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Environmental and dietary habits as determinants of polycystic ovarian syndrome among women of childbearing age in Ibadan metropolis. A cross-sectional study.

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ABSTRACT

Background:

This study examined the roles of environmental factors (specifically climatic conditions), genetics, and dietary habits as potential contributors to PCOS among women of childbearing age in Ibadan, Oyo State, Nigeria.

Methods:

A descriptive correlational design was adopted. Data were collected using a self-developed, four-scale questionnaire with a Cronbach alpha reliability coefficient of 0.77. Multistage sampling was employed: purposive sampling was used to select all state-owned primary health centres in Ibadan; disproportionate sampling selected 60% of these centres; and a further disproportionate technique selected 50% of nursing mothers from the chosen centres, yielding a sample of 400 respondents.

Results:

77(19.9%) of the respondents were between the age of 20 - 29 years, 135 (35%) were between the age of 30 - 39 years, 137 (35.5%) were aged 40 - 49 years with the least number of respondent 37 (9.6%) were aged 50 - above, with educational background (87.8%) and about (56%) were of the monogamous family type while (44%) were polygamous. Regarding the determinant of PCOS by the respondents, 25.1 % affirmed that Hormonal shifts throw off body temperature regulation, 20.8% testified that the environment also affects and causes irregular flow.
Climatic conditions ($\beta = .461$, $t = 8.777$, $p < 0.05$), genetics ($\beta = .443$, $t = 9.695$, $p < 0.05$), and diet ($\beta = .590$, $t = 5.032$, $p < 0.05$) each had a statistically significant and notable impact on PCOS among women of childbearing age.

Conclusion:

It was established that climatic conditions, dietary habits, and genetic predisposition collectively and independently predicted PCOS among women of childbearing age in Ibadan. These findings underscore the multifactorial nature of PCOS.

Recommendation:

The Ministry of Health/Women's Affairs needs to integrate public health interventions targeting lifestyle, environment, and genetics as risk factors to polycystic ovarian syndrome.

Keywords: *Polycystic ovarian syndrome, environmental factors, dietary habits, genetics, women of childbearing age, Ibadan*
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1. Introduction

Polycystic ovarian syndrome (PCOS), also known as Stein-Leventhal syndrome, is a common endocrine disorder affecting women of reproductive age worldwide. While its precise aetiology remains unclear, PCOS is associated with a range of serious health complications, including type 2 diabetes, hypertension, obesity, cardiovascular disease, and reproductive challenges such as anovulation, endometrial hyperplasia, and hyperandrogenism. Psychological sequelae, including depression and mood disorders, are also frequently reported, alongside physical manifestations such as irregular menstrual cycles, inconsistent ovulation, hirsutism, and acne. Globally, the prevalence of PCOS is estimated to range from 4% to 20%. Subramanian et al. (2021) documented that approximately 116 million women (3.4%) are affected worldwide.

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In India, the National Health Portal reports a prevalence of 22.5% in Maharashtra, while an earlier South Indian study involving adolescents recorded an incidence of 9.13%. Such variations are largely attributed to differences in diagnostic criteria applied across studies (Akin et al., 2015). Globally, PCOS remains the most prevalent endocrine disorder among women of reproductive age, with estimates suggesting 5% to 10% of women are affected. Despite this high prevalence, the condition is poorly understood by the public and is frequently underdiagnosed in clinical settings.

Polycystic ovarian syndrome is clinically characterised by the presence of multiple small, benign, painless ovarian cysts accompanied by hormonal alterations. Its primary features include oligomenorrhea or amenorrhea, hirsutism, insulin resistance, impaired glucose metabolism, and infertility (Omokanye et al., 2015). Although excess androgen production ("ovarian androgen excess") is widely regarded as central to its pathophysiology, the heterogeneous nature of PCOS necessitates the use of multiple diagnostic criteria, resulting in prevalence estimates ranging from 2% to 26%.

In Nigeria, recent studies suggest that the prevalence of PCOS is higher than previously documented, underscoring the urgency of addressing this trend. Early diagnosis is essential, as timely detection facilitates the prevention and management of associated complications and reduces cardiovascular morbidity and mortality. However, delayed presentation remains common due to limited awareness and inadequate knowledge among both patients and healthcare providers (Akpata, Uadia, & Okonofua, 2018).

