

Development of a Health-Related Quality-of-Life Questionnaire (PCOSQ) for Women with Polycystic Ovary Syndrome (PCOS)*

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ABSTRACT

Objective: To develop a self-administered questionnaire for measuring health-related quality of life (HRQL) in women with polycystic ovary syndrome (PCOS).

Methods: We identified a pool of 182 items potentially relevant to women with PCOS through semistructured interviews with PCOS patients, a survey of health professionals who worked closely with PCOS women, and a literature review. One hundred women with PCOS completed a questionnaire in which they told us whether the 182 items were relevant to them and, if so, how important the issue was in their daily lives. We included items endorsed by at least 50% of women in the analysis plus additional items considered crucial by clinicians and an important subgroup of patients in a factor analysis. We chose items for the final questionnaire taking into account both item impact (the frequency and importance of the items) and the results of the factor analysis.

Results: Over 50% of the women with PCOS labelled 47 items as important to them. Clinicians chose 5 additional items from the infertility domain, 4 of which were identified as important by women who were younger, less educated, married, and African-American. The Cattell's Scree plot from a factor analysis of these 51 items suggested 5 factors that made intuitive sense: emotions, body hair, weight, infertility, and menstrual problems. We chose the highest impact items from these 5 domains to construct a final questionnaire, the Polycystic Ovary Syndrome Questionnaire (PCOSQ), which includes a total of 26 items and takes 10–15 minutes to complete.

Conclusions: We have used established principles to construct a questionnaire that promises to be useful in measuring health-related quality of life. The questionnaire should be tested prior to, or concurrent with, its use in randomized trials of new treatment approaches. (*J Clin Endocrinol Metab* 83: 1976–1987, 1998)

POLYCYSTIC ovary syndrome (PCOS) is the most common endocrine disorder among women of reproductive age in the developed world, affecting 5–10% of this population (1–8). The disorder exhibits a variety of symptoms including oligomenorrhea, hirsutism (1, 9, 10), and obesity (2), not all of which are necessarily present in any one woman (13). Women with PCOS may complain about irregular menstrual periods and/or heavy menstrual bleeding, infertility, excessive growth of coarse facial and body hair, obesity, oiliness of the skin, seborrhoea, and cystic acne (9–13). The impact of these symptoms on a woman's quality of life may be profound and can result in psychological distress (14) that threatens her feminine identity. The condition may therefore result in altered self-perception, a dysfunctional family dynamic, and problems at work (15, 16).

The therapy of PCOS is usually focused on ameliorating its symptoms. Effective treatment can reduce the burden of these symptoms as well as the associated psychological distress and thus improve health-related quality of life (HRQL).

Although generic instruments for measuring quality of life are available (17–24), they are not designed to measure the range of health-related problems experienced by women with PCOS or to detect the changes in these problems induced by effective interventions. Accordingly, we developed the first health status measure that examines disease-related dysfunction in PCOS women for use in clinical trials and natural history studies.

Principles of questionnaire development

The design of the questionnaire was based on principles developed and successfully used in previous studies (25–26). These principles include the following aspects:

1. Both physical and emotional health should be measured.
2. Items must reflect areas of function that are important to women with PCOS.
3. Summary scores should be amenable to statistical analysis.
4. The questionnaire should be relatively short, simple, and capable of being self-administered.

The process of the questionnaire development consisted of the following steps (25): 1) Identification of patient popula-

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tion; 2) Item selection; 3) Item reduction; and 4) Item presentation. Figure 1 summarizes the process.

Methods

Identification of patient population

To identify potentially eligible women with PCOS, we used the patient population of three of the clinicians (RA, WF, AD). The study was approved by the Institute Review Board of the Pennsylvania State University College of Medicine and by the University of Alabama, and written informed consent was obtained before interview. All potentially eligible women received a letter inviting them to participate in the study, followed by a telephone call. Women with PCOS who agreed to participate were enrolled in the study if they met the following criteria:

1. Hyperandrogenism. Elevation of total testosterone, biologically available testosterone, androstenedione and/or dehydroepiandrosterone sulphate (DHEAS) levels above the reference range for the laboratory and/or moderate to severe facial hirsutism and/or terminal hair growth on the upper chest, back or presacral area.
2. Menstrual disturbance. Oligomenorrhea (menses every 6 weeks to 6 months), amenorrhea (menses greater than every 6 months apart or their absence) and/or dysfunctional uterine bleeding with documented anovulation by appropriately timed luteal phase plasma progesterone levels.
3. Age 18–45 years.

