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ORIGINAL RESEARCH

Modifiable Factors Associated with Psychological Well-Being among Women with Polycystic Ovary Syndrome (PCOS): A Cross-Sectional Study

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Abstract

Background: Women with polycystic ovary syndrome (PCOS) face a wide range of physical, psychological, and social challenges that may negatively affect their psychological well-being. Previous studies have identified various psychosocial and demographic factors associated with the psychological well-being of women with PCOS; however, findings regarding these associations remain inconsistent.
Purpose: This study examined the associations between potentially modifiable factors, including religiosity, social support, and body mass index (BMI), and psychological well-being among women with PCOS.
Methods: This study employed an analytical cross-sectional design. A total of 106 respondents were recruited using convenience sampling from the "PCOS Fighter Indonesia" Instagram community. Data were collected using a demographic questionnaire, a religiosity scale, the Multidimensional Scale of Perceived Social Support, and a psychological well-being questionnaire. Bivariate analysis was performed using the Fisher-Freeman-Halton exact test due to small expected cell counts. Multivariable binary logistic regression was performed to identify factors independently associated with psychological well-being.
Results: Social support was significantly associated with psychological well-being (p = 0.029), whereas BMI (p = 0.076) and religiosity (p = 0.815) were not. In the final multivariable model, participants with low social support had higher odds of poor psychological well-being than those with high social support (OR = 9.50, 95% CI [1.32, 68.31], p = .025).
Conclusion: Social support was the most dominant modifiable factor associated with psychological well-being among women with PCOS. Nurses should provide supportive and community-based interventions that focus on strengthening social support to improve psychological well-being among women with PCOS.

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1. Introduction

According to the World Health Organisation (WHO), infertility is a disease of the female and male reproductive systems and a significant global health issue (Moridi et al., 2019). A 2022 study in Pakistan reported that the country's prevalence of infertility had increased to 21.9%, with primary infertility at 3.5% and secondary infertility at 18.4% (Nik Hazlina et al., 2022). Meanwhile, data from the Indonesian Central Statistics Agency in 2020 show that 20% of couples in the country experience infertility (Amraeni et al., 2023). The most common causes of female infertility are non-ovulation disorders, such as polycystic ovary syndrome (PCOS) at 66.2% and other ovulation disorders at 57.6% (Arisandi et al., 2023). PCOS is an endocrine disorder characterised by elevated androgen levels (Shirin Dason et al., 2024). The global prevalence of PCOS is estimated at 12.1% among adult women using the Rotterdam diagnostic criteria (Neven et al., 2026). The increasing prevalence is widely attributed to poor lifestyle choices, including sedentary lifestyles and unhealthy diets.

Women with PCOS face various physical, psychological, and social challenges due to their condition. Common physical problems include menstrual cycle disorders, hirsutism, acne, skin hyperpigmentation, weight gain, and insulin resistance, which increase their risk of developing diabetes mellitus (Carmina et al., 2019; Rushinaidu et al., 2023). Women with PCOS also

experience psychological problems such as reduced self-confidence, anxiety, depression, and low quality of life (Stepto et al., 2019). These psychological issues may be associated with the disorder's physical symptoms. In addition, women with PCOS face social stigma related to infertility, which may increase social pressure and contribute to a negative self-image (Wasata et al., 2020). These issues can lead to reduced socialisation interaction and feelings of isolation (Mishra & Sharma, 2022). Therefore, physical, emotional, and social factors may play a critical role in the psychological well-being of women with PCOS.

Furthermore, women with PCOS often experience impaired psychological well-being, characterised by low self-acceptance, reduced confidence, and difficulty maintaining positive relationships associated with the physical symptoms and social stigma of the condition. Limited awareness of psychological problems and restricted access to professional services may further contribute to the neglect of the psychological well-being of women with PCOS (Pal, 2024). Thus, psychological well-being is an important aspect of health among women with PCOS, as unaddressed psychological problems may negatively affect health outcomes.

Previous studies have shown that factors associated with psychological well-being in this population can be broadly categorised into psychosocial factors (e.g., religiosity and social support) and demographic variables (e.g., age, marital status, education level, and BMI) (Khan et al., 2025). Religiosity may enhance resilience when individuals face threats to personal stability, such as infertility among women with PCOS (Jurić Vukelić et al., 2021). Religious orientation may serve as a coping mechanism that facilitates adaptive emotional regulation, acceptance, and the re-evaluation of life goals, potentially supporting psychological well-being (Safara et al., 2025). Sociocultural norms, particularly in patriarchal societies, often assign reproductive roles to women, leading to infertility being perceived as a deviation that women may conceal due to social expectations (Alsumri et al., 2023; Xie et al., 2023).

