

Assessing sleep among the next generation of healthcare delivery professionals

Raissa Rossener¹
 Isabella Rocha Morais¹
 Maria Fernanda Caldeira¹
 Sergio Tufik²
 Helena Hachul^{1,2}

¹ FICSAE - Faculdade Israelita de Ciências da Saúde Albert Einstein, Saude da Mulher - São Paulo - SP - Brazil.

² UNIFESP, Psicobiologia - São Paulo - SP - Brazil.

Recently, Barahona-Correa et al.¹ published an article entitled: “*Sleep disturbances, academic performance, depressive symptoms and substance use among medical students in Bogota, Colombia*”. It was a cross-sectional study with medical students from Pontificia Universidad Javeriana. The aim of the study was to evaluate sleep disturbances among medical undergraduates and the possible associations with depressive symptoms, academic achievement and substance use. The authors applied the *Pittsburgh Sleep Quality Index* (PSQI), the *Epworth Sleepiness Scale* (ESS), the *Berlin Questionnaire* (BQ) and the *Diagnostic and Statistical Manual of Mental Disorders - IV* and assessed use of both stimulants and tranquilizers. The results demonstrated that poor sleep quality is very common amongst the students and is associated with anxiety, depressive mood, reduced academic performance, daytime sleepiness, obstructive sleep apnea and use of psychotropic substances.

This is an interesting article on an important theme, as the quality of life of medical students and health professionals has a close association with the quality of care delivered. Therefore, we are writing to suggest other areas that could be evaluated in future to further enrich the outcomes and possible benefits of the current study in general, and particularly in relation to factors that affect women.

Sleep is one of the physical components of quality of life and is important to mental, physical and social well-being². According to Marques et al.³, among college students poor sleep quality is intrinsically related to a poor quality of life. As Barahona-Correa et al.¹ found, sleep disturbances are more common in medical students than in the general population, and they have a high rate of poor sleep quality (65.7%). According to a number of other studies, this can lead to reduced concentration and motivation, impaired decision-making and leadership capacities⁴, important attributes during graduation.

The article reported a high frequency of students who fulfilled the criteria for major depression (26%). A Brazilian study also demonstrated an increased number of mental health and sleep problems among medical students, including stress, anxiety, depression, low sleep quality and excessive daytime sleepiness⁵. These conditions can be correlated to the presence of insomnia, which could be evaluated using specific questionnaires such as the Insomnia Severity Index. Insomnia is a prevalent sleep disturbance⁶, especially in women, who generally report more sleep problems than men^{7,8}.

It is, therefore, important to analyze the influence of gynecological factors on medical students' sleep quality. Poor sleep quality is usually related to different factors in women's lives, such as pregnancy, menopause and menstruation⁸, which are related to changes in the levels of ovarian hormones. Premenstrual syndrome (PMS) and the use of hormonal contraception are also variables that impact their sleep quality and functionality^{9,10}. Women who suffered from PMS reported poor perceived sleep quality in an epidemiological study from São Paulo, Brazil, while women who used hormonal contraceptives had better sleep quality when compared to those who did not use these methods¹⁰. Although no differences between genders were observed in the study¹,

Corresponding author:

Helena Hachul
 E-mail: helenahachul@gmail.com

Received: Month March 19, 2019;
 Accepted: Month October 7, 2019.

DOI: 10.5935/1984-0063.20190129

these gynecological factors can influence medical students' sleep quality and should be taken into account to help healthcare professionals and medical courses to understand the differences between men and women during graduation and how gynecological factors can impact so many aspects of women's lives.

We congratulate the authors on their study, since it can lead to important measures aimed at mitigating the issues encountered. Collectively, exploring these areas in future, studies will allow sleep and the possible negative effects of poor sleep quality, to be explored in even details in the next generation of healthcare professionals.

REFERENCES

1. Barahona-Correa JE, Aristizabal-Mayor JD, Lasalvia P, Ruiz AJ, Martínez PH. Sleep disturbances, academic performance, depressive symptoms and substance use among medical students in Bogota, Colombia. *Sleep Sci.* 2018;11(4):260-8.
2. Fleck MPA. O instrumento de avaliação de qualidade de vida da Organização Mundial da Saúde (WHOQOL-100): características e perspectivas. *Ciênc Saúde Coletiva.* 2000;5(1):33-8.
3. Marques DR, Meia-Via AMS, Silva CF, Gomes AA. Associations between sleep quality and domains of quality of life in a non-clinical sample: results from higher education students. *Sleep Health.* 2017;3(5):348-56.
4. Portela LF, Luna CK, Rotenberg L, Silva-Costa A, Toivanen S, Araújo T, et al. Job strain and self-reported insomnia symptoms among nurses: what about the influence of emotional demands and social support?. *BioMed Res Int.* 2015;2015:1-8.
5. Pacheco JP, Giacomini HT, Tam WW, Ribeiro TB, Arab C, Bezerra IM, et al. Mental health problems among medical students in Brazil: a systematic review and meta-analysis. *Rev Bras Psiquiatr.* 2017;39(4):369-78.
6. Soldatos CR, Allaert FA, Ohta T, Dikeos DG. How do individuals sleep around the world? Results from a single-day survey in ten countries. *Sleep Med.* 2005;6(1):5-13.
7. Hirotsu C, Bittencourt L, Garbuio S, Andersen ML, Tufik S. Sleep complaints in the Brazilian population: impact of socioeconomic factors. *Sleep Sci.* 2014;7(3):135-42.
8. Mong JA, Cusmano DM. Sex differences in sleep: impact of biological sex and sex steroids. *Philos Trans R Soc Lond B Biol Sci.* 2016;371(1688):20150110.
9. Nicolau ZFM, Bezerra AG, Polesel DN, Andersen ML, Bittencourt L, Tufik S, et al. Premenstrual syndrome and sleep disturbances: results from the Sao Paulo epidemiologic sleep study. *Psychiatry Res.* 2018;264:427-31.
10. Hachul H, Andersen ML, Bittencourt L, Santos-Silva R, Tufik S. A population-based survey on the influence of the menstrual cycle and the use of hormonal contraceptives on sleep patterns in São Paulo, Brazil. *Int J Gynecol Obstet.* 2013;120(2):137-40.