Women who met any of the following criteria were excluded:

1. Diagnosis of hyperprolactinemia or nonclassical 21-hydroxylase deficiency established by appropriate tests.
2. Another major illness that substantially influenced the woman's quality of life.
3. Linguistic or cognitive difficulties preventing reliable completion of the questionnaire.

Item selection

In the item selection stage, we identified all aspects of HRQL that were important to women with PCOS. A review of the medical literature,

interviews with ten PCOS women, and a survey of health professionals experienced in management of PCOS patients contributed items. Four endocrinologists, two gynecologists, and two nurse practitioners from the participating centers completed the survey. The ten PCOS women who participated in individual (rather than group) semistructured interviews had a spectrum of mild-to-severe disease with a range in duration (most between 1–5 yr), had the full range of complaints, and were particularly insightful and articulate. In these interviews, women described all problems related to PCOS that affected their daily life. During the last five of the ten interviews, we did not identify any new items.

We searched MEDLINE from 1966 onwards using the text words: "polycystic ovary syndrome," "Stein-Leventhal syndrome," and "quality of life", plus the subject headings: "hirsutism," "infertility," and "obesity" and reviewed all potentially relevant articles. We found one case-control study (14) that investigated the psychological aspects of the quality of life of 50 hirsute women. Psychological problems identified in this study were included in the item pool. Furthermore, 28 reviews and 4 surveys describing the clinical features of PCOS and its prevalence were used for item generation. We also reviewed generic measures of quality of life and questionnaires for patients with similar conditions and selected relevant items. After we eliminated redundancies, we intuitively categorized the final pool of 182 items into 8 domains: symptoms (47 items), emotions (43 items), social contacts and leisure activities (22 items), marital/partner sexual relationship (15 items), dating relationship (12 items), sexual functioning/sexuality (13 items), vocational/financial issues (15 items), and family/friends relationship (15 items).

Item reduction

The aim of this stage was to select a smaller number of items for inclusion in the final questionnaire. Four principles guided our approach to item reduction. First, our primary criterion for including an item was its impact (how frequently women labeled the item as a problem for them and the importance they attached to it). Second, we wished to decrease variability of response and reduce any impact of idiosyncratic response to a given question. Therefore, we specified that each domain must include four items. Third, we ensured that the final instrument would have content validity in the view of the clinicians involved in the item generation process. Finally, we used factor analysis not to reduce items but rather to help place items in domains (27).

One hundred women with PCOS participated in the item reduction stage and identified the physical, emotional, and social problems they had experienced as a result of their condition and graded the severity of these problems in their daily life. For each positively identified item, the PCOS women rated its importance on a 5-point scale (1, not important, up to 5, extremely important). We examined "frequency" (the proportion of women experiencing a particular item), the "importance" (the mean importance score attached with that item), and the "impact" (the product of "frequency" of an item multiplied by its mean "importance").

Before conducting interviews with PCOS women, the study interviewer attended a training workshop. This training ensured strict adherence to the interview protocol, thus reducing bias and random errors in the data collection. After the workshop, the study interviewer underwent testing for standardization and accuracy during interviews.

Analysis

We conducted a factor analysis including all items endorsed by more than 50% of the respondents. We also included additional items that clinicians identified as important and that had an impact score of greater than 2.0 in two or more subgroups, each of which included at least ten patients. We defined subgroups in terms of age, education, marital status, and ethnic origin. We included items in the factor analysis if their impact score was above 2.0 in two or more subgroups with at least ten patients in each.

