Arch Health Sci Res. 2024;11(1):24-30
DOI: 10.5152/ArcHealthSciRes.2024.23057

Original Article

Sexual and Reproductive Health Concerns in Women with Polycystic Ovary Syndrome and Their Spouses: A Qualitative Study

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Cite this article as: Bokaie M, Bostani Khalesi Z, Farajkhoda T. Sexual and reproductive health concerns in women with polycystic ovary syndrome and their spouses: A qualitative study. *Arch Health Sci Res.* 2024;11(1):24-30.

ABSTRACT

Objective: The aim was to explain the sexual and reproductive health concerns of women with polycystic ovary syndrome (PCOS) and their spouses.

Methods: This qualitative content analysis research was carried out among 16 Iranian women with PCOS and 7 husbands of these women. The participants were selected via purposive sampling and asked to attend semistructured in-depth interviews. Later, 5 women with PCOS, selected from the participants, were asked to participate in a focus group discussion and 5 interviews were conducted with experts. All interviews were recorded and transcribed verbatim. Information collection continued until saturation and the collected data were analyzed via MAXqda11 software.

Results: According to the participants' viewpoints and experiences, PCOS-related concerns were classified under 2 main categories: 1) Reproductive health concerns containing 4subcategories of reproductive disorders, progression of the disease, menstrual disorders, and challenges in receiving health services; 2) Sexual health concerns with 2 subcategories of marital dissatisfaction and unfavorable sexual function.

Conclusion: The findings indicated that sexual and reproductive health concerns of women with PCOS included menstrual and fertility disorders, disease development, marital dissatisfaction, and poor sexual function. Health policymakers and decision-makers are recommended to use our findings to design educational programs to promote the sexual and reproductive health of women with PCOS and their spouses

Keywords: Women, sexual health, qualitative research, polycystic ovary syndrome

Introduction

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in women,[1] which often begins after puberty and is commonly observed within the age range of 20-40 years.[2] The overall prevalence of this syndrome is about 3%-10% across the world[3] and 19.5% in Iran according to the Rotterdam criteria.[4] Although the exact etiology of PCOS is not known yet, it can be generally considered a multifactorial disorder resulting from the interaction of genetic and environmental disorders.[5] Common causative factors of PCOS include genetic predisposition, increased insulin secretion and resistance, obesity, as well as environmental and chemical pollution.[6] Although the diagnosis of this syndrome is difficult due to the variety of signs and symptoms, Rotterdam criteria facilitate PCOS diagnosis.[5] According to these criteria, having at least 2 (of the 3) criteria of non-ovulation, presence of small and abundant cysts in the ovaries, as well as diagnosis of clinical signs of androgen in the body, is sufficient for diagnosis.[7] The clinical consequences of PCOS are widespread and lifelong[8] causing infertility,[9] and sexual and metabolic complications.[7,10] One of the most common complaints of these people was menstrual disorders.[3,11] indicating that the risk of endometrial, ovarian, and breast cancers is higher in these patients due to their chronic lack of ovulation and exposure to estrogen without progesterone.[12] PCOS is found to be a trigger for psychological morbidity and anxiety disorders are the most common psychological disorders in PCOS patients, even if this may lead to suicidal tendencies.[13] Women with PCOS, compared with non-PCOS women, feel different, less feminine, and more depressed.[8,10]

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Received: May 27, 2023
Revision Requested: July 15, 2023
Last Revision Received: December 2, 2023
Accepted: December 10, 2023
Publication Date: February 20, 2024

Although some studies have evaluated some aspects of sexual and reproductive health such as infertility,[13] sexual disorders,[14] pregnancy complications,[15] and quality of life for women with PCOS.[4] Many previous studies have limited their scope to sexual health and have not investigated how PCOS affects other reproductive health aspects. Additionally, existing studies have focused on the perspective of women with PCOS, and little is known about the experiences of their spouses. The spouse is the person who most frequently accompanies the women with PCOS and is affected by and faces many complications and challenges as well. On the other hand, involving spouses' attention to the dimensions of this disease can play an important role in their support-seeking. Spouses of women with PCOS can play an important role in managing and alleviating the psychological distress of women with PCOS. Understanding the feelings and conditions of affected women by their husbands can help manage their conditions.[7] Spouses of women with PCOS can support them by making lifestyle changes, accompanying them to appointments with their health-care provider, and learning about treatments and side effects.