Additionally, stigma related to obesity and physical appearance may contribute to marginalisation and diminished social interaction (Kataoka et al., 2024). These sociocultural pressures may intensify insecurity and heighten the risk of social isolation (Khan et al., 2025). Conversely, social support from family, partners, and communities can serve as a protective factor that buffers women with PCOS against psychological distress (Saqib & Rizvi, 2024). Saqib and Rizvi (2024) found that social support enables women with PCOS to feel valued, emotionally fulfilled, and socially connected, thereby enhancing psychological well-being.

Past studies have examined the various determinants of psychological well-being in women with PCOS, but the findings remain inconsistent. Hasan et al. (2022) reported that mental, sociodemographic, and lifestyle factors contribute to poor mental health among women with PCOS in Bangladesh. In contrast, Sohbati et al. (2021) found no significant associations between demographic variables and psychological well-being. However, they reported that infertility duration, marriage length, and IVF failure were associated with psychological well-being. These differing results suggest that existing studies have not yet provided conclusive evidence on which factors reliably predict the psychological well-being of this population.

Although several studies have examined factors associated with the psychological well-being of women with PCOS, evidence regarding potentially modifiable factors, such as religiosity, social support, and BMI, remains inconsistent. Because demographic characteristics are largely non-modifiable, it is essential to examine variables that may be addressed through clinical and psychosocial interventions. Identifying modifiable factors associated with psychological well-being may help nurses identify women at risk of poor psychological well-being, develop prevention strategies, and implement effective interventions to enhance their psychological well-being. Therefore, this study aimed to address this gap by examining the associations between religiosity, social support, BMI, and psychological well-being among women with PCOS to provide evidence that may inform nursing practice and mental health promotion in this population.

2. Methods

2.1 Research design

This observational, analytical study employed a cross-sectional approach. This study design was used to determine the relationship among factors measured or observed only once (Conejero and García, 2023). A cross-sectional approach was selected because it is a time- and cost-effective method (Wang and Cheng, 2020).

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2.2 Setting and samples

This study population comprised women diagnosed with PCOS who were members of the Instagram-based community "PCOS Fighter Indonesia" (https://www.instagram.com/pcosfighterindonesia). This community was selected for its large number of followers (approximately 67,700) and its role in disseminating PCOS-related information across Indonesia. Women with PCOS can only become members of the "PCOS Fighter Indonesia" WhatsApp group after completing a verification process that involves submitting documentation of their medical diagnosis and a brief personal history of PCOS to the community administrator. This process helps ensure that potential participants meet the diagnostic criteria.

The researchers used a non-probability accidental sampling technique. The exact population size of women with PCOS in Central Java is unknown. Therefore, sample size estimation was based on the Lemeshow formula with a 10% margin of error, a 50% estimated proportion, and a 95% confidence level (Z = 1.96), resulting in a minimum required sample of 96 participants. A margin of error of ±10% was used, as it is considered acceptable for exploratory studies, where a lower level of precision may be justified (Conroy, 2016). An additional 10% was added to account for anticipated dropout, resulting in a final sample target of 106 participants. The inclusion criteria were women of reproductive age (17–49 years) who had been diagnosed with PCOS and resided in Central Java. The exclusion criteria included respondents who did not complete the questionnaire or withdrew their participation.

The researchers implemented several strategies to address potential sampling bias inherent in using an Instagram-based community, such as self-selection bias and limited representativeness. First, eligibility verification through medical documentation reduced misclassification bias. Second, the questionnaire link was distributed to all eligible community members to minimise selective recruitment. Third, demographic characteristics were analysed to identify potential imbalances in the sample. Finally, the limitations of non-probability sampling and the potential lack of representativeness were explicitly acknowledged in the manuscript to promote transparency.

2.3 Measurement and data collection

Data collection was conducted in October 2024 through the "PCOS Fighter Indonesia" Instagram community. The questionnaire link was distributed via Google Forms through the community's WhatsApp group and Instagram stories. The questionnaire link was distributed for approximately seven days by the PCOS Fighter Indonesia's Instagram community manager. Data were obtained using a demographic questionnaire, a religiosity questionnaire, the Multidimensional Scale of Perceived Social Support, and a psychological well-being questionnaire.

