

RESEARCH PAPER

PCOD / PCOS AND HOLISTIC WELLNESS

An Integrative Perspective on Polycystic Ovary Syndrome, Metabolic and Reproductive Health, Global Statistics and Responsible Lifestyle Support

Presented by

A. SUDHAKAR

Qualified Ayurvedic Therapist | Panchakarma Specialist

**SR VAIDYA™ HOLISTIC WELLNESS RESEARCH
INSTITUTE**

*Prepared for Presentation at the Holistic Wellness
Conference*

ABSTRACT

Polycystic Ovary Syndrome (PCOS), commonly referred to in Indian clinical and public settings as PCOD (Polycystic Ovarian Disease), is the most common endocrine disorder among women of reproductive age. It affects an estimated 8% to 13% of women in this age group globally, yet approximately 70% of affected women remain undiagnosed worldwide, representing a substantial gap between disease burden and clinical recognition (WHO, 2023).

This paper examines PCOS/PCOD from a holistic wellness perspective while maintaining the primacy of evidence-based diagnosis and appropriate medical care. It reviews global prevalence statistics, the Rotterdam diagnostic criteria, the pathophysiology linking insulin resistance and hyperandrogenism, diagnostic evaluation, red-flag presentations and modern management. The paper proposes the SR VAIDYA Integrative Framework for PCOS/PCOD Wellness Education, built on early screening, verified diagnosis, individualised lifestyle support and responsible Ayurvedic integration.

Ayurvedic and Panchakarma approaches are discussed within clear safety boundaries as complementary wellness measures that must never replace or delay verified diagnosis or evidence-based treatment, including fertility care where relevant.

Keywords: PCOS, PCOD, Polycystic Ovary Syndrome, Insulin Resistance, Hyperandrogenism, Anovulation, Holistic Wellness, Ayurveda, Panchakarma, Lifestyle Medicine, Integrative Health.

1. INTRODUCTION

Polycystic Ovary Syndrome was first comprehensively described by Stein and Leventhal in 1935 and has since become recognised as the most common endocrine and metabolic disorder affecting women of reproductive age worldwide. Diagnostic criteria have evolved considerably since the original description, through the 1990 NIH criteria, the 2003 Rotterdam consensus and the most recent 2023 International Evidence-based Guideline update.

The terms PCOD and PCOS are frequently used interchangeably in public discourse, though clinical literature generally uses PCOS to describe the internationally recognised endocrine syndrome.

Scientific understanding requires precision: PCOS is characterised by a combination of anovulation, hyperandrogenism and/or polycystic ovarian morphology, not by the presence of ovarian cysts alone, and multiple ovarian follicles on ultrasound are not, by themselves, diagnostic.

2. GLOBAL STATISTICS

Reliable prevalence data are essential to appropriately scale awareness, clinical services and research investment. PCOS represents a substantial and underrecognised global health burden.

Figure 1. Global PCOS Burden in Numbers (WHO, 2023)