We chose the number of factors from among those which, in the principle component analysis, had an eigenvalue of greater than 1 and were above the inflection point of the Scree plot. To determine the final factor loading for each item, the factor analysis was repeated using a varimax rotation. For the final questionnaire, we ensured each domain

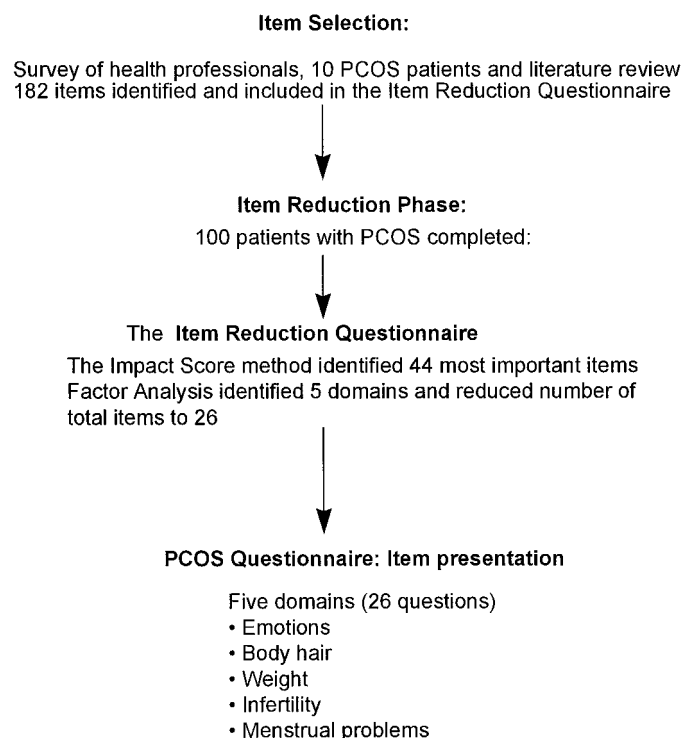


FIG. 1. Development of PCOS.

had four items and included additional items if their impact score was greater than 2.1.

Results

We identified 275 potentially eligible women with PCOS from a data base or from clinical records. We conducted phone interviews with 128 consenting PCOS women (147 women declined participation due to lack of time or interest or failed to respond to phone call or letter). The screening interview identified two ineligible women. Another 24 PCOS women cancelled or missed their appointments, and two patients who were otherwise willing proved ineligible. Of the 100 women with PCOS who participated in the item

reduction phase, 44 were interviewed at the Penn State University College of Medicine Hershey Medical Center, 24 women at the New York City site, and 32 at the University of Alabama. Seven of these women also participated in the item generation phase. Table 1 describes the characteristics of our study population.

Table 2 presents all 47 items that were identified as problems by 50% or more of the PCOS women. The clinicians who reviewed this list believed that infertility, not included among these items, was an important omission. When we examined impact scores of items related to infertility in subgroups of women, we found that "inability to have children" had an impact score of 3.0 in African-American women with

TABLE 1. Demographic variables of patients with PCOS (combined from three centers).

Variable	Frequency (%) for 100 patients
Year of Birth:	
before 1960	24
1960s	54
1970s	22
Ethnic Origin:	
Caucasian	80
Caribbean-Hispanic	6
African American	10
Native American	3
Marital Status:	
Married/Common	48
Single	44
Separated	2
Divorced	6
Occupation:	
Employed full-time	67
Employed part-time	8
Unemployed:	
looking for a job	6
not looking for a job	1
Home-maker	10
Student	8
Education (the highest level):	
Primary school or less	1
Completed High School	23
Some College	22
Completed College	16
Some University	7
University Degree	31
Duration of PCOS Symptoms:	
Less than 1 year	15
1-5 years	48
> 5 years	3

TABLE 2. Items endorsed by at least 50% of patients.

