

Abstract

This study examines the relationship between sleep as a mediating factor towards diet quality and obesity outcomes for University Students in Greece and Indonesia. Obesity remains as a continuous concern worldwide, this is especially prevalent in University Students due to lifestyle changes, sleeping patterns and dietary habits. This comparative cross-sectional study aims to investigate whether any observed association between diet quality and obesity outcomes is mediated through sleep quality, and whether this association differs between Greece and Indonesia, beyond other well-known determinants. Diet quality was assessed through the Global Diet Quality Score (GDQS) and the NOVA classification system for the frequency of Ultra-processed food (UPF) intake. Sleep quality was assessed through the Pittsburgh Sleep Quality Index (PSQI), which was all self-reported. Body Mass Index (BMI), Waist Circumference (WC), and Waist-to-Hip Ratio (WHR) were the obesity indicators. A total of 204 students participated (113 Indonesia and 91 Greece). Results obtained showed there were significant associations between Ultra processed Foods consumption and BMI ($\rho = 0.156$, $p\text{-value} = 0.026$). In contrast, GDQS had shown inverse outcomes and most of the results were not statistically significant. As for sleep quality, the results suggested that there were no significant mediating effects with any of the indicators. Despite this, the study highlights the importance of diet and sleep to maintain good well-being. Furthermore, it is also worth noting that creating culturally specific interventions to tackle obesity problems is important due to differences. For future research a longitudinal study design should be applied to improve it.

Keywords: *Diet Quality, Greece, Indonesia, Mediating Factors, Obesity, Sleep Quality*