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Prevalence of Body Dysmorphia in Polycystic Ovary Syndrome (PCOS) Patients

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ABSTRACT

Background: Polycystic ovary syndrome (PCOS), a significant hormonal disorder that primarily affects young women, has a substantial impact on both their health-related quality of life and their mental well-being.   **Objective:** To assess the prevalence and patterns of body dysmorphia in polycystic ovary syndrome (PCOS) patients in Kingdom of Bahrain and to reach a consensus regarding the relationship between body dysmorphia and PCOS. **Methods:** There were 132 participants involved in the study: 66 were control cases, 66 were PCOS cases. Each was given a survey form. The scoring was based on the Głębocka's self-perception scale and modified Ferriman-Gallwey hirsutism scale were used to assess about own perception to appearance, and pressure to change body shape. **Results:** Most of the PCOS patients in the Kingdom of Bahrain who are above 30 years old experienced body dysmorphia along with other physical changes in appearance and psychological disorders such as social anxiety and depression. About 86% of them have hirsutism which significantly affects their self-esteem and self-confidence within themselves. However, the average hair distribution volume ranges only from 1.82 to 2.53 in the different parts of the body. **Conclusion:** Body dysmorphia is prevalent in patients diagnosed with PCOS. It is important to understand that these manifestations of PCOS in women significantly impact their quality of life..

Keywords: Body Dysmorphia, PCOS patients, prevalence.

1.   BACKGROUND

Polycystic Ovary Syndrome (PCOS), a significant hormonal disorder that primarily affects young women, has a substantial impact on both their health-related quality of life and their mental well-being (1, 2). It is estimated that around 1 in 10 women experience PCOS before reaching menopause, and they often encounter various challenges and complications associated with the disorder. PCOS is commonly characterized by enlarged and malfunctioning ovaries, high levels of androgens, insulin resistance, and other related symptoms (3)

While PCOS is commonly associated with reproductive and metabolic complications, emerging research has shed light on its potential impact on body image and the development of body dysmorphia in affected women. Women diagnosed with PCOS often exhibit certain physical characteristics more frequently, including acne, hirsutism (excessive hair growth), and obesity (4, 5). Research indicates that these features are also associated with elevated levels of depressive symptoms and contribute to lower scores on health-related quality-of-life measures (6). Moreover, studies have demonstrated that a higher body mass index (BMI), which is commonly associated with PCOS, is linked to increased levels of body dissatisfaction (7). Collectively, these findings suggest that women with PCOS may face a heightened risk of experiencing body image distress (BID).

Women with PCOS often have negative body image perceptions, which can include feeling dissatisfied with their appearance, a sense of reduced femininity, feeling less sexually appealing, and self-consciousness about their looks (8, 9). Maintaining a high level of self-esteem can help individuals cope with the challenges of both new and chronic illnesses, whereas low self-esteem is often linked to anxiety, depression, and an increased likelihood of experiencing psychiatric symptoms, including those of a somatic nature (10).

PCOS can lead to a range of physical changes, such as irregular or absent menstrual cycles and difficulty in conceiving, which can cause significant psy-

Demographics		Total	Cases		p-value
			Control cases	PCOS cases	
Total		132	66(50.0%)	66(50.0%)	–
Have you been diagnosed with polycystic ovarian syndrome (PCOS) by a certified doctor?	Yes	66	0(0.0%)	66(100.0%)	<0.001[a]
	No	66	66(100.0%)	0(0.0%)	
Age	≤25	70	37(52.9%)	33(47.1%)	0.225
	26-30	34	19(55.9%)	15(44.1%)	
	30>	28	10(35.7%)	18(64.3%)	
BMI	Underweight	9	6(66.7%)	3(33.3%)	<0.001[a]
	Normal	62	43(69.4%)	19(30.6%)	
	Overweight	29	15(51.7%)	14(48.3%)	
	Obese	32	2(6.3%)	30(93.8%)	
Marital status	Divorced	4	2(50.0%)	2(50.0%)	0.758
	Married	44	20(45.5%)	24(54.5%)	
	Single	84	44(52.4%)	40(47.6%)	
Which of the following is the closest to your body shape?	Apple	37	10(27.0%)	27(73.0%)	0.002[a]
	Hourglass	42	27(64.3%)	15(35.7%)	
	Inverted triangle	15	8(53.3%)	7(46.7%)	
	Pear	19	7(36.8%)	12(63.2%)	
	Rectangle	19	14(73.7%)	5(26.3%)	
Besides polycystic ovarian syndrome (PCOS), do you suffer any other health problems?	Yes	47	9(19.1%)	38(80.9%)	<0.001[a]
	None	85	57(67.1%)	28(32.9%)	