Items	Frequency	Importance	Impact
<u>Symptoms</u>			
Overweight	0.84	4.27	3.59
Growth of visible hair on face	0.90	3.83	3.45
Difficulties staying at a weight you would like	0.80	4.24	3.39
Trouble dealing with weight	0.79	4.23	3.34
Growth of visible hair on chin	0.80	3.93	3.14
Growth of visible hair on the upper lip	0.79	3.66	2.89
Growth of visible hair on body	0.74	3.70	2.74
Tire easily	0.68	3.63	2.47
Irregular menstrual periods	0.82	2.95	2.42
Headaches	0.69	3.23	2.23
Abdominal bloating	0.64	3.17	2.03
Growth of visible hair on abdomen	0.67	2.99	2.00
Increased appetite	0.53	3.75	1.99
Back pain	0.61	3.07	1.87
Menstrual cramps	0.70	2.56	1.79
Heavy menstrual bleeding	0.53	3.15	1.67
Menstrual periods with clots	0.57	2.58	1.47
<u>Emotions:</u>			
Frustration because the attempt to lose weight was not successful	0.73	4.16	3.04
Embarrassed about excessive hair growth	0.76	3.92	2.98
Fell lack of control over the situation	0.66	3.86	2.55
Depressed	0.78	3.18	2.48
Worried	0.68	3.50	2.38
Moody	0.73	3.14	2.29
Low self-esteem	0.66	3.42	2.26
Being self-conscious all the time	0.57	3.91	2.23
Fear of getting cancer	0.55	3.85	2.12
Feeling blue	0.70	2.94	2.06
Feeling different from others	0.64	3.22	2.06
Scared about the future	0.56	3.64	2.04
Losing temper easily	0.62	3.19	1.98
Get depressed easily	0.55	3.94	1.93
Irritated by other people	0.63	2.97	1.89
Tense	0.57	3.28	1.89
Angry	0.57	3.25	1.85
Anxiety	0.53	3.42	1.81
Tearful	0.57	3.11	1.77
Get upset easily	0.50	3.46	1.73
Worry that don't have menstruation	0.53	3.15	1.67
Frustration because other don't understand condition	0.52	3.19	1.66
Insomnia	0.50	2.80	1.40
Feeling weird	0.50	2.72	1.36
Like to be by self	0.53	2.36	1.25
<u>Sexual Functioning/Sexuality:</u>			
Don't feel sexy because of overweight	0.66	3.91	2.58
Don't feel sexy because of excessive hair growth	0.52	3.81	1.98
<u>Vocational/Financial issues:</u>			
Feel like it will take a long time to reach goals in life	0.55	3.73	2.05

PCOS and an impact score of 2.42 in those who were married (Table 3). "Sadness/concern because of infertility problems" had an impact score of 3.30 in African-American population, an impact score of 2.35 in those who were married, and an impact score of 2.50 in those who had high school education or less. "Frustration because can't control the situation with infertility" had an impact score of 3.10 in African-American women and an impact score of 2.21 in the subgroup of those who were married. "Fear of not having children" had an impact score of 3.6 in the African-American population, an impact score of 2.91 in those born in the 1970s, and an impact score of 2.33 in those who had high school education or less. A fifth item, "Guilty because of inability to have children," achieved our cut of an impact score of 2.0 in only one subgroup (African-American) and was therefore not included in the factor analysis. Thus, a total of 51 items were involved in the principal component analysis.

The factor analysis identified 11 factors with eigenvalues of greater than one. Using the Cattell's Scree plot to determine a cut-off point, we chose 5 factors to form the questionnaire's domains. These factors made intuitive sense and were characterized as follows: emotions, body hair, weight problems, menstrual problems, and infertility. The final analysis was repeated with these 5 factors using a varimax rotation. Table 4 presents the 51 items included in the factor analysis with their associated impact score and factor loading, with the 26 items chosen for the final questionnaire highlighted (*shaded*) in the "Impact" column.

