Revista de Ciencias Médicas de Pinar del Río

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

ARTICLE REVIEW

Impact of polycystic ovary syndrome on adolescent mental health: a systematic review

Impacto del síndrome de ovario poliquístico en la salud mental de adolescentes, una revisión sistemática

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Received: November 13, 2024
Accepted: November 17, 2024
Published: December 07, 2024

Citar como Morales-Ponce KG, Meneses-Marcillo CV, Morillo-Cano JR, Miranda-Cedeño XS. Impacto del síndrome de ovario poliquístico en la salud mental de adolescentes, una revisión sistemática. Rev Ciencias Médicas [Internet]. 2024 [citado: fecha de acceso]; 28(S2): e6584. Disponible en: http://revcmpinar.sld.cu/index.php/publicaciones/article/view/6584

ABSTRACT

Introduction: health-Related Quality of Life is a multidimensional and dynamic concept that allows the impact of the disease on the life and well-being of the individual to be assessed, not only in the pathophysiological aspects but also in the psychosocial factors.
Objective: to determine the impact of polycystic ovary syndrome on the mental health of adolescents.
Methods: 20 studies from reliable sources were selected after analyzing 60 articles in English and Spanish using the study quality assessment tool specific to observational studies such as the Newcastle-Ottawa Scale and for clinical trials the Cochrane Collaboration's risk of bias tool. The studies provide a broad, objective and transparent view of the information on the topic in question.
Results: it is essential to adopt a holistic and collaborative approach to address the needs of adolescents with polycystic ovary syndrome. This requires greater awareness and education about this disease, both among health professionals and the community at large. In addition, interventions that address the physical and psychological aspects of the disease should be encouraged polycystic ovary syndrome such as cognitive behavioral therapy, individual psychological support, and comprehensive sexual education programs.
Conclusions: it is important to address the physical and psychological aspects of polycystic ovary syndrome in adolescents, providing them with medical and emotional support to help them manage the challenges associated with this condition and improve their quality of life.

Keywords: Polycystic Ovary Syndrome; Mental Health; Quality of Life.

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

RESUMEN

Introducción: la Calidad de Vida Relacionada a Salud es un concepto multidimensional y dinámico, que permite evaluar el impacto de la enfermedad sobre la vida y el bienestar del individuo, no sólo en los aspectos fisiopatológicos sino también en los factores psicosociales.
Objetivo: determinar el impacto del síndrome de ovario poliquístico en la salud mental de las adolescentes.
Métodos: 20 estudios provenientes de fuentes confiables se seleccionaron tras analizar 60 artículos en inglés y español utilizando la herramienta de evaluación de calidad de estudios específica para estudios observacionales tales como la Escala de Newcastle-Ottawa y para ensayos clínicos la herramienta de riesgo de sesgo de la Colaboración Cochrane. Los estudios proporcionan una visión amplia, objetiva y transparente de la información sobre el tema en cuestión.
Resultados: es esencial adoptar un enfoque holístico y colaborativo para abordar las necesidades de las adolescentes con síndrome de ovario poliquístico. Esto requiere una mayor concienciación y educación sobre esta enfermedad, tanto entre los profesionales de la salud como entre la comunidad en general. Además, se deben fomentar intervenciones que aborden los aspectos físicos y psicológicos del síndrome de ovario poliquístico como la terapia cognitivo-conductual, el apoyo psicológico individual y programas integrales de educación sexual.
Conclusiones: es importante abordar los aspectos físicos y psicológicos del síndrome de ovario poliquístico en adolescentes, brindándoles apoyo médico y emocional para ayudarlos a manejar los desafíos asociados con esta condición y mejorar su calidad de vida.

Palabras clave: Síndrome de Ovario Poliquístico; Salud Mental; Calidad de Vida.

INTRODUCTION

Polycystic ovary syndrome (PCOS) is a common endocrine condition affecting women of reproductive age, including adolescents. It is characterized by hormonal imbalance, menstrual irregularities, infertility and polycystic ovaries. In addition to physical repercussions, PCOS can have a significant impact on the mental health of adolescent girls. Polycystic ovary syndrome has traditionally been associated with adult women, its onset during adolescence poses unique challenges in terms of diagnosis and management.[1]

Despite its potential impact on health across the lifespan, the existing literature often focuses on adults, leaving considerable gaps in understanding how this condition affects young people in their developmental phase.

Polycystic ovary syndrome (PCOS) is the most common endocrinopathy in women, affecting 5-7 % of women of childbearing age. It is characterized by oligoamenorrhea and hyperandrogenism, and the appearance of ovarian cysts. This figure may vary depending on the population studied and the diagnostic criteria used. Early and accurate diagnosis of this condition in adolescents is essential, as PCOS not only impacts reproductive health, but can also have long-term consequences on mental health, metabolic health, and cardiovascular health.[2]

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Polycystic ovary syndrome is a common disease that affects women's reproductive and metabolic health. Early diagnosis in adolescents is crucial to prevent long-term complications, such as infertility, as well as the psychological damage that this condition can cause.

It is worth mentioning that current PCOS classifications are based on three main elements: Ovulatory dysfunction: Absence of ovulation or irregular menstruation; Hyperandrogenism: Excess of androgens, which can manifest as hirsutism, acne, androgenic alopecia or increased testosterone in the blood; Polycystic ovarian morphology (POM): Presence of ovaries with increased volume and multiple small follicles. The combination of these three diagnostic elements gives rise to different PCOS phenotypes. Some women may present only one or two of these criteria, while others may have all three.[3]

This diversity of phenotypes reflects the complexity of the disease. An individualized approach to treatment, tailored to the specific characteristics of each patient, is essential to improve the quality of life of women with PCOS.

