

Integrative Approach To Fitness: Exploring The Impact of Yoga and Calisthenics on Psycho- Physical Variables in Women With “Polycystic Ovary Syndrome (Pcos)”

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Abstract

“Polycystic Ovary Syndrome (PCOS)” is a complex illness that impacts the physical health, “mental health”, and overall quality of existence of women. An important non-pharmacological approach to PCOS management is modifying one's lifestyle, with a focus on regular scheduled physical exercise. The present study explores an integrative fitness approach, combining yoga and calisthenics, to evaluate its impact on selected psycho-physical variables in women with PCOS.

A quantitative experimental design was employed, involving sixty women diagnosed with PCOS who participated in an eight-week supervised yoga and calisthenics training program. Data were collected using a self-structured 5-item Likert scale questionnaire assessing stress reduction, emotional balance, energy levels, physical fitness, and body confidence. Frequency distribution analysis was used to examine response patterns.

Findings revealed a predominantly positive trend across all variables, with the majority of participants reporting improvements in both psychological and physical domains. The results suggest that integrating yoga's mind-body benefits with the functional and metabolic advantages of calisthenics offers a holistic and effective intervention for women with PCOS.

Keywords: PCOS, Yoga, Calisthenics, Psychological Well-being.

1.0 Introduction

“Polycystic Ovary Syndrome (PCOS)” is a metabolic condition that affects a large percentage of reproductive-aged women and is among the most common endocrine- Its symptoms include metabolic irregularities in addition to reproductive problems, psychological, and quality-of-life impairments. Dahn, R. (2023). Women with PCOS commonly experience menstrual irregularities, hyperandrogenism, obesity, dyslipidaemia, and insulin resistance, which together increase “long-term risks of cardiovascular disease and type 2 diabetes”. (Woodward, 2021).

Lifestyle modification, particularly structured physical activity, is recognized as a first-line non-pharmacological strategy in PCOS management. Exercise interventions have demonstrated beneficial effects on metabolic parameters, cardiovascular risk, and mental well-being, especially among overweight and sedentary women with PCOS. However, traditional exercise prescriptions often emphasize either aerobic or resistance training, which may not sufficiently address the holistic psycho-physical needs of this population. (Patten, 2021).

Yoga has emerged as a promising complementary intervention for women with PCOS due to its combined effects on physical fitness, stress reduction, hormonal balance, and quality of life Piersol, K. L. (2024). A recent research protocol comparing calisthenics and yoga underscores the potential of these modalities to influence health-related quality of life and metabolic parameters in PCOS (Bulbuli et al., 2024).

Despite growing evidence supporting individual exercise modalities, limited empirical work has examined an integrative fitness approach that combines yoga and calisthenics. Such a model may offer synergistic benefits by integrating the mindfulness and autonomic regulation of yoga with the functional strength and cardiovascular advantages of calisthenics. Specifically, it aims to assess changes in psycho-physical health, selected psychological variables, and physical fitness outcomes following structured integrative training, thereby contributing to more holistic and sustainable lifestyle intervention strategies for PCOS management.

2.0 Literature Review

Existing research provides compelling evidence that physical activity helps women with PCOS achieve better metabolic, reproductive, and psychological outcomes. Exercise-based interventions have been demonstrated to improve lipid profiles, lower body fat, increase insulin sensitivity, and improve mental health and self-perceived well-being. In a thorough doctoral study, Patten (2021) found that organized exercise programs improve metabolic bodily and mental effects in overweight PCOS women, stressing the need of regular exercise as an integral part of PCOS treatment.

Early randomized controlled trials showed that yoga greatly enhances menstrual regularity, stress levels, and quality of life in young women and adolescents with PCOS “(Nidhi et al. 2013)”. These results have been extended to adult and infertile populations in more recent studies, which show improvements in body composition, metabolic parameters, and psychosocial well-being after structured yoga programs (Patil et al. in 2023). Priyadarshini and Ramakrishnans' (2025) bibliometric analysis reveals consistent evidence of yoga's benefits in the physical, hormonal, and psychological domains, underscoring the growing scholarly interest in the practice for PCOS. Insufficient physical activity increases the risk of cardiovascular disease, whereas regular exercise promotes long-term cardiometabolic protection, according to Woodward (2021) and Vizza, L. (2015). Movement-based interventions may be protective for mental health, as evidenced by a cross-sectional study carried out in Qatar that found lower levels of physical activity among women with PCOS were significantly associated with higher psychological distress (Almarri 2024).

Exercise and yoga as stand-alone interventions are strongly supported by these studies, but new research indicates that comparative and integrative approaches are necessary. Bulbuli & Co. (2024) suggested a protocol comparing yoga and calisthenic exercises with an emphasis on PCOS ultrasonography results, anthropometry, lipid profiles, and health-related quality of life.

