

# ANTHROPOMETRIC MEASURES, BODY COMPOSITION AND SIGNS/SYMPTOMS OF DEPRESSION IN WOMEN WORKING IN A UNIVERSITY ENVIRONMENT

Ayse Suzel Martins Cosme<sup>1</sup>  
Pedro Henrique de Almeida Silva<sup>2</sup>  
Viviane Soares<sup>3</sup>

## ABSTRACT

Depression and obesity are two global diseases due to their health risk and incidence high, especially in women. Therefore, the relationship between depression and obesity is significant and has been extensively studied. However, the literature is still not consensual, it is only known that there is a bidirectional relationship between obesity and depression. This study aimed to verify the presence of women without signs and symptoms of depression (No-SSD) and with signs and symptoms of depression (WSSD) and to identify whether there is a relationship with obesity through anthropometric and body composition measurements. This is a cross-sectional observational study. The sample was recruited by convenience and a total of 212 women aged 18 to 59 years, active employees of two higher education institutions were evaluated. To assess the signs and symptoms of depression, the Beck inventory was used. For the assessment of obesity, anthropometric measurements of body mass index (BMI), waist circumference (WC) and waist-hip ratio (WHR) were used. The percentage of body fat (%BF) was calculated from the protocol of the seven skinfolds (DC) by the Siri formula. Data were described as mean and standard deviation and normality was assessed by Kolmogorov-Smirnov. The t-Student and the Mann-Whitney test were used to compare the groups and the Cohen d to assess the effect size. Multiple linear regression was used to verify whether the independent variables (body composition) were predictors of SSSD and CSSD women (dependent variables) and adjusted according to age and climacteric. The results showed that CSSD women had higher values for anthropometric measurements: BMI: [No-SSD:25.08 (4.54); CSSD:26.38 (4.36),  $p=0.033$ ], CC: [No-SSD:80.50 (10.37); CSSD:84.07 (11.92),  $p=0.033$ ], RCQ: [No-SSD:0.79 (0.07); CSSD:0.82 (0.09),  $p=0.005$ ] and body composition %BF: [No-SSD:38.99 (12.21); CSSD:43.69 (13.45),  $p=0.024$ ]. Multiple linear regression indicated that %BF was the parameter that most contributed (4.6%) to higher scores of signs and symptoms of depression in women. It is concluded that CSSD women presented high values for the parameters of body composition, indicating that there is a positive relationship between depression and obesity. Therefore, anthropometric and body composition measurements were considered predictors for the signs and symptoms of depression in women.

**Keywords:** depression; obesity; women.

---

<sup>1</sup>Mestranda, Universidade Evangélica de Goiás - UniEVANGÉLICA, Anápolis, Goiás, Brasil. E-mail: ayse.martins@ifpi.edu.br

<sup>2</sup>Doutorando, Universidade Evangélica de Goiás - UniEVANGÉLICA, Anápolis, Goiás, Brasil. E-mail: pedrohenri.educacaofisica@gmail.com

<sup>3</sup>Pós-Doutora, Universidade Evangélica de Goiás - UniEVANGÉLICA, Anápolis, Goiás, Brasil. E-mail: ftviviane@gmail.com