Global studies have also examined geographic variations in dietary patterns and their relationship with PCOS prevalence. Raising public awareness of PCOS symptoms is critical for identifying women who require timely intervention. Symptoms frequently emerge during adolescence, a stage at which young women may be unable to recognise early warning signs, leading to delayed diagnosis and increased risk of complications such as type 2 diabetes, cardiovascular disease, and infertility (Abdelazim et al., 2020).

2. Theoretical Framework

The Health Belief Model (HBM) provided the theoretical underpinning for this study. Health indicators are constructed to assess health status and factors associated with health within defined populations (Pan American Health Organization, 2001). In the 1950s, public health researchers in the United States developed psychological models to improve the effectiveness of health education programmes (Hochbaum, 1958; Rosenstock, 1966). Research demonstrated that demographic variables, including socio-economic status, gender, ethnicity, and age, were strongly associated with preventive health behaviour patterns and disparities in health service utilisation (Rosenstock, 1974). Although demographic and socio-economic characteristics are largely unmodifiable through health education, it was proposed that other individual-level factors influencing health behaviours could be altered through educational interventions.

Beliefs serve as a critical link between socialisation and behaviour. The premise that persuasive strategies can alter behaviour-related beliefs provides both a theoretical and practical foundation for evidence-based health education. Rooted in Lewin's (1951) concept of valence, the expectancy-value model holds that individuals evaluate behaviours based on the perceived likelihood of an event and the positive or negative value attached to its outcomes.

Central to the HBM are beliefs about susceptibility to a health condition, the perceived severity of its consequences, the anticipated benefits of preventive action, and the perceived barriers or costs associated with that action. Hochbaum (1958) demonstrated that individuals who perceived themselves as susceptible to tuberculosis and recognised the asymptomatic nature of the disease were more likely to undergo chest X-ray screening. The HBM was subsequently extended to explain health service utilisation and adherence to medical recommendations (Becker et al., 1977). Becker et al.'s consensus statement formally endorsed the framework and clarified its components, calling for further research into the relationship between individual beliefs and health-related behaviours.

3. Methodology

Study Design

A descriptive cross-sectional research design of the correlational type was used to investigate the determinants of PCOS among women of childbearing age in Ibadan Metropolis. This design was considered appropriate because it offered a good description of relevant aspects of the phenomena of interest, which suited a study of this nature. The target population comprised women of childbearing age attending state-owned primary health centres in Ibadan, Oyo State.

Study setting

This study was conducted using women of childbearing age in Primary Health Centres in Ibadan Metropolis, Ibadan. Primary Health centres in Ibadan Metropolis are designed to help address health disparities and improve overall health outcomes for the population.

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Participant

The targeted participants include all women of childbearing age in Ibadan Metropolis, to create awareness of the causes of infertility in women due to other (external) factors.

Inclusion criteria: Women of childbearing age with symptoms of infertility or PCOS who presented during data collection.

Exclusion criteria: Women who refuse to give consent and present during data collection.

Study size

Multistage sampling was employed. At the first stage, purposive sampling was used to select all state-owned primary health centres in Ibadan. At the second stage, disproportionate sampling was used to select 60% of these centres. At the third stage, disproportionate sampling was again applied to select 50% of nursing mothers attending the selected centres. A total sample of 386 was established. Some questionnaires were unretrievable due to the absence of some participants on the collection day.

Data Collection

The researcher collected a letter of Introduction from the Head, Department of Health Education, University of Ibadan, for the purpose of enabling the researcher to have access to the participants. To examine Environment and dietary habits as determinants of PCOS, data were collected using a self-developed questionnaire comprising four scales: (1) Climatic Conditions, (2) Dietary Habits, (3) Genetic Predisposition, and (4) polycystic ovarian syndrome. The reliability of the instrument was established using the Cronbach alpha formula, yielding a coefficient of 0.77.

Variables

Dependent Variable

The dependent variable was PCOS status among women of childbearing age

Independent Variable

Independent variables were climatic/environmental conditions, dietary habits, and genetic background.