[a]-significant using Chi-Square Test at <0.05 level.

Table 1. Demographical data of the 132 patients from the Kingdom of Bahrain.

chological distress for patients. These changes may also have an impact on a patient's sense of feminine identity. When comparing their physical appearance to the societal "ideal," a woman with PCOS may experience negative emotions and a decreased quality of life. There is growing recognition of the need to address the prevention of body dissatisfaction as a public health concern. Considering these factors, it is likely that self-esteem and body image will have significant psychological implications for patients coping with the burden of PCOS (11).

2. OBJECTIVE

In this study, our aim is to assess the prevalence and patterns of body dysmorphia in PCOS patients in Kingdom of Bahrain and to reach a consensus regarding the relationship between body dysmorphia and polycystic ovary syndrome. And whether PCOS is a potential contributing factor for body dysphoria.

3. MATERIAL AND METHODS

In this study, there are a total of 132 participants who are classified into two groups: the first 66 participants belong to the control cases while the remaining 66 participants belong to the PCOS cases. The allowed age group for the participants in this study must belong to 20-80 years of age. Also, the participants involved do not have any psychiatric disorders and do not exhibit inherited hirsutism disorders.

Each participant was handled with a survey form. The survey contains 30 questions and it includes questions involving the following parameters: socio-demographic data (gender, age, marital status), how PCOS was diagnosed, body shape, body weight and height, co-morbidi-

ties, current body-related concerns, and self-satisfaction regarding body image.

For the scoring, Głębocka's self-perception scale and modified Ferriman-Gallwey hirsutism scale were used to assess about own perception to appearance, and pressure to change body shape. The Ferriman-Gallwey scale was presented with scores from 1 to 4. Shown below were the scoring and their equivalent remarks:

Score of 1 - small amount of hair;
Score of 2 - medium amount of hair;
Score of 3 - large amount of hair; and
Score of 4 - very large amount of hair.

The timeframe of the study was conducted for 6 months.

Statistical analysis

This study was analyzed using IBM SPSS version 23 (IBM Corp., Armonk, N.Y., USA) and visually presented by using GraphPad Prism version 8 (GraphPad Software, Inc., San Diego, CA, USA). A simple descriptive statistic was used to define the characteristics of the study variables through a form of counts and percentages for the categorical and nominal variables while continuous variables are presented by mean and standard deviations. To establish a relationship between categorical variables, this study used chi-square test. While comparing two group means, an independent t-test was used. These tests were done with the assumption of normal distribution. Otherwise, Welch's t-test for two group means was used as an alternative test. Dependent study variables were defined as a binary outcome. A Binary Logistic Regression Model (BLRM), with Backward Conditional Elimination with Enter Criteria=0.05 and Elimination=0.10 was used to determine the significant

