Quality of life in women with polycystic ovary syndrome treated with in vitro fertilization

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Abstract

The study was conducted at infertility treatment centers in Lublin. It involved 100 women aged 18 to 45 years. The research tool was the authors' questionnaire and a standardized tool – the WHOQOL-BREF scale (a shortened version of the questionnaire assessing the quality of life).

The aim of this study was to analyze the impact of polycystic ovary syndrome on the quality of life of women undergoing in vitro fertilization treatment.

The statistical analysis showed significant differences between the study group and the control group in the assessment of overall health perception ($p<0.01$) and quality of life in the areas: Physical ($p=0.0002$), Psychological ($p=0.01$) and Social Relationships ($p=0.002$).

The study showed that the respondents with PCOS diagnosis aged over 30 years had better quality of life in areas: Physical ($p=0.04$), Psychological ($p=0.01$) and Environmental ($p=0.00$) compared to the respondents aged 25–30 years and under 25 years.

The statistical analysis revealed that the respondents who had very good social and living conditions were more satisfied with their overall quality of life ($p=0.004$) and quality of life in the areas: Physical ($p=0.02$) and Environment ($p=0.02$) than women with good or poor conditions.

The study showed that respondents with higher education experienced better quality of life and health than respondents with secondary education in the areas of Psychological ($p=0.02$), Social Relationships ($p=0.01$) and Environment ($p=0.04$).

Correlation analysis showed a significant association between BMI and overall quality of life ($R=-0.32$) and health ($R=-0.37$) and quality of life scores in the Psychological domain ($R=-0.30$). The higher the BMI the worse the quality of life and health.

The study showed that respondents who were in a relationship felt slightly better quality of life and health in the area of Social Relationships ($p=0.01$) compared to women who were not in a relationship.

In conclusion women with PCOS are experiencing a reduced quality of life, although higher education, very good social and living conditions, lower BMI and having a partner are the factors that positively affect their quality of life.

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Introduction

Nowadays, polycystic ovary syndrome is one of the most frequently mentioned metabolic disorders affecting women. Among the clinical symptoms coexisting in its course we can distinguish: irregular and prolonged menstrual cycles, a number of symptoms associated with hyperandrogenism, as well as difficulties in getting pregnant and maintaining pregnancy. A significant number of women also struggle with obesity, hormonal and metabolic disorders, and the resultant insulin resistance.

All of the above-mentioned symptoms have an undeniable impact on women's lives, affecting their quality of life to a greater or lesser degree in all aspects of life – whether in terms of physical and mental well-being, health, social life and relationships [1].

The treatment of PCOS includes metformin, clomiphene, and the combined oral contraceptive pill. The results of clinical trials have shown an increased chance of regular menstrual bleeding and an increase in ovulation and a decrease in androgen levels and insulin resistance in patients taking metformin. Clomiphene, on the other hand, is a synthetic hormonal drug that stimulates ovulation. It inhibits the effects of estradiol on the hypothalamus, resulting in an increased release of gonadotropic hormones by the pituitary, which in turn activate the growth and maturation of ovarian follicles, as well as estrogen production by the ovaries [2]. The oral contraceptive pill (OC) has both estrogen and progesterone in its composition, which contribute to a decrease in luteinizing hormone and androgen levels, and to an increase in the amount of SHBG globulin synthesized in the liver, which binds sex hormones and regulates free testosterone levels [3]. The treatment of infertility may involve in vitro fertilization methods.

The aim of this study is to analyze the impact of polycystic ovary syndrome on the quality of life of women undergoing in vitro fertilization treatment.

Materials and methods

The study was conducted at infertility treatment centers in Lublin. The study involved 100 women aged 18 to 45 years.

The research tool was the authors' questionnaire and a standardized tool – the WHOQOL-BREF scale (a shortened version of the questionnaire assessing the quality of life). The questionnaire contains 25 questions regarding sociodemographic factors, obstetrical history, health condition and physical symptoms associated with polycystic ovary syndrome. There are single-choice questions, as well as open-ended questions, used in the case of, inter alia, frequency of physical activity. In the second part of the questionnaire, the respondent fills out a sheet containing a standardized tool WHOQOL-BREF-(a shortened version of the questionnaire assessing quality of life). It consists of 26 questions covering physical, psychological, social and environmental domains.

