

Effect of Pilates Exercise on Body Composition and Quality of Life in Women with Polycystic Ovarian Syndrome: A Randomised Control Trial

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ABSTRACT

Introduction: Polycystic ovarian syndrome (PCOS) is a common endocrine disorder affecting women in their reproductive age. Lifestyle modification including diet, exercise and behavioural changes is the first line of treatment in PCOS. Clinical mat Pilates, a practical rehabilitation method, is a mind-body exercise approach, which includes stretch-strength exercises, deep breath and concentration. This study aims to find the effect of Pilates exercise on body composition and quality of life in women with PCOS.

Methods: The study was a randomised, single blinded, passive control, parallel group trial. 57 women with a mean age of 22.50 ± 2.35 years and diagnosed with PCOS were randomly divided into Pilates and control group. The Pilates group received online Pilates exercise for 60 minutes/session, three times/week for eight weeks along with a lifestyle modification pamphlet. The control group performed aerobic exercises for the same duration based on the recommendations received in the pamphlet. Pre and post assessment for body composition, using bioelectrical impedance and waist circumference, and for quality of life by polycystic ovary syndrome questionnaire was done by a blinded assessor. Intra-group analysis was done using matched t-test and Wilcoxon Signed rank test. Inter-group analysis was done using unmatched t-test and Mann Whitney-U test with alpha set at $p \leq 0.05$ at 95% CI.

Results: Pilates is effective in reducing total body weight, waist circumference, body fat percent, BMI, visceral fat and all domains of quality of life ($p \leq 0.05$) but does not offer any additional benefits for improvement of muscle mass ($p = 0.65$) in women with PCOS.

Conclusions: Pilates exercise is an effective method in improving body composition and quality of life in women with PCOS.

Keywords: PCOS, BMI, Pilates