Which of the following is the closest to your hair body distribution?	Control cases	PCOS cases	p-value
Hair of upper lip?	1.97 ± 1.3	2.53 ± 1.3	0.013[a]
Hair of chin area?	1.55 ± 1.0	2.21 ± 1.2	0.001[b]
Hair of upper abdomen area?	1.88 ± 1.0	2.32 ± 0.9	0.009[a]
Hair of lower abdomen area?	1.62 ± 1.0	2.44 ± 1.1	<0.001[b]
Hair of chest area?	1.56 ± 0.9	1.82 ± 0.9	0.113
Hair of upper limbs?	1.65 ± 1.0	2.08 ± 1.0	0.016[a]
Hair of thighs?	1.79 ± 1.0	2.27 ± 1.0	0.005[a]
Hair of upper back area?	1.50 ± 0.8	1.88 ± 1.0	0.017[a]
Hair of lower back area?	1.58 ± 0.9	2.18 ± 1.1	0.001[a]

[a]-significant using Independent *t*-test at <0.05 level.
[b]-significant using Welch's *t*-test at <0.05 level.

Table 2. Degree of the hair distribution of 132 patients in the Kingdom of Bahrain.

Variables		Total	Cases		p-value
			Control cases	PCOS cases	
Total		132	66(50.0%)	66(50.0%)	–
Are you currently, or in the pan of the past year, trying to conceive?	Yes	16	4(25.0%)	12(75.0%)	0.033[a]
	No	116	62(53.4%)	54(46.6%)	
How would you describe your menstrual cycle?	Regular	81	56(69.1%)	25(30.9%)	<0.001[a]
	Irregular	51	10(19.6%)	41(80.4%)	
Do you have hirsutism (excessive thick coarse hair growth in areas such as the neck, face, abdomen, chest and thighs)	Yes	51	7(13.7%)	44(86.3%)	<0.001[a]
	No	81	59(72.8%)	22(27.2%)	
Do you suffer from acne (on the face or the body)?	Yes	60	18(30.0%)	42(70.0%)	<0.001[a]
	No	72	48(66.7%)	24(33.3%)	
Do you experience male-pattern hair loss receding hair line, hair loss on the crown of the head?	Yes	61	11(18.0%)	50(82.0%)	<0.001[a]
	No	71	55(77.5%)	16(22.5%)	
Have you ever noticed dry, dark patches of skin in areas such as the neck, armpits, thighs or groin?	Yes	62	21(33.9%)	41(66.1%)	<0.001[a]
	No	70	45(64.3%)	25(35.7%)	
Has your body shape or weight influenced how you think about yourself as a person? (i.e., feeling disappointed after minor weight gain or feeling proud after minor weight loss)	Yes	90	35(38.9%)	55(61.1%)	<0.001[a]
	No	42	31(73.8%)	11(26.2%)	
Does it sometimes upset you or do you avoid seeing yourself in the mirror / taking pictures of yourself?	Yes	67	25(37.3%)	42(62.7%)	0.003[a]
	No	65	41(63.1%)	24(36.9%)	
Do you agree with the following statement: " I sometimes spend long times across the mirror analyzing my appearance"	Agree	74	35(47.3%)	39(52.7%)	0.483
	Disagree	58	31(53.4%)	27(46.6%)	
Do you agree with the following statement: " I feel attractive"	Agree	95	53(55.8%)	42(44.2%)	0.003[a]
	Disagree	37	13(35.1%)	24(64.9%)	
Do you agree with the following statement: "I sometimes avoid social interactions because of my weight / appearance or the fear of being judges for the way I look"	Agree	45	20(44.4%)	25(55.6%)	0.359
	Disagree	87	46(52.9%)	41(47.1%)	
In regard to your current weight, which of the following do you agree to the most	I would like to lose weight	87	34(39.1%)	53(60.9%)	0.002[a]
	I would like to maintain my current weight	39	28(71.8%)	11(28.2%)	
	I would like to gain some weight	6	4(66.7%)	2(33.3%)	
Do you agree with the following statement: " I am satisfied and confident with the way I look"	Agree	79	48(60.8%)	31(39.2%)	0.003[a]
	Disagree	53	18(34.0%)	35(66.0%)	

[a] Significant using Chi-Square Test at <0.05 level.