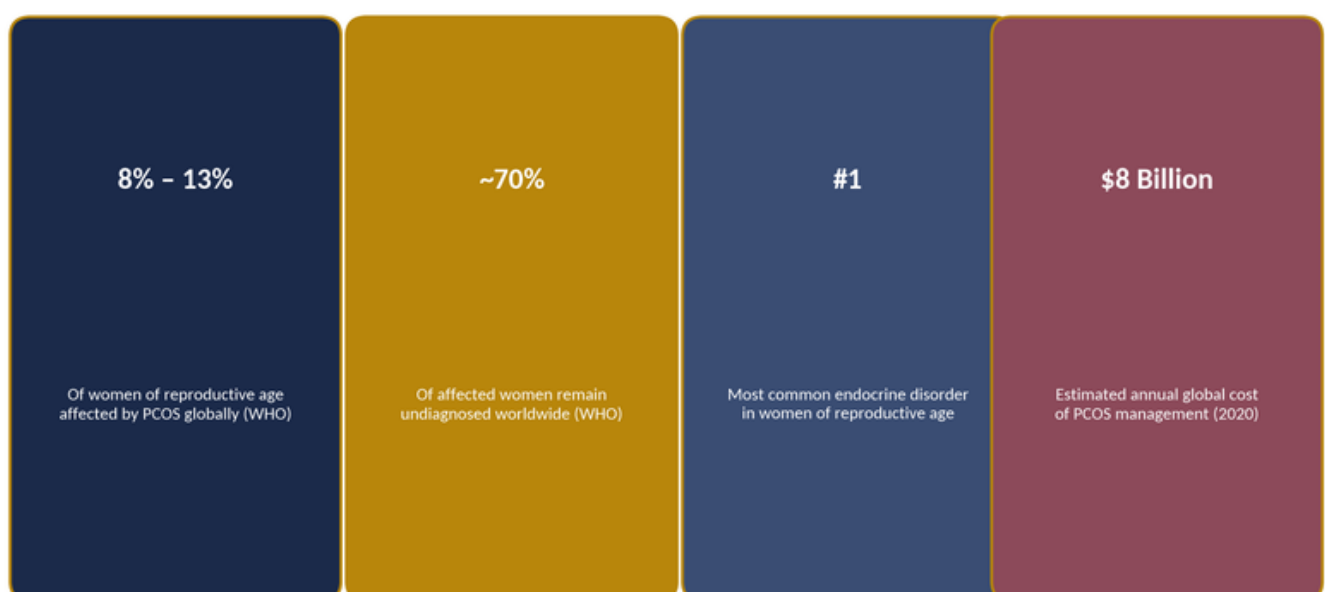


Figure 1. Global PCOS Burden in Numbers (WHO, 2023)

A comprehensive systematic review and meta-analysis of over 12 million subjects across 35 studies found a global PCOS prevalence of 9.2%, though estimates vary from 5.5% using NIH criteria to 11.5% using the broader Rotterdam criteria, reflecting differences in diagnostic definition across studies (Arch Gynecol Obstet, 2024). Global Burden of Disease data estimate 65.77 million prevalent PCOS cases worldwide in 2021, an 89% increase compared with 1990, with the fastest-growing burden observed among adolescents and young women (GBD, 2021).

3. THE ROTTERDAM DIAGNOSTIC CRITERIA

The Rotterdam criteria, established in 2003 and remaining the most widely used international diagnostic framework, require the presence of at least two of three defining features, following exclusion of other conditions that can mimic PCOS.

