



SEPTEMBER, 2023

CHICAGO, USA

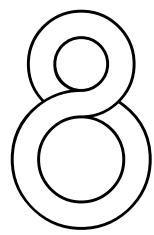
SECTORAL RESEARCH XXI: CHARACTERISTICS AND FEATURES

IV INTERNATIONAL SCIENTIFIC AND THEORETICAL CONFERENCE



**EUROPEAN
SCIENTIFIC
PLATFORM**





September, 2023

Chicago, USA

**SECTORAL RESEARCH XXI:
CHARACTERISTICS AND FEATURES**
VI International Scientific and Theoretical Conference

Chicago, 2023



Chairman of the Organizing Committee: Holdenblat M.

Responsible for the layout: Bilous T.

Responsible designer: Bondarenko I.

S 43 **Sectoral research XXI: characteristics and features:** collection of scientific papers «SCIENTIA» with Proceedings of the VI International Scientific and Theoretical Conference, September 8, 2023. Chicago, USA: European Scientific Platform.

ISBN 979-8-88955-767-8

DOI 10.36074/scientia-08.09.2023

Papers of participants of the VI International Multidisciplinary Scientific and Theoretical Conference «Sectoral research XXI: characteristics and features», held on February 8, 2023 in Chicago are presented in the collection of scientific papers.



The conference is included in the Academic Research Index ReserchBib International catalog of scientific conferences and registered for holding on the territory of Ukraine in UKRISTEI (Certificate № 295 dated June 16th, 2023).

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UDC 001 (08)

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ISBN 979-8-88955-767-8

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BEHAVIORAL STRATEGIES AND PHYSICAL THERAPY FOR POLYCYSTIC OVARY SYNDROME

Polycystic ovarian syndrome (PCOS) is a prevailing endocrine and metabolic disorder occurring in about 20% of females in reproductive age. Most symptoms of PCOS arise early during puberty [1, 2, 3, 4, 5, 6].

PCOS is a diagnosis of exclusion and is a multiorgan disease impairing most endocrine organs including ovaries, adrenals, pituitary, fat cells, and endocrine pancreas [7]. PCOS is a common condition affecting reproductive-aged women with reproductive, metabolic and psychological consequences. [8]. Clinical practice in the assessment and management of PCOS remains inconsistent, with ongoing key evidence-practice gaps [6].

Once diagnosed, assessment and management includes reproductive, metabolic, and psychological features. Education, self-empowerment, multidisciplinary care and lifestyle intervention for prevention or management of excess weight are prioritized. Depressive and anxiety symptoms should be screened, assessed and managed, and health professionals should be aware of other impacts on emotional wellbeing and quality of life [6, 9]. Combined oral contraceptive pills are the first line pharmacological treatment for menstrual irregularity and hyperandrogenism, with no specific recommended preparation and a preference for lower ethinyl estradiol dose preparations and those with less side-effects. Metformin is recommended primarily for metabolic features and has greater efficacy than inositol, which offers limited clinical benefits in PCOS [6].

The available evidence indicates that exercise is effective for improving health-related quality of life and PCOS symptom distress [10]. Lifestyle intervention (exercise alone or multicomponent diet combined with exercise and behavioural strategies) should be recommended for all women with PCOS, for improving metabolic health including central adiposity and lipid profile. For the prevention of weight gain and maintenance of health, adults (18-64 years) should aim for a minimum of 150-300 minutes of moderate-intensity activities or 75-150 minutes of vigorous-intensity aerobic activity per week or an equivalent combination of both spread throughout the week, plus muscle strengthening activities (eg, resistance/flexibility) on 2 non-consecutive days per week. Adolescents should aim for at least 60 minutes of moderate- to vigorous-intensity physical activity per day, including activities that strengthen muscle and bone at least 3 times per week [6]. Exercise interventions from 12 to 24 weeks have been shown to have positive effects on blood lipid profile, ovulation and insulin resistance in women with PCOS [11].

Exercise also shows some efficacy for improving symptoms and/or prevalence of depression and anxiety in women with PCOS [10]. There is irrefutable evidence that exercise mitigates CVD risk factors in women with PCOS [3, 12].

Promising evidence supports the provision of vigorous aerobic exercise, which has been shown to improve body composition, cardiorespiratory fitness and insulin resistance [8]. There is irrefutable evidence that exercise mitigates CVD risk factors in women with PCOS. The mechanism by which exercise improves many CVD risk factors is again associated with improved insulin sensitivity and decreased hyperinsulinemia. In addition to cardiometabolic and reproductive complications, PCOS has been associated with an increased prevalence of mental health disorders. Exercise improves psychological well-being in women with PCOS, dependent on certain physiological factors [3].

Supported healthy lifestyle remains vital throughout the lifespan in PCOS, with a strong focus on overall health, prevention of weight gain and, if required, on weight management. Recognizing the benefits of many diet and physical activity regimens, there is no one specific regimen that has benefits over others in PCOS [6].

Polycystic ovary syndrome is a complex, multi-organ condition that necessitates a holistic approach to management. While the importance of medical treatment is unquestionable, recent evidence has demonstrated the significant positive impact of incorporating physical exercises into the lives of women with Polycystic ovary syndrome, enhancing their overall quality of life. It is worth highlighting that for specific subsets of Polycystic ovary syndrome patients, physical therapy and a well-balanced diet can serve as viable alternatives to pharmaceutical interventions for addressing metabolic irregularities. Moreover, they can be integrated into a comprehensive treatment strategy of menstrual cycle and ovulation disorders.

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