

# ASSESSMENT OF THE IMPACT OF SELECTED SUPPLEMENTS SUPPORTING THE REPRODUCTIVE SYSTEM FUNCTIONING ON BODY COMPOSITION, SELECTED BLOOD BIOCHEMICAL PARAMETERS AND MENTAL HEALTH AMONG WOMEN WITH POLYCYSTIC OVARY SYNDROME

## INTRODUCTION

Polycystic ovary syndrome (PCOS) is the most frequently diagnosed endocrine disorder among women in reproductive age, with an estimated prevalence of 10–18%. PCOS women are at greater risk of insulin resistance, depressive disorders and sleep disorders than general population, while *Withania somnifera* and n-3 fatty acids are thought to be effective in improving selected blood parameters, reducing stress and supporting mental health.

## MATERIAL AND METHODS

**Sample:** female patients of the Endocrinology Outpatient Clinic (CSK UM)

**Procedure:**

- co-supplementation with folic acid, vitamin D<sub>3</sub>, *Withania somnifera* and plant-derived oil for 3 months,
- biochemical blood tests, standardised survey questionnaires: BDI-II; PSS-11; PSQI; IPAQ; FFQ-6.

## AIM OF THE STUDY

To evaluate the effects of co-supplementation of *Withania somnifera* extract and plant-derived oil, a source of n-3 fatty acids, on body composition, selected biochemical blood parameters and mental health in women with PCOS.