Figure 2. The Rotterdam Diagnostic Criteria for PCOS

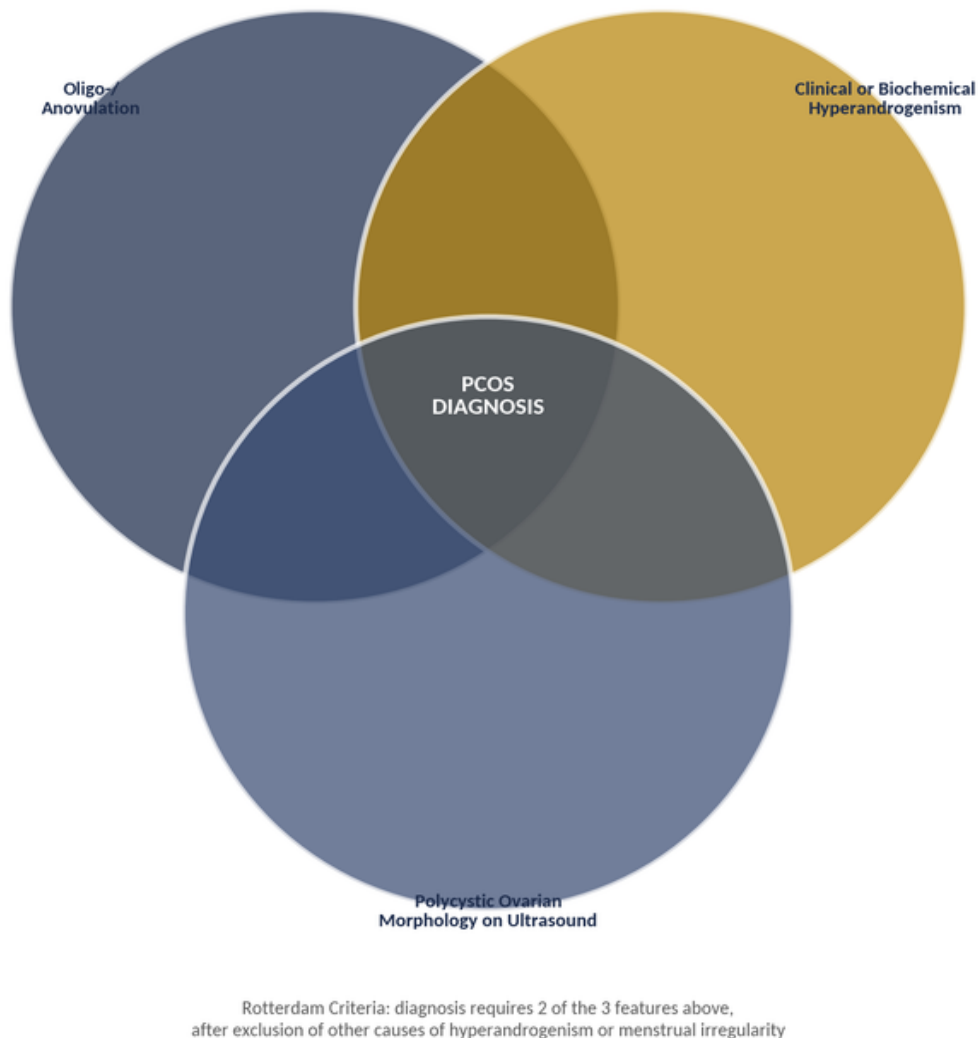


Figure 2. The Rotterdam Diagnostic Criteria for PCOS

Because PCOS is a diagnosis of exclusion within this framework, conditions such as thyroid dysfunction, hyperprolactinaemia, and non-classic congenital adrenal hyperplasia must be actively ruled out before a diagnosis is confirmed — an important safeguard against both over- and under-diagnosis.

4. THE PATHOPHYSIOLOGY OF PCOS

PCOS pathophysiology centres on a self-reinforcing relationship between insulin resistance and androgen excess. Insulin resistance leads to compensatory hyperinsulinaemia, which directly stimulates ovarian and adrenal androgen production and reduces hepatic production of sex hormone-binding globulin, further raising free androgen levels.