Final questionnaire: item grouping and scoring

Using the decision criteria described in the *Methods* section, we chose a total of 26 items for the Polycystic Ovary Syndrome Questionnaire (PCOSQ). With one exception, we included items in the domain in which they had the highest factor loading. We felt that "fear of cancer," which had its highest loading (0.42) in the infertility domain, was more appropriately included in the emotional domain. We grouped the 26 items into 5 domains: emotions (8 items), body hair (5 items), weight (5 items), infertility (4 items), and menstrual problems (4 items) (see Appendix I).

Each question is associated with a 7-point scale in which 7 represents optimal function and 1 represents the poorest function (see Appendix Questionnaire). We constructed the 7-point scales using the same principles that have guided us in the development of response options in other disease-specific questionnaires (28–39). Respondents have found these presentations understandable and easy to use. We recommend that investigators weight the items equally and present the results as the mean score per item for each of the domains. Thus, the results from a domain with 4 items and from a domain with 7 items will both be expressed as a score from 1 to 7. We chose a 2-week time frame for patients to describe their function. Though we know of no empirical data to support the 2-week time frame as opposed to other possible time frames, both we and other investigators have frequently used the 2-week window, and patients have proved comfortable with this choice.

Discussion

Successful treatment of PCOS that would reduce the burden of the symptoms and associated psychosocial stress should also have an important impact on woman's HRQL. Therefore, the assessment of HRQL could add vital information to the evaluation of treatment effectiveness in clinical trials in PCOS, as well as to natural history studies. The PCOS HRQL questionnaire represents a new measure for women with PCOS and includes five domains: emotional, body hair, infertility, weight, and menstrual problems. Investigators can use the PCOSQ in either self-administered or interviewer-administered formats. PCOS women's responses to questions about the impact of problems associated with PCOS guided our choice of the items for the final questionnaire, while both clinical sensibility (40) and factor analytic method guided our placing of items within domains.

The psychometric properties of the PCOSQ have not yet been evaluated. However, our comprehensive approach to item selection and our involvement of 100 PCCOS women in item reduction ensures the content validity of our questionnaire. Furthermore, given that previous disease-specific instruments we have developed, using strategy similar to the PCOSQ, have ultimately demonstrated construct validity and responsiveness (28–39), it is likely that the measurement properties of the PCOSQ will also prove satisfactory. However, because we have not tested the measurement properties of the PCOSQ, investigators using the new questionnaire in comparative studies should build strategies for testing its validity and responsiveness into their studies.

We relied on patients' assessment that their symptoms and feelings were in response to their PCOS. We could have empirically validated their assessment by including a control group of women who did not have PCOS and establishing that they had a different experience than the PCOS patients. Our not having done so raises the possibility that some of the items in the PCOSQ are not really related to PCOS. Were this the case, it would compromise the validity and responsiveness of the questionnaire. This consideration supports the necessity of subsequent testing of the validity and responsiveness of the PCOSQ.

We strongly recommend that investigators present PCOSQ results on a 1 to 7 scale by dividing each domain score by the number of items in the domain. A consistent presentation of results on a 1 to 7 scale facilitates their interpretability. This is particularly the case because, for a number of similarly structured disease-specific HRQL measures, we have found that a change of 0.5 on the 1 to 7 scale approximates the minimal important difference in the questionnaire score—the smallest change in score that women feel is important in their daily lives (40–44). While empirical demonstration would strengthen our inference that the same interpretation applies to the PCOSQ, repeated findings with different questionnaires and different measurement techniques suggests that this may well be the case.

In conclusion, we have developed a new questionnaire measuring HRQL in PCOS patients. Should future studies confirm its responsiveness and validity, the questionnaire is likely to be useful in measuring the effect of interventions designed to improve HRQL in women with PCOS.

TABLE 3. Infertility items: impact score and proportion endorsing presented by demographic subgroups. Legend for infertility items: Item 11*, Inability to have children; Item 58[&], Sadness/concern because of infertility problems; Item 62[~], Guilty because of inability to have children; Item 66, Frustration because cannot control situation of infertility; Item 68[#], Fear of not having children.