Symptoms of PCOS appear at an early age, around puberty. However, it is also common to find that during this stage women experience physiological changes such as menstrual irregularities, acne and anovulatory cycles. Because of this, diagnosis becomes more complicated and discerning the causes becomes a real challenge. Today, it is known that the diagnosis of PCOS in adolescents is made using criteria such as menstrual irregularity, clinical hyperandrogenism and/or hyperandrogenemia. Ultrasound is not mandatory for diagnosis in this age group, although it helps to make a more accurate diagnosis. However, despite knowing these criteria, there is a high percentage of undiagnosed adolescent patients and, therefore, without timely therapeutic intervention that improves the general management of PCOS in adolescence, comorbidities could not be avoided, and improving the quality of life of these patients and their lifestyle could worsen.[4]

Although diagnostic criteria for PCOS in adolescence are known, this lack of timely diagnosis deprives adolescents of a crucial therapeutic intervention that could improve overall management of PCOS, prevent comorbidities, and improve their quality of life, including their mental health.

Health-Related Quality of Life (HRQoL) is a multidimensional and dynamic concept that allows us to assess the impact of the disease on the life and well-being of the individual, not only in terms of pathophysiological aspects but also in terms of psychosocial factors.[5] In our country, a study was found that measured the quality of life in women with PCOS, in a thesis carried out by Muñoz,[6] who applied the developed instrument to a group of 80 women affected by this syndrome. Of this sample, 62,5 % reported that PCOS decreases their quality of life to some degree, the most affected dimensions correspond to menstrual disorders with a prevalence of 98,7 % as well as the emotions dimension, followed by the body hair dimension at 90 %, weight problems at 86,2 % and infertility at 73,5 %. In relation to sexuality, an important area of quality of life, women with PCOS report having less sexual satisfaction, feeling less sexually attractive and stating that their partners are less sexually satisfied with them.

Polycystic ovary syndrome affects many teenage girls, not only physically, but also in their mental health. Hormonal changes can lead to depression, anxiety, low self-esteem and dissatisfaction with body image. This can lead to difficulties in social relationships, isolation and decreased quality of life. Seeking professional support is crucial as learning to manage stress, adopting a healthy lifestyle and talking to loved ones are important steps that teens with PCOS can take to improve their mental wellbeing. With proper treatment and support, teens with PCOS can lead full and healthy lives.[7]

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PCOS is a condition that affects many teenage girls, and it is crucial that they are given the support and tools they need to navigate the challenges it presents, both physically and emotionally. Only then will they be able to lead full and healthy lives.

The objective of this study is to determine the impact of polycystic ovary syndrome on the mental health of adolescent girls.

METHODS

Information from relevant and important information journals such as PubMed, Cochrane Library, SciELO, Elsevier, Radalyc was examined; it was evaluated using the study quality assessment tool specific to observational studies such as the Newcastle-Ottawa Scale and for clinical trials the Cochrane Collaboration's risk of bias tool.

In this phase, the flowchart corresponding to PRISMA 2020 was used. Literature review matrices were used, where the rows represented the documents that make up the evidence base, and the columns the axes of analysis, such as background, methods, results and limitations of the studies.[8]

Specialized digital platforms were used to conduct an exhaustive search of the scientific literature on the topic in question, in order to compile all high-quality research and studies.

The sources of information used in the research were mentioned, including the criteria for selecting and excluding articles.

- **Inclusion Criteria:**

✓ Studies addressing polycystic ovary syndrome (PCOS) in adolescents.
✓ Research using diagnostic and monitoring methods specific to PCOS in this population.
✓ Papers that present relevant data on the prevalence, clinical manifestations, long-term consequences or treatments of PCOS in adolescents.

- **Exclusion Criteria:**

✓ Studies that focus exclusively on adult women. Research that does not specifically address PCOS in adolescents.
✓ -Works that lack detailed information on the diagnostic or treatment methods used in this population.

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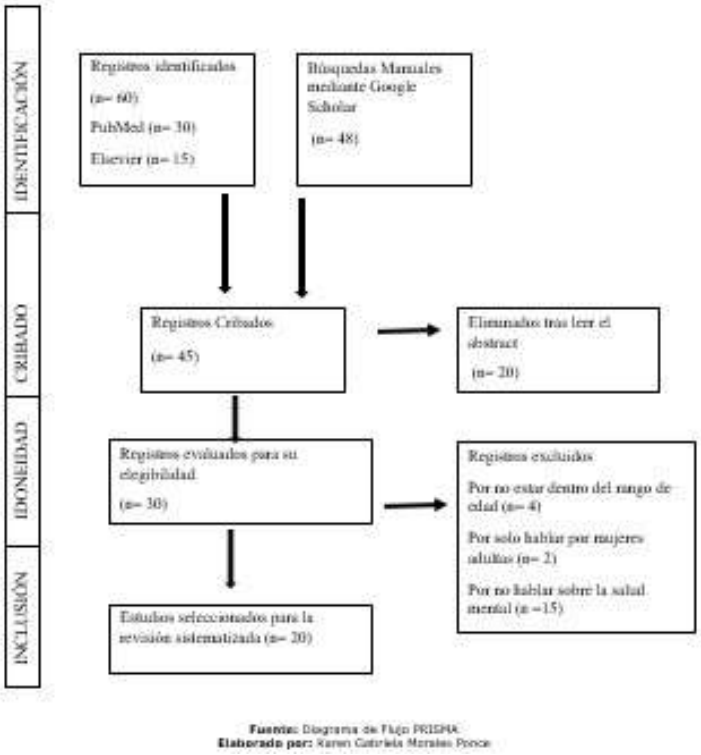
Rev Ciencias Médicas. 2024; 28(S2): e6584

RESULTS



Fuente: Diagrama de Flujo PRISMA
Elaborado por: Karen Gabriela Morales Ponce

Fig. 1 PRISMA direct flow diagram.

The information obtained from the studies has been fundamental to better understand the research topic and formulate new knowledge.