Data Analysis

Data analysis employed descriptive statistics of frequency counts, percentages, means, and standard deviations, and inferential statistics of Pearson Product-Moment Correlation (PPMC) was used to address the research questions, and Multiple Regression Analysis was used to test the hypotheses at the 0.05 level of significance.

Ethical Considerations

The ethical approval for the study was obtained from the Social Science and Humanities Research Ethics Committee (SSHEC), University of Ibadan, and the Ethical Review Committee, Oyo State Ministry of Health, Secretariat, Ibadan. The researcher introduced the topic, purpose, and significance of the study to the respondents. The respondents were assured of confidentiality in the study, as it is only for academic and research purposes, and thereafter, consent forms were signed. No respondent was forced to participate in the study.

4. Results

Demographic Characteristics of Respondents

Table 1 presents the sociodemographic distribution of respondents. Of the 386 respondents who provided valid responses, 77 (19.9%) were aged 20–29 years, 135 (35.0%) were aged 30–39 years, 137 (35.5%) were aged 40–49 years, and 37 (9.6%) were 50 years and above. The modal age group was 40–49 years. Regarding religion, the majority (233; 60.4%) were Christians, followed by Muslims (140; 36.3%), those practising traditional religion (11; 3.2%), and other faiths (2; 0.2%). In terms of educational attainment, 47 (12.2%) had no formal education, 102 (26.4%) had primary education, 108 (28.0%) had attained NCE, 80 (20.7%) held bachelor's degrees, 30 (7.8%) held master's degrees, and 19 (4.9%) held doctoral degrees. With respect to family type, 216 (56.0%) were in monogamous households and 170 (44.0%) were in polygamous households.

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Table 1: Distribution of Respondents by Selected Demographic Characteristics

Variable	Frequency	Percentage (%)
Age		
20–29 years	77	19.9
30–39 years	135	35.0
40–49 years	137	35.5
50 years and above	37	9.6
Total	**386**	**100.0**
Religion		
Christianity	233	60.4
Islam	140	36.3
Traditional	11	3.2
Others	2	0.2
Total	**386**	**100.0**
Level of Education		
No Formal Education	47	12.2
Primary	102	26.4
NCE	108	28.0
B.Ed / Bachelor's degree	80	20.7
M.Ed / Master's degree	30	7.8
Ph.D	19	4.9
Total	**386**	**100.0**
Family Type		
Monogamy	216	56.0
Polygamy	170	44.0
Total	**386**	**100.0**

Research Questions

Research Question 1: What is the relationship between the independent variables (climatic conditions, diet, and genetics) and the dependent variable (PCOS) among women of childbearing age in Ibadan?

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Table 2: Correlation Matrix of PCOS and Independent Variables

Variable	PCOS	Climatic Conditions	Diet	Genetics
PCOS	1			
Climatic Conditions	.409*	1		
Diet	.249*	.088	1	
Genetics	.443*	.707*	.081	1

p < 0.05

Table 2 shows statistically significant positive relationships between each independent variable and PCOS. Climatic conditions were positively correlated with PCOS ($r = 0.409$, $p < 0.05$). Diet also demonstrated a positive relationship with PCOS ($r = 0.249$, $p < 0.05$). Similarly, genetics showed a positive association with PCOS ($r = 0.443$, $p < 0.05$).

Research Question 2: What are the specific environmental factors perceived to contribute to PCOS among women of childbearing age in Ibadan?

Table 3: Perceived Environmental Factors Contributing to PCOS

Item	Yes n (%)	No n (%)
I find it difficult to ovulate under harsh weather conditions	175 (45.4%)	211 (54.6%)
Hormonal shifts can disrupt the body's temperature regulation, thereby contributing to PCOS	97 (25.1%)	289 (74.9%)
Average minimum temperature is an independent risk factor for PCOS	90 (23.3%)	296 (76.7%)
The environment in which I live sometimes causes irregular menstrual flow	80 (20.8%)	306 (79.3%)
PCOS is influenced by temperature and humidity in my environment	86 (22.2%)	300 (77.7%)
Weighted Mean = 18.11 (SD = 4.51)		

Table 3 summarises respondents' perceptions of environmental contributors to PCOS (Weighted Mean = 18.11, SD = 4.51). Notably, 175 (45.4%) reported difficulty ovulating under harsh weather conditions. Fewer respondents endorsed other environmental items: 97 (25.1%) believed hormonal shifts disrupt temperature regulation; 90 (23.3%) viewed minimum temperature as an independent PCOS risk factor; 80 (20.8%) indicated that their living environment caused irregular menstrual flow; and 86 (22.2%) attributed PCOS risk to temperature and humidity.

