13.02 = 93.93

Fourth boundary = 87.42 + (2/3) × 13.02 = 106.95

Finally, the categories are determined by linking the boundaries to the raw scores contained within each category, using the following table:

Table (12): Shows a scale of five calibrated deviation categories

5	**4**	**3**	**2**	**1**	**Category**
107-115	95- 107	82-94	69-81	≤68	**Grades contained within categories**
115	106.95	93.93	80.91	67.89	**Grades Category Limits**
Very high	high	Medium	Weak	very weak	**Judging an individual's degree**

Table number (12) shows that we have obtained 5 categories that allow us to assess the individual's raw score in relation to a certain level, which enables us to make judgments based on a criterion.

It is evident that the first category, with a lower bound of 67.89, contains scores lower than 68. We can infer that a woman who obtains a score falling within this category has a very poor health-related quality of life. As for the second category, with boundaries ranging from 67.89 to 81.91, it includes scores from 69 to 81. A woman who obtains a score within this category can be judged to have a poor health-related quality of life.

Regarding the third category, with boundaries from 81.91 to 93.93, it contains scores from 82 to 94. A woman who obtains a score within this category can be judged to have an average health-related quality of life. Similarly, the fourth category, with boundaries from 93.93 to 106.95, contains scores from 95 to 107. A woman who obtains a score within this category can be judged to have a high health-related quality of life.

Finally, the fifth category, with boundaries from 106.95 to 115, contains scores from 107 to 115. A woman who obtains a score within this category can be judged to have a very high health-related quality of life.

Discussion and Interpretation of Results:

Questionnaire Validity: The study results confirmed that the questionnaire demonstrates sufficient validity. The following is a brief presentation of the validity results and their discussion:

Validity of Hypothesized Structure: The study results indicated a statistically significant

correlation at a significance level of (0.01) between each item of the questionnaire and the corresponding dimension it belongs to, except for the weight dimension where item 10 was removed as it was not statistically significant. Additionally, the body hair dimension had item 09 removed due to lack of statistical significance. As a result, the questionnaire consists of 24 items.

Table (13) shows the items and dimensions of the questionnaire after deleting the items:

Questionnaire Dimensions	Items Number
After emotions	**(2-4-6-9-12-15-16-13)**
After weight	**(3-10-20-22)**
After body hair	**(1-13-14-24)**
After infertility and delayed childbearing	**(5-11-23)**
After a disruption of the menstrual cycle	**(7-8-17-18-21)**

Discussion and Interpretation of Results:

The study results also indicated a statistically significant correlation at a significance level of (0.01) between each dimension and the overall questionnaire. This suggests that the questionnaire dimensions and items possess a considerable degree of homogeneity, indicating that they measure a single construct. Based on these findings, it is evident that the questionnaire demonstrates an acceptable level of validity, making it a valid and capable tool for studying health-related quality of life levels in women with polycystic ovary syndrome.

Questionnaire Reliability: The study results confirmed that the questionnaire exhibits sufficient reliability. The following is a brief presentation of the results for each indicator of reliability and their discussion:

Cronbach's Alpha Coefficient: The Cronbach's alpha coefficient was calculated, and its values ranged from (0.72 to 0.82). This indicates a high level of internal consistency among the questionnaire items and dimensions.

Split-Half Reliability: The split-half reliability coefficient was also calculated, and its value was estimated to be (0.81). This indicates a high level of stability and consistency in the questionnaire's measurements.

Based on the above results, it is evident that the questionnaire possesses a high level of reliability, making it a valid and reliable tool for studying health-related quality of life in women with polycystic ovary syndrome. Researchers can confidently use the questionnaire to assess and analyze the targeted aspects with a high degree of accuracy and consistency.

Discussion of Results:

The current study has resulted in the development of a version of the Polycystic Ovary Syndrome Health-Related Quality of Life Questionnaire (PCOSQ) suitable for application in the Algerian context. The procedures employed in the study have indicated that the questionnaire exhibits high indicators of validity and reliability, to a degree that allows us to accept and consider the scale as valid and consistent. The study has also led to several recommendations:

Recommendations: The findings of the current study recommend the following:

- The adoption of the PCOSQ questionnaire in academic research on health-related quality of life in women with polycystic ovary syndrome.

- The utilization of the PCOSQ questionnaire to measure physical and emotional health and health-related problems experienced by women with polycystic ovary syndrome.

REFERENCES

- Zaatout Ramadan (2014), Quality of life among chronic patients and its relation to some variables, Unpublished doctoral thesis in social psychology, University of Kasdi Merbah Ouargla, Faculty of Social and Human Sciences, Ouargla.

- Hashem Sami Mohammed Moussa (2001), Quality of life among physically disabled, elderly, and university students, Journal of Psychological Counseling, Ain Shams University, Issue 13.

- Yusuf Rafiq Al-Qaj and Mohammed Jaa Suleiman Khalid (2016), Polycystic Ovary Syndrome (PCOS), a study prepared for obtaining a Bachelor's degree in Pharmaceutical Chemistry, Syrian Private University.

-ZM VAN DER SPUY AND PROF PS STEYN, (2015) Validation of the Polycystic Ovary Syndrome HealthRelated Quality of Life (PCOSQ) in the Clinical Community in our Gynaecological Endocrine Clinic, UNIVERSITY OF CAPE TOWN, MMED (OBSTETRICS AND GYNAECOLOGY).

-L. CRONIN, G. GUYATT and others, Development of a Health-Related Quality-of-Life Questionnaire (PCOSQ) for Women with Polycystic Ovary Syndrome (PCOS), Journal of Clinical Endocrinology and Metabolism Printed in U.S.A. Copyright © 1998 by The Endocrine Society, Vol. 83, No. 6, Printed in U.S.A.

-Sigrid Elsenbruch, Susanne Hahn and other(2003), Quality of Life, Psychosocial Well-Being, and Sexual Satisfaction in Women with Polycystic Ovary Syndrome ,The Journal of Clinical Endocrinology & Metabolism, Volume 88, Issue 12, 1 December 2003, Pages 5801–5807, https://doi.org/10.1210/jc.2003-030562

-Kalpana Sharma, S.K Srivastava (2020), The Role of Life style Modification in Management of Polycystic Ovary Syndrome, Article in Indian Journal of Public Health Research and Development · November 2020, Indiahttps://www.researchgate.net/publication/350967274

-Sampada Pawar1 and Swati Gaikwad (2020), AN AYURVEDIC NAGEMENT OF IRREGULAR MENSTRUATION WITH SPECIAL REFERENCE TO PCOS- A CASE STUDY, World Journal of Pharmaceutical Research, Volume 9, Issue 4, 698-706.

- María L. Sánchez-Ferrer, María T. Prieto-Sánchez, Jaime Mendiola, Shiana Corbalán-Biyang, Miriam Moñino-García, Joaquín A. Palomar-Rodríguez & Alberto M. Torres-Cantero (2020), Health-related quality of life in women with polycystic ovary syndrome attending to a tertiary hospital in Southeastern Spain: a case-control study, Health and Quality of Life Outcomes volume 18, Article number: 232 (2020). https://hqlo.biomedcentral.com/articles/10.1186/s12955-020-01484-z

-ELIZABETH JEDEL, JAN KOWALSKI & ELISABET STENER-VICTORIN (2008), Assessment of health-related quality of life: Swedish version of polycystic ovary syndrome questionnaire, Acta Obstetricia et Gynecologica. 2008; 87: 1329-1335.