To identify the parts of this table, they are represented as follows:
O. / Objective
FI / Information Source
CSR/Risk and bias of individual studies
M. / Methodology
MT. / Sample
SR / Summary of results
LE / Limitations of the evidence
I. / Implication

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Table 1. Structured Summary Matrix

QUALIFICATION	GOALS	METHODS	RESULTS	LIMITATIONS AND IMPLICATIONS
Polycystic ovary syndrome in adolescents 2021.(2)	Diagnose and treat polycystic ovary syndrome (PCOS) in adolescents and women of reproductive age in a timely manner, to prevent reproductive, oncological and metabolic risks.	**Information Source:** Elsevier **Risk and bias of studies** individual: publication; individual differences **Methodology.** Descriptive	**Sample:** An analysis of 20 studies was carried out, with a total of 38,361 participants, which were published in 30 articles. **Summary of results:** PCOS impacts the mental health of adolescents with symptoms such as hirsutism, acne, weight gain and infertility, lowering their self-esteem and increasing the risk of depression and anxiety.	**Limitation:** Limited studies and some do not present a concrete conclusion. **Implications:** The need for validated assessment instruments to measure mental health in adolescents with PCOS is highlighted, allowing comparisons between studies and longitudinal follow-up of patients.
Clinical and prevalence of polycystic ovary syndrome in adolescents at UMF 73 2023.(8)	To determine the clinical and prevalence of polycystic ovary syndrome in adolescents from UMF 73	**FI:** University of Veracruz **CSR:**individual differences; Pregnant adolescents **M:**Descriptive	**MT:** There will be a significant sample of 1,234 adolescents between 10 and 19 years old **MR:** In this group, the average age for diagnosis of PCOS is 17 years, with a prevalence of 33.3%. Between 18 and 19 years, the prevalence is 22.2%, and between 15 and 16 years, 11.1%.	**YOU:** There are certain limitations in the research such as: Adolescents with neurological disorders or under psychotropic treatment and in pregnancy. **YO:**Most cases of PCOS occur in young women aged 17 and over, closely related to hormonal and physical changes of puberty, being the most common endocrine disorder in adolescence.
Diagnosis and management of polycystic ovary syndrome 2019.(1)	Recognize and diagnose polycystic ovary syndrome (PCOS) in women of reproductive age, highlighting its high prevalence and clinical manifestations. Prioritize timely diagnosis to mitigate associated reproductive, metabolic and oncological risks.	**FI:**Recimundo Magazine **CSR:**Selection bias, information, measurement, publication, individual differences **M:**Descriptive	**MT:**Fifteen studies involving a total of 10,435 people were examined, and these studies were presented in 20 different articles. **MR:** PCOS, common in women of reproductive age, is characterized by menstrual irregularities, obesity and polycystic ovary syndrome. Early diagnosis prevents reproductive, oncological and metabolic risks, requiring comprehensive treatment.	**YOU:**It has limitations in its diagnosis due to its phenotypic variability and the need to rule out other causes of hyperandrogenism. **YO:**It is crucial to consider PCOS in young women with symptoms such as hirsutism, menstrual irregularities and obesity. Exclusionary diagnosis is essential, as the risks include reproductive, oncological and metabolic problems.
Polycystic Ovary Syndrome Update 2023.(9)	This article addresses polycystic ovary syndrome, covering diagnosis, pathophysiology, manifestations, treatment and complications, with emphasis on diagnostic criteria, especially in adult and adolescent women, and its comprehensive management.	**FI:**Sinergia Medical Journal **CSR:**Study selection criteria, information bias, publication, differences in interpretations **M:**Descriptive	**MT:**26 articles were reviewed, including description documents on SOP. **MR:** The review provides a comprehensive understanding of PCOS, from its pathophysiology to its clinical management, highlighting the importance of comprehensive and personalized care to improve the quality of life of affected patients.	**YOU:**Lack of specific citations in the text on PCOS limits its support. Although relevant data are mentioned, direct references to scientific studies to support claims and conclusions are lacking. **YO:**The importance of a comprehensive and personalized approach to the diagnosis, treatment and management of polycystic ovary syndrome is highlighted, recognizing its implications not only on physical health, but also on the mental health and general well-being of patients.
Polycystic ovary syndrome 2017.(10)	Improve management of polycystic ovary syndrome, reduce hyperandrogenism, address ovulatory disorders, diagnose comorbidities and improve reproductive prognoses. Treatment aimed at clinical, metabolic and reproductive manifestations associated with the syndrome.	**FI:**Italian Hospital Magazine **CSR:**Study selection criteria, information bias, publication, differences in interpretations **M:**Descriptive	**MT:**Studies carried out on 26 women and adolescents. **MR:**The article addresses polycystic ovary syndrome (PCOS), a common endocrine condition in women, characterized by hyperandrogenism, anovulation and polycystic ovary syndrome. The diagnostic criteria and consensus used are discussed, as well as the comorbidities associated with PCOS, including obesity, type 2 diabetes, dyslipidemia and arterial hypertension.	**LI:**The main limitation of the article is the lack of long-term prospective studies with current PCOS diagnostic criteria. Although epidemiological studies show associations with certain comorbidities. **YO:**The article highlights the importance of: review of PCOS diagnostic criteria, consensus recommendations and management; metabolic and cardiovascular implications; ongoing research on anti-Müllerian hormone in PCOS diagnosis and prognosis.