In this study, we present a qualitative study to identify SRH concerns in women with PCOS. The qualitative research approach produces a thick description of understanding the feelings, opinions, behavior, perceptions, and experiences of humans in specific settings. Conducting such research leads to a better understanding of the sexual and reproductive health challenges of women with PCOS and their spouses., as well as identifying the informational needs of health-care providers in order to facilitate a more comprehensive assessment and delivery of their care plans.[16] This knowledge will help health-care providers improve the quality of care and support they provide for women with PCOS, which ultimately leads to better health outcomes, increased patient satisfaction, and a better quality of life for women with PCOS. Therefore, this study is conducted to explain the sexual and reproductive health concerns of women with PCOS and their spouses.

Methods

Study Design

The present study was conducted based on the philosophy of naturalism and the approach of qualitative content analysis in the city of Rasht, Northern Iran. The naturalistic paradigm focuses attention on the importance of complexity and context when examining situations in which multiple factors interact. Within the naturalistic paradigm, one school, interpretive constructionism, holds that the core of understanding is learning what people think of the world around them, how they interpret what they encounter, and how they relate to events or objects. They assign meanings and values. What is important to inter pretive-constructivist researchers is how people perceive an object or event and what meaning they attach to it. Interpretive constructivists understand that people look at things from different perspectives and come to slightly different conclusions.[17]

Qualitative content analysis involves the mental clarification of the content of text data through processes of classification, coding, indexing, or systematic design of known patterns.[18]. In the conventional content analysis approach, the researcher will gain a deeper understanding of a phenomenon by extracting categories from the textual data directly.[19] The content analysis approach was applied in the present study to discover the concepts and concerns of women with PCOS and their spouses. in terms of their sexual and reproductive health.

Data Collection

Individual interviews and a focus group was used to collect data. Semistructured in-depth individual interviews were conducted with 16 women with PCOS and 7 of the spouses of the affected women, separately. Qualitative data was collected between June and October 2022. A purposive sampling method was adopted to select participants. Maximum diversity, in terms of age, education, duration of the marriage, and socioeconomic status, were considered in the selection of participants.

The inclusion criteria for women included being originally from Iran; willingness to participate in the study; being between 15 and 45 years old; ability to understand and speak Persian; resident in Rasht; having no hearing or speech problems; married; no non-classic adrenal hyperplasia, thyroid dysfunction, hyperprolactinemia; no psychiatric diagnosis and taking psychiatric medications, including antidepressants; do not take any prescribed medications (other than allergy medications and occasional pain relievers) for at least 3 months before the test. Meet 2 of the following Rotterdam diagnostic criteria.

Participants were allowed to have their spouses take part in the survey. However, the non-participation of a spouse did not prevent a woman from taking part in the survey if she preferred to take part in the survey herself or if she did not want to allow her partner to be interviewed. Each spouse was interviewed separately. Because some spouses had to work and were unable to attend the meetings, they were interviewed as part of a scheduled telephone interview.

Inclusion criteria for spouses included being the spouse of a woman with PCOS; being over 18 years old; being married or married to a woman; living in the same house with one's wife for at least a year; being a resident in Rasht; having no hearing or speech problems; having the ability to understand and express one's experiences in Persian; and agreeing to participate in the study and record the interviews. If eligible to participate, informed consent was obtained by providing a written statement in plain language containing important information about the research project, including possible risks and benefits to the individual, and informing them of their right to withdraw from the study at any time.

Interview guide: Three main research questions guided the creation of a semistructured group interview guide on sexual and reproductive health issues.

The guiding questions that highlighted sexual and reproductive health problems were the following: 1) What strategies and advice are needed to reduce sexual and reproductive health problems in women with PCOS? 2) Why is it important to improve the sexual and reproductive health of women with PCOS? 3) What challenges have you heard, seen, or experienced in seeking sexual and reproductive health care? A qualitative descriptive approach was used to develop these questions. During the data collection process, sampling continued until data saturation was reached and no new data were observed. Further samples were then taken.[20] The interviews were conducted based on the guidelines and interview protocol contained in the literature on the subject. None of the spousal interviews were conducted at the same time as the participant; some spouses described their experiences separately immediately after interviewing the participant. The other spouses were working and could not attend the visits; their conversation took place during a scheduled telephone conversation.

The interviews were conducted by the first author, and each interview with women lasted 45-60 minutes. Each interview with spouses took approximately 30 minutes.