The obtained results were statistically analyzed. The values of analyzed measurable parameters were presented using the average value, median and standard deviation, and for non-measurable parameters using the count and percentage. For measurable characteristics the normality of distribution of analyzed parameters was assessed using W Shapiro-Wilk test.

The comparison of two independent groups was performed using the Mann-Whitney U test. The Kruskal-Wallis test was used to compare the age of the groups. Spearman's R correlation was used to evaluate the association between disease acceptance and quality of life. For unrelated qualitative characteristics, Chi^2 homogeneity test was used to detect the existence of differences between the compared groups. The Chi^2 test of independence was used to examine the existence of correlations between the studied variables.

A significance level of $p<0.05$ was applied to indicate the existence of statistically significant differences or relationships. The database and statistical tests were performed using STATISTICA 13.0 computer software (StatSoft, Poland).

Results

A total of 100 women participated in the study. 50% (n=50) were diagnosed with PCOS – the study group, while the remaining 50% (n=50) were not diagnosed with PCOS – the control group.

An analysis of the correlations between the presence of PCOS and age, dwelling place, social and living conditions, education, BMI and physical activity of the subjects was conducted (Table 1). The study revealed that PCOS was slightly more frequently diagnosed in women aged under 25 years (53.66%) than in other age groups. It was found that women from rural areas were slightly more likely to be diagnosed with PCOS (55.56%) than patients from urban areas (48.78%). Statistical analysis showed that respondents with very good social and living conditions were slightly more likely to have PCOS (52.17%) than respondents with good or poor conditions (48.15%). It was found that respondents with secondary or elementary education were slightly more likely to have PCOS syndrome (63.41%) compared to respondents with higher education (47.37%). These correlations were not statistically significant.

It was found that overweight or obese respondents were more likely to be diagnosed with PCOS syndrome (63.41%) compared to underweight or normal weight women (40.68%). The differences found were statistically significant (p=0.003).

An analysis of the relationship between the presence of PCOS and smoking, nature of work, monthly income, religiosity, having a partner, presence of chronic diseases and following diet by the respondents was conducted (Table 2). It was found that the respondents who smoked cigarettes were slightly more likely to be diagnosed with PCOS syndrome (52.63%). Statistical analysis showed that respondents who were studying or not working were slightly more

Table 1.
Prevalence of PCOS syndrome with respect to age, dwelling place, social and living conditions, education, BMI and physical activity of women.

		Presence of PCOS		Total	Statistical analysis
		Yes	No		
		n %	n %	n %	
Age	Under 25 years	22	19	41	*Chi²=0,45; p=0,80*
		53,66%	46,34%	100,00%	
	25-30 years	19	20	39	
		48,72%	51,28%	100,00%	
	Over 30 years	9	11	20	
		45,00%	55,00%	100,00%	
Dwelling place	City	40	42	82	*Chi²=0,27; p=0,60*
		48,78%	51,22%	100,00%	
	Village	10	8	18	
		55,56%	44,44%	100,00%	
Social and living conditions	Good/bad	26	28	54	*Chi²=0,16; p=0,69*
		48,15%	51,85%	100,00%	
	Very good	24	22	46	
		52,17%	47,83%	100,00%	
Education	Secondary/ elementary	32	30	62	*Chi²=0,17; p=0,68*
		51,61%	48,39%	100,00%	
	Higher	18	20	38	
		47,37%	52,63%	100,00%	
BMI	Underweight /normal	24	35	59	*Chi²=5,00; p=0,03**
		40,68%	59,32%	100,00%	
	Overweight/ obesity	26	15	41	
		63,41%	36,59%	100,00%	
Physical activity	None	10	11	21	*Chi²=0,18; p=0,91*
		47,62%	52,38%	100,00%	
	1-2 days	19	17	36	
		52,78%	47,22%	100,00%	
	3-4 days or more	21	22	43	
		48,84%	51,16%	100,00%	

likely to be diagnosed with PCOS syndrome (66.67%) as compared to respondents who were either of intellectual (48.89%) or physical labor (35.71%). It was found that respondents with low monthly income were slightly more likely to be diagnosed with PCOS syndrome (71.43%) compared to women with higher income. It was found that respondents who were not religious were slightly more likely to be diagnosed with PCOS syndrome (52.38%). It was found that respondents who were in a relationship were slightly more likely to be diagnosed with PCOS syndrome (50.59%) compared to women who were not in a relationship (46.67%). The study showed that respondents who were on a diet to lose weight were slightly more likely to be diagnosed with PCOS (52.63%) compared to respondents who were not on a diet (46.51%). These relationships were not statistically significant. The study showed that respondents with chronic diseases were more likely to have a diagnosis of PCOS (63.64%) than respondents who did not have chronic diseases (43.28%). The differences were found to be close to statistical significance (p=0.06).