Figure 3. The Insulin Resistance – Hyperandrogenism Cycle in PCOS

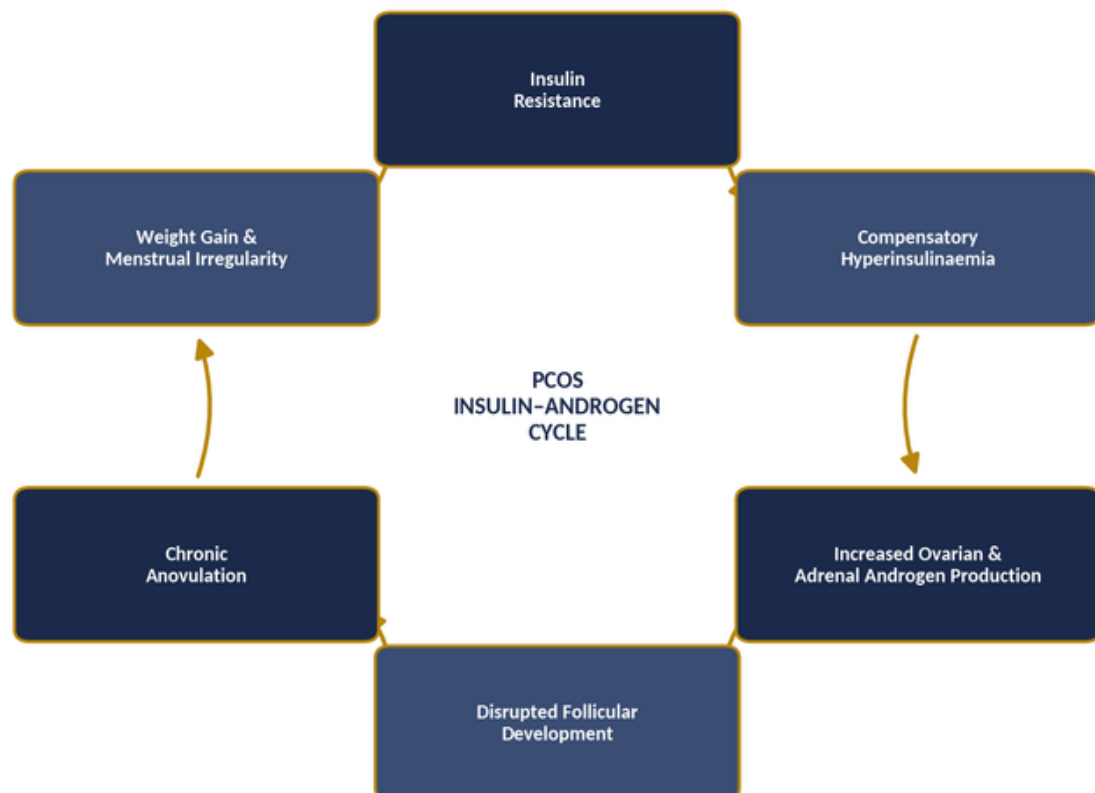


Figure 3. The Insulin Resistance – Hyperandrogenism Cycle in PCOS

Elevated androgens disrupt normal follicular development within the ovary, contributing to chronic anovulation and the characteristic multiple small follicles seen on ultrasound. This cycle is clinically significant because it explains why weight management and insulin-sensitising interventions can meaningfully improve both metabolic and reproductive symptoms, even without directly targeting the ovary.

5. DIAGNOSTIC EVALUATION

A responsible approach to suspected PCOS begins with structured clinical assessment and targeted investigation to apply the Rotterdam criteria accurately and exclude mimicking conditions.

Assessment	Purpose
Menstrual & Symptom History	Assesses cycle regularity, acne, hirsutism pattern and onset
Serum Testosterone / Free Androgen Index	Confirms biochemical hyperandrogenism
TSH, Prolactin, 17-Hydroxyprogesterone	Excludes thyroid disease, hyperprolactinaemia, adrenal hyperplasia
Pelvic Ultrasound (Transvaginal Where Appropriate)	Assesses ovarian morphology and follicle count
Fasting Glucose / Oral Glucose Tolerance Test	Screens for insulin resistance and glucose intolerance

Fasting Lipid Panel	Assesses associated cardiometabolic risk
---------------------	--

No single test should be interpreted in isolation. Diagnosis in adolescents requires particular caution, as irregular cycles and some acne are common in the years following menarche and do not, by themselves, confirm PCOS.

6. RED FLAG PRESENTATIONS REQUIRING PROMPT ASSESSMENT

- Absence of menstruation for more than 3 months, or very heavy or prolonged bleeding — warrants evaluation, including exclusion of endometrial concerns from prolonged unopposed oestrogen exposure.
- Rapid-onset or severe hirsutism or virilisation (deepening voice, significant hair loss) — raises concern for an androgen-secreting tumour requiring urgent specialist referral.
- Signs of significant insulin resistance (acanthosis nigricans, rapid weight gain) — warrants metabolic work-up.
- Significant mood disturbance, anxiety or depression, which are more common among women with PCOS — requires prompt mental health support.

- Difficulty conceiving after 12 months of trying (or 6 months if aged 35+) — warrants fertility-focused evaluation and referral.