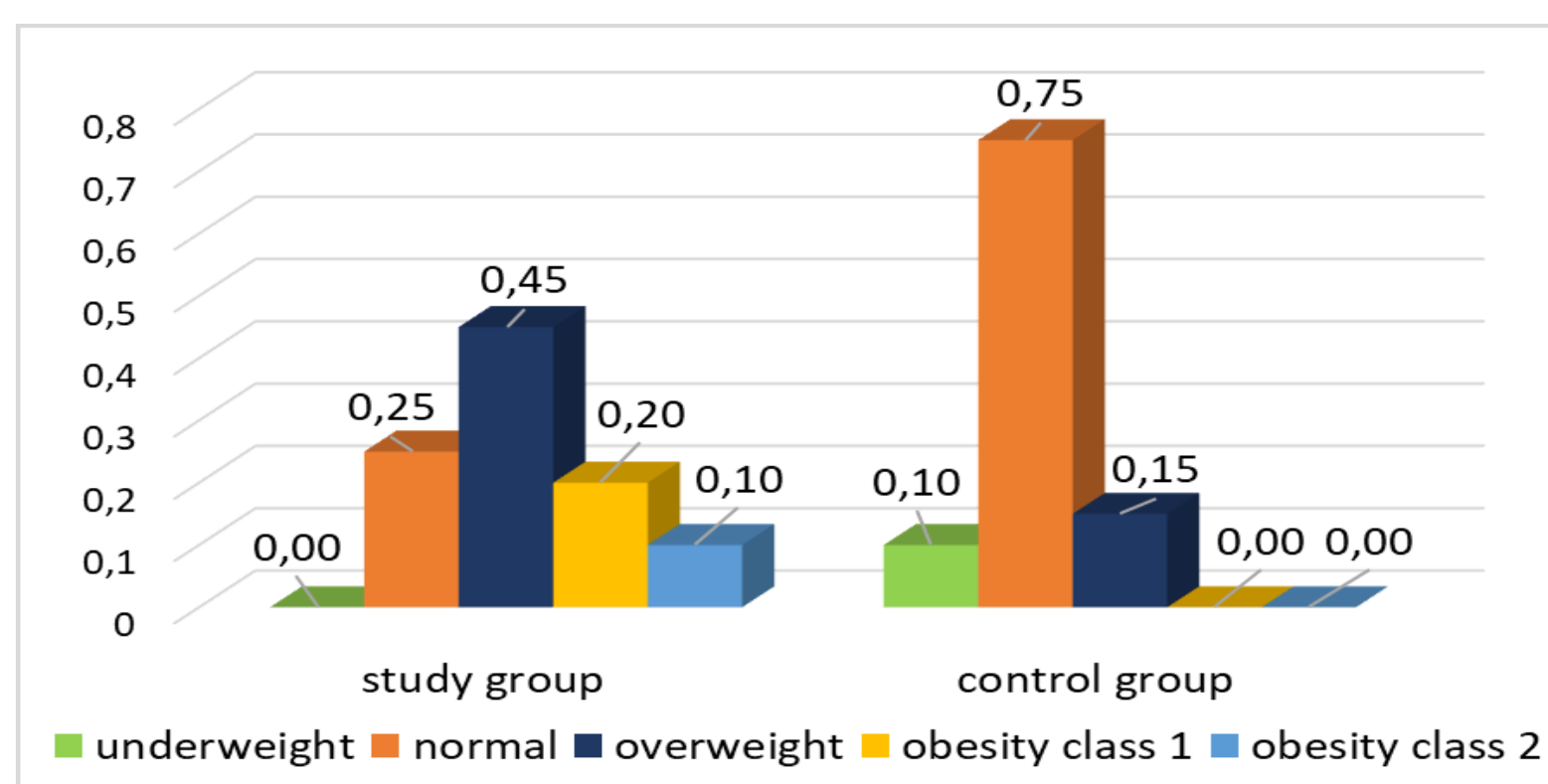


Figure 1. Interpretation of the BMI in fractions

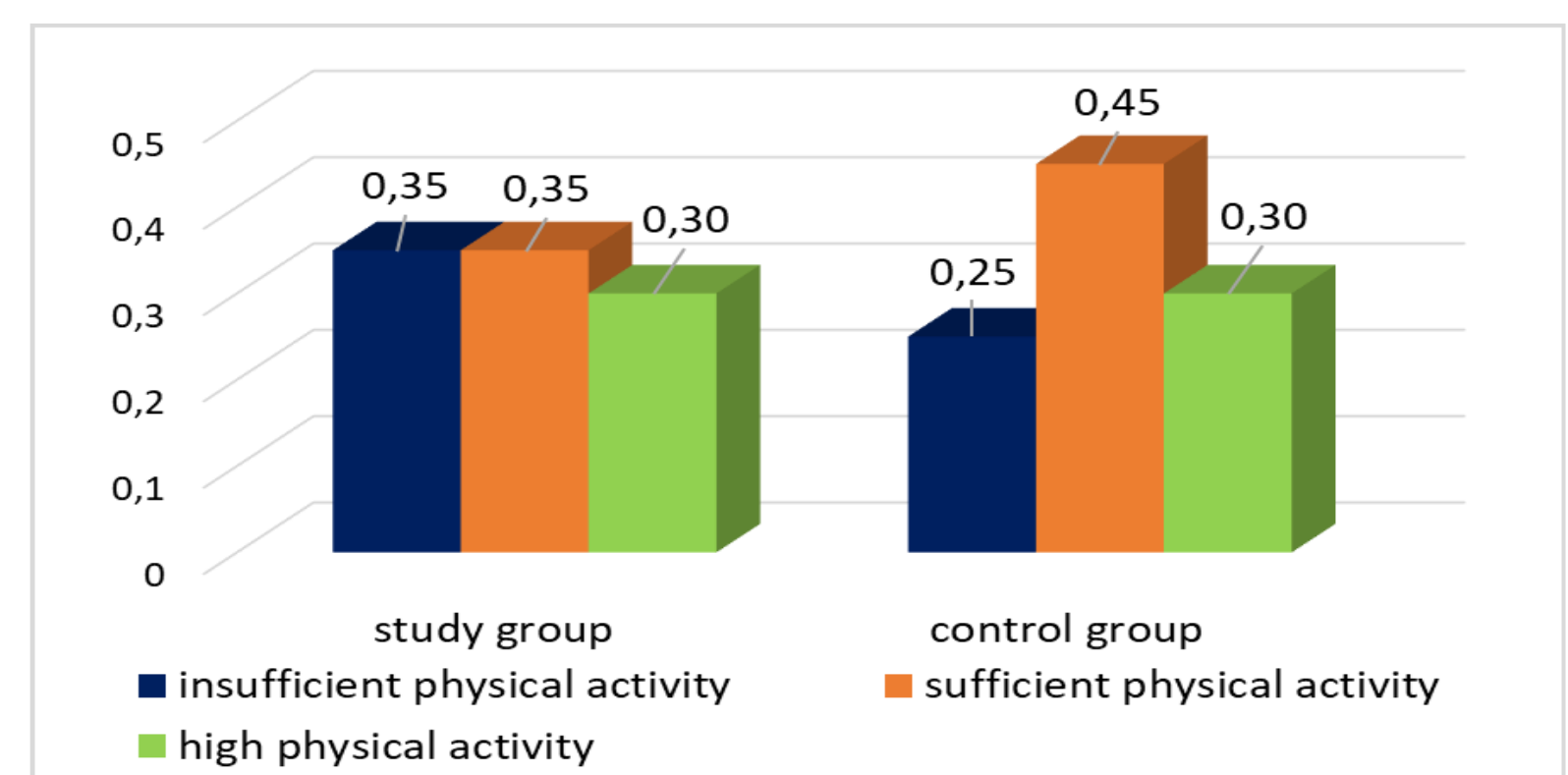


Figure 2. Interpretation of the IPAQ results in fractions

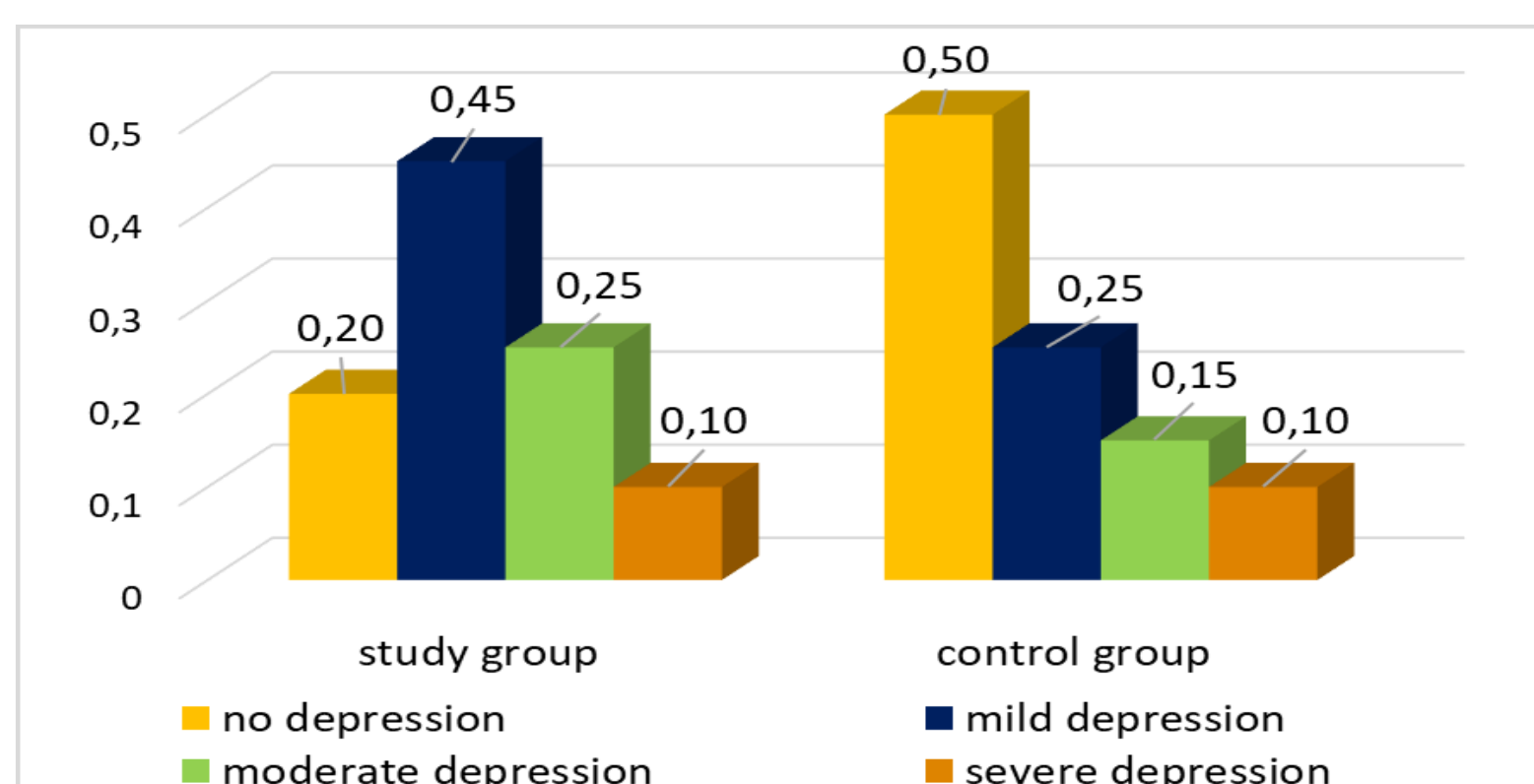


Figure 3. Interpretation of the BDI results in fractions

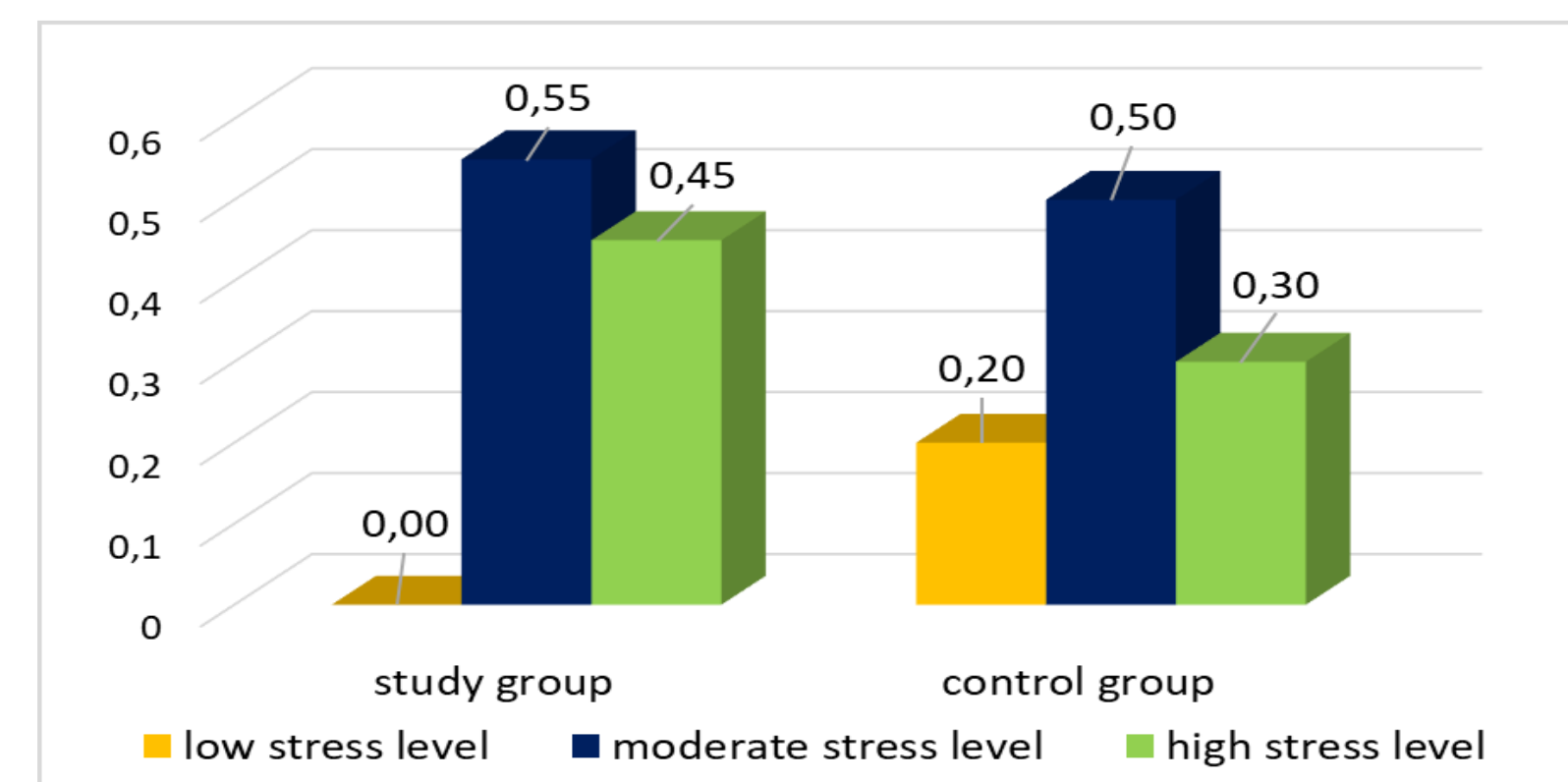


Figure 4. Interpretation of the PSS-10 results in fractions

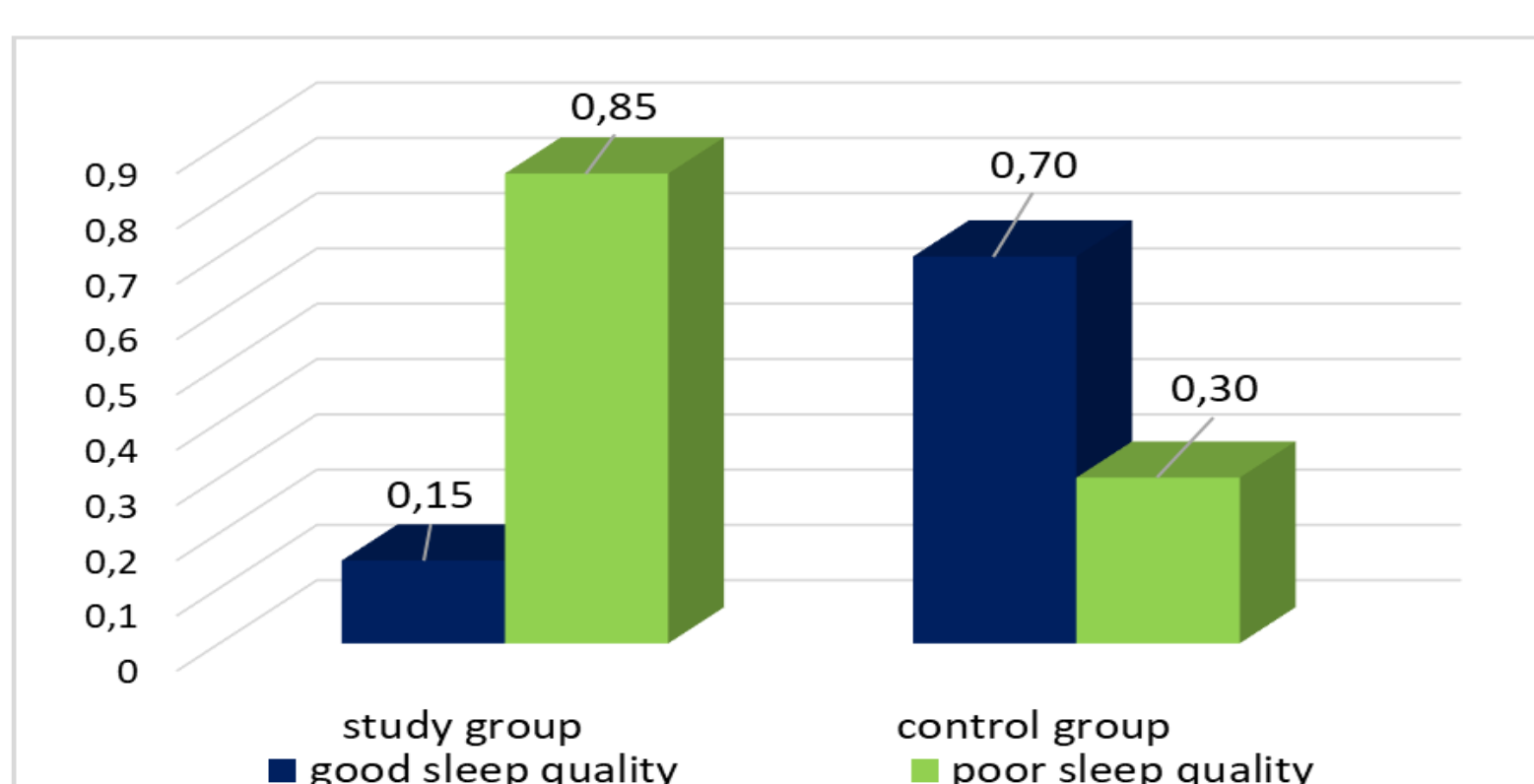


Figure 5. Interpretation of the PSQI results in fractions