Table 2.
Prevalence of PCOS syndrome with respect to cigarette smoking, nature of work, monthly income, religiosity, having a partner, presence of chronic diseases, and following a diet by women.

		Presence of PCOS		Total	Statistical analysis
		Yes	No		
		n %	n %	n %	
Smoking	No	40 49,38%	41 50,62%	81 100,00%	$Chi^2=0,06; p=0,80$
	Yes	10 52,63%	9 47,37%	19 100,00%	
Nature of work	Intellectual	22 48,89%	23 51,11%	45 100,00%	$Chi^2=5,31; p=0,07$
	Student/ unemployed	18 66,67%	9 33,33%	27 100,00%	
	Physical	10 35,71%	18 64,29%	28 100,00%	
Monthly income	Above average	9 47,37%	10 52,63%	19 100,00%	$Chi^2=2,99; p=0,22$
	Below average	31 46,27%	36 53,73%	67 100,00%	
	Low	10 71,43%	4 28,57%	14 100,00%	
Religiosity	Yes	28 48,28%	30 51,72%	58 100,00%	$Chi^2=0,16; p=0,69$
	No	22 52,38%	20 47,62%	42 100,00%	
Relationship with a partner	Yes	43 50,59%	42 49,41%	85 100,00%	$Chi^2=0,08; p=0,78$
	No	7 46,67%	8 53,33%	15 100,00%	
Chronic diseases	Yes	21 63,64%	12 36,36%	33 100,00%	$Chi^2=3,66; p=0,06$
	No	29 43,28%	38 56,72%	67 100,00%	
Diet	Yes	30 52,63%	27 47,37%	57 100,00%	$Chi^2=0,37; p=0,54$
	No	20 46,51%	23 53,49%	43 100,00%	

There was a statistically significant correlation between the presence of symptoms and the diagnosis of PCOS ($p<0.01$). One hundred percent of the respondents with symptoms were diagnosed with PCOS, whereas in the group of women with no symptoms, PCOS was diagnosed in 24.24% of the respondents (Table 3).

Statistical analysis revealed a significant association between the presence of PCOS and menstrual regularity ($p<0.01$). Subjects with irregular menstruation were more likely to have PCOS diagnosis (76.47%) than women with regular menstrual cycles (22.45%), (Table 3).

The statistical analysis showed significant differences between groups in the assessment of overall health perception ($p<0.01$) and quality of life in the areas: Physical ($p=0.0002$), Psychological ($p=0.01$) and Social Relationships ($p=0.002$), while no significant differences were found in the assessment of overall quality of life ($p=0.14$) and quality of life in the area of Environment ($p=0.08$), (Table 4).

Table 3.
Prevalence of PCOS syndrome including presence of pain, menstrual abundance and menstrual regularity.

Symptoms		Presence of PCOS		Total	Statistical analysis
		Yes	No		
		n %	n %	n %	
Pain	Yes	34	0	34	$Chi^2=51,52$; $p<0,00001$*
		100,00%	0,00%	100,00%	
	No	16	50	66	
		24,24%	75,76%	100,00%	
Abundance of menstrual periods	Abundant	29	23	52	$Chi^2=1,44$; $p=0,23$
		55,77%	44,23%	100,00%	
	Scanty	21	27	48	
		43,75%	56,25%	100,00%	
Regularity of menstruation	No	39	12	51	$Chi^2=29,17$; $p<0,00001$*
		76,47%	23,53%	100,00%	
	Yes	11	38	49	
		22,45%	77,55%	100,00%	

Table 4.
Evaluation of quality of life with a diagnosis of PCOS.