Hypotheses Testing

Hypothesis 1: There is no significant joint contribution of climatic conditions to PCOS among women of childbearing age in Ibadan.

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Table 4: Regression Analysis — Joint Contribution of Climatic Conditions on PCOS

R = .409; R^2 = .167; Adjusted R^2 = .165; SE = 4.654

Model	Sum of Squares	df	Mean Square	F	p
Regression	1668.182	1	1668.182	77.035	.000
Residual	8315.478	384	21.655		
Total	9983.661	385			

Table 4 shows that climatic conditions significantly predicted PCOS among women of childbearing age ($F(1, 384) = 77.035$; $p < .05$). The model accounted for 16.7% of the variance in PCOS ($R^2 = .167$; Adjusted $R^2 = .165$). The null hypothesis was therefore rejected.

Hypothesis 2: There is no significant relative contribution of climatic conditions to PCOS among women of childbearing age in Ibadan.

Table 5: Regression Coefficients — Relative Contribution of Climatic Conditions on PCOS

Model	B	Std. Error	β (Beta)	t	Sig.
(Constant)	17.104	.980		17.447	.000
Climatic Conditions	.461	.053	.409	8.777	.000

Table 5 indicates that climatic conditions made a significant relative contribution to PCOS ($\beta = .461$, $t = 8.777$, $p < 0.05$). The null hypothesis was therefore rejected.

Hypothesis 3: There is no significant joint contribution of dietary habits to PCOS among women of childbearing age in Ibadan.

Table 6: Regression Analysis — Joint Contribution of Dietary Habits on PCOS

R = .249; R^2 = .062; Adjusted R^2 = .059; SE = 4.939

Model	Sum of Squares	df	Mean Square	F	p
Regression	617.619	1	617.619	25.322	.000
Residual	9366.042	384	24.391		
Total	9983.661	385			

Table 6 shows that dietary habits significantly predicted PCOS among women of childbearing age ($F(1, 384) = 25.322$; $p < .05$). The model explained 6.2% of the variance in PCOS ($R^2 = .062$; Adjusted $R^2 = .059$). The null hypothesis was therefore rejected.

Hypothesis 4: There is no significant relative contribution of dietary habits to PCOS among women of childbearing age in Ibadan.

Table 7: Regression Coefficients — Relative Contribution of Dietary Habits on PCOS

Model	B	Std. Error	β (Beta)	t	Sig.
(Constant)	19.882	1.135		17.512	.000
Diet	.580	.115	.249	5.032	.000

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Table 7 indicates that dietary habits made a significant relative contribution to PCOS (β = .590, t = 5.032, p < 0.05). The null hypothesis was therefore rejected.

Hypothesis 5: There is no significant joint contribution of genetics to PCOS among women of childbearing age in Ibadan.

Table 8: Regression Analysis — Joint Contribution of Genetics on PCOS

R = .443; R^2 = .197; Adjusted R^2 = .195; SE = 4.570

Model	Sum of Squares	df	Mean Square	F	p
Regression	1963.343	1	1963.343	94.002	.000
Residual	8020.318	384	20.886		
Total	9983.661	385			

Table 8 indicates that genetics significantly predicted PCOS among women of childbearing age (F(1, 384) = 94.002; p < .05). The model accounted for 19.7% of the variance in PCOS (R^2 = .197; Adjusted R^2 = .195). The null hypothesis was therefore rejected.

Hypothesis 6: There is no significant relative contribution of genetics to PCOS among women of childbearing age in Ibadan.

Table 9: Regression Coefficients- Relative Contribution of Genetics on PCOS

Model	B	Std. Error	β (Beta)	t	Sig.
(Constant)	16.373	.965		16.967	.000
Genetics	.448	.046	.443	9.695	.000

Table 9 shows that genetics made a significant relative contribution to PCOS (β = .443, t = 9.695, p < 0.05). The null hypothesis was therefore rejected.