Polycystic ovary syndrome management update 2019.(11)	The main objective of this article is to educate about polycystic ovary syndrome (PCOS) and its clinical characteristics, diagnosis and treatment.	**FI:**Medigraphic **CSR:** Of publication, of interpretation, of information. **M:**Descriptive and Bibliographic Review	**MT:**540 women and adolescents between 17 and 28 years old **MR:**The article suggests that PCOS affects both physically and mentally, associated with anxiety, depression and other psychological symptoms. It highlights the need for a comprehensive approach to improve quality of life.	**LI:**Limitation of the article: lack of depth in addressing mental issues of PCOS. Depressive and anxiety symptoms are mentioned briefly, without a thorough exploration of their impact on women with PCOS. **YO:**The article highlights the importance of recognizing the psychological impact of PCOS and its association with comorbidities, including depression. This underscores the need for comprehensive care to improve PCOS management.
Polycystic ovary syndrome in adolescents 2019.(12)	Diagnosing PCOS in adolescence is difficult due to its similarities with normal pubertal changes. The importance of early diagnosis is highlighted in order to avoid complications and improve the patient's quality of life.	**FI:** BVSALUD **CSR:**The article focuses more on reviewing and synthesizing information on polycystic ovary syndrome in adolescents, as well as providing recommendations. **M:**Descriptive and Bibliographic Review	**MT:**It does not present a study carried out on adolescents, rather it is done through observation. **MR:**The importance of a comprehensive and personalized approach to the diagnosis and treatment of PCOS in adolescents is highlighted, taking into account the unique characteristics of this population and the long-term implications of the disease.	**LI:**Little attention has been paid to longitudinal studies on PCOS, from adolescence to adulthood. Although it details the pathophysiology, diagnosis and treatment in adolescents, there is a lack of depth in the evolution and clinical variation throughout life. **YO:**PCOS can cause symptoms similar to normal pubertal changes, such as menstrual irregularities and acne. Identifying it early is crucial to prevent complications and improve the patient's quality of life.
Experiences of young women diagnosed with polycystic ovary syndrome 2016.(13)	To better understand the experiences and psychosocial effects of PCOS in affected women, and to contextualize and comprehensively address this public health condition.	**FI:**Pontifical Catholic University of Peru **CSR:**individual differences; Pregnant adolescents **M:**Descriptive	**MT:** The study included 7 women with polycystic ovary syndrome, all between 22 and 25 years old, with an average age of 23 years, and a phenomenological approach was used. **MR:**Women diagnosed with PCOS face a range of challenges related to managing the condition, its impact on social relationships, and their emotional and psychological well-being. Adequate understanding and support are critical to addressing these complex experiences.	**LI:**Lack of diversity in information sources. It is based primarily on interviews with women with PCOS; it does not include opinions from doctors, previous research or others related to the topic. **YO:**CIt includes reactions to the diagnosis, information management and perception of the disease. The effects of PCOS on social life, family and partner relationships, work and studies are analyzed. The study highlights the emotional and cognitive challenges faced by these women.
Polycystic ovary syndrome associated with depression, anxiety and quality of life in 6th and 7th year human medicine students at UCSM 2022.(14)	To determine whether polycystic ovary syndrome is associated with depression, anxiety and quality of life in 6th and 7th year Human Medicine students at UCSM 2022	**FI:**Repository of the Catholic University of Santa Maria **CSR:**individual differences **M:**Fieldwork, Descriptive	**MT:** The study included 110 students: 55 with polycystic ovary syndrome and 55 without. Instruments were used to assess depression, anxiety and quality of life in both groups. **MR:** After carrying out this study, it has been determined that there is an association between polycystic ovary syndrome and depression, anxiety and quality of life in contrast to students who have not been diagnosed.	**LI:**There is a lack of variety in data sources. Interviews with students with PCOS predominate; there is no mention of whether other sources, such as specialized physicians, were consulted, limiting the perspective of the study. **YO:**The article highlights the association between PCOS, depression, anxiety and quality of life in medical students. This finding may impact medical care and quality of life, emphasizing the importance of detecting and managing associated psychological aspects.
Depression in polycystic ovary syndrome: a systematic review and meta-analysis 2023.(7)	The article aims to meta-analyze the prevalence, level, and difference in standardized means of depression in premenopausal women with PCOS, using the Hospital Anxiety and Depression Scale.	**FI:**PubMed **CSR:**Incomplete outcome data, individual differences **M:**Descriptive.	**MT:**An analysis of 19 studies was conducted, with a total of 46,900 participants, which were published in 19 articles. **MR:**According to a meta-analysis of 19 studies, 31% of women with PCOS experience depression. The mean HADS depression score is 6.31. The likelihood of depression in women with PCOS is more than 2.5 times higher than in	**LI:**Factors such as socioeconomic status, medical access, and family history of mental disorders may not have been uniformly controlled across studies of the relationship between PCOS and depression. **YO:**It is crucial to highlight the significant association between PCOS and depression in women. The

