



The 13th European Nutrition Conference, FENS 2019, was held at the Dublin Convention Centre, 15-18 October 2019

# Low sleep and diet quality impact on well-being among Mexican college students

Maria Fernanda Zeron-Rugerio<sup>1,2</sup>, Ana Eugenia Ortega-Regules<sup>3</sup>, Maria Armida Patricia Porras-Loaiza<sup>3</sup>, Giovana Longo-Silva<sup>1,4</sup>, Trinitat Cambras<sup>5</sup> and Maria Izquierdo-Pulido<sup>1,2</sup>

<sup>1</sup>Department of Nutrition, Food Science and Gastronomy. School of Pharmacy and Food Science. University of Barcelona, Barcelona, Spain,

<sup>2</sup>Institut de Recerca en Nutrició i Seguretat Alimentària (INSA-UB) University of Barcelona, Barcelona, Spain, <sup>3</sup>Department of Health Sciences, School of Science, Universidad de las Americas Puebla, Puebla, Mexico, <sup>4</sup>Nutrition Faculty. Federal University of Alagoas, Alagoas, Brazil and

<sup>5</sup>Department of Biochemistry and Physiology. School of Pharmacy and Food Science. University of Barcelona, Barcelona, Spain

# Abstract

## Introduction

Understanding health behaviors, such as sleep and dietary patterns, is important for health promotion and disease prevention. College period is a complicated, difficult time to maintain healthy behaviors. In this regard, little is known about the impact of sleep and diet quality on well-being among college young adults. Hence, we aimed to study the impact of sleep and diet quality on well-being in college students.

### **Materials and Methods**

Three hundred-twelve Mexican college students (82% females;  $20.6 \pm 3.4$ years) were included in a cross-sectional study. Participants completed the following validated questionnaires: Well-being Index to assess well-being (high scores indicate high well-being), Pittsburg Sleep Quality Index for sleep quality (scores > 5 indicate poor sleep quality), and a validate version of the Health Eating Index for Mexican population to assess diet quality (scores > 80 indicate good diet quality). BMI and physical activity were also assessed. Scores were treated as continuous variables, and statistical analysis were performed using SPSS v24 and adjusted for confounding variables.

#### Results

Sixty-seven percent of our population showed a poor sleep quality and eighty-four percent needs to make changes in their diet in order to improve its quality. On the other hand, fifty-one percent of the studied population had a low well-being perception. Poor sleep quality (p < 0.001) and low diet quality (p < 0.001) associated with a lower well-being perception. In addition, poor sleep quality is associated with low diet quality (p < 0.05). Regarding food consumption, higher sweets (p < 0.001) and soft-drink (p < 0.001) intake was inversely associated with well-being scores. Likewise, high consumption of sweets (p < 0.05) and soft-drink (p < 0.05), and low fruit (p < 0.05) and cereal (p < 0.05) consumption are linked to poor sleep quality.

#### Discussion

Our results show that half of the studied population had a low well-being, and also that poor sleep and diet quality are frequent among college students. Interestingly, the fact that poor sleep and diet quality were associated to a lower perception of well-being highlights the importance of promoting sleep hygiene and diet quality among college students as an important strategy to improve well-being and health, even in young adults. In addition, we found that higher sweets and soft-drink consumption were associated to both low well-being perception and poor sleep quality. Hence, it is important to promote healthy habits regarding eating and sleeping well, in order to improve well-being perception among college students.

### **Conflict of Interest**

There is no conflict of interest