Hypothesis 7: There is no significant composite contribution of climatic conditions, dietary habits, and genetics on PCOS among women of childbearing age in Ibadan.

Table 10: Regression Analysis -Composite Contribution of All Independent Variables on PCOS

R = .508; R^2 = .258; Adjusted R^2 = .252; SE = 4.404

Model	Sum of Squares	df	Mean Square	F	p
Regression	2575.377	3	858.459	44.266	.000
Residual	7408.283	382	19.393		
Total	9983.661	385			

Table 10 reveals that the composite model of climatic conditions, dietary habits, and genetics significantly predicted PCOS (F(3, 382) = 44.266; p < .05). Together, these variables explained 25.8% of the variance in PCOS (R^2 = .258; Adjusted R^2 = .252). The null hypothesis was therefore rejected.

5. Discussion of Findings

This study examined the relationships between environmental factors (climatic conditions, dietary habits, and genetic predisposition) and PCOS among women of childbearing age in Ibadan. Findings revealed statistically significant positive associations between each of the three independent variables and PCOS, implying that climatic conditions (r=0.409, p<0.005), diet (r= 0.249, p<0.05), and

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genetics (r= 0.443, p<0.05) collectively influence the occurrence of PCOS in this population.

The finding that climatic conditions significantly predicted PCOS is consistent with Adam's (2014) assertion that PCOS is a polygenic, multisystem disorder arising from the interaction between genetic predisposition and environmental factors. Current international guidelines recommend lifestyle modification, including dietary changes and regular physical activity, as first-line management for PCOS, recognising that modern lifestyle patterns and environmental exposures contribute substantially to its development.

The positive association between environmental and lifestyle-related factors and PCOS aligns with Adebowale et al. (2019), who identified dietary patterns, physical inactivity, sleep and circadian disruptions, endocrine-disrupting chemicals, psychological stress, climate change, and reduced community support as contributors to PCOS pathogenesis. Contemporary lifestyle conditions differ markedly from the evolutionary environments in which human physiology developed, and this mismatch may underlie the rising prevalence of PCOS.

Similarly, Akpata (2018) argued that evidence from lifestyle intervention studies demonstrating reductions in chronic disease burden following dietary improvements, increased physical activity, and smoking cessation strongly implicates modern lifestyle patterns in the aetiology of PCOS. The human body has evolved immune, metabolic, neurological, and hormonal mechanisms that work synergistically to restore homeostasis during periods of environmental stress.

The finding regarding dietary habits supports the work of Igwegbe, Eleje, and Enechukwu (2013), who noted that PCOS is the most common female endocrinopathy, affecting 15%–18% of reproductive-age women, and that approximately 40%–60% of women with PCOS are overweight or obese. Central obesity during adolescence and adulthood has been identified as a predictor of hirsutism and menstrual irregularities. These observations reinforce the established relationship between dietary patterns, body weight, and PCOS development.

Ding et al. (2017) demonstrated that diets high in saturated and trans-fatty acids reduce insulin sensitivity and increase the risk of type 2 diabetes, metabolic syndrome, and cardiovascular disease. In contrast, polyunsaturated fatty acids, particularly omega-3 fatty acids, may mitigate metabolic risk factors associated with PCOS. Furthermore, vitamin D, which plays a role in insulin metabolism, has been implicated in the pathogenesis of insulin resistance and PCOS (Kechebelu, Ugboaja, & Okeke, 2010).

The significant contribution of genetics to PCOS aligns with Sedha et al. (2015), who reported that PCOS follows an autosomal dominant inheritance pattern, with approximately a 50% probability of transmission from mother to daughter. PCOS is associated with the development of obesity and insulin resistance, which may progress to type 2 diabetes. PCOS is, however, best understood as polygenic, with specific gene variants exhibiting predominant effects within certain families and driving phenotypic expression.

The relative contribution of genetics to PCOS is further supported by Ugwu et al. (2013), who reported elevated testosterone and androgen levels in women with PCOS, contributing to menstrual irregularities, acne, weight gain, and infertility. Genetic abnormalities involving numerous genes connected to disease development through mutations or polymorphisms have been widely documented in PCOS.