			women without this endocrine disorder. These results underscore the importance of mental health screening and management in patients with PCOS.	meta-analysis reveals a considerably increased risk of depressive symptoms in women with PCOS.
Health consequences of polycystic ovary syndrome in middle-aged women 2019.(15)	The article seeks to provide a more complete understanding of how PCOS can negatively impact women's health throughout their lives.	**FI:**PubMed **CSR:**Incomplete results data **M:**Descriptive.	**MT:**The information provided on the health consequences for middle-aged women is based primarily on observation. **MR:**PCOS is a common endocrine condition in women, with symptoms such as menstrual irregularities, hirsutism and obesity, especially in those who are metabolically obese. It is also linked to metabolic disorders and cardiovascular risks, gynecological cancers and depression.	**LI:**One limitation is the article's focus on the relationship between PCOS and health complications in middle-aged women, without considering age-related variations. In addition, the discussion may lack depth regarding other less common complications. **YO:**The article highlights the importance of understanding the connection between PCOS and these health complications, especially in middle-aged women.
Polycystic ovary syndrome: psychological aspects 2015.(16)	The objective is to review empirical evidence on psychological factors combined with PCOS and its comprehensive approach.	**FI:**Scielo **CSR:**Selection, Information and Individual Risk **M:**Descriptive.	**MT:**The article omits details about individual study samples. It focuses on the general methodology of a systematic review, including 54 articles since 2002, from various databases. **MR:**This article is a systematic review of psychological factors in PCOS, synthesizing empirical evidence for a comprehensive approach.	**LI:** One limitation is that the systematic review is based on evidence up to 2002, excluding later studies and possible new findings, limiting the understanding of psychological factors in PCOS. **YO:** The importance highlighted in the article is the need to consider psychological aspects in the management of PCOS to improve the quality of life and overall well-being of patients affected by this condition.
Review of diagnostic criteria for polycystic ovary syndrome 2020.(17)	The article in question aims to raise awareness about the importance of an adequate and personalized evaluation of PCOS to avoid inappropriate treatments and improve the well-being of patients.	**FI:**Scielo **CSR:**Selection and individual risk **M:**Descriptive.	**MT:** 743 articles were obtained, of which 43 were selected. **MR:**An accurate assessment of each case is crucial to prevent overdiagnosis of PCOS and its negative impact on quality of life. Therapeutic risks and benefits must be weighed, taking into account the clinical variability of PCOS.	**LI:**The article broadly reviews the diagnostic criteria, epidemiology, and clinical implications of PCOS, but lacks a detailed analysis of the quality of evidence and therapeutic recommendations. **YO:**The article emphasizes the need for an evidence-based approach to the diagnosis of PCOS, considering its clinical variability and the risks of overdiagnosis, thus improving patient care.
Polycystic ovary syndrome and its potential association with bipolar disorder in patients with eating disorders 2017.(18)	The aim of the present study was to explore the prevalence of Bipolar Disorder in women with and without PCOS, and its potential association with other pathologies of the affective-anxious-impulsive spectrum.	**FI:**Scielo Magazine **CSR:**Study selection criteria, information bias, publication, individual differences **M:**Observational Study	**MT:**A total of 753 women attended between January 2010 and December 2015, from the ages of 14 to 61 years. **MR:**Observational research suggests a possible association between polycystic ovary syndrome (PCOS) and eating disorders (ED), but does not establish causality.	**LI:**Limitations include cross-sectional design and lack of healthy control group. Although using the same clinical cohort may reduce bias, PCOS prevalence may be overestimated. **YO:**This study provides new insights into the relationship between PCOS, TCA and TB, highlighting the importance of their joint exploration and management in clinical practice to improve the health outcomes of affected patients.
Polycystic ovary syndrome and quality of life 2021.(20)	To determine the quality of life in women with PCOS according to the disease phenotype using the PCOS quality of life questionnaire.	**FI:**Ibero-American Journal of Fertility **CSR:**Selection bias, Sample size, Information bias **M:**Descriptive.	**MT:**Forty-nine women diagnosed with PCOS (18-40 years) and active sexual life were included. Diagnostic criteria for PCOS were based on Rotterdam. **MR:**The study analyzed quality of life in women with PCOS according to different phenotypes. Forty-nine women were included, and significant differences were found in body hair and	**LI:**The study has limitations such as selection bias due to the exclusion of women with PCOS who do not meet certain criteria and the small sample size. **YO:**The study highlights the importance of recognizing the diversity of PCOS manifestations and their influence on quality of life, guiding towards personalized and effective clinical practices.

			menstruation dimensions between the groups.	
Polycystic ovary syndrome in adolescents 2012.(6)	The main objective of the text is to provide information about polycystic ovary syndrome (PCOS), including its definition, diagnostic criteria, pathophysiology, clinical manifestations, diagnosis, treatment and associated risks.	**FI:**Elsevier **CSR:**Selection and individual risk and information bias **M:**Descriptive.	**MT:**Being an informative article, it does not present a study based on personal experiences. **MR:** PCOS, which is common in women of childbearing age, presents with varied clinical manifestations and metabolic and reproductive risks. Its management requires a multidisciplinary approach that addresses hormonal, metabolic and lifestyle aspects.	**LI:**A limitation on polycystic ovary syndrome lacks specific references, which makes it difficult to verify its accuracy and reliability, crucial elements in the medical and scientific fields. **YO:**The importance of lifestyle changes, such as healthy diet and exercise, is highlighted as key to managing the risks of polycystic ovary syndrome and preventing comorbidities such as type 2 diabetes and certain cancers.
Polycystic Ovary Syndrome in Adolescents 2016.(2)	The article seeks to provide a comprehensive guide for the clinical management of PCOS in adolescents, from diagnosis to treatment options and preventive measures.	**FI:**Rev Esp Endocrinol Pediatric **CSR:**Risk of reporting and publication bias **M:**Descriptive.	**MT:**The article has an informative focus and is not based on the author's personal perspective. **MR:** The article studies polycystic ovary syndrome (PCOS) in adolescents, highlighting its impact on reproductive and metabolic health, addressing its pathophysiology, diagnosis and therapies, emphasizing early detection and preventive measures.	**LI:**An important limitation of the article is the need for greater clarity and consensus on the diagnostic criteria for PCOS in adolescents to improve the accuracy and effectiveness of clinical management of this condition. **YO:**The importance of early detection, accurate diagnosis, personalized treatment and preventive measures to improve quality of life and prevent long-term complications is highlighted.
Sexual function and its relationship with psychological factors in women with polycystic ovary syndrome 2022.(19)	To conduct a literature review on sexual function and its relationship with psychological factors in women with polycystic ovary syndrome.	**FI:**Rev Scielo **CSR:**Study selection criteria, information bias, publication. **M:**Analytical and Descriptive.	**MT:**An analysis of 15 studies was carried out, with a total of 30,600 participants, which were published in 15 articles. **MR:**The article studies polycystic ovary syndrome (PCOS) in adolescents, highlighting its impact on reproductive and metabolic health, addressing its pathophysiology, diagnosis and therapies, emphasizing early detection and preventive measures.	**LI:**An important limitation presented in the text is the lack of specific data on the relationship between polycystic ovary syndrome (PCOS) and the sexual function of affected women. **YO:**PCOS causes physical and psychological impact, such as hyperandrogenism, obesity, body dissatisfaction and emotional disorders, affecting the social and intimate quality of life of affected women.
Evaluation of polycystic ovary syndrome: diagnostic tools and new therapies 2021.(3)	The aim of this article is to provide information about Polycystic Ovary Syndrome (PCOS) and how it affects women of childbearing age worldwide. In addition, technological advances are highlighted.	**FI:**Sinergia Medical Journal **CSR:**Publication, Information, Security **M:** Descriptive.	**MT:**To extract the information, a bibliographic search was carried out, where more than twenty review articles on the subject were analyzed, which mentioned the most commonly used therapies today. **MR:**PCOS affects many women of childbearing age. Technological advances have improved pregnancy rates in patients with difficulties conceiving, with in vitro fertilization being a novel technique.	**LI:**The article may have a limitation if the evaluation of drugs and treatments was not comprehensive or was based on studies limited in sample size, length of follow-up, or other methodological factors. **YO:**This article provides valuable information that may improve the understanding, diagnosis and treatment of polycystic ovary syndrome, potentially improving the quality of life of affected patients.
Depression in patients with polycystic ovary syndrome treated at the Daniel Alcides Carrión National Hospital, 2018.(20)	To determine the frequency of depression in patients with polycystic ovary syndrome treated at the National Hospital Daniel Alcides Carrion, year 2017	**FI:**Repository of the San Juan Bautista Private University, Lima, Peru **CSR:**Publication, Information, Security, Analysis **M:**Quantitative Descriptive.	**MT:**This is a descriptive study with analytical tests, carried out at the Daniel Nacional Alcides Carrión Hospital in 2017. The sample included 79 patients who met the inclusion criteria. **MR:**Depression affected 48% of a population that was mostly adult (60%), with secondary education (82%), cohabitants (63%), and overweight (BMI 73%). This frequency was consistent across all subgroups studied.	**LI: E**The article lacks a thorough exploration of the psychological and psychiatric aspects of PCOS, despite mentioning its association with depression and anxiety. The paucity of studies in this area is highlighted. **YO:**The importance that can be highlighted from this article is that, since PCOS is associated with psychiatric disorders such as depression and generalized anxiety, understanding how these factors affect patients is crucial to improving their comprehensive medical care.