Table 1. Statistical analysis results

Variables	Spearman's rank correlation	Significance level
depressive symptoms and stress level	rS=0.34	p<0.05
depressive symptoms and sleep quality	rS=0.54	

## PRELIMINARY RESEARCH RESULTS

The study involved 40 women aged 20-45 years (mean: 30.65±6.42 years in the study group; 30.75±6.91 years in the control group). PCOS was diagnosed between 2 and 140 months (mean: 3.96±3.09 years) before participation in the study. Almost ¾ of the women in both the study and control groups were in relationships, and participants diagnosed with PCOS were significantly more likely to report trying to conceive (f=0.65 vs. f=0.20).

## CONCLUSIONS

The relationship between severity of depressive symptoms and perceived stress level, as well as relationship between severity of depressive symptoms and sleep quality, were observed. The results obtained by women suffering from PCOS in the initial screening questionnaires indicate the need to implement methods supporting mental health and modulating cognitive functioning. However, further research with a larger sample size would be recommended.

**Keywords:** polycystic ovary syndrome, reproductive system, depression, sleep disorders

## WYRÓŻNIENIE

XVIII Ogólnokrajowa Konferencja Naukowa  
Młodzi Naukowcy w Polsce – Badania i Rozwój  
23 - 24 listopada 2023

Katarzyna Stańczyk

Czynny uczestnik konferencji naukowej w części stacjonarnej.

Temat: Zaburzenia depresyjne oraz jakość snu wśród kobiet z zespołem policystycznych jajników: badanie pilotażowe  
Forma: REFERAT

