Conclusions

With the results obtained in this study, it shows that even though the majority of women do not use contraceptive methods, they are aware of the contraceptive-induced menstrual changes that could occur. In accordance to the women who have used or is currently using contraception, it is clear that almost all of them have experienced one or more changes in their menstruation and overall health. The level of education is a need of concern within the sample group of women, so accurate guidance should be provided by healthcare professionals, in educational institutions, through social media and other modes of publications. In conclusion, this study reveals the importance of educating the women of the reproductive age about contraceptive methods, CIMCs and side effects, for the overall betterment and wellbeing of the reproductive health in women.

LITERATURE

1. Wiegratz, I. Hormonal contraception – what kind, when, and for whom? / I. Wiegratz, C. J. Thaler // Dtsch Arztebl Int. – 2011. – Vol. 108, № 28–29. – P. 495–505. – DOI: 10.3238/arztebl.2011.0495.

2. Global research and learning agenda for building evidence on contraceptive-induced menstrual changes for research, product development, policies, and programs / E. Hoppes [et al.] // Gates Open Res. – 2022. – Vol. 6, № 49. – Article 13609.1. – DOI: 10.12688/gatesopenres.13609.1.

3. Survey on the Contraceptive-induced menstrual changes (CIMCs) and its awareness among women of reproductive age. https://docs.google.com/forms/d/e/1FAIpQLSdDlhqMFbzD16ytG2jRL_xgRfD1JthTzIszmXqel-ngwYtcXTg/viewform?usp=sharing&ouid=105539967137384317907.

4. Archer, D. F. Bleeding Patterns of Oral Contraceptives with a Cyclic Dosing Regimen: An Overview / D. F. Archer, D. Mansour, J. M. Foidart // J Clin Med. – 2022. – Vol. 11, № 15. – Article 4634. – DOI: 10.3390/jcm11154634.

5. Menstrual bleeding patterns following levonorgestrel emergency contraception / E. Gainer, B. Kenfack, E. Mboudou [et al.] // Contraception. – 2006. – Vol. 74, № 2. – P. 118–124. – DOI: 10.1016/j.contraception.2006.02.009.

6. The Most Common Side Effects, Concerns and Discontinuation Patterns of Oral Contraceptive Pills Among Polish Women: A Cross-Sectional Study / N. Karpowicz [et al.] // J Family Reprod Health. – 2024. – Vol. 18, № 3. – P. 170–179. – DOI: 10.18502/jfrh.v18i3.16659.

7. Contraceptive-induced menstrual changes in low- and middle-income countries: a systematic scoping review / M. Makama, A. R. A. McDougall, J. Jung [et al.] // Commun Med (Lond). – 2025. – Vol. 6, № 1. – Article 43. – DOI: 10.1038/s43856-025-01297-5.

УДК 618.11-006

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PREVALENCE OF POLYCYSTIC OVARY SYNDROME (PCOS) AMONG A COHORT OF UNIVERSITY STUDENTS

Introduction

Polycystic ovary syndrome (PCOS) is the most common hormonal disorder in women of reproductive age. The name comes from the observation of small follicles (or "cysts") that often appear on the ovaries.

However, not everyone with PCOS has these follicles, and they are not the cause of the condition [1].

In women of reproductive age, with a global estimated prevalence of 4–20%. It is characterized by a constellation of symptoms, including menstrual irregularity, Hyperandrogenism (clinical or biochemical), and polycystic ovarian morphology [2]. The condition is associated with significant long-term health risks, including metabolic syndrome, type 2 diabetes, and cardiovascular disease.

University students represent a critical demographic for PCOS onset diagnosis, as this period often coincides with significant lifestyle changes, stress, and the first serious investigations into menstrual health. This study aims to investigate the prevalence, symptomatic presentation, and management of PCOS within a sample of university students.

Goal

The primary objective of this study was to determine the prevalence and diagnostic patterns of Polycystic Ovary Syndrome among a diverse group of respondents using a cross-sectional survey approach. It also aimed to assess the age at diagnosis, methods of diagnosis, and the presence or absence of a family history, in order to better understand demographic and clinical characteristics associated with PCOS.

Additionally, the study sought to evaluate menstrual health patterns, identify commonly reported symptoms, and explore the relationship between lifestyle factors – such as sleep, physical activity, diet, stress, and screen time – and PCOS. Another key objective was to examine current treatment practices and adherence, thereby providing insights into gaps in management and potential areas for improved awareness and intervention.

Material and methods of research

A descriptive cross-sectional study was conducted using an online survey, which obtained a total of 35 complete responses. The majority of participants (88.2%) were from India, while the remaining respondents were from Pakistan, Nigeria, Singapore, and Turkmenistan, providing a modestly diverse international sample.

Data were collected through a structured questionnaire consisting of multiple-choice questions organized into four main domains. These included menstrual health (assessing cycle length, duration, and flow), status of Polycystic Ovary Syndrome (including diagnosis, age at diagnosis, diagnostic methods, and family history), symptom profile (based on ten commonly associated PCOS symptoms), and lifestyle and management factors such as sleep patterns, physical activity, dietary habits, stress levels, smartphone usage, and treatment practices.