Areas	Presence of PCOS						Statistical analysis	
	Yes			No				
	Average	Median	Std deviation	Average	Median	Std deviation	Z	p
Overall Quality of Life	3,70	4,00	0,79	3,96	4,00	0,64	−1,46	0,14
Overall Perception of Health	2,64	3,00	1,01	3,84	4,00	0,71	−5,46	<0,000001*
Physical area	12,66	13,14	2,72	14,67	14,86	2,14	−3,74	0,0002*
Psychological area	12,47	12,67	2,48	14,79	15,00	2,50	−4,29	0,00002*
Social Relationships	12,99	13,33	3,44	15,25	14,67	2,89	−3,16	0,002*
Environment	13,44	13,25	2,22	14,26	14,25	2,20	−1,74	0,08

The study showed that the respondents with PCOS diagnosis aged over 30 years had better overall quality of life and perception of health compared to the respondents aged 25-30 years and under 25 years. There were significant differences between the groups in the assessment of quality of life in Physical (p=0.04), Psychological (p=0.01) and Environmental (p=0.00) areas, (Table 5).

The statistical analysis revealed that the respondents who had very good social and living conditions were more satisfied with their quality of life and health than women with good or poor conditions. There were significant differences between groups in the assessment of overall quality of life (p=0.004) and quality of life in the areas of Physical (p=0.02), Environment (p=0.02) and on the edge of significance in the assessment of quality of life in the area of Social Relationships (p=0.05), (Table 5).

The statistical analysis showed that female respondents with higher education experienced better quality of life and health than respondents with secondary education. There were significant differences between the groups in the assessment of quality of life in the areas of Psychological (p=0.02), Social Relationships (p=0.01) and Environment (p=0.04), (Table 5).

Correlation analysis showed a significant association between BMI and overall quality of life (R=-0.32) and health (R=-0.37) and quality of life scores in the Psychological domain (R=-0.30). The higher the BMI the worse the quality of life and health (Table 5).

The study found that respondents who smoked cigarettes felt a slightly better quality of life and health in the domain of Social Relationships (p=0.03), while no statistically significant differences were found in the evaluation of other domains (p>0.05), (Table 5).

The study showed that respondents who were in a relationship felt slightly better quality of life and health compared to women who were not in a relationship. The statistical analysis showed significant differences between the groups in quality of life assessment in the area of Social Relationships (p=0.01), (Table 5).

Discussion

The presence of polycystic ovary syndrome in women has an undeniable impact on their quality of life in most domains, including physical, psychological, and social areas, as well as their overall perception of health. A careful examination of these highlights aspects of the lives of women with PCOS that require change, which may assist us in improving their quality of life.

A study conducted by G. Kurek and B. Babiarczyk indicate that 64.3% of the surveyed women with polycystic ovary syndrome have to take hormonal medications on a regular basis, which indicates a health condition that requires medical treatment. In addition, as many as 68.3% of the respondents admitted that they have to use dietary treatment [4].

The results of the author's research show that the quality of life and general health perception were better assessed by the group of women who were not diagnosed with polycystic ovary syndrome. 52.63% of the women struggling with PCOS admitted that they followed a diet to lose weight. Our study shows that respondents who had chronic diseases were more likely to be diagnosed with PCOS (63.64%) than women who were not treated for chronic diseases (43.25%).

Polycystic ovary syndrome also has an undeniable impact on the psychological aspects of women's lives. Associated disorders, such as hirsutism or increased body weight, have a negative impact on self-perception in society and self-esteem [5,6]. The aspect of unfulfilled motherhood is also significant and plays an important role in culture and society, where women are prepared for the role of a mother from an early age [7].

The authors' own study shows that women with polycystic ovary syndrome rate their quality of life in the Psychological domain as worse compared to healthy women. In addition, quality of life in the Psychological domain is rated worst by women with polycystic ovary syndrome compared to overall perception of health and quality of life in the Physical domain and the Social Relations domain.

Menstrual disorders are one of the symptoms of polycystic ovary syndrome, leading to ovulation

Table 5.
Evaluation of quality of life with respect to age, dwelling place, social and living conditions, education, cigarette smoking, nature of work, monthly income, having a partner, presence of chronic diseases, presence of pain, menstrual abundance and menstrual regularity in a group of women diagnosed with PCOS.