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

The Newcastle-Ottawa Scale was used to assess the quality of observational studies and the Cochrane Collaboration's risk of bias tool for clinical trials.

Table 2. Cochrane Collaboration tool.

Author	Random sequence generation	Allocation concealment	Blinding of participants	Blinding of assessment	Incomplete follow-up	Selective results report
María Fernanda Figueredosatizábal Md	///////	/////////	/////////		/////////	
Dra. Lucia Verónica Izaguirre Cárdenas	///////	/////////	/////////			/////////
Becquer Humberto Suarez Coba	///////	/////////	/////////		/////////	
Castro TGR,	///////	////////	////////	/////////		
Irina Winnykamien	///////	/////////	/////////		/////////	
Sanchez Ge	///////	/////////	/////////		/////////	
Gómez Tabares, Gustavo.	///////	/////////	/////////		/////////	
Duarte Ratto	///////	/////////	/////////			/////////
Sotero Camino	///////	/////////	/////////		/////////	
Paweł Dybciak	///////	/////////	/////////			
En Ali	///////	/////////	/////////			/////////
César Andrés Gómez-Acosta	///////	/////////	/////////			
Julieth Alexandra Guzmán López	///////	/////////	/////////	/////////		
Maritza Rodríguez Guarín	///////	/////////	/////////		/////////	
Fátima Elena García Cande	///////	/////////	/////////			/////////
M. Angustias Salmerón Ruiz	///////	/////////	/////////			/////////
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Identifiers:

- **Another bias** (eg potential source of bias related to study design or there is insufficient information to assess whether there is an important risk of bias, or there is insufficient justification or evidence for an identified problem).
- **White:** Low risk of bias.
- **Pattern /////:** Unclear risk of bias.
- **Black:** high risk of bias

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

DISCUSSION

Texts 1, 4, 5, 7, 16, and 17 discuss polycystic ovary syndrome (PCOS) and highlight a shared focus on early diagnosis and comprehensive treatment of the disease. However, there are significant differences in the approach and depth of the topics covered. For example, topic 1 focuses on the timely diagnosis and treatment of PCOS in adolescents and women of childbearing age, with the aim of preventing reproductive, oncological, and metabolic risks. Although the importance of prevention and timely treatment is emphasized, details on the pathophysiology and specific treatments are lacking.

Topic 4, on the other hand, provides comprehensive and up-to-date information on PCOS, covering aspects such as pathophysiology, clinical symptoms, differential diagnosis, and treatment options. This topic stands out for the breadth and depth of the discussion, as well as the inclusion of specific diagnostic criteria for adult and adolescent women.

Similarly, Topic 5 focuses on improving PCOS management, with an emphasis on alleviating symptoms of hyperandrogenism, treating ovulatory disorders, and early diagnosis of associated comorbidities. While this highlights the importance of addressing the medical and reproductive complications of PCOS, details are lacking regarding specific diagnosis and treatment in adolescents.

Topic 7 also addresses the difficulty of diagnosing PCOS in adolescence and emphasizes the importance of early and accurate diagnosis to avoid complications. Although this book focuses on the specific challenges of diagnosing PCOS in a teenager, it does not go into detail about comprehensive treatment of this condition.

Topic 16 provides general information about polycystic ovary syndrome, including definition, diagnostic criteria, pathophysiology, clinical symptoms, diagnosis, treatment, and associated risks. Although it provides a comprehensive overview of polycystic ovary syndrome, it may lack updated information on advances in diagnosis and treatment since its publication.

Finally, Topic 17 aims to provide a comprehensive guide on the clinical management of your PCOS in adolescence, from diagnosis to treatment and preventive measures. Although it focuses on the specific treatment of PCOS in adolescents, it may lack up-to-date information on the latest advances in understanding and treating this condition.