The second interview was conducted only after coding the first one, and data collection continued until data saturation was reached. The interviews were recorded and transcribed verbatim, followed by obtaining the participants' consent.

In order to complement the individual interviews and draw from the complex personal experiences, beliefs, perceptions, and attitudes of the participants through a moderated interaction to identify the sexual and reproductive problems of women with PCOS more efficiently, the focus group method was used. We recruited 5 women with PCOS for 1 focus group. The focus group interview lasted about 90 minutes.

We initiated discussions and debates in 4 main areas:

- Sexual and reproductive health priorities for women with PCOS
- Barriers to accessing health and social services
- Be "heard" by health-care professionals to defend the voice of women with PCOS
- Sexual and reproductive health information sources

Integrating data from focus groups and individual interviews yielded 3 main benefits: a productive iterative process in which an initial model of the phenomenon guided the exploration of individual narratives, identifying the individual and contextual circumstances surrounding the phenomenon that contributed to the interpretation of the structure of the phenomenon, and the convergence of key features of the phenomenon increased the credibility of the results, which increased the credibility.

The discussions were recorded (followed by obtaining permission from the participants), transcribed verbatim, and analyzed. The mediator/first researcher led and guided the discussion so that all research questions developed in the discussion protocol could be tackled. During the interviews, questions were asked by the mediator, and the observer/second researcher monitored the data collection process by taking notes on special occasions to clarify the concepts raised and to prevent the loss of non-verbal information.

Also, to access specialized information about women's problems with PCOS, 5 semistructured, individual, and in-depth interviews were conducted with experts. We selected specialists who were knowledgeable about or experienced with the sexual and reproductive problems of women with PCOS. The experts contributed to the development of the questions to be asked to the participants.

A sample question used to collect information from the experts in the field of sexual dimension was: "What is the most common complaint of women with PCOS?

Ethical Considerations

This study received ethics approval from Reproductive Sciences Institute - Shahid Sadoughi University of Medical Sciences (Approval no: IR.SSU.RSI.REC.1400.009, Date: August 22, 2021). Obtain informed written consent from all subjects before enrollment in a study. Ethical considerations were observed to protect the participants' rights. The participants were explained the study purpose, privacy and confidentiality of the collected information, and voluntary participation in the research (i.e., they could leave the study at any time they wished). Following providing the participants with the required explanations, they were asked to sign informed consent forms and answer the interview questions.

Data Analysis

A conventional content analysis method was used to analyze the data. The Granheim and Landman.[21] method contains 5 steps: 1) word-by-word transcription of the whole interview, 2) reviewing the interviews' written content and reading to get a general understanding of its texts, 3) identifying primary codes and the units of meaning, 4) classifying meaning units under more comprehensive classes, and 5) identifying the meaning concepts in the data to analyze the qualitative data. To this end, the recorded file was transcribed verbatim immediately after each interview and reviewed several times to extract the initial codes. Later, the related meaning units were merged based on their conceptual similarities, and sub-categories were formed. Finally, more abstract concepts were extracted to form the main categories. All 3 authors analyzed the transcribed texts separately and performed the coding process individually. In a symposium, all authors discussed their codes and categories to resolve any disagreements and reach a consensus regarding the extracted categories and sub-categories.

Rigor

In order to examine the collected data, the criteria set by Goba and Lincoln (1989), including credibility, transferability, dependability, and confirmability, were used.[22] The credibility of the data was confirmed by researchers' long-term engagement with participants and immersion in data, participants' confirmation of the transcribed interview's content, observer's review and control of the data collection process, and consideration of maximum variety in samples in terms of age, level of education, occupation, and residence (urban/rural areas). Data transferability was assessed by reviewing the findings of women who met the inclusion criteria but did not participate in the study. To increase the dependability of data, the participants' context, culture, and characteristics, data collection method, and data analysis method were provided along with examples of the participants' statements to clarify the research path and characteristics of the study population for readers. To increase the findings' confirmability, 2 expert professors in qualitative research, who also supervised the study stages, were asked to study the extracted codes and categories. The findings showed a high agreement among the extracted results. To enhance the confirmability of the data, the opinions of experienced professionals in the field of sexual health outside the research team were used in all stages of the study process, such as sampling and data collection, analysis, and interpretation. Moreover, to increase the verifiability of the findings, the researchers tried to exclude their presumptions as much as possible in the process of data collection and analysis. A 32-item Reporting Qualitative Research checklist was used to report the findings.[23]

Results

Participants consisted of 16 married women in the age range of 18-41 years with a mean age of 26.10 $\pm$ 1.1 and their partners with a mean age of 31.00 $\pm$ 2.7 and an age range of 23-49. Findings about the demographics are presented in Table 1.