Table 3. Statistical data of 132 patients from the Kingdom of Bahrain evaluating their physical appearance and social aspects.

predictors of any given dependent study variables with 95% confidence intervals. Lastly, a conventional p-value <0.05 was the criteria to reject the null hypothesis.

4. RESULTS

Table 1 presents the demographics of the 132 female participants in this study. Based on the survey, there are 66 participants who are considered as the control group and another 66 participants who are diagnosed with PCOS. For the control group, most of the participants belong to the 26-30 age group (55.9%), have normal BMI (69.4%), are mostly single (52.4%), describe themselves with an hourglass body shape (64.3%), and most of them do not have any other health problems (67.1%).

For the participants who are diagnosed with PCOS, most of them belong to the age group greater than 30 years old (64.3%), have a BMI categorized as obese (93.8%), are mostly single (47.6%), have an apple-shaped body (73.0%), and are suffering from other health problems besides from PCOS (80.9%).

Table 2 shows the volume of hair that grew on the different body parts of the participants. The body parts involved in the survey are as follows: upper lip, chin area, upper abdomen, lower abdomen, chest, upper limbs, thighs, upper back, and lower back area. Based on the results, the mean volume of hair found in the different body parts of patients diagnosed with PCOS is greater than the mean volume of hair found in the dif-

Variables in the Equation		B	S.E.	Exp(B)	95% C.I. for EXP(B) Lower	Upper	p-value
First Step[a]	BMI						0.019[b]
	BMI(Underweight)	-2.625	1.129	0.072	0.008	0.662	0.020[b]
	BMI(Normal)	-2.697	0.857	0.067	0.013	0.362	0.002[b]
	BMI(Overweight)	-2.296	0.871	0.101	0.018	0.555	0.008[b]
	Which of the following is the closest to your body shape?						0.551
	Which of the following is the closest to your body shape?(Apple)	0.600	0.778	1.823	0.397	8.366	0.440
	Which of the following is the closest to your body shape?(Hourglass)	-0.063	0.698	0.939	0.239	3.686	0.928
	Which of the following is the closest to your body shape?(-Inverted triangle)	0.816	0.814	2.261	0.458	11.159	0.316
	Which of the following is the closest to your body shape?(Pear)	0.776	0.815	2.173	0.440	10.726	0.341
	Besides polycystic ovarian syndrome (PCOS), do you suffer any other health problems?(Yes)	1.618	0.511	5.042	1.852	13.726	0.002[b]
	Constant	1.263	1.002	3.538			0.207
Last Step[a]	BMI						0.004[b]
	BMI(Underweight)	-2.912	1.057	0.054	0.007	0.432	0.006[b]
	BMI(Normal)	-2.936	0.805	0.053	0.011	0.257	<0.001[b]
	BMI(Overweight)	-2.538	0.845	0.079	0.015	0.414	0.003[b]
	Besides polycystic ovarian syndrome (PCOS), do you suffer any other health problems?(Yes)	1.562	0.488	4.770	1.832	12.415	0.001[b]
	Constant	1.826	0.770	6.208			0.018[b]

[a]–Variable(s) entered on step 1: BMI, Which of the following is the closest to your body shape?, Besides polycystic ovarian syndrome (PCOS), do you suffer any other health problems?.
[b]–Significant using Binary Logistic Regression Model, with Backward Conditional Elimination with Enter Criteria=0.05, Elimination =0.10.

Table 4. Supporting evidence in evaluating the significance of each parameter in the demographical data.