Although all articles share the common goal of improving PCOS management, each article has its own focus and depth. To gain a complete and up-to-date understanding of this topic, you may need to consult several resources that address different aspects of this syndrome, from diagnosis to treatment and prevention of complications.

Articles 2, 3, 6, 15 and 19 discuss polycystic ovary syndrome (PCOS) from various perspectives and provide a comprehensive overview of its clinical features, diagnosis and treatment. The prevalence in adolescents and women of childbearing age is highlighted, as well as the need for its early detection due to metabolic, reproductive and tumor effects. In addition, it emphasizes the importance of an accurate assessment to avoid inappropriate treatments and improve patient health.

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

These articles reflect a concern for education about PCOS, the use of modern diagnostic tools, and continued research into new treatments to treat this endocrine-metabolic disorder that affects women worldwide. However, future research may benefit from including perspectives that focus more on the psychological and social impact of PCOS and equitable access to health care for all affected women.

Article 8 on the experiences of young women diagnosed with polycystic ovary syndrome (PCOS) provides a valuable exploration of the psychosocial impact of this condition. By identifying themes such as the initial response to diagnosis, coping with information and fears about the future, we gain a detailed understanding of the challenges women face in different areas of their lives.

However, it is important to note the limitations of the study, which include: Sample size and lack of diversity in the study population. This may affect the generalizability of the results. Furthermore, although protective factors such as sources of social support have been identified, further work is needed on how to strengthen and apply them in clinical practice to improve the care and well-being of women with PCOS. Ultimately, this study highlights the need for continued research and multidisciplinary approaches to effectively address the psychosocial challenges associated with PCOS and improve the quality of life of affected patients.

Articles 9, 10, 11, 12, 13, 14 and 20 highlight the complexity of polycystic ovary syndrome (PCOS) not only in terms of its physical manifestations, but also in its impact on the mental health and quality of life of affected women.

The presence of depressive and anxiety symptoms in women with PCOS highlights the need to explore the interrelationships between these conditions, as well as their potential bidirectional influence. For example, the study seeking to determine whether PCOS is associated with depression and anxiety in medical students provides an interesting perspective on how these conditions may manifest in young populations and those in medical training. Furthermore, the meta-analysis on depression in women with PCOS highlights the importance of understanding the prevalence and severity of this disorder, using standardized assessment tools. Research on the health consequences throughout their lifespan

Finally, Article 18 emphasizes the importance of conducting a critical analysis of the interaction between sexual function and psychological factors in women suffering from polycystic ovary syndrome (PCOS). This analysis requires a multidimensional approach that considers both the physical and psychological aspects of this condition. It is clear that the physical symptoms characteristic of PCOS, such as hirsutism and weight gain, can lead to various psychological problems such as low self-esteem and anxiety.

These emotional problems can have a significant negative impact on the sexual function of affected women. When your body image changes and you perceive yourself as less attractive, expressing your sexuality can become inhibited and difficult, which can affect both your intimate life and your relationships. It is also important to note that many women with PCOS already suffer from a mental illness, which further complicates the situation. These disorders can increase the physical symptoms of the syndrome, making the disease more difficult to treat.

There is a bidirectional association between PCOS and mood disorders such as depression and anxiety. Adolescent girls with PCOS face unique challenges related to their body image, self-esteem, and self-acceptance, which may predispose them to mental health problems. On the other hand, mood disorders may worsen the physical symptoms of their PCOS and complicate the disease.

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

Furthermore, the impact of PCOS on adolescent girls' sexual function is an aspect that cannot be overlooked. Its PCOS symptoms, such as hirsutism, acne, and menstrual irregularities, can negatively affect a young woman's self-image and sexual confidence. This can manifest as difficulty establishing intimate relationships, decreased sexual desire, and problems with sexual satisfaction, leading to a vicious cycle of psychological distress and sexual dysfunction.

It is important to recognize that the impact of PCOS on adolescent girls' mental health and sexual functioning is not limited to the physical symptoms of the disease. The psychological burden of living with a chronic condition like PCOS, which often requires lifelong treatment, can be immense for young women who are still developing emotionally and socially. There is a chance that a lack of adequate medical and psychological support can significantly worsen the quality of life of these adolescents and increase their vulnerability to long-term mental health problems.

CONCLUSIONS

The impact of PCOS on adolescent girls' mental health and sexual functioning is a complex issue that requires urgent attention. Addressing these issues in a comprehensive and collaborative manner can significantly improve the quality of life and well-being of young women affected by this condition. It is time to recognize PCOS not only as a disease, but also as a public health issue that requires a diverse and compassionate response.

onflicts of Interest

The authors declare that there are no conflicts of interest.

Author Contribution

KGMP: Conceptualization, Data Curation, Formal Analysis, Research, Methodology, Project Management, Resources, Software, Supervision, Validation, Visualization, Writing - original draft, Writing - review and editing.
CVMM: Conceptualization, Data Curation, Formal Analysis, Research, Methodology, Project Management, Resources, Software, Supervision, Validation, Visualization, Writing - original draft, Writing - review and editing.
JRMC: Conceptualization, Data Curation, Formal Analysis, Research, Methodology, Project Management, Resources, Software, Supervision, Validation, Visualization, Writing - original draft, Writing - review and editing.
XEMC: Data curation, Methodology, Resources, Software, Visualization.

Funding

The authors did not receive funding for the development of this research.