			Overall Quality of Life	Overall Perception of Health	Physical area	Psychological area	Social Relationships	Environment
Age	Under 25 years	Average	3,77	2,68	12,29	11,97	12,61	13,09
		Median	4	2,5	12,57	12	12	13
		SD	0,75	1,04	2,64	2,51	2,75	2,09
	25–30 years	Average	3,42	2,42	12,18	11,96	12,63	12,74
		Median	4	2	13,14	12,67	13,33	13
		SD	0,77	1,02	2,81	2,11	4,13	2,1
	Over 30 years	Average	4,11	3	14,6	14,74	14,67	15,78
		Median	4	3	14,29	14,67	16	16
		SD	0,78	0,87	1,98	2,04	3,2	1,15
Statistical analysis		H	4,58	1,97	6,29	8,45	2,73	13,12
		p	0,10	0,37	0,04*	0,01*	0,26	0,001*
Dwelling place	City	Average	3,78	2,73	12,73	12,6	12,97	13,68
		Median	4	3	13,14	12,67	13,33	13,5
		SD	0,8	1,04	2,89	2,5	3,66	2,3
	Village	Average	3,4	2,3	12,4	11,93	13,07	12,5
		Median	3,5	2	12,29	11,67	12,67	12,5
		SD	0,7	0,82	2	2,48	2,5	1,65
Statistical analysis		Z	−1,29	−1,2	−0,75	−0,82	0,01	−1,64
		p	0,2	0,23	0,45	0,41	0,99	0,1
Social and living conditions	Very good	Average	4,04	2,67	13,6	13,06	14,06	14,25
		Median	4	2,5	14	13	15,33	13,75
		SD	0,75	0,96	2,27	2,45	3,4	1,92
	Good/ bad	Average	3,38	2,62	11,8	11,92	12	12,69
		Median	3	3	12,29	12	12	12,75
		SD	0,7	1,06	2,85	2,44	3,22	2,26
Statistical analysis		Z	2,85	0,17	2,33	1,53	1,93	2,34
		p	0,004*	0,87	0,02*	0,13	0,05	0,02*
Education	Secondary	Average	3,5	2,33	11,9	11,48	11,19	12,5
		Median	4	2	12,29	11,33	10,67	13
		SD	0,99	1,03	2,7	2,22	3,69	2,22
	Higher	Average	3,81	2,81	13,09	13,02	14	13,97
		Median	4	3	13,14	12,67	14	13,75
		SD	0,64	0,97	2,67	2,48	2,87	2,08
Statistical analysis		Z	−0,92	−1,51	−1,62	−2,29	−2,62	−2,09
		p	0,36	0,13	0,11	0,02*	0,01*	0,04*
BMI	Statistical analysis	R	−0,32	−0,37	−0,15	−0,3	−0,17	−0,06
		p	0,02*	0,01*	0,31	0,04*	0,24	0,67
Smoking	Yes	Average	3,5	2,3	12,11	12,53	15,07	13,75
		Median	4	2	12,29	12,67	16	13,25
		SD	0,71	1,16	2,52	1,85	2,95	2,02
	No	Average	3,75	2,73	12,8	12,45	12,47	13,36
		Median	4	3	13,14	12,33	12	13,25
		SD	0,81	0,96	2,78	2,64	3,38	2,29
Statistical analysis		Z	−0,78	−1,08	−0,87	0,02	2,22	0,29
		p	0,44	0,28	0,38	0,98	0,03*	0,77
Nature of work	Physical	Average	3,8	2,7	12,51	11,4	13,73	13,05
		Median	4	2,5	12,57	10,67	14	13,25
		SD	0,63	1,06	3,17	3,41	2,6	1,91
	Intellectual	Average	3,64	2,68	12,83	12,85	13,64	13,66
		Median	4	3	13,14	12,67	13,33	13,5
		SD	0,73	1,09	2,7	2,26	3,1	2,44
	Student/ unemployed	Average	3,72	2,56	12,54	12,59	11,78	13,39
		Median	4	2,5	13,14	12	11,33	13
		SD	0,96	0,92	2,63	2,11	4,02	2,19