The experts in this study were endocrinologists, gynecologists, PhDs in Reproductive health, clinical psychologists, and MSc in midwifery.

Two main categories and subcategories about sexual and reproductive health concerns are displayed in Table 2.

Reproductive Health Concerns

Reproductive Disorders

According to some participants, fertility disorders are among the most important concerns related to fertility in patients with PCOS.

Infertility was one of the prevailing problems raised by participants. Accordingly, a participant said: "I have been seeking infertility treatment for over 2 years. Doctors believe that patients with PCOS have a hard time getting pregnant" (31-year-old woman, diploma).

Participants also emphasized the high cost of infertility treatment. One of the participants, who was referred to the clinic due to infertility, stated: "I have been seeking infertility treatment for almost 5 years, I have tried it 4 times, I spent a lot of money, I had to sell my paternal

Table 1. Demographic Characteristics of Participants

Variables			Mean (SD) or N (%)
Women age (years)			26.10 ± 1.10
Partner's age (years)			31.00 ± 22.7
Marital duration (years)		2<	5 (21.74)
		2-5	8 (34.78)
		5-8	7 (30.43)
		8>	3 (13.04)
History of Infertility		Yes	18 (78.26)
		No	5 (21.74)
Number of pregnancies		0	16 (69.56)
		1	6 (26.8)
		2	1 (4.34)
Number of full-term deliveries		0	2 (8.69)
		1	4 (17.39)
		2	1 (4.34)
Place of residence		Urban	15 (65.21)
		Rural	8 (34.78)
Education	Men	Primary/secondary	1 (14.28)
		Diploma	3 (42.85)
		University	3 (42.85)
	Women	Primary/secondary	1 (6.25)
		Diploma	5 (31.25)
		University	10 (62.5)
Employment status	Men	Unemployed	1 (14.28)
		Government employee	4 (57.14)
		Self-employed	2 (28.57)
	Women	Housewife	7 (43.75)
		Employed	9 (56.25)
Economic status		Poor	5 (21.74)
		Moderate	14 (60.86)
		Good	4 (17.39)

land…Insurance does not cover the costs of infertility" (37-year-old woman, associate degree).

Another point made by the participants was about the fear of infertility due to the disease's impact on pregnancy. A participant indicated: "Even if I can get pregnant, I am still worried; I am afraid I will not be able to preserve the fetus until very late in pregnancy, I may have an abortion, or I will have complications myself…I am more worried about problems during the pregnancy" (35-year-old woman, master's degree).

Almost all participants were concerned about the complications caused by receiving infertility-treatment medications. Another participant stated: "I have been married for 3 years, I have also have tried a method of contraception but prefer not to get pregnant because, in the doctors' office, I observed that women with my problem took a lot of medicines and received long treatment to get pregnant. I think pregnancy does not worth this; these drugs have general complications; I do not want to develop cancer" (26-year-old woman, diploma).

Some participants mentioned contraceptive methods mentioning: "If we decide not to get pregnant in Iran, a limited number of contraceptive methods are available … my sister also has also PCOS but lives in Germany, contraceptives are very diverse there" (32-year-old woman, bachelor's degree).

Disease Progression

Another concern mentioned by most participants was the incidence of other diseases, such as cardiovascular disease, diabetes, and cancer in the future. A participant noted: "I'm afraid that when I get older, the drugs I took or my disease cause other diseases. I read that diabetes and high blood pressure are common complications in patients with PCOS" (41-year-old woman, master's degree).

"In general, when a woman has PCOS, she is always worried about developing more severe diseases, such as breast or ovarian cancer when cysts on the ovaries turn into tumors" (32-year-old woman, bachelor's degree).

Menstrual Disorders

Irregular menstrual periods and prolonged non-menstrual periods were among the concerns raised by participants about patients with PCOS. A participant said: "Although many women have regular menstrual periods, I always ask myself, why is my period is not regular or why is my menstrual period so late" (32-year-old woman, bachelor's degree).

Another participant mentioned: "Once, I did not have a period for six months, I felt anxious; my menstrual period does not have a specific time at all" (26-year-old woman, diploma).