7. MODERN MANAGEMENT OF PCOS/PCOD

Management is individualised according to the woman's presenting concern — metabolic, dermatological, menstrual or fertility-related — and life stage.

- Lifestyle Modification: Structured dietary change, regular physical activity and weight management, effective in improving both metabolic and reproductive parameters even with modest weight reduction.
- Metabolic Therapy: Metformin or other insulin-sensitising agents for selected women with insulin resistance.
- Hormonal Management: Combined oral contraceptives for cycle regulation and management of acne/hirsutism, where appropriate and not contraindicated.
- Fertility Treatment: Ovulation induction (e.g., letrozole) as first-line therapy for women with PCOS-related infertility, with assisted reproduction for non-responders.

- Dermatological & Psychological Support: Targeted treatment for acne and hirsutism, and psychological support given the recognised link between PCOS and anxiety/depression.

8. THE METABOLIC AND CARDIOVASCULAR CONNECTION

Women with PCOS, particularly those with hyperandrogenic phenotypes, face an approximately 2.5-fold increased risk of developing type 2 diabetes and elevated cardiovascular risk compared with the general female population, independent of body weight. PCOS is also associated with increased rates of non-alcoholic fatty liver disease and, due to chronic anovulation, an elevated long-term risk of endometrial cancer if left unaddressed.

A holistic assessment should therefore include attention to metabolic risk factors, cardiovascular health and long-term endometrial protection, alongside the presenting reproductive or dermatological concern.

9. AYURVEDIC AND HOLISTIC WELLNESS PERSPECTIVE

Ayurvedic literature describes PCOS-related presentations under Artava Kshaya and related menstrual disorders, with traditional emphasis on Kapha-Vata imbalance, impaired Agni (digestive-metabolic fire) and Ama accumulation, correlating conceptually with the modern understanding of insulin resistance. Traditional management emphasises Ahara (diet), Vihara (lifestyle), Vyayama (exercise) and Rasayana (rejuvenative) approaches.

Responsible holistic integration means that Ayurvedic dietary science, weight-management support, stress reduction and appropriate physical activity guidance may complement conventional PCOS care by supporting general metabolic and reproductive wellbeing — but must never be presented as a substitute for verified diagnosis, metabolic screening, or fertility treatment where clinically indicated.

10. PANCHAKARMA: THE NEED FOR

RESPONSIBLE INTEGRATION

Panchakarma represents an important therapeutic system within Ayurveda, with several procedures historically directed at menstrual and metabolic disorders. Its use in individuals with PCOS requires careful assessment of metabolic status, pregnancy status, current fertility treatment plans and general health, given the physiological demands some procedures place on the body.

Within appropriately supervised settings, general categories such as structured Ahara-based dietary correction, Udvartana (herbal powder massage) and mild, individualised Basti or Virechana protocols have been discussed in traditional literature as supportive measures for metabolic and menstrual wellbeing. Any such intervention requires practitioner-level clinical judgement, is contraindicated during suspected or confirmed pregnancy or active fertility treatment cycles without specialist coordination, and must be sequenced around — never in place of — medical management.

Panchakarma should not be promoted as a treatment for confirmed androgen-secreting tumours, as a substitute for ovulation induction in women actively pursuing pregnancy, or as an unsupervised intervention during fertility treatment cycles.

11. THE SR VAIDYA HOLISTIC WELLNESS FRAMEWORK

The following integrative framework is proposed for responsible holistic wellness education in PCOS/PCOD care, structured around the Institute's name to support ease of recall among practitioners and patients alike.