Demographic Factors	Impact score					Proportion Endorsing				
	Item 11*	Item 58 ^{&}	Item 62 [~]	Item 66	Item 68 [#]	Item 11*	Item 58 ^{&}	Item 62 [~]	Item 66	Item 68 [#]
Year of Birth:										
50's or before	1.25	1.42	0.63	1.08	0.71	0.42	0.58	0.33	0.25	0.42
1960's	1.72	1.91	1.06	1.63	2.00	0.41	0.61	0.48	0.44	0.72
1970's	1.72	1.59	1.19	1.5	2.91	0.21	0.73	0.5	0.5	0.77
Ethnic Origin:										
Caucasian	1.44	1.5	0.91	1.28	1.84	0.38	0.61	0.44	0.4	0.66
Hispanic	0.83	2.33	0.83	1.5	0.83	0.17	0.67	0.33	0.17	0.5
Native American	1	0	0	0	0	1	0	1	0	1
African American	3	3.3	2	3.1	3.6	0.6	0.8	0.7	0.6	0.8
Other	0	1.67	0	1.67	0.33	0	0.33	0	0.33	0.33
Marital Status:										
Married/Common	2.42	2.35	1.5	2.21	2	0.58	0.67	0.46	0.35	0.71
Divorced	0.75	1.50	0.63	1.13	2.00	0.25	0.50	0.63	0.25	0.63
Single	0.66	1.07	0.48	0.73	1.75	0.18	0.61	0.41	0.50	0.61
Highest Level of Education:										
High school or less	1.92	2.5	1.21	1.88	2.33	0.5	0.83	0.54	0.5	0.79
Some college	1.53	1.47	1.11	1.39	1.84	0.37	0.66	0.50	0.47	0.58
Some university	1.24	1.47	0.71	1.29	1.66	0.32	0.47	0.34	0.29	0.66
Overall:	3.97	4.2	4.67	4.32	3.94	0.38	0.41	0.21	0.34	0.48

TABLE 4. Factor analysis. Legend: highlighted items are items chosen for the final questionnaire.

Factor	Items	Impact score	Loading
Emotions	Depressed	2.48	0.73
	Tire easily	2.47	0.47
	Worried	2.38	0.76
	Moody	2.29	0.72
	Low self-esteem	2.26	0.64
	Being self-conscious	2.23	0.64
	Fear of getting cancer	2.12	0.55
	Feeling blue	2.06	0.76
	Feel like it will take a long time to reach goals	2.05	0.57
	Scared about future	2.04	0.57
	Losing temper easily	1.98	0.72
	Get depressed easily	1.93	0.82
	Irritated by other people	1.87	0.75
	Tense	1.87	0.74
	Angry	1.85	0.75
	Anxiety	1.81	0.73
	Tearful	1.77	0.68
	Get upset easily	1.73	0.77
	Feeling weak	1.38	0.52
	Feeling weird	1.36	0.63
Body Hair	Insomnia	1.40	0.35
	Like to be by self	1.25	0.37
	Growth of visible hair on face	3.45	0.88
	Growth of hair on chin	3.14	0.80
	Embarrassed about excessive body hair	2.98	0.86
	Growth of hair on upper lip	2.89	0.77
	Growth of visible body hair	2.74	0.79
	Feeling different from others	2.06	0.41
Weight	Growth of hair on abdomen	2.00	0.69
	Don't feel sexy because of excessive hair growth	1.98	0.70
	Avoid talking about problems with co-workers	1.00	0.34
	Concerned about being overweight	3.59	0.89
	Difficulties staying at ideal weight	3.39	0.85
	Trouble dealing with weight	3.34	0.91
	Frustration in losing weight	3.04	0.87
	Do not feel sexy because of weight	2.58	0.67
Infertility	Increase appetite	1.99	0.53
	Back pain	1.87	0.41
	Feel lack of control over the situation	2.55	0.58
	Fear of not having children	1.89	0.76
	Sadness because of infertility problems	1.72	0.89
	Worry about not having periods	1.67	0.54
	Inability to have children	1.51	0.79
	Frustration because can't control the situation	1.47	0.88
Menstrual Problems	Frustration because other don't understand condition	1.66	0.41
	Irregular menstrual periods	2.42	0.54
	Headaches	2.23	0.34
	Abdominal bloating	2.03	0.52
	Menstrual cramps	1.79	0.77
	Heavy menstrual bleeding	1.67	0.83
	Menstrual periods with clots	1.47	0.80

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Appendix I

The 26 items were converted into a questionnaire with 5 domains.