Challenges of Receiving Health Services

Another concern mentioned by participants was the barriers to receiving health services, such as infertility stigma and labels, lack of access to sufficient information, lack of access to credible educational resources, and the high cost of counseling services. One participant noted: "Usually no one wants to admit that they have infertility, it is difficult for them to seek treatment because they do not want to accept that they are infertile" (27-year-old woman, diploma).

The husband of a patient pointed at information access: "We solve our problems through cyberspace using our cell phones. It is not clear how accurate the information on the Internet is" (34-year-old man, master's degree).

Another participant also mentioned: "When I found out that my wife had this problem (PCOS), I searched for a book or a reliable source to see what to do. The Ministry of Health should take appropriate measures to inform these patients and their family members. Otherwise, patients and their families get confused about effective treatments" (28-year-old man, bachelor's degree).

According to another participant: "We do not know what to do. On the one hand, the cost of counseling is high; on the other hand, insurance does not cover counseling" (37-year-old man, diploma).

Sexual Concerns

Marital Dissatisfaction

The majority of women with PCOS reported sexual difficulties. One of the participants indicated: "My husband says, 'you have no femininity at all, why is your body like men'…If my husband touches my face, he would say why your skin is so rough, I also think the same" (37-year-old woman, secondary school).

Another major concern for women with PCOS was the fear of infidelity. One of the participants indicated: "Most of the time, my husband is dissatisfied with having no sex with me. He always complains about why I do not make any effort. I am always worried about his (husband's) betrayal" (41-year-old woman, bachelor's degree).

Unfavorable Sexual Function

According to the participants, decreased libido, decreased levels of sexual arousal, lack of or diminished vaginal lubrication, and decreased frequency of sexual intercourse, painful intercourse, decreased sexual

Table 2. Categories and Subcategories in a Qualitative Study Explaining Sexual and Reproductive Health Concerns in Women with Polycystic Ovary Syndrome

Categories	Subcategories	Code
Reproductive health concerns	Reproductive disorders	Infertility
		Fear of pregnancy complications despite illness
		Side effects of medications
		Lack of access to pregnancy prevention methods
		High costs of infertility treatment
	Progression of the disease	Fear of suffering from other diseases
		Fear of cancer
	Menstrual disorder	Irregular menstrual periods
		Amenorrhea
	Challenges of receiving health services	Stigma
		Lack of access to sufficient information
		Lack of access to valid educational resources
		High cost of consulting services
		Lack of insurance support for consulting services
Sexual health concerns	Marital dissatisfaction	Fear of losing sexual attractiveness
		Decreased sexual satisfaction
		Fear of rejection from partner
		Fear of spouse infidelity
		Fear of high-risk sexual behaviors of the spouse
		Marital conflicts
		Fear of a partner's desire for pornography due to decreased female desire
	Unfavorable sexual function	Decreased libido
		Reduce the frequency of sexual activity
		Reduce vaginal irritation and wetting
		Painful intercourse
		Decreased sexual pleasure
		Decreased sexual self-esteem
		Decreased sexual self-efficacy

pleasure, decreased sexual self-esteem, and decreased sexual self-efficacy were among the causes of poor sexual function in patients with PCOS.

Participants identified decreased libido as one of the main concerns of married women with PCOS. A patient mentioned: "From the very beginning of our marriage, I had problems with sex because I felt I could not meet his needs. I have no desire to have a relationship" (28-year-old woman, diploma).

Almost all participants believed that they had less sexual activity than their peers. One participant mentioned: "We have sex once a month at maximum .... I feel I cannot have a good relationship (sex) with my husband because it almost always takes too long. I cannot get ready soon (delayed arousal), my husband gets very tired, we usually end up fighting" (37-year-old woman, associate degree).

Some participants expressed dissatisfaction with the painful nature of intercourse. A woman mentioned: "I feel that sex is really useless, nothing can turn me on. I ask myself why I have to suffer so much ... I just want it (Sex) to finish very soon and there will be no pain anymore" (39-year-old woman, diploma).

Most participants suffered from decreased sexual pleasure. In this regard, one of the women with PCOS stated: "When I understood that women should reach orgasm like men, I was worried about my health because I have never experienced this feeling, I just want it to end sooner" (33-year-old woman, master's degree).

Decreased sexual self-esteem was another problem mentioned by some participants. "I think this disease has greatly affected my self-esteem. I do not enjoy sex. Since I do not enjoy it, my husband realizes that I do it out of compulsion" (36-year-old woman, master's degree).