Figure 4. The SR VAIDYA Integrative Framework for PCOS/PCOD Wellness Education (S-R-V-A-I-D-Y-A)

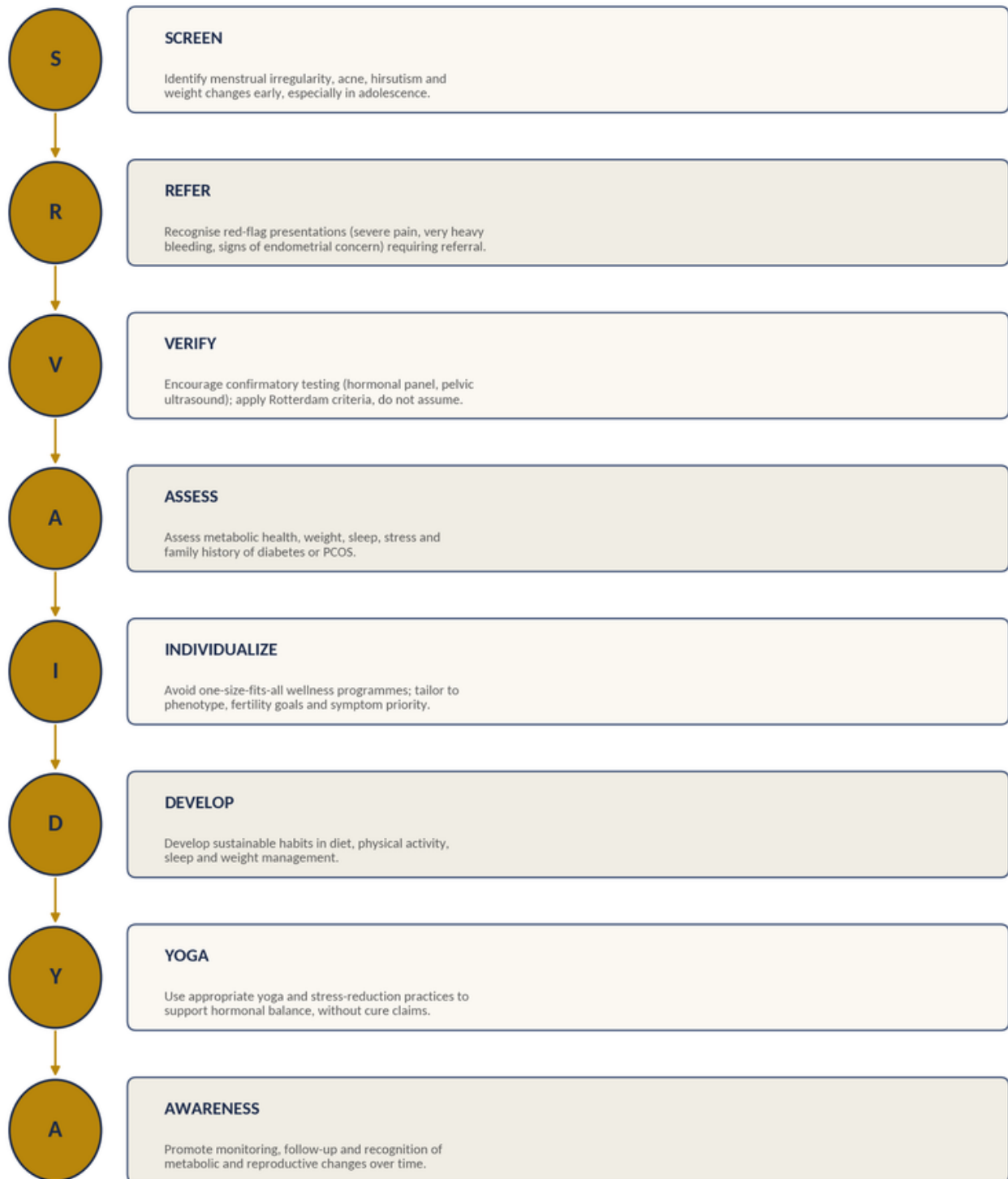


Figure 4. The SR VAIDYA Integrative Framework for PCOS/PCOD Wellness Education (S-R-V-A-I-D-Y-A)

12. ROOT-FACTOR ANALYSIS: A SCIENTIFICALLY RESPONSIBLE APPROACH

PCOS does not arise from a single root cause. A more scientifically defensible concept is Root-Factor Analysis, which identifies multiple hormonal, metabolic, genetic, reproductive, dermatological, psychological and lifestyle factors contributing to an individual's overall presentation and treatment response.