The demographic questionnaire was used to describe respondents' characteristics, including first name, age, income, employment status, education level, duration of diagnosis, pregnancy experience, marital status, marital age, weight, and height. The researchers then used this information to calculate the respondents' body mass index (BMI) using the standard formula: weight in kilograms divided by the square of height in metres (kg/m²). BMI was categorised into underweight (<18.5 kg/m²), normal weight (18.5–22.9 kg/m²), overweight (23.0–24.9 kg/m²), and obesity (≥25.0 kg/m²), following the categories established by the Indonesian Ministry of Health (Ministry of Health of the Republic of Indonesia, 2019).

The religiosity questionnaire used in this study was adapted from Kartikasari (2014) and was based on the five dimensions of religiosity proposed by Glock (1962): beliefs, religious practices, experiences, intellectual knowledge, and consequences. It consists of 19 items (10 favourable and 9 unfavourable) and is rated on a 4-point Likert scale from 1 (strongly disagree) to 4 (strongly agree). Unfavourable items are reverse-scored. Total scores range from 19 to 76. The scores were categorised as very low (19-28.5), low (29-38), medium (38.5-57), high (57.5-66.5), and very high (67-76). In Kartikasari's (2024) study, the questionnaire was reviewed by three experts (expert judgement), followed by a trial with 50 respondents. The validity test yielded *r* values ranging from 0.302 to 0.619 (*r*-table = 0.284), and the reliability test yielded an α value of > 0.839.

Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS), originally developed by Zimet et al. (1986) and adapted by Juniastira (2018). The scale consists of 12 items, four for each source of support (family, friends, and significant others), rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Total scores range from

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12 to 60, with the following score categories: low (12–28), moderate (29–44), and high (45–60). The questionnaire was tested for content and face validity through expert judgement and was administered to 46 respondents. The reliability test showed a Cronbach's alpha of 0.941, with item-total correlations ranging from 0.660 to 0.800.

The psychological well-being questionnaire used in this study was introduced and developed by Ryff and Keyes (2008). It consists of 36 items (21 favourable and 15 unfavourable) across six dimensions (independence, environmental mastery, personal growth, positive relationships with others, life goals, and self-acceptance), and is rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Unfavourable items are reverse-scored. Total scores range from 36 to 180. Ryff and Keyes' Psychological Well-being Questionnaire was adapted into Indonesian by Rachmayani and Ramdhani (2014) and re-adapted by Nurlita (2023) to measure the psychological well-being of women with PCOS. This instrument categorises scores of 36–108 as low and 109–180 as high. The validity and reliability of the psychological well-being questionnaire were tested among 68 respondents and yielded an r value > 0.58 and a Cronbach's alpha of 0.89.

2.4 Data analysis

The collected data were analysed using SPSS version 20. The data obtained were categorical, so the results of the univariate analysis were presented as frequencies and percentages. The researchers also conducted a bivariate analysis to examine the associations between the independent variables and psychological well-being. As some cells had expected counts of less than 5, the Fisher-Freeman-Halton exact test was used as an alternative to the chi-square test to ensure the validity of the results.

Multivariable binary logistic regression was performed to identify factors independently associated with psychological well-being. Among the potentially modifiable factors, variables with p-values < 0.25 in the bivariate analysis were entered into the multivariable model. This threshold was applied to avoid excluding potentially important variables at the bivariate stage, as some variables may become significant after adjustment in the multivariable model (Bursac et al., 2008). Categorical predictors were entered using indicator coding, as shown in Table 3.

2.5 Ethical considerations

Ethical approval for this study was obtained from the Ethics Commission of the Faculty of Health Sciences, Universitas Jenderal Soedirman (Approval No. 1572/EC/KEPK/X/2024). In accordance with ethical research standards, the first page of the Google Form questionnaire included information on the study's purpose, objectives, procedures, and participants' rights, to ensure that participants could provide informed consent. To ensure confidentiality, all data were anonymised before analysis and were accessible only to the research team. Research data were stored securely in the researcher's password-protected Google Drive account, with access restricted exclusively to the principal investigator. Data were used solely for research purposes and were not shared with any third party.

3. Results

3.1. Respondents' characteristics

The results of this study showed that most respondents were young adults (68.9%), had a bachelor's degree (40.6%), were employed (83%), and had an income above the 2024 Central Java minimum wage (73.6%). Most respondents were married (84%), had been married for ≥ 3 years (73.6%), and had been diagnosed with PCOS for less than 5 years (77.4%). Slightly more than half of the respondents had been pregnant or given birth (50.9%) and had a normal BMI (53.8%). The majority of respondents also had high psychological well-being (91.5%), while only 8.5% had low psychological well-being (Table 1).