The composite finding that all three variables jointly predicted PCOS is consistent with Omokanye et al. (2014) and Papalou et al. (2016), who documented that women with PCOS commonly exhibit insulin resistance, hyperinsulinemia, and pituitary overproduction of luteinising hormone (LH), linking the condition to higher risks of diabetes, hypertension, cardiovascular disease, and dyslipidaemia. Lifestyle interventions, including physical activity and improved dietary habits, remain central to the management of PCOS.

Generalizability

The global prevalence of PCOS is estimated to be between 4% and 20%. Around 5 - 15% of women in the reproductive age group suffer from hormonal imbalances that lead to menstrual irregularities, cysts in the ovaries, infertility, and other health problems that include Cardiovascular complications, Type II diabetes mellitus(T2DM), and endometrial cancer. Subramanian et. al. (2021) noted that approximately 116 million women (3.4%) are affected by PCOS globally. According to the National Health Portal of India, the Prevalence rate of PCOS in Maharashtra was noted to be 22.5%. Another previous report from South India, which included adolescents, showed an incidence of 9.13%. However, the diagnostic criteria for PCOS were different in those studies (Akin et. al., 2015). In Nigeria, recent studies have also reported a higher rate than previously reported. These calls for attention to address the rising trend of PCOS in the country. Early diagnosis of PCOS is necessary as early detection aids the prevention and treatment of associated conditions and ultimately reduces Cardiovascular morbidity and mortality. However, presentation is often delayed as there is often a lack of knowledge of the condition.

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6. Conclusion

This study concludes that climatic conditions, dietary habits, and genetic predisposition each independently and collectively made significant contributions to the prediction of PCOS among women of childbearing age in Ibadan. The composite model explained 25.8% of the variance in PCOS, underscoring the multifactorial aetiology of the condition and the importance of integrated prevention and management strategies.

7. Limitations

The study faced collation issues because the sample size (n=500) was reduced to (n= 386) due to the absence of some respondents, the respondents ' ignorance of getting appropriate feedback, and the reluctance from some respondents.

8. Recommendations

Based on the findings, the following recommendations are made:

1. Women of childbearing age should undergo routine genetic screening and counselling to facilitate early identification of PCOS risk.
2. Health educators should regularly conduct sensitisation programmes to raise awareness of PCOS risk factors, symptoms, and the importance of healthy lifestyles.
3. Women of childbearing age are encouraged to adopt evidence-based dietary practices, including the consumption of unsaturated fats, omega-3 fatty acids, and vitamin D-rich foods, to reduce their PCOS risk.
4. Routine medical check-ups at primary healthcare facilities should be encouraged to enable early detection and timely management of PCOS-related complications.
5. The home and community environment should be made safe and conducive to healthy living, with measures to reduce exposure to endocrine-disrupting chemicals and environmental hazards.
6. Government agencies should ensure that affordable preventive healthcare services, nutritional support, and genetic counselling are accessible to women of childbearing age.

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Abbreviation

1. PCOS - Polycystic Ovarian Cyst
2. HBM - Health Belief Model
3. PPMC - Pearson Product-Moment Correlation
4. T2DM - Type 2 Diabetes Mellitus

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This study did not receive any specific funds

Conflict of interest

The authors declare no conflict of interest

Data Availability

Data is available upon request

Author Contributions

AbdQuadri R.A collected data and drafted the manuscript. Balogun O.J revises manuscripts and makes corrections. Odelola J. O, Research supervisor.