Figure 5. Root-Factor Analysis Wheel for PCOS/PCOD
(Multidimensional Contributing Domains)



Figure 5. Root-Factor Analysis Wheel for PCOS/PCOD (Multidimensional Contributing Domains)

13. EVIDENCE GRADING OF KEY CLAIMS

In keeping with the Institute's evidence-grading standard, the principal claims discussed in this paper are graded below as Strong, Moderate or Weak, reflecting the current weight of peer-reviewed evidence.

Claim	Evidence Grade	Basis
PCOS affects 8–13% of women of reproductive age, with ~70% undiagnosed globally	Strong	WHO fact sheet, 2023; multiple meta-analyses
Insulin resistance is central to PCOS pathophysiology in most phenotypes	Strong	Extensive endocrinology and reproductive medicine literature
Weight loss of 5–10% improves ovulation and metabolic parameters in PCOS	Strong	Multiple randomised controlled trials
Letrozole is first-line therapy for ovulation induction in PCOS-related infertility	Strong	Large randomised controlled trials (e.g., Legro et al., 2014)
Structured yoga and stress-reduction practices improve menstrual regularity as adjunctive therapy	Moderate	Emerging randomised data; heterogeneous study quality
Specific Ayurvedic herbal formulations reverse PCOS comparably to standard therapy	Weak	Limited, heterogeneous trials; insufficient for treatment substitution
Panchakarma alone resolves confirmed androgen-secreting tumours or infertility	Weak / Unsupported	No robust controlled evidence; contraindicated as sole therapy

--	--	--

14. DISCUSSION

The future of PCOS/PCOD care increasingly requires integration without exaggeration. Conventional medicine provides diagnostic precision, metabolic and hormonal therapy, and fertility treatment where indicated. Holistic wellness can contribute through dietary education, weight-management support, stress reduction and patient empowerment, particularly given the substantial psychological burden associated with PCOS.

A successful integrative model should therefore be evidence-aware, patient-centred, safety-oriented, referral-conscious, lifestyle-focused and individualised — consistent with the approach adopted throughout this paper.

15. PROPOSED CONFERENCE RECOMMENDATIONS

- Recommendation 1: Encourage accurate application of the Rotterdam criteria rather than

diagnosis based on ultrasound findings alone.

- Recommendation 2: Train wellness practitioners to recognise red-flag presentations requiring urgent gynaecological or endocrine referral.
- Recommendation 3: Focus lifestyle interventions on sustainable metabolic and reproductive health rather than claiming to cure PCOS.
- Recommendation 4: Improve awareness and screening to close the substantial global under-diagnosis gap identified by WHO.
- Recommendation 5: Individualise Ayurvedic and Panchakarma interventions and never delay fertility treatment or metabolic screening.
- Recommendation 6: Conduct ethically designed observational and controlled studies of integrative wellness approaches in PCOS.
- Recommendation 7: Study quality of life, psychological wellbeing, metabolic and menstrual outcomes without unsupported cure claims.

16. FUTURE RESEARCH PROPOSAL FOR SR VAIDYA HOLISTIC WELLNESS RESEARCH INSTITUTE

Proposed Title: “Effect of a Structured Holistic Lifestyle Programme on Metabolic Parameters, Menstrual Regularity and Quality of Life in Women with PCOS Receiving Standard Medical

Care.”

Study Type: Prospective observational study or pilot randomised controlled study.

Participants: Women with Rotterdam-criteria-confirmed PCOS under active medical management, target sample size 100–130 participants across two sites.

Standard Care: Participants continue prescribed medical management throughout the study.

Holistic Components: Structured dietary counselling, physical activity guidance, sleep hygiene, stress-management practices and appropriate yoga-based wellness practices delivered within professional scope over a 12-week intervention period.

