

## DAFTAR PUSTAKA

- Ahmed, B., Rahman, A. A., Lee, S., & Malhotra, R. (2024). The Implications of Aging on Vascular Health. *International Journal of Molecular Sciences*, 25(20), 11188. <https://doi.org/10.3390/ijms252011188>
- Ahn, J. M. (2015). Wave Detection in Acceleration Plethysmogram. *Healthcare Informatics Research*, 21(2), 111. <https://doi.org/10.4258/hir.2015.21.2.111>
- Alim, I. Z. (2015). Uji Validitas dan Reliabilitas Instrumen Pittsburgh Sleep Quality Index Versi Bahasa Indonesia. *Repository FKUI*.
- Almutairi, K. M., Alonazi, W. B., Vinluan, J. M., Almigbal, T. H., Batais, M. A., Alodhayani, A. A., Alsadhan, N., Tumala, R. B., Moussa, M., Aboshaiqah, A. E., & Alhoqail, R. I. (2018). Health promoting lifestyle of university students in Saudi Arabia: A cross-sectional assessment. *BMC Public Health*, 18(1), 1093. <https://doi.org/10.1186/s12889-018-5999-z>
- AlTamimi, J. Z., Alagal, R. I., AlKehayez, N. M., Alshwaiyat, N. M., Al-Jamal, H. A., & AlFaris, N. A. (2022). Physical Activity Levels of a Multi-Ethnic Population of Young Men Living in Saudi Arabia and Factors Associated With Physical Inactivity. *Frontiers in Public Health*, 9, 734968. <https://doi.org/10.3389/fpubh.2021.734968>
- Alvim, R. D. O., Santos, P. C. J. L., Bortolotto, L. A., Mill, J. G., & Pereira, A. D. C. (2017). Arterial Stiffness: Pathophysiological and Genetic Aspects. *International Journal of Cardiovascular Sciences*. <https://doi.org/10.5935/2359-4802.20170053>
- Alzahrani, S. H., Malik, A. A., Bashawri, J., Shaheen, S. A., Shaheen, M. M., Alsaib, A. A., Mubarak, M. A., Adam, Y. S., & Abdulwassi, H. K. (2019). Health-promoting lifestyle profile and associated factors among medical students in a Saudi university. *SAGE Open Medicine*, 7, 205031211983842. <https://doi.org/10.1177/2050312119838426>
- Aritonang, J. P., Widiastuti, I. A. E., & Harahap, I. L. (2022). Gambaran Tingkat Aktivitas Fisik Mahasiswa Pendidikan Dokter Fakultas Kedokteran Universitas Mataram di Masa Pandemi COVID-19. *eJournal Kedokteran Indonesia*, 10(1), 58–63. <https://doi.org/10.23886/ejki.10.129.58-63>
- Arzt, M., Luigart, R., Schum, C., Lüthje, L., Stein, A., Koper, I., Hecker, C., Dumitrascu, R., Schulz, R., & for the “Circulation and Sleep” working group of the German Society of Sleep Research and Sleep Medicine (DGSM). (2012). Sleep-disordered breathing in deep vein thrombosis and acute pulmonary embolism. *European Respiratory Journal*, 40(4), 919–924. <https://doi.org/10.1183/09031936.00176711>
- Ashor, A. W., Lara, J., Siervo, M., Celis-Morales, C., & Mathers, J. C. (2014). Effects of Exercise Modalities on Arterial Stiffness and Wave Reflection: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *PLoS ONE*, 9(10), e110034. <https://doi.org/10.1371/journal.pone.0110034>
- Bergier, J., Bergier, B., & Tsos, A. (2016). Variations in Physical Activity of Male and Female Students from Different Countries. *Iranian Journal of Public Health*, 45(5), 705–707.
- Bin, Y. S. (2016). Is Sleep Quality More Important than Sleep Duration for Public Health? *Sleep*, 39(9), 1629–1630. <https://doi.org/10.5665/sleep.6078>
- Brinkman, J. E., Reddy, V., & Sharma, S. (2023, April 3). Physiology of Sleep. *National Center of Biotechnology Information*. <https://www.ncbi.nlm.nih.gov/books/NBK482512/>
- Bull, F. C., Maslin, T. S., & Armstrong, T. (2009). Global Physical Activity Questionnaire (GPAQ): Nine Country Reliability and Validity Study. *Journal of Physical Activity and Health*, 6(6), 790–804. <https://doi.org/10.1123/jpah.6.6.790>

- Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh sleep quality index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28(2), 193–213. [https://doi.org/10.1016/0165-1781\(89\)90047-4](https://doi.org/10.1016/0165-1781(89)90047-4)
- Castelli, R., Gidaro, A., Casu, G., Merella, P., Profili, N. I., Donadoni, M., Maioli, M., & Delitala, A. P. (2023). Aging of the Arterial System. *International Journal of Molecular Sciences*, 24(8), 6910. <https://doi.org/10.3390/ijms24086910>
- Chandrashekhar Nooyi, S., Murthy, S. N., Sivananjiah, S., Sreekantaiah, P., Rajaram, D., Gowda, V., & Ugraiah, K. (2019). Metabolic Equivalent and its Associated Factors in a Rural Community of Karnataka, India. *Cureus*. <https://doi.org/10.7759/cureus.4974>
- Chen, H., Wang, C., Lu, T., Tao, B., Gao, Y., & Yan, J. (2022). The Relationship between Physical Activity and College Students' Mobile Phone Addiction: The Chain-Based Mediating Role of Psychological Capital and Social Adaptation. *International Journal of Environmental Research and Public Health*, 19(15), 9286. <https://doi.org/10.3390/ijerph19159286>
- Chen, S., Li, N., Gao, Y., Jiang, H., & Shen, Y. (2022). Prevalence and risk factors for vascular calcification based on the ankle-brachial index in the general population: A cross-sectional study. *BMC Cardiovascular Disorders*, 22(1), 227. <https://doi.org/10.1186/s12872-022-02668-9>
- Choi, Y., Kosaki, K., Akazawa, N., Tanahashi, K., & Maeda, S. (2024). Combined effects of sleep and objectively-measured daily physical activity on arterial stiffness in middle-aged and older adults. *Experimental Gerontology*, 188, 112397. <https://doi.org/10.1016/j.exger.2024.112397>
- Christofaro, D. G. D., Casonatto, J., Vanderlei, L. C. M., Cucato, G. G., & Dias, R. M. R. (2017). Relationship between Resting Heart Rate, Blood Pressure and Pulse Pressure in Adolescents. *Arquivos Brasileiros de Cardiologia*. <https://doi.org/10.5935/abc.20170050>
- Coronado, F., Melvin, S. C., Bell, R. A., & Zhao, G. (2022). Global Responses to Prevent, Manage, and Control Cardiovascular Diseases. *Preventing Chronic Disease*, 19, 220347. <https://doi.org/10.5888/pcd19.220347>
- Corrêa, C. D. C., Oliveira, F. K. D., Pizzamiglio, D. S., Ortolan, E. V. P., & Weber, S. A. T. (2017). Sleep quality in medical students: A comparison across the various phases of the medical course. *Jornal Brasileiro de Pneumologia*, 43(4), 285–289. <https://doi.org/10.1590/s1806-37562016000000178>
- Dasso, N. A. (2019). How is exercise different from physical activity? A concept analysis: DASSO. *Nursing Forum*, 54(1), 45–52. <https://doi.org/10.1111/nuf.12296>
- Daugherty, A., Fisher, E. A., Taubman, M. B., Heistad, D. D., & Fogelman, A. M. (2021). Forty-Year Anniversary of Arteriosclerosis, Thrombosis, and Vascular Biology. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 41(9), 2353–2356. <https://doi.org/10.1161/ATVBAHA.121.316755>
- Davarinejad, O., Hosseinpour, N., Majd, T., Golmohammadi, F., & Radmehr, F. (2020). The relationship between Life Style and mental health among medical students in Kermanshah. *Journal of Education and Health Promotion*, 9(1), 264. [https://doi.org/10.4103/jehp.jehp\\_534\\_20](https://doi.org/10.4103/jehp.jehp_534_20)
- Del Brutto, O. H., Mera, R. M., Peñaherrera, E., Costa, A. F., Peñaherrera, R., & Castillo, P. R. (2019). On the Association Between Sleep Quality and Arterial Stiffness: A Population Study in Community-Dwelling Older Adults Living in Rural Ecuador (The Atahualpa Project). *Journal of Clinical Sleep Medicine*, 15(08), 1101–1106. <https://doi.org/10.5664/jcsm.7798>
- Dogdus, M., Akhan, O., Ozyasar, M., Yilmaz, A., & Altintas, M. S. (2018). Evaluation of Arterial Stiffness Using Pulse Wave Velocity and Augmentation Index in Patients with

- Chronic Venous Insufficiency. *International Journal of Vascular Medicine*, 2018, 1–5. <https://doi.org/10.1155/2018/5437678>
- Fan, X., Yang, G., Yang, Z., Uhlig, S., Sattler, K., Bieback, K., Hamdani, N., El-Battrawy, I., Duerschmied, D., Zhou, X., & Akin, I. (2024). Catecholamine induces endothelial dysfunction via Angiotensin II and intermediate conductance calcium activated potassium channel. *Biomedicine & Pharmacotherapy*, 177, 116928. <https://doi.org/10.1016/j.biopha.2024.116928>
- Fenk, S., Melnikova, E. V., Anashkina, A. A., Poluektov, Y. M., Zaripov, P. I., Mitkevich, V. A., Tkachev, Y. V., Kaestner, L., Minetti, G., Mairbäurl, H., Goede, J. S., Makarov, A. A., Petrushanko, I. Y., & Bogdanova, A. (2022). Hemoglobin is an oxygen-dependent glutathione buffer adapting the intracellular reduced glutathione levels to oxygen availability. *Redox Biology*, 58, 102535. <https://doi.org/10.1016/j.redox.2022.102535>
- Fernberg, U., Fernström, M., & Hurtig-Wennlöf, A. (2021). Higher Total Physical Activity is Associated with Lower Arterial Stiffness in Swedish, Young Adults: The Cross-Sectional Lifestyle, Biomarkers, and Atherosclerosis Study. *Vascular Health and Risk Management*, Volume 17, 175–185. <https://doi.org/10.2147/VHRM.S283211>
- Funck, K. L., Laugesen, E., Høyem, P., Fleischer, J., Cichosz, S. L., Christiansen, J. S., Hansen, T. K., & Poulsen, P. L. (2016). Low Physical Activity Is Associated With Increased Arterial Stiffness in Patients Recently Diagnosed With Type 2 Diabetes. *American Journal of Hypertension*, 29(7), 882–888. <https://doi.org/10.1093/ajh/hpv197>
- Germano-Soares, A. H., Andrade-Lima, A., Meneses, A. L., Correia, M. A