Domain	Item number in the PCOSQ
Emotions	2, 4, 6, 11, 14, 17, 18, 20
Body Hair	1, 9, 15, 16, 26
Weight	3, 10, 12, 22, 24
Infertility problems	5, 13, 23, 25
Menstrual problems	7, 8, 19, 21

Appendix II

Polysystic Ovary Syndrome Questionnaire (PCOSQ)—Self-Administered

Instructions: This questionnaire is designed for women with Polycystic Ovary Syndrome. In the questionnaire, we will refer to the Polycystic Ovary Syndrome by its initials: PCOS. The questions concern your health and health-related issues. Please respond to each question by checking the box with the rating that best reflects how you feel. For each question, you have seven rating options. Option 1 represents the greatest possible impairment, while Option 7 represents the least impairment. Choose only one option for each question. There is no right or wrong answer. Just choose the option that is closest to how you feel.

Polycystic Ovary Syndrome Questionnaire

Self-administered

How much of the time during the last two weeks did you:

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	Hardly any of the Time	None of the Time
22. Feel like you are not sexy because of being overweight?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Feel a lack of control over the situation with PCOS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Have difficulties staying at your ideal weight?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Feel sad because of infertility problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent has growth of visible body hair been a problem for you during the last two weeks:

	A Severe Problem	A Major Problem	A Moderate Problem	Some Problem	A Little Problem	Hardly any Problem	No Problem
26. Growth of visible body hair?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for completing this questionnaire.

Polycystic Ovary Syndrome Questionnaire
Self-administered

Over the last two weeks, to what extent the following issues have been a problem for you:

	A Severe Problem	A Major Problem	A Moderate Problem	Some Problem	A Little Problem	Hardly any Problem	No Problem
15. Growth of visible hair on your face?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Embarrassment about excessive body hair?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the past two weeks how much of the time have you been:

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	Hardly any of the Time	None of the Time
17. Worried about having PCOS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Self-conscious as a result of having PCOS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In relation to your last menstruation, how much the following issues were a problem for you:

	A Severe Problem	A Major Problem	A Moderate Problem	Some Problem	A Little Problem	Hardly any Problem	No Problem
19. Abdominal Bloating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Late menstrual period?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Menstrual cramps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Polycystic Ovary Syndrome Questionnaire Self-administered

In relation to you last menstruation, how much were the following issues a problem for you:

	A Severe Problem	A Major Problem	A Moderate Problem	Some Problem	A Little Problem	Hardly any Problem	No Problem
7. Headaches?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Irregular menstrual periods?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent has growth of visible hair on your upper lip been a problem for you during the last two weeks:

	A Severe Problem	A Major Problem	A Moderate Problem	Some Problem	A Little Problem	Hardly any Problem	No Problem
9. Growth of visible hair on upper lip?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the past two weeks, how much of the time have you:

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	Hardly any of the Time	None of the Time
10. Had trouble dealing with your weight?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Had low self-esteem as a result of having your PCOS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Felt frustration in trying to lose weight?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Felt afraid of not being able to have children?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Felt frightened of getting cancer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Polycystic Ovary Syndrome Questionnaire
Self-administered

To what extent have you felt that growth of visible hair on your chin has been a problem for you during the last two weeks:

	A Severe Problem	A Major Problem	A Moderate Problem	Some Problem	A Little Problem	Hardly any Problem	No Problem
1. Growth of visible hair on chin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the past two weeks, how much of the time have you felt:

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	Hardly any of the Time	None of the Time
2. Depressed as a result of having PCOS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Concerned about being overweight?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Easily tired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Concerned with infertility problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Moody as a result of having PCOS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>