Primary Endpoint: Change in menstrual cycle regularity and HOMA-IR (insulin resistance index) at 12 weeks. Secondary Endpoints: quality-of-life score, body weight, and psychological wellbeing measures.

Important Principle: The study should investigate whether a structured holistic lifestyle programme improves metabolic and reproductive parameters and quality of life as an adjunct to standard medical

care, rather than claiming to cure PCOS.

17. CONCLUSION

PCOS/PCOD is the most common endocrine disorder among women of reproductive age, yet remains substantially underdiagnosed worldwide. The relationship between insulin resistance, hyperandrogenism, reproductive function and psychological wellbeing requires both precise medical evaluation and sustained lifestyle support.

SCREEN → VERIFY → REFER → SUPPORT → FOLLOW UP

Holistic wellness has an important role in promoting healthy lifestyle behaviours, metabolic health, stress management and patient awareness. However, responsible integration requires clear boundaries.

MEDICAL DIAGNOSIS PROVIDES CLARITY. LIFESTYLE PROVIDES FOUNDATION. HOLISTIC WELLNESS PROVIDES SUPPORT. RESPONSIBLE REFERRAL PROVIDES SAFETY.

ACKNOWLEDGEMENT

The author acknowledges the importance of

interdisciplinary dialogue between conventional medicine, gynaecology, endocrinology, reproductive medicine, Ayurveda, lifestyle medicine and holistic wellness research in developing patient-centred and scientifically responsible approaches to PCOS/PCOD.

REFERENCES

World Health Organization. (2023). Polycystic ovary syndrome [Fact sheet]. WHO Press.

<https://www.who.int/news-room/fact-sheets/detail/polycystic-ovary-syndrome>

Teede, H. J., Tay, C. T., Laven, J. J. E., Dokras, A., Moran, L. J., Piltonen, T. T., Costello, M. F., Boivin, J., Redman, L. M., Boyle, J. A., Norman, R. J., Mousa, A., & Joham, A. E. (2023). Recommendations from the 2023 International Evidence-based Guideline for the Assessment and Management of Polycystic Ovary Syndrome. *Fertility and Sterility*, 120(4), 767–793.

Naeimeh, T., & colleagues. (2024). Global prevalence of polycystic ovary syndrome in women worldwide: A comprehensive systematic review and meta-analysis. *Archives of Gynecology and Obstetrics*, 310(3), 1303–1314.

Liu, J., Wu, Q., Hao, Y., Jiao, M., Wang, X., Jiang, S., & Han, L. (2021). Measuring the global disease burden

of polycystic ovary syndrome in 194 countries: Global Burden of Disease Study 2017. *Human Reproduction*, 36(4), 1108–1119.

Legro, R. S., Brzyski, R. G., Diamond, M. P., Coutifaris, C., Schlaff, W. D., Casson, P., Christman, G. M., Huang, H., Yan, Q., Alvero, R., Haisenleder, D. J., Barnhart, K. T., Bates, G. W., Usadi, R., Lucidi, S., Baker, V., Trussell, J. C., Krawetz, S. A., Snyder, P., ... Zhang, H. (2014). Letrozole versus clomiphene for infertility in the polycystic ovary syndrome. *New England Journal of Medicine*, 371(2), 119–129.

Cooney, L. G., Lee, I., Sammel, M. D., & Dokras, A. (2017). High prevalence of moderate and severe depressive and anxiety symptoms in polycystic ovary syndrome: A systematic review and meta-analysis. *Human Reproduction*, 32(5), 1075–1091.

Moran, L. J., Hutchison, S. K., Norman, R. J., & Teede, H. J. (2011). Lifestyle changes in women with polycystic ovary syndrome. *Cochrane Database of Systematic Reviews*, 7, CD007506.

A. SUDHAKAR

Qualified Ayurvedic Therapist | Panchakarma Specialist

SR VAIDYA™ HOLISTIC WELLNESS RESEARCH INSTITUTE