Variables in the Equation		B	S.E.	Exp(B)	95% C.I. for EXP(B) Lower	Upper	p-value
First Step[a]	Hair of upper lip?	0.091	0.164	1.096	0.795	1.510	0.576
	Hair of chin area?	0.183	0.218	1.201	0.783	1.843	0.402
	Hair of upper abdomen area?	0.096	0.241	1.101	0.686	1.765	0.691
	Hair of lower abdomen area?	0.451	0.211	1.569	1.037	2.375	0.003[b]
	Hair of upper limbs?	0.014	0.262	1.014	0.607	1.696	0.957
	Hair of thighs?	0.031	0.262	1.031	0.617	1.724	0.906
	Hair of upper back area?	-0.075	0.312	0.928	0.504	1.708	0.810
	Hair of lower back area?	0.252	0.283	1.286	0.738	2.241	0.374
	Constant	-2.072	0.581	0.126			<0.001[b]
Last Step[a]	Hair of lower abdomen area?	0.549	0.193	1.732	1.188	2.526	0.004[b]
	Hair of lower back area?	0.357	0.216	1.429	0.935	2.183	0.099
	Constant	-1.758	0.459	0.172			<0.001[b]

[a]–Variable(s) entered on step 1: Hair of upper lip?, Hair of chin area?, Hair of upper abdomen area?, Hair of lower abdomen area?, Hair of upper limbs?, Hair of thighs?, Hair of upper back area?, Hair of lower back area?.
[b]–Significant using Binary Logistic Regression Model, with Backward Conditional Elimination with Enter Criteria=0.05, Elimination =0.10.

Table 5. Supporting evidence in evaluating the significance of each parameter in the extent of hair distribution volume.

ferent body parts of the control group. The mean volume of hair found in the upper lip of patients diagnosed with PCOS is 2.53 ± 1.3, whereas the mean volume of hair found in the upper lip of the control group is only 1.97 ± 1.3. For the chin area, patients with PCOS have a mean hair volume of 2.21 ± 1.2 while the control group has only 1.55 ± 1.0. In terms of the upper abdomen area, patients with PCOS have 2.32 ± 0.9 mean hair volume while the control cases have 1.88 ± 1.0 mean hair volume. For their mean hair volume in the lower abdomen, patients with PCOS have 2.44 ± 1.1 while the control group has 1.62 ± 1.0. For the remaining parts such as the chest, upper limbs, thighs, and upper and lower back

of patients with PCOS, the mean hair volumes are 1.82 ± 0.9, 2.08 ± 1.0, 2.27 ± 1.0, 1.88 ± 1.0, and 2.18 ± 1.1, respectively. For the control group, the mean hair volumes are 1.56 ± 0.9, 1.65 ± 1.0, 1.79 ± 1.0, 1.50 ± 0.8, and 1.58 ± 0.9, respectively.

Table 3 presents some physical and social manifestations in patients diagnosed with PCOS. Patients from both groups are not trying to conceive in the past years. In terms of the regularity of their menstrual cycle, 80.4% of the patients with PCOS have irregular periods compared to the controlled cases. For their physical appearance, most of the patients with PCOS have hirsutism (86.3%), acne (70.0%), cases of hair loss (82.0%), and dry,

Variables in the Equation		B	S.E.	Exp(B)	95% C.I.for EXP(B)		p-value
					Lower	Upper	
First Step[a]	Q1(Yes)	-0.404	0.890	0.668	0.117	3.825	0.650
	Q2(Regular)	-1.567	0.628	0.209	0.061	0.714	0.013[b]
	Q3(Yes)	2.410	0.667	11.132	3.015	41.110	<0.001[b]
	Q4(Yes)	1.334	0.662	3.795	1.038	13.879	0.044[b]
	Q5(Yes)	3.284	0.837	26.676	5.169	137.677	<0.001[b]
	Q6(Yes)	-0.369	0.661	0.691	0.189	2.524	0.576
	Q7(Yes)	-1.766	0.997	0.171	0.024	1.208	0.077
	Q8(Yes)	1.513	0.793	4.542	0.960	21.493	0.056
	Q10(Agree)	0.357	0.708	1.430	0.357	5.723	0.614
	Q12						0.090
	Q12 (I would like to lose weight)	3.056	1.621	21.238	0.886	509.012	0.059
	Q12(I would like to maintain my current weight)	1.781	1.536	5.937	0.292	120.562	0.246
	Q13(Agree)	-0.634	0.796	0.531	0.112	2.523	0.426
	Constant	-3.623	1.844	0.027			0.049[b]
Last Step[a]	Q2(Regular)	-1.541	0.618	0.214	0.064	0.719	0.013[b]
	Q3(Yes)	2.378	0.632	10.787	3.128	37.200	<0.001[b]
	Q4(Yes)	1.369	0.625	3.932	1.155	13.380	0.028b
	Q5(Yes)	2.806	0.673	16.542	4.427	61.819	<0.001[b]
	Q7(Yes)	-1.430	0.887	0.239	0.042	1.362	0.107
	Q8(Yes)	1.354	0.705	3.874	0.973	15.419	0.055
	Q12						0.073
	Q12(I would like to lose weight)	2.676	1.527	14.522	0.728	289.561	0.080
	Q12(I would like to maintain my current weight)	1.324	1.473	3.757	0.210	67.363	0.369
	Constant	-3.540	1.593	0.029			0.026[b]

