

# Fertility Quality of Life among Women with Polycystic Ovary Syndrome

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## INTRODUCTION

Polycystic ovary syndrome (PCOS) is a common endocrinological disorder that affects 15 to 20% of women of childbearing age worldwide. PCOS is characterized by a high level of insulin resistance which leads to dysfunction of the hypothalamic-pituitary-ovarian axis, leading to anovulation and menstrual irregularity [2- 6]. PCOS is the most widely recognized reason for ovulatory infertility. About 90% to 95% of women on ovulation visiting infertility clinics suffer from PCOS. According to previous psychosocial studies, it is known that infertility and its treatment could lead to emotional and psychological stress [8-9] and thus threaten the quality of life (QoL) of infertile women. However, emotional distress has been considered a contributing factor to infertility [10]. Because of the intertwined relationship between infertility and quality of life, the integration of quality of life assessment into clinical practice for infertility problems should become a standard of care for infertile women. In the past, various generic measurement tools have been used to assess the quality of life in infertile patients. Recently, a condition-specific quality of life measurement tool, specifically designed for infertile couples, has been developed and used internationally: the Quality of Life in Fertility Questionnaire (FertiQoL). This tool has been shown to have good psychometric properties and its usefulness has been validated in a Dutch study comparing the FertiQoL tool to generic quality of life measurement instruments. We studied 86 consecutive patients in a multicenter, randomized, double-blind, placebo-controlled study evaluating the effectiveness of cinnamon supplement for the treatment of PCOS. To our knowledge, no data has been published regarding the quality of life in fertility of women with PCOS in Saudi Arabia. Our aim of this study is to understand the level of quality of life in sterile PCOS women in Saudi Arabia and to serve as a reference for clinical quality of life counseling and future studies.

## MATERIALS AND METHODS

Patients Patients participated in a randomized cinnamon supplement trial in PCOS in Jeddah. In short, patients were eligible if they met the Rotterdam criteria for oligomenorrhea or amenorrhea of polycystic ovary syndrome and either: (a) clinical or biochemical evidence of hyperandrogenism, or (b) ultrasound findings of polycystic ovaries. This study was approved by the King Abdul-Aziz University Biomedical Ethics Unit, the Saudi Food and Drug Administration (SFDA), and registered with the Clinicaltrials.gov website. All participants gave written informed consent. Patients were randomized to receive

cinnamon or placebo at 2 g / d. All patients had received no hormone therapy for at least three months before the study. Patients, caregivers, and those who assessed and documented the results were blind to allocation. The assessments included data collected at baseline and after 12 weeks. Of these, 86 completed the FertiQoL questionnaires when they signed up for the study.

### Outcome measure

FertiQoL questionnaire: The FertiQoL tool is a self-report questionnaire. It is designed explicitly for infertile patients to assess their QoL by experts from the European Society of Human Reproduction and Embryology (ESHRE) and the American Society of Reproductive Medicine (ASRM) [15]. FertiQoL (36 items) consists of 24 items derived from four subscales (mind-body, emotional, social, and relational), ten treatment-related items, and two overall life and physical wellness items. FertiQoL was produced in English and has been translated into 20 languages; the Arabic version is available at (<http://www.fertiqol.org>).

Data analysis Statistical analysis was performed using the Statistical Package for the Social Sciences, version 25 (SPSS Inc. Chicago, IL, USA). Demographic and clinical characteristics were shown in mean  $\pm$  standard deviation for numerical variables and in number and percent for categorical variables. The statistical analyses included t-test for numerical outcomes and chi-square for categorical outcomes. Normality tests were assessed through Shapiro-Wilk tests carried out on each parameter before analysis. For the statistical analysis performed, a p-value of  $<0.05$  was considered significant.