The Association Between Habitual Sleep Duration and Blood Pressure Control in United States (US) Adults with Hypertension [Letter]

Vernando Yanry Lameky (1), Oci Tasijawa²

¹Department of Nursing, Universitas Kristen Indonesia Maluku, Ambon, Maluku, Indonesia; ²Book Publisher, Ghema Berkat Abadi, Ambon, Maluku, Indonesia

Correspondence: Vernando Yanry Lameky, Department of Nursing, Universitas Kristen Indonesia Maluku, Jl. Ot pattimaipauw, Ambon, Maluku, Indonesia, Email vernandoyanrylameky@gmail.com

Dear editor

We have read the research article entitled "The Association Between Habitual Sleep Duration and Blood Pressure Control in United States (US) Adults with Hypertension" written by Oguguet et al. We would like to congratulate the authors on this successful article and make some contributions. There are four strengths of this study: 1) it underscores the importance of adequate sleep as a potential factor in managing hypertension, which is a common and often difficult-to-control condition. 2) this study states that chronic sleep duration of less than 6 hours is associated with reduced chances of controlling blood pressure. This provides valuable information that can inform clinical recommendations and encourage healthcare providers to assess and discuss sleep habits with hypertensive patients. 3) this study supports the idea that interventions aimed at increasing sleep duration may benefit individuals with hypertension, potentially resulting in better blood pressure control and overall cardiovascular health. 4) This study considered a variety of potential confounders, including demographic, socioeconomic, and health factors, which strengthens the validity of its findings and provides a deeper understanding of the relationship between sleep duration and blood pressure control.

However, we identified two limitations of this study that need to be addressed in future research: 1) this study has identified, in particular, differential associations between sleep duration, blood pressure (BP) control, and demographic factors such as age and gender. For example, although experimental studies show an association between sleep restriction and increased blood pressure, information regarding how differences in age or gender influence the association between sleep duration and blood pressure control in individuals with hypertension is limited. In addition, the association between short sleep time and hypertension risk appears to decrease with age and is stronger in women than men. To address this, future research should focus on longitudinal studies (such as periodic data collection, analysis of changes, and understanding causal relationships) and specific demographics (such as different ages, gender differences, different ethnic groups, different socioeconomic statuses, and geography) which can provide more detailed insight into how sleep duration impacts blood pressure control across different age groups and gender. This can help design interventions more effectively.^{2–6} 2) this study shows a relationship between short sleep and hypertension. Future research should incorporate strategies (such as a regular sleep schedule, limited caffeine and nicotine consumption, a comfortable sleep environment, and limited use of electronic devices) to support adequate sleep duration, which may be a valuable adjunct to hypertension management modalities.^{7,8} This will require a change in clinical practice to include sleep health as a standard component of hypertension care.

In conclusion, this study provides important insights into the potential role of sleep duration in supporting hypertension management.

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Disclosure

The author reports no conflicts of interest in this communication. The author alone is responsible for the content and writing of the paper.

References

- 1. Ogugu EG, Catz SL, Bell JF, Drake C, Bidwell JT, Gangwisch JE. The association between habitual sleep duration and blood pressure control in United States (US) adults with hypertension. Integr Blood Press Control. 2022;53-66. doi:10.2147/IBPC.S359444
- 2. Wang YH, Wang J, Chen SH, et al. Association of longitudinal patterns of habitual sleep duration with risk of cardiovascular events and all-cause mortality. JAMA Netw Open. 2020;3(5):e205246-e205246. doi:10.1001/jamanetworkopen.2020.5246
- 3. Kobayashi D, Kuriyama N, Osugi Y, Arioka H, Takahashi O. Longitudinal relationships between cardiovascular events, risk factors, and time-dependent sleep duration. Cardiol J. 2018;25(2):229-235. doi:10.5603/CJ.a2017.0088
- 4. Grandner MA, Williams NJ, Knutson KL, Roberts D, Jean-Louis G. Sleep disparity, race/ethnicity, and socioeconomic position. Sleep Med. 2016;18:7–18. doi:10.1016/j.sleep.2015.01.020
- 5. Baldisserotto J, Kopittke L, Nedel FB, et al. Socio-demographic caracteristics and prevalence of risk factors in a hypertensive and diabetics population: a cross-sectional study in primary health care in Brazil. BMC Public Health. 2016;16(1):1-9. doi:10.1186/s12889-016-3230-7
- 6. Flynn J, Zhang Y, Solar-Yohay S, Shi V. Clinical and demographic characteristics of children with hypertension. Hypertension. 2012;60 (4):1047–1054. doi:10.1161/HYPERTENSIONAHA.112.197525
- 7. Bansil P, Kuklina EV, Merritt RK, Yoon PW. Associations between sleep disorders, sleep duration, quality of sleep, and hypertension: results from the national health and nutrition examination survey, 2005 to 2008. J Clin Hypertens. 2011;13(10):739-743. doi:10.1111/j.1751-7176.2011.00500.x
- 8. Manolis TA, Manolis AA, Apostolopoulos EJ, Melita H, Manolis AS. Cardiovascular complications of sleep disorders: a better night's sleep for a healthier heart/from bench to bedside. Curr Vasc Pharmacol. 2021;19(2):210-232. doi:10.2174/1570161118666200325102411

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