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References

1. Abdelazim, I., Amer, O., & Farghali, M. M. (2020). Common endocrine disorders associated with the polycystic ovary syndrome. Przegląd Menopauzalny, 19(4), 179-183. https://doi.org/10.5114/pm.2020.101948
2. Adam, H. (2014). Polycystic ovary syndrome: Management, diagnosis and treatment. In Infertility in Practice (4th ed., pp. 201-236). CRC Press/Taylor & Francis Group.
3. Adebowale, A. S., Tinuoya, A. F., Olowolafe, T. A., Gbadebo, M. T., & Otekunrin, O. C. (2019). Unintended pregnancy and childbearing among out-of-school unmarried young women living in metropolitan city slums, South-West Nigeria. Public Health Research, 9(4), 87-98.
4. Akin, L., Kendirci, M., Narin, F., Kurtoglu, S., Saraymen, R., & Kondolot, M. (2015). The endocrine disruptor bisphenol A may play a role in the aetiopathogenesis of polycystic ovary syndrome in adolescent girls. Acta Paediatrica, 104(2), 171-177. https://doi.org/10.1111/apa.12885
5. Akpata, C. B., Uadia, P. O., & Okonofua, F. E. (2018). Prevalence of polycystic ovary syndrome in Nigerian women with infertility: A prospective study of three assessment criteria. Open Journal of Obstetrics and Gynecology, 8(12), 1109-1120. https://doi.org/10.4236/ojog.2018.812112
6. Becker, M. H., Haefner, D. P., Kasl, S. V., Kirscht, J. P., Maiman, L. A., & Rosenstock, I. M. (1977). Selected psychosocial models and correlates of individual health-related behaviours. Medical Care, 15(5), 27-46. https://doi.org/10.1097/00005650-197705001-00005
7. Ding, T., Hardiman, P. J., Peterson, I., Wang, F. F., Qu, F., & Baio, G. (2017). The prevalence of polycystic ovary syndrome in reproductive-aged women of different ethnicities: A systematic review and meta-analysis. Oncotarget, 8(56), 96351-96358. https://doi.org/10.18632/oncotarget.19180
8. Hochbaum, G. M. (1958). Public participation in medical screening programmes. US Public Health Service.
9. Igwegbe, A. O., Eleje, G. U., & Enechukwu, C. I. (2013). Polycystic ovary syndrome: A review of management outcomes in a low-resource setting. Journal of Women's Health Issues and Care, 2(3). https://doi.org/10.4172/2325-9795.1000110
10. Kechebelu, J. I., Ugboaja, J. O., & Okeke, C. A. (2010). Reproductive outcome in infertile women with clomiphene citrate-resistant polycystic ovarian syndrome treated by laparoscopic ovarian drilling. Tropical Journal of Laparoscopy and Endoscopy, 1(1), 33-38.
11. Lewin, K. (1951). Field theory in social science. Harper & Row.
12. Omokanye, L. O., Ibiwoye-Jaiyeola, O. A., Olatinwo, A. W. O., Abdul, I. F., Durowade, K. A., & Biliaminu, S. A. (2015). Polycystic ovarian syndrome: Analysis of management outcomes among infertile women at a public health institution in Nigeria. Nigerian Journal of General Practice, 13(1), 44-48. https://doi.org/10.4103/1118-4647.170152
13. Pan American Health Organization. (2001). Health indicators: Building a monitoring and information system for the health sector. PAHO.
14. Papalou, O., Victor, V. M., & Diamanti-Kandarakis, E. (2016). Oxidative stress in polycystic ovary syndrome. Current Pharmaceutical Design, 22(18), 2709-2722. https://doi.org/10.2174/1381612822666160216151852
15. Rosenstock, I. M. (1966). Why do people use health services? Milbank Memorial Fund Quarterly, 44(3), 94-127. https://doi.org/10.2307/3348967
16. Rosenstock, I. M. (1974). Historical origins of the health belief model. Health Education Monographs, 2(4), 328-335. https://doi.org/10.1177/109019817400200405
17. Sedha, S., Gautam, A. K., Verma, Y., Ahmed, R., & Kumar, S. (2015). Determination of in vivo oestrogenic potential of di-isobutyl phthalate (DIBP) and di-isononyl phthalate (DINP) in rats. Environmental Science and Pollution Research, 22(22), 18197-18202. https://doi.org/10.1007/s11356-015-5021-6
18. Subramanian, A., Anand, A., Adderley, N. J., Okoth, K., & Toulis, K. A. (2021). Increased COVID-19 infections in women with polycystic ovary syndrome: A population-based study. European Journal of Endocrinology, 184(5), 637-645. https://doi.org/10.1530/EJE-20-1163
19. Ugwu, G. O. I., Iyoke, C. A., Onah, H. E., & Mba, S. G. (2013). Prevalence, presentation, and management of polycystic ovary syndrome in Enugu, South-East Nigeria. Nigerian Journal of Medicine, 22(4), 313-316.

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