Discussion

Data analysis led to the extraction of the main concerns of the sexual and reproductive health of women with PCOS. These concerns included reproductive disorders, disease progression of the disease, menstrual disorders., and challenges in receiving health services. Fear of infertility was another important dimension referred to by the participants. Trent et al[24] compared girls with and without PCOS in a quantitative study and found that women with PCOS were 3.4 times more worried about their future infertility than girls without PCOS.

Another concern of the patient who participated in our research was the fear of pregnancy complications. Pregnant women with PCOS have an increased risk of certain complications, such as gestational diabetes, preeclampsia, or preterm birth.[25] Women with PCOS may be more likely to miscarry compared to those without the condition. This may be related to hormonal imbalances, insulin resistance, or other underlying factors.[9] Pan et al[26] maintained that the risk of miscarriage was 25%-73% in the first trimester in women with PCOS since pregnancy complications, especially gestational diabetes and high blood pressure, increase significantly in these patients.

Our participants also noted concerns regarding pregnancy complications and the long-term effects of PCOS, such as diabetes and cancer. Recent studies have demonstrated an association between PCOS and endometrial, ovarian, and breast cancers due to the lack of prolonged ovulation and the impact of estrogen secretion without progesterone.[27]

Also, epidemiological data support an association between this syndrome and hyperglycemia, type 2 diabetes, and abnormal glucose tolerance.[28]

Another problem mentioned by women with PCOS about challenges in receiving health services was the high cost of the disease's treatment.[7] Treating PCOS and potential fertility treatments can be costly. This problem was exacerbated by the fact that insurance does not cover infertility treatments in Iran, similar to many other countries.[29] In other words, people should pay the cost of these treatments directly out of their pockets.

Another concern reported by most participants was the recurrence and progression of PCOS symptoms. Weiss et al,[30] reported women with PCOS as chronic and complex patients with seemingly unrelated symptoms. They described the disease as debilitating and said it had reduced their level of health.

Many women with PCOS may experience challenges such as decreased libido or sexual desire, difficulties with arousal or lubrication, and even pain during intercourse. Fluctuations in hormone levels, such as elevated testosterone or low estrogen, might play a role in this change.[13] These issues can have a significant impact on life satisfaction and marital relationships.[8]

The psychological impact of PCOS, such as body image concerns, anxiety, or depression, can affect sexual health. Emotional distress related to PCOS symptoms might contribute to difficulties in sexual intimacy.

As Nasiri Amiri et al[31] indicated, several factors can affect the sexual function of women with PCOS. Changes in the physical and aesthetic dimensions of the body (due to hirsutism, obesity, and acne), as well as sex hormone imbalances, can lead to decreased sexual function in these patients. According to Mantzou et al,[32] women with PCOS found themselves less attractive than others and believed that they were less sexually attractive to their sexual partners. Dashti et al[33] concluded that the sexual function of women with PCOS was influenced by the physical factors caused by this syndrome.

Based on a study by Liu et al,[34] PCOS is associated with challenges related to the gender role of women due to hirsutism, obesity, and acne which significantly reduce the quality of their sex life. Alur-Gupta et al[35] observed that most participants had a bad self-body image and found themselves ugly and unattractive. According to Witchel et al,[36] usual symptoms of PCOS include missed periods, irregular periods, fatness, male-pattern baldness or thinning hair, oily skin, and acne, infertility, which play a significant role in impairing women's mental self-image, self-confidence, and sexual satisfaction scores.

The strengths of the current study included methodological consistency and a series of in-depth interviews that allowed participants to create their own narratives about their stories and support their experiences without restriction. As PCOS is a multifaceted, complex, and complex issue, qualitative methods are essential to capture participants' experiences and narratives. We were able to obtain feedback on participants' results through a member-checking process. This feedback allowed us to further reflect on the data and themes, and further refine the findings to ensure they were representative of participants' experiences.

Finally, according to our search, no previous studies in the PCOS literature have explored experiences with spouses.

Limitations and Implications

Although the characteristics of different participants were taken into account, the results are difficult to generalize because the purpose of this study is not to generalize, but rather to provide a rich and contextual understanding of the sexual and reproductive health problems of women with PCOS through intensive treatment research. Although information about sexual and reproductive health problems alone may not be sufficient to facilitate their implementation, the current findings emphasize the importance of understanding and supporting the problems and concerns of PCOS patients.