The results of the research and their discussion

A total of 35 female students completed the survey. Of the 35 respondents, 23 reported a formal diagnosis of PCOS, yielding a **prevalence of 65.7%**. The data shows that the age at diagnosis varied among respondents. The highest proportion of participants (33.3%) reported that they had not been diagnosed. Among those who were diagnosed, the most common age was 17 years, accounting for 22.2% of responses. This was followed by 23 years at 16.7%. Smaller proportions of respondents reported being diagnosed at 16 years, 19 years, and 22 years, each contributing 5.6% of the total responses. Overall, diagnosis most frequently occurred in the late teenage years, particularly around 17 years. The age at diagnosis for most respondents (where applicable) clustered in the late teens and early twenties (17 and 23 years being the most common). A striking 91.4% of all respondents denied having a family history of PCOS.

Menstrual irregularities were common, with 45.7% experiencing prolonged or irregular cycles, and 60% reporting heavy bleeding, highlighting the importance of menstrual disturbances as key clinical indicators.

The symptom profile reflected the multifaceted nature of PCOS, with hair thinning (37.1%), irregular periods (34.3%), acne or oily skin (31.4%), and weight-related issues (28.6%) being the most frequently reported. Psychological and lifestyle-related symptoms, including sleep disturbances and mood swings (25.7% each), further emphasize the systemic impact of the condition. Despite this, 22.9% reported no symptoms, suggesting possible asymptomatic or mild cases. Diagnostic practices most commonly involved a combination of ultrasound and hormonal testing (43.5%). However, a major gap was observed in management, as 57.1% of diagnosed individuals were not receiving treatment. Among those treated, oral contraceptive pills were the most commonly used and showed high adherence (90%).

Lifestyle factors showed potential risks: most slept only 5–7 hours (71.4%), exercised rarely (57.1%), and experienced frequent stress (48.6%). Additionally, 74.3% reported over 3 hours of daily screen time, though most described their diet as balanced.

These findings highlight that, although PCOS is highly prevalent in this population, its management remains inconsistent. The results underscore the need for improved awareness, early diagnosis, and comprehensive care strategies. Current approaches are evolving toward personalized and multidisciplinary management, including metabolic therapies such as GLP-1 receptor agonists, insulin sensitizers like inositols, and ovulation induction agents such as letrozole, along with increasing focus on lifestyle modification and emerging research into hormonal regulation, gut microbiome influences, and digital health interventions.

Conclusions

The study reveals a high prevalence of Polycystic Ovary Syndrome, affecting 65.7% of respondents, with diagnosis most commonly occurring in the late teenage years and early twenties, particularly around 17 years. Despite this, a significant proportion reported no family history, suggesting that non-genetic factors may play an important role. Menstrual irregularities and heavy bleeding were prominent, and commonly reported symptoms included hair thinning, irregular periods, acne, and weight-related issues, reflecting the complex and varied presentation of the condition. Notably, some individuals reported no symptoms, indicating the possibility of undiagnosed or asymptomatic cases.

This analysis confirms a high burden of PCOS among the surveyed university students. The findings call for increased awareness, screening, and the development of integrated university health services that provide holistic care, encompassing accurate diagnosis, pharmacological treatment, and crucial lifestyle and mental health support for students managing this complex syndrome.

LITERATURE

1. Singh, J. Prevalence of Polycystic Ovarian Disease among Undergraduate Medical Students / J. Singh, R. Patange, D. Arbune // Journal of Chemical Health Risks. – 2023. – Vol. 13, № 6. – P. 1–8. – DOI: https://jchr.org/index.php/JCHR/article/view/1885.

2. Prevalence of Polycystic Ovary Syndrome (PCOS) and Its Associated Risk Factors among Medical Students in Two Countries / G. S. Begum [et al.] // International Journal of Environmental Research and Public Health. – 2024. – Vol. 21, № 9. – Article 1165. – DOI: 10.3390/ijerph21091165.

3. Prevalence and Accurate Diagnosis of PCOS in Adolescents Across World Regions / A. Neven [et al.] // European Journal of Endocrinology. – 2024. – Vol. 191, № 4. – P. S15–S25. – DOI: 10.1093/ejendo/lvae123.

4. Polycystic Ovary Syndrome Prevalence and Associated Sociodemographic Risk Factors: A Study Among Young Adults in Delhi NCR, India / A. Sharma [et al.] // Reproductive Health. – 2025. – Vol. 22, № 61. – P. 1–15. – DOI: 10.1186/s12978-025-02019-9.

УДК 618.17-008.8-052-054.7-057.875

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MENSTRUAL HEALTH AND DISORDERS AMONG FEMALE STUDENTS IN THE FACULTY OF INTERNATIONAL STUDENTS

Introduction

Menstrual health represents a critical yet often overlooked aspect of wellbeing for female international students navigating the dual challenges of higher education and cultural adaptation.