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

BIBLIOGRAPHIC REFERENCES

1. Coba BHS. Diagnóstico y manejo del síndrome de ovario poliquístico [Internet]. 2019 [Citado 02/01/2024]. Disponible en: https://recimundo.com/index.php/es/article/view/557

2. Ovies Carballo G, Monteagudo Alzugaray G, Gómez Alzugray M. Síndrome del Ovario Poliquístico en la Adolescente. Rev Esp Endocrinol[Internet]. 2022 [Citado 02/01/2024]; 33(2). Disponible en: https://revendocrinologia.sld.cu/index.php/endocrinologia/article/view/306

3. Alfaro Murillo G, Salas Ramírez B, Zúñiga Fallas A. Evaluación del síndrome de ovario poliquístico: herramientas diagnósticas y nuevas terapias. Rev.méd.sinerg [Internet]. 1 de enero de 2021 [citado 27/11/2024]; 6(1): e635. Disponible en: https://revistamedicasinergia.com/index.php/rms/article/view/635

4. SATIZÁBAL MFF, Gomez Tabares G. Síndrome de ovario poliquístico en adolescentes. REV. COL. DE MENOPAUSIA [Internet]. 2019 [Citado 24/01/2024]; 25(4): 20-28. Disponible en: https://docs.bvsalud.org/biblioref/2021/05/1224465/25_4-21-29.pdf

5. Muñoz L, Villa L. Características de la sintomatología y calidad de vida en mujeres con síndrome de ovario poliquístico. (Tesis de grado). Pontificia Universidad Católica de Chile, Santiago, Chile;2004.

6. Ruiz MAS. Síndrome de ovario poliquístico en adolescentes. Anales de Pediatria Continuada [Internet]. 2012 [Citado 30/01/2024]; 10(5): 257-263. Disponible en: https://www.elsevier.es/es-revista-anales-pediatria-continuada-51-articulo-sindrome-ovario-poliquistico-adolescentes-S1696281812700963

7. Dybciak P. Depresión en el síndrome del ovario poliquístico: una revisión sistemática y metanálisis. J Clin Med [Internet]. 2023 [Citado 10/02/2024]; 12(20): 6446. Disponible en: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10607337/

8. Cárdenas LVI. Clínica Y Prevalencia De Síndrome De Ovario Poliquístico En Adolescentes [Internet]. Veracruz; 2023 [Citado 19/02/2024]. Disponible en: https://cdigital.uv.mx/bitstream/handle/1944/52850/IzaguirreCardenasLucia.pdf?sequence=1&isAllowed=y

9. Castro TGR. Actualización sobre el síndrome de ovario poliquístico. [Online]; 2023. Acceso 19/02/2024. Disponible en: https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=110589.

10. Winnykamien I, Dalibon A, Knoblovits P. Síndrome de ovario poliquístico. Rev. Hosp. Ital. B.Aires [Internet]. 2017 [Citado 18/02/2024]; 37(1): 10-20. Disponible en: https://www1.hospitalitaliano.org.ar/multimedia/archivos/noticias_attachs/47/documentos/31087_10-20-Winnykamien-D.pdf

11. GE S. Actualización del manejo de síndrome de ovario poliquístico. Revista Médica Sinergia [Internet]. 2019 [Citado 19/02/2024]; 4(12): 322. Disponible en: https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=90286

ISSN: 1561-3194 **RNPS:** 1877
Rev Ciencias Médicas. 2024; 28(S2): e6584

12. Gomez Tabares G, Figueredo Satizabal MF. Síndrome de ovario poliquístico en adolescentes. Rev. Colomb. menopaus [Internet]. 2019 [Citado 19/02/2024]; 25(4): 20-28. Disponible en: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1224465

13. Ratto CI. Experiencias de mujeres jóvenes diagnosticadas con síndrome de ovario poliquístico [Tesis]. Lima-Perú; 2016 [Citado 18/02/2024]. Disponible en: https://tesis.pucp.edu.pe/repositorio/handle/20.500.12404/7477

14. Camino SMM.Síndrome de ovario poliquistico asociado a depresión, ansiedad y calidad de vida en estudiantes de medicina hum. ana de 6° y 7° año de la UCSM 2022 [Tesis]. Arequipa – Perú; 2022 [Citado 19/02/2024]. Disponible en: https://repositorio.ucsm.edu.pe/handle/20.500.12920/11877

15. B.C F. Consenso sobre los aspectos de salud de las mujeres del síndrome de ovario poliquístico. Hum Reprod [Internet]. 2012 [citado 18/02/2024]; 27(1): 14-24. Disponible en: https://pubmed.ncbi.nlm.nih.gov/22147920/.

16. Gómez-Acosta CA. El síndrome de ovario poliquístico: aspectos psicológicos. Revista chilena de obstetricia y ginecología [Internet]. 2015 [Citado 19/02/2024]; 80(4): 341-347. Disponible en: https://www.researchgate.net/publication/281707179_El_sindrome_de_ovario_poliquistico_aspectos_psicologicos

17. Guzmán JA, Robles PD, Rivera OE, Ramírez F, Sepúlveda AJ, Sepúlveda J. Revisión de los criterios diagnósticos para el síndrome de ovario poliquístico. MÉD.UIS [Internet]. 2020 [Citado 19/02/2024]; 33(3): 21-28. Disponible en: http://www.scielo.org.co/pdf/muis/v33n3/0121-0319-muis-33-03-21.pdf.

18. Rodríguez Guarín M, Gempeler Rueda J, Pérez Muñoz V, Ribero Salazar O. Síndrome de ovario poliquístico y su potencial asociación con trastorno bipolar en pacientes con trastorno del comportamiento alimentario. Rev. Mex. de trastor. aliment [Internet]. 2017 Dic [citado 02/12/2024]; 8(2): 142-150. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-15232017000200142&lng=es

19. Machado AA. La función sexual y su relación con los factores psicológicos en las mujeres con el síndrome de ovario poliquístico. Revista Cubana de Endocrinología [Internet]. 2022 [Citado 19/02/2024]; 33(2):e311. Disponible en: https://revendocrinologia.sld.cu/index.php/endocrinologia/article/download/311/341.

20. Nuñez A. Depresión en pacientes con síndrome de ovario poliquístico atendidas en el Hospital Nacional Daniel Alcides Carrión [Tesis]. Lima-Peru; 2018 [Citado 19/02/2024]. Disponible en: https://repositorio.upsjb.edu.pe/handle/20.500.14308/1572.