3.2. Bivariate analysis of associations between modifiable factors and psychological well-being

The associations between BMI, social support, religiosity, and psychological well-being were examined using the Fisher-Freeman-Halton exact test. The results showed that social support was significantly associated with psychological well-being among women with PCOS (p = 0.029). In contrast, BMI (p = 0.076) and religiosity (p = 0.815) were not significantly associated with psychological well-being (Table 2).

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Table 1. Characteristics of respondents (n = 106)

Variables	Frequency (f)	Percentage (%)
Age		
Adolescent	24	22.6
Young adults	73	68.9
Middle-aged adults	9	8.5
Education level		
Primary education	1	0.9
Lower secondary education	5	4.7
Upper secondary education	38	35.8
Associate Degree	19	17.9
Bachelor's Degree	43	40.6
Employment status		
Employed	88	83.0
Unemployed	18	17.0
Income		
< IDR 2.036.947	28	26.4
≥ IDR 2.036.947	78	73.6
Marital status		
Unmarried	14	13.2
Married	89	84.0
Divorced	3	2.8
Duration of marriage		
Unmarried	14	13.2
< 3 years	14	13.2
≥ 3 years	78	73.6
Duration of diagnosis		
< 5 years	82	77.4
≥ 5 years	24	22.6
Pregnancy experience		
Never pregnant	52	49.1
Has been pregnant/given birth	54	50.9
Body Mass Index		
Underweight	11	10.4
Normal	57	53.8
Overweight	11	10.4
Obese	27	25.5
Social support		
Low	6	5.7
Moderate	20	18.9
High	80	75.5
Religiosity		
Low	2	1.9
Moderate	31	29.2
High	14	13.2
Very high	59	55.7
Psychological well-being		
High	97	91.5
Low	9	8.5

3.3. Multivariable analysis of factors associated with psychological well-being

Among the three potentially modifiable factors, BMI and social support had *p*-values < 0.25 in the bivariate analysis and were entered into the multivariable binary logistic regression model using backward stepwise selection; religiosity ($p = 0.815$) did not meet this criterion. BMI was eliminated during the model selection process, while social support was retained in the final model. The results showed that women with low social support had significantly higher odds of poor psychological well-being than those with high social support (OR = 9.500; 95% CI: 1.321–68.314; $p = 0.025$). However, the difference between moderate and high social support was not statistically significant (OR = 3.353; 95% CI: 0.686–16.387; $p = 0.135$), as presented in Table 3.

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Table 2. Bivariate analysis of the relationship between modifiable factors and psychological well-being

Variables	Psychological Well-Being		*p*-value
	High f (%)	Low f (%)	
Body Mass Index			
Underweight	11 (100.0)	0 (0.0)	0.076
Normal	54 (94.7)	3 (5.3)	
Overweight	8 (72.7)	3 (27.3)	
Obese	24 (88.9)	3 (11.1)	
Social support			
Low	4 (66.7)	2 (33.3)	0.029*
Moderate	17 (85.0)	3 (15.0)	
High	76 (95.0)	4 (5.0)	
Religiosity			
Low	2 (100)	0 (0.0)	0.815
Moderate	29 (93.5)	2 (6.5)	
High	12 (85.7)	2 (14.3)	
Very high	54 (91.5)	5 (8.5)	

Table 3. Final multivariable binary logistic regression model of factors associated with psychological well-being

Variable	OR (Exp B)	95% CI	*p*-value
Social support			
Low vs High	9.500	1.321–68.314	0.025*
Moderate vs High	3.353	0.686-16.387	0.135

Note. OR = Odds Ratio; CI = Confidence Interval. High social support was the reference category. BMI and social support ($p < 0.25$ in the bivariate analysis) were entered into the model using backward stepwise selection; BMI was eliminated during model selection. The statistical significance of individual regression coefficients was assessed using the Wald test, with $p < 0.05$ considered statistically significant.

4. Discussion

This study aimed to identify modifiable factors associated with the psychological well-being of women with PCOS. The findings showed that social support was retained in the final multivariable model, while BMI was excluded during model selection. Religiosity did not meet the criteria for inclusion in the multivariable model. Specifically, women with low social support had significantly higher odds of poor psychological well-being than those with high social support. These findings highlight the potential role of social support in the psychological well-being of women with PCOS.