Conclusion

Participants revealed 4 key experiences of sexual and reproductive health concerns, including menstrual and fertility disorders, disease development, marital dissatisfaction, and poor sexual function. These concerns should be addressed with more effective resolution strategies for their problems. Understanding the concerns of women with PCOS regarding sexual function and fertility disorders for their spouses should be emphasized. To address the resolution of women with PCOS, educational interventions should be offered for both women with PCOS and their spouses.

Ethics Committee Approval: Ethical committee approval was received from the Ethics Committee of Shahid Sadoughi University of Medical Sciences (Approval no: IR.SSU.RSI.REC.1400.009, Date: August 22, 2021).

Informed Consent: Written informed consent was obtained from the participants who agreed to take part in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – M.B.; Design – Z.B.; Supervision – M.B. and Z.B.; Resources – Z.B.; Materials – Z.B.; Data Collection and/or Processing – M.B.; Analysis and/or Interpretation – M.B., Z.B.; Literature Search – Z.B., T.F.; Writing Manuscript – Z.B., T.F.; Critical Review – T.F.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

References

1. Rasquin Leon LI, Anastasopoulou C, Mayrin JV. Polycystic ovarian disease. In: *StatPearls*. Treasure Island (FL): StatPearls Publishing. 2021.
2. Kim JJ. Update on polycystic ovary syndrome. *Clin Exp Reprod Med*. 2021;48(3):194-197. [CrossRef]
3. Wolf WM, Wattick RA, Kinkade ON, Olfert MD. Geographical prevalence of polycystic ovary syndrome as determined by region and race/ethnicity. *Int J Environ Res Public Health*. 2018;15(11):2589. [CrossRef]
4. Naz MSG, Tehrani FR, Majd HA, et al. The prevalence of polycystic ovary syndrome in adolescents: A systematic review and meta-analysis. *Int J Reprod Biomed*. 2019;17(8):533-542. [CrossRef]
5. Lentscher JA, Decherney AH. Clinical presentation and diagnosis of polycystic ovarian syndrome. *Clin Obstet Gynecol*. 2021;64(1):3-11. [CrossRef]
6. Maya J, Siegel J, Cheng TQ, Rousseau-Pierre T. Prevalence and risk factors of polycystic ovarian syndrome among an ethnically diverse overweight/obese adolescent population. *Int J Adolesc Med Health*. 2020;34(1). [CrossRef]
7. Al Wattar BH, Fisher M, Bevington L, et al. Clinical practice guidelines on the diagnosis and management of polycystic ovary syndrome: A systematic review and quality assessment study. *J Clin Endocrinol Metab*. 2021;106(8):2436-2446. [CrossRef]
8. Louwers YV, Laven JSE. Characteristics of polycystic ovary syndrome throughout life. *Ther Adv Reprod Health*. 2020;14:2633494120911038. [CrossRef]
9. Cena H, Chiovato L, Nappi RE. Obesity, polycystic ovary syndrome, and infertility: A New Avenue for GLP-1 receptor agonists. *J Clin Endocrinol Metab*. 2020;105(8):e2695-e2709. [CrossRef]