[a]-Variable(s) entered on step 1: *Q1*=Are you currently, or in the pan of the past year, trying to conceive?, *Q2*=How would you describe your menstrual cycle?, *Q3*=Do you have hirsutism (excessive thick coarse hair growth in areas such as the neck, face, abdomen, chest and thighs), *Q4*=Do you suffer from acne (on the face or the body)?, *Q5*=Do you experience male-pattern hair loss receding hair line, hair loss on the crown of the head?, *Q6*=Have you ever noticed dry, dark patches of skin in areas such as the neck, armpits, thighs or groin?, *Q7*=Has your body shape or weight influenced how you think about yourself as a person? (i.e. feeling disappointed after minor weight gain or feeling proud after minor weight loss), *Q8*=Does it sometimes upset you or do you avoid seeing yourself in the mirror / taking pictures of yourself?, *Q10*=Do you agree with the following statement: " I feel attractive", *Q12*=In regard to your current weight, which of the following do you agree to the most, *Q13*=Do you agree with the following statement: " I am satisfied and confident with the way I look".
[b]-Significant using Binary Logistic Regression Model, with Backward Conditional Elimination with Enter Criteria=0.05, Elimination =0.10.

Table 6. Supporting evidence in evaluating the significance of each parameter in determining the physical and social aspects of having PCOS.

dark patches in their skin (66.1%). In terms of the psychological and social aspect, most of the patients with PCOS think that body shape or weight influence how they see themselves (61.1%), feel upset seeing themselves in front of the mirror (62.7%), spend a long time in front of the mirror analyzing their appearance (52.7%), feel for themselves less attractive (64.9%), avoids social interaction because of their appearance (55.6%), feel the need to lose weight (60.9%), and feel unsatisfied with the way they look (66.0%).

5. DISCUSSION

Body dysmorphia is a psychological disorder that creates a negative perception of the physical appearance of a person, and it makes the person preoccupied with the flaws he/she sees in his/her body. This condition brings a significant impact on the person's mental state and social aspect of life, leading to low self-esteem, social anxiety, depression, and sometimes death due to suicidal motives. For patients diagnosed with PCOS, there is an increasing risk of developing body dysmorphia because of hormonal changes that take place in the ovary. The physical manifestations of PCOS can be seen in the different body parts of the patient, thereby affecting their quality of life. In this study, the authors aim to find the prevalence of body dysmorphia among patients with PCOS in the Kingdom of Bahrain and to determine if there is a correlation between body dysmorphia and PCOS.