The results showed that BMI was not significantly associated with psychological well-being among women with PCOS. This finding differs from previous studies reporting that women with higher BMIs are more likely to experience adverse psychological outcomes, including low self-esteem and depression (Doust et al., 2022; Lagowska, 2024). Higher BMI may contribute to poor body image and feelings of inferiority, which can reduce self-confidence (Aba & Şik, 2022). Body dissatisfaction may also reduce confidence and lead to social withdrawal (Sioma & Milena, 2021). Negative body image may further make women feel marginalised by societal beauty standards, making it more difficult for them to establish interpersonal relationships (Kataoka et al., 2024). Although responses to the psychological well-being questionnaire suggested that women with higher BMI, particularly those classified as overweight or obese, reported lower levels of self-acceptance, especially regarding confidence and positive self-perception, the association between BMI and psychological well-being was not statistically significant. Nevertheless, BMI may still play an indirect or context-dependent role in the psychological well-being of women with PCOS.

Regarding social support, this study found that it was significantly associated with the psychological well-being of women with PCOS. This finding aligns with previous studies reporting that, after controlling for clinical and demographic factors, perceived social support can

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significantly predict psychological well-being among women with PCOS (Saqib & Rizvi, 2024). The emotional fulfilment derived from social support enables women with PCOS to experience a sense of belonging, higher self-esteem, and positive self-acceptance (Rista et al., 2018). Responses to the psychological well-being questionnaire indicated that most respondents strongly agreed that they received substantial social support from friends who understood and sympathised with their difficulties. This finding may reflect the role of the PCOS community as a forum for women with PCOS to share their concerns and experiences and develop a sense of belonging, similar to self-help group interventions facilitated by nurses (Lyons et al., 2021). The trust developed among members of self-help groups can help strengthen the social support they receive (Lyons et al., 2021).

The third factor examined in this study was religiosity. Religiosity was not significantly associated with psychological well-being among women with PCOS, suggesting that its relationship with psychological well-being may vary across individuals and sociocultural contexts. However, a previous study showed that infertility can lead to spiritual distress due to unmet spiritual needs (Romeiro et al., 2017). In this study, responses to the religiosity questionnaire indicated that 26.4% of women with PCOS reported that their prayers were not answered and that they did not feel they had received help from God. These experiences may lead some women to question their religious beliefs and the value of their religious practices (Joshanloo, 2024), which in turn may contribute to feelings of loneliness, decreased self-esteem, and psychological distress. Conversely, other studies suggest that religiosity can serve as a coping strategy by providing meaning in the face of infertility-related challenges (Honarvar & Taghavi, 2022). Higher levels of religiosity have been associated with inner peace, better emotional regulation, and the development of new life goals (Villani et al., 2019). Therefore, the role of religiosity in psychological well-being among women with PCOS may be complex and context-dependent.

The multivariable regression analysis showed that women with low social support had significantly higher odds of poor psychological well-being than those with high social support. This finding is consistent with previous studies showing that social support among women with PCOS is often constrained by cultural stigma and societal expectations surrounding infertility (Alsumri et al., 2023; Saqib & Rizvi, 2024; Xie et al., 2023). Limited awareness and understanding of PCOS may further contribute to inadequate social support (Sarwar et al., 2024). Although close family members, particularly husbands, can provide important emotional support, some women with PCOS may receive insufficient support from their partners (Acoba, 2024). Previous research has reported that some husbands may prefer to remarry to have children rather than undergo an expensive pregnancy programme (Hasanpoor et al., 2019). Other reported experiences include unconstructive criticism, verbal abuse, refusal to support PCOS treatment, and disregard for their wives' feelings (Sarwar et al., 2024). These experiences may discourage women from sharing their difficulties with families or others, contributing to loneliness, guilt, helplessness, social isolation, and low self-esteem (Alsumri et al., 2023; Sarwar et al., 2024). In addition, some women with PCOS may experience symptoms of depression and suicidal thoughts (Wang et al., 2023). These psychological difficulties may adversely affect the psychological well-being of women with PCOS.