10. Aydogan Kirmizi D, Baser E, Onat T, et al. Sexual function and depression in polycystic ovary syndrome: is it associated with inflammation and neuromodulators? *Neuropeptides*. 2020;84:102099. [CrossRef]
11. Ezeh U, Ezeh C, Pisarska MD, Azziz R. Menstrual dysfunction in polycystic ovary syndrome: association with dynamic state insulin resistance rather than hyperandrogenism. *Fertil Steril*. 2021;115(6):1557-1568. [CrossRef]
12. Harris HR, Terry KL. Polycystic ovary syndrome and risk of endometrial, ovarian, and breast cancer: a systematic review. *Fertil Res Pract*. 2016;2:14. [CrossRef]
13. Zehravi M, Maqbool M, Ara I. Polycystic ovary syndrome and reproductive health of women: a curious association. *Int J Adolesc Med Health*. 2021;33(6):333-337. [CrossRef]
14. Liu J, Wu Q, Hao Y. Measuring the global disease burden of polycystic ovary syndrome in 194 countries: Global burden of disease study 2017. *Hum Reprod* 2021;36(4):1108-1119.
15. Blackshaw LCD, Chhour I, Stepto NK, Lim SS. Barriers and facilitators to the implementation of evidence-based lifestyle management in polycystic ovary syndrome: A narrative review. *Med Sci (Basel)*. 2019;7(7):76. [CrossRef]
16. Rzońca E, Bień A, Wdowiak A, Szymański R, Iwanowicz-Palus G. Determinants of quality of life and satisfaction with life in women with polycystic ovary syndrome. *Int J Environ Res Public Health*. 2018;15(2):376. [CrossRef]
17. Spencer R, Pryce JM, Walsh J. Philosophical approaches to qualitative research. In: *Leavy, the Oxford Handbook of Qualitative Research*. Oxford: University Press, 2014:81-98.
18. Saldana J. *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: SAGE; 2009.
19. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;15(9):1277-1288. [CrossRef]
20. Saunders B, Sim J, Kingstone T, et al. Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual Quant*. 2018;52(4):1893-1907. [CrossRef]
21. Graneheim UH, Lindgren BM, Lundman B. Methodological challenges in qualitative content analysis: a discussion paper. *Nurse Educ Today*. 2017;56:29-34. [CrossRef]
22. Guba EG, Lincoln YS. *Effective Evaluation: Improving the Usefulness of Evaluation Results through Responsive and Naturalistic Approaches*. San Francisco, CA: Jossey-Bass; 1981.
23. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-357. [CrossRef]
24. Trent ME, Rich M, Austin SB, Gordon CM. Quality of life in adolescent girls with polycystic ovary syndrome. *Arch Pediatr Adolesc Med*. 2002;156(6):556-560. [CrossRef]
25. Katulski K, Czyzyk A, Podfigurna-Stopa A, Genazzani AR, Meczekalski B. Pregnancy complications in polycystic ovary syndrome patients. *Gynecol Endocrinol*. 2015;31(2):87-91. [CrossRef]
26. Pan ML, Chen LR, Chen KH. The risk of subsequent miscarriage in pregnant women with prior polycystic ovarian syndrome: A nationwide population-based study. *Int J Environ Res Public Health*. 2021;18(16):8253. [CrossRef]
27. Ding DC, Chen W, Wang JH, Lin SZ. Association between polycystic ovarian syndrome and endometrial, ovarian, and breast cancer: A population-based cohort study in Taiwan. *Med (Baltim)*. 2018;97(39):e12608. [CrossRef]
28. Andersen M, Glintborg D. Diagnosis and follow-up of type 2 diabetes in women with PCOS: a role for OGTT? *Eur J Endocrinol*. 2018;179(3):D1-D14. [CrossRef]
29. Azziz R, Marin C, Hoq L, Badamgarav E, Song P. Health care-related economic burden of the polycystic ovary syndrome during the reproductive life span. *J Clin Endocrinol Metab*. 2005;90(8):4650-4658. [CrossRef]
30. Weiss TR, Bulmer SM. Young women's experiences living with polycystic ovary syndrome. *J Obstet Gynecol Neonatal Nurs*. 2011;40(6):709-718. [CrossRef]
31. Nasiri Amiri F, Ramezani Tehrani F, Esmailzadeh S, Tohidi M, Azizi F, Basirat Z. Sexual function in women with polycystic ovary syndrome and their hormonal and clinical correlations. *Int J Impot Res*. 2018;30(2):54-61. [CrossRef]
32. Mantzou D, Stamou MI, Armeni AK, et al. Impaired sexual function in young women with PCOS: the detrimental effect of anovulation. *J Sex Med*. 2021;18(11):1872-1879. [CrossRef]
33. Dashti S, Latiff LA, Hamid HA, et al. Sexual dysfunction in patients with polycystic ovary syndrome in Malaysia. *Asian Pac J Cancer Prev*. 2016;17(8):3747-3751.
34. Liu M, Murthi S, Poretsky L. Polycystic ovary syndrome and gender identity. *Yale J Biol Med*. 2020;93(4):529-537.
35. Alur-Gupta S, Chemerinski A, Liu C, et al. Body-image distress is increased in women with polycystic ovary syndrome and mediates depression and anxiety. *Fertil Steril*. 2019;112(5):930-938.e1. [CrossRef]
36. Witchel SF, Oberfield SE, Peña AS. Polycystic ovary syndrome: pathophysiology, Presentation, and Treatment With Emphasis on Adolescent Girls [presentation]. *J Endocr Soc*. 2019;3(8):1545-1573. [CrossRef]