PCOS is often diagnosed in young women and in their reproductive stage, but its prognosis can also be observed in older age group. Based on the results of the study, most of the participants diagnosed with PCOS have ages above 30 years old and these results agree with the study conducted by Tabassum et al. 2021 (12). According to their study, PCOS is highly prevalent in young women whose ages are 30 years old and below. But it can also occur in patients whose ages are above 30 years old and quite problematic for patients whose ages are at their menopausal age. Aside from oligo-anovulation, infertility, and hyperandrogenism, the PCOS of patients who belong to the menopausal age group can progress to a more serious health condition. Based on the review conducted by Çelik and Köse in 2021 from the study of Azziz et al 2016, the reproductive disorder may further develop into metabolic and cardiovascular

problems such as visceral obesity, dyslipidemia, diabetes mellitus, hypertension, and endometrial cancer (13,14). Hence, with the increasing age pattern of PCOS diagnosis, more life-threatening diseases may develop.

When a patient has been diagnosed with PCOS, there will be a significant impact on her physical appearance and reproductive health. Acne, hair loss, and changes in the skin are some of the physical manifestations of PCOS, and these cases are most likely triggered by hormonal imbalances caused by this disorder. Also, most of the patients who have PCOS have irregular menstrual periods (15, 16). Moreover, patients with PCOS also suffer from hyperandrogenism which is also linked to impaired feedback between the hypothalamus and pituitary gland, excessive secretion of luteinizing hormone (LH), early development of luteinized granulosa cells, abnormal maturation of oocytes, and premature cessation of primary follicle growth (15, 16).

In the case of patients with PCOS in the Kingdom of Bahrain, most of them suffer from acne, irregular menstrual periods, dry and dark patches in the skin, and hirsutism. Hirsutism is a health condition where a woman experiences abnormal hair distribution in her body similar to the male hair distribution pattern and this disorder is triggered by hyperandrogenism in women who are diagnosed with PCOS (17). For women suffering from this disorder, the abnormal hair distribution pattern is commonly found in the androgen-sensitive areas such as the face, chest, breast areola, linea alba, lower back, buttocks, inner thighs, and external genitalia, and this disorder affects 65-75% of the women population who are diagnosed with PCOS (13, 17-19).

In this study, the modified Ferriman–Gallwey scoring system to determine the extent of hirsutism in patients with PCOS in the Kingdom of Bahrain (16). The average hair distribution volume in the body parts of women diagnosed with PCOS in the Kingdom of Bahrain ranges only from 1.82 to 2.53. This means that hirsutism in these patients has only a medium amount of hair found in the androgen-sensitive sites of their bodies. Other factors to consider in determining the extent of hirsutism in patients with PCOS are the genetic variations and especially, their ethnicity. Ethnicity is an essential factor in determining whether the patient is suffering from hirsutism and there has been a modified version of the Ferriman–Gallwey scoring system provided depending on the ethnicity of the patient (17). So, if the patient comes from this race, she will be given questionnaires that suit her race.

Because of the physical manifestations caused by PCOS, patients also suffer from different psychological disorders. Based on the results of the study, patients diagnosed with PCOS have low self-esteem, experiencing social anxiety, depression, and body dysmorphia. Hence, the changes occurring in their physical body negatively affect their quality of life and way of living. For women with PCOS, they see themselves as less feminine because of the changes in their physical appearance like gaining weight and a man-like hair distribution in their body. Several women with PCOS also expressed feelings of being isolated due to a biological difference from the beauty standards prevalent in Western culture. Additionally, they reported experiencing low self-esteem resulting from fertility challenges, which disrupt an essential element of female identity (20). They perceive themselves as unacceptable to society and it makes them feel unattractive. Thus, it results in to decrease in their quality of life and psychological morbidity.

6. CONCLUSION

Women with PCOS often experience negative body image perceptions, which can include feelings of dissatisfaction with their appearance, reduced femininity, and self-consciousness about their looks. These perceptions may be due to changes in physical appearance and difficulties in conceiving, which can cause psychological distress and have an impact on a woman's sense of identity. Body dysmorphia is a significant concern for women with PCOS, and addressing body dissatisfaction as a public health issue is increasingly recognized as an important priority. Strategies for promoting positive body image and self-esteem may be helpful in managing the psychological burden of PCOS and improving overall quality of life for affected individuals.

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