Furthermore, this study found that most respondents were young adults, employed, and earned at or above the regional minimum wage, with the largest proportion holding a bachelor's degree. These characteristics may influence access to health information, healthcare services, and coping resources among women with PCOS. The predominance of young adults is consistent with previous studies indicating that PCOS is commonly identified in women aged 20–30 years, particularly during pregnancy planning (Tabassum et al., 2020). Higher educational attainment may contribute to a better understanding and management of PCOS, including the ability to seek appropriate treatment and explore alternative care options (Zurlo et al., 2018). In addition, employment and higher income levels may facilitate access to healthcare services, including follow-up treatments, fertility programmes, and psychological counselling (Hartarini et al., 2023; Ekpor et al., 2025). Most participants had also been married for several years, and their relationships with their partners may have provided them with emotional support and strengthened their coping mechanisms (Wai et al., 2022). Previous studies suggest that among women experiencing infertility, a longer duration of marriage may be associated with a shift in life goals toward building stronger emotional bonds with their partners (Nemoon et al., 2022). Additionally, most participants had also been diagnosed with PCOS for less than five years, while nearly half (49.1%) had never been pregnant. A shorter duration since diagnosis may be associated

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with limited knowledge and awareness of PCOS management, particularly regarding fertility treatment options, which may contribute to ongoing difficulties in achieving pregnancy (Hillman et al., 2020; Istiqomah et al., 2023).

5. Implications and limitations

This study highlights the importance of addressing low social support among women with PCOS, as women with low social support had significantly higher odds of poor psychological well-being than those with high social support. These findings suggest the potential importance of identifying women with PCOS who have limited social support and developing strategies to strengthen their social support networks. Nurses may facilitate self-help or peer-support groups that provide opportunities for women with PCOS to share experiences, exchange information, and develop a sense of belonging. In addition, families can provide support by fostering open communication, especially regarding emotional concerns and personal difficulties, and by offering reassurance and positive encouragement to strengthen women's self-confidence. Families can also support women throughout PCOS treatment and help women with the disorder build a healthier lifestyle. Nurses and families can also encourage women with PCOS to join PCOS communities that serve as a forum for exchanging stories and finding a sense of belonging with each other. Creating a more supportive environment will help improve the psychological well-being of women with PCOS. Future studies should evaluate the effectiveness of structured social support interventions in improving psychological well-being among women with PCOS.

Nevertheless, this study has several limitations that should be considered when interpreting the findings. First, the use of non-probability sampling through an Instagram-based PCOS community ("PCOS Fighter Indonesia") may have introduced selection bias, as women who are active on social media and willing to join online support groups may differ from the broader population of women with PCOS. To reduce potential misclassification, participant eligibility was verified through medical documentation. Future studies should employ probability sampling, multicentre recruitment, or recruitment from clinical settings to improve the representativeness and generalisability of the findings. Second, all variables were measured using self-reported online questionnaires, which may be subject to recall and social desirability biases. The use of anonymous data collection was intended to encourage honest responses. Future studies could incorporate multiple data sources or complementary assessment methods to improve measurement accuracy. Third, the cross-sectional design limits the ability to establish causality between predictor variables and psychological well-being. Future research could employ longitudinal or experimental design to better understand causal pathways. Finally, although confidentiality measures were implemented, including password-protected storage and restricted data access, participants recruited from a social media community may have concerns about the confidentiality of their information. Future studies may benefit from using anonymised recruitment platforms or multicentre clinical sampling to improve representativeness and reduce privacy concerns. Despite these limitations, this study provides valuable evidence regarding the association between social support and psychological well-being among women with PCOS.

6. Conclusion

This study identified low social support as a significant modifiable factor associated with poorer psychological well-being among women with PCOS. BMI and religiosity were not significantly associated with psychological well-being in the bivariate analysis. These findings highlight the importance of strengthening psychosocial support systems through nursing and community-based interventions to promote psychological well-being among women with PCOS. Nurses can play an important role in identifying women with limited social support, facilitating peer-support groups, and encouraging family involvement in providing emotional support.

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Author contribution

US collected and analysed the data and wrote the manuscript. NS conceptualised and designed the study, interpreted the data, and translated the manuscript. LL wrote and translated

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the manuscript. All authors critically reviewed and approved the final version of the manuscript and take responsibility for its content.

Conflict of interest

The authors declare no conflicts of interest.

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Declaration of Generative Artificial Intelligence (AI)

ChatGPT (OpenAI) was used to assist with language editing, academic phrasing, manuscript organisation, and preparation of responses to reviewers during the revision of this manuscript. The authors independently reviewed and verified all AI-assisted suggestions and remain fully responsible for the scientific content, interpretation, accuracy, originality, and integrity of the manuscript.

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