Statistical analysis		H	0,52	0,15	0,16	3,33	2,98	0,56
		p	0,77	0,93	0,92	0,19	0,23	0,76
Monthly income	Above average	Average	4	2,56	12	13,56	14,52	14,78
		Median	4	3	12	12,67	14,67	15
		SD	0,87	1,13	3,26	2,79	3,36	2,17
	Below average/ average	Average	3,71	2,81	12,9	12,34	12,99	13,37
		Median	4	3	13,14	12,67	13,33	13
		SD	0,59	0,98	2,34	2,48	3,42	2,01
	Low	Average	3,4	2,2	12,51	11,87	11,6	12,45
		Median	3	2	12,86	12,33	12	12,5
		SD	1,17	0,92	3,45	2,15	3,27	2,53
Statistical analysis		H	3,13	2,77	0,56	1,28	3,41	4,96
		p	0,21	0,25	0,76	0,53	0,18	0,08
Relationship with a partner	Yes	Average	3,74	2,7	12,84	12,64	13,49	13,55
		Median	4	3	13,14	12,67	13,33	13,5
		SD	0,69	0,99	2,6	2,45	3,19	2,08
	No	Average	3,43	2,29	11,59	11,43	9,9	12,79
		Median	4	2	12,57	12	9,33	13
		SD	1,27	1,11	3,41	2,62	3,52	3,09
Statistical analysis		Z	0,39	0,88	0,98	1,2	2,63	0,71
		p	0,7	0,38	0,33	0,23	0,01*	0,48
Chronic diseases	Yes	Average	3,52	2,43	12,03	12,44	12,19	13,17
		Median	4	2	13,14	12	13,33	13
		SD	0,98	1,03	2,86	2,68	3,8	2,12
	No	Average	3,83	2,79	13,12	12,48	13,56	13,64
		Median	4	3	13,14	12,67	13,33	13,5
		SD	0,6	0,98	2,56	2,38	3,09	2,31
Statistical analysis		Z	−1,05	−1,16	−1,23	−0,31	−1,15	−0,95
		p	0,29	0,25	0,22	0,75	0,25	0,34
Pain	Yes	Average	3,65	2,62	12,25	12,18	12,78	13,31
		Median	4	2,5	12,29	12,33	12,67	13,25
		SD	0,85	1,07	2,95	2,63	3,51	2,38
	No	Average	3,81	2,69	13,54	13,08	13,42	13,72
		Median	4	3	13,43	12,67	13,33	13,25
		SD	0,66	0,87	1,94	2,08	3,35	1,88
Statistical analysis		Z	0,83	0,28	1,6	0,98	0,44	0,43
		p	0,41	0,78	0,11	0,33	0,66	0,67
Abundance of menstrual periods	Scanty	Average	3,57	2,43	12,24	12,38	12,63	13,19
		Median	4	2	13,14	12	13,33	13
		SD	0,68	0,81	2,1	1,93	3,52	1,88
	Abundant	Average	3,79	2,79	12,97	12,53	13,24	13,62
		Median	4	3	13,71	12,67	13,33	14
		SD	0,86	1,11	3,09	2,85	3,42	2,46
Statistical analysis		Z	−1,08	−1,18	−1,3	−0,41	−0,45	−1,01
		p	0,28	0,24	0,19	0,68	0,65	0,31
Regularity of menstrual periods	Yes	Average	3,55	2,64	13,09	12,79	13,45	13,23
		Median	3	2	13,14	12,67	13,33	13
		SD	0,69	1,29	2,65	2,33	2,49	2,74
	No	Average	3,74	2,64	12,54	12,38	12,85	13,5
		Median	4	3	13,14	12	12	13,5
		SD	0,82	0,93	2,76	2,55	3,68	2,09
Statistical analysis		Z	1,02	0,19	−0,53	−0,63	−0,43	0,19
		p	0,31	0,85	0,6	0,53	0,66	0,85

issues and disorders, resulting in an impact on the fertility of women suffering from this condition. Kozak-Pawulska's results indicate that up to 74% of women with PCOS suffer from infertility, and 71.4% of those with PCOS report infrequent menstruation [8]. In a study conducted by G. Kurek and B. Babiarczyk, 83.2% of the surveyed women had an issue of irregular menstruation, and 91.3% of the respondents trying to get pregnant had an issue of infertility [4]. The results of our study clearly indicate that the respondents who were diagnosed with PCOS were more likely to have irregular menstrual periods (76.47%).

The results of the authors' study show that the assessment of quality of life in the domain of social relationships differs least between women with polycystic ovary syndrome and healthy women. Nevertheless, women with polycystic ovary syndrome describe their social relationships as worse in comparison with healthy women. Given these large differences in psychological quality of life between women with PCOS and healthy women, a lowered quality of life score in the domain of social relationships seems natural and justified, because the consequences of PCOS affect a woman's perception of herself, and this has an undeniable impact on her relationships with other people [7].

Conclusions

Polycystic ovary syndrome contributes to a reduced quality of life of women.

PCOS does not have a clearly negative impact on the quality of patients' relationships with other people and does not hinder the functioning of women in their everyday environment.

The quality of life of women with PCOS is positively affected by higher education, very good social and living conditions, lower BMI and having a partner.

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