The effectiveness of yoga and exercise in treating PCOS-related psycho-physical issues has been demonstrated by research. However, there is little data on integrative therapies that combine functional strength training with mind-body techniques. This gap justifies the current study, which offers a more comprehensive framework for lifestyle-based intervention by examining the combined effects of yoga and calisthenics on psychological variables and physical fitness in “women with PCOS.”

3.0 Methodology

The study employed a quantitative experimental design to assess the impact of a fitness intervention combining yoga and calisthenics on psycho-physical variables in women with “Polycystic Ovary Syndrome (PCOS). Sixty women aged 18 to 35, diagnosed with PCOS”, were purposively sampled from urban health centers. Data were gathered using a self-structured Likert scale questionnaire assessing stress reduction, body image, energy levels, emotional balance, and overall physical fitness, with responses analyzed through frequency distribution statistics.

4.0 Data Analysis

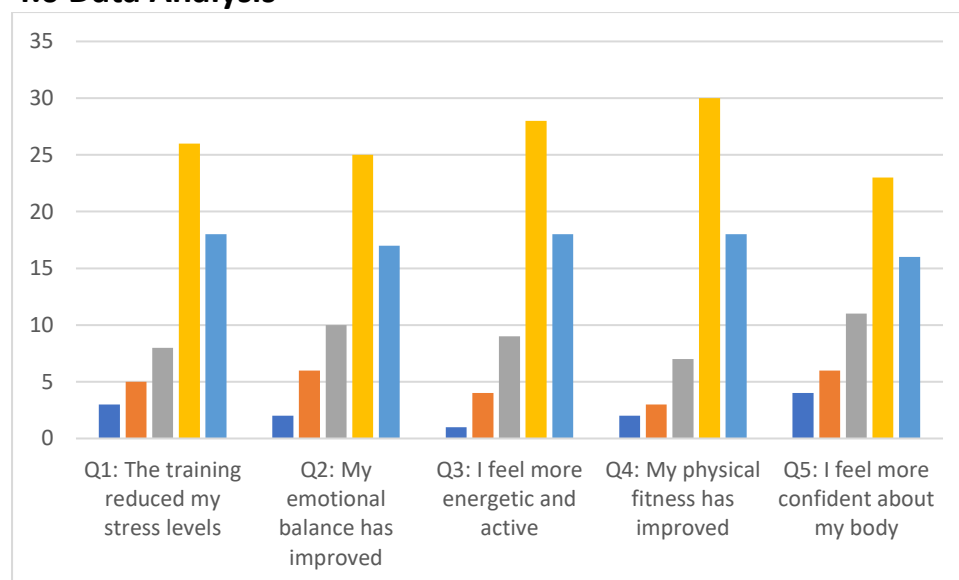


Fig 4.1 Graphical Representation of Data

Table 4.1 Frequency Distribution of Responses

Question Statement	SD	D	N	A	SA
Q1: The training reduced my stress levels	3	5	8	26	18
Q2: My emotional balance has improved	2	6	10	25	17
Q3: I feel more energetic and active	1	4	9	28	18
Q4: My physical fitness has improved	2	3	7	30	18

Q5: I feel more confident about my body	4	6	11	23	16
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The frequency distribution analysis indicates a positive response pattern across all five psychophysical dimensions in the study. A significant majority (44 out of sixty participants) agreed that the integrative yoga and calisthenics program effectively reduced stress. Additionally, forty-two participants expressed similar sentiments regarding emotional balance, highlighting the intervention's role in supporting emotional regulation amidst anxiety and mood disorders prevalent in women with PCOS. Notably, nearly 80% of participants reported improvements in physical fitness, underscoring the model's effectiveness in enhancing strength and flexibility. Although responses regarding body confidence were more mixed, with thirty-nine participants showing positive feedback, the overall findings suggest that the integrative approach leads to significant physical and psychological benefits, making it suitable for comprehensive management of PCOS.

5.0 Conclusion

The current study shows that women with “Polycystic Ovary Syndrome” benefit from an integrative fitness program that combines yoga and calisthenics on psycho-physical variables. The results show that after structured training, stress levels, emotional equilibrium, energy, physical fitness, and body confidence significantly improved. These findings encourage the inclusion of exercise-based non-pharmacological methods in PCOS management programs, especially for women looking for long-term comprehensive health solutions. Despite the study's reliance on descriptive analysis and self-reported measures, it offers significant initial evidence supporting the usefulness of integrative fitness models. It is advised that future studies use controlled experimental designs and inferential statistics to increase applicability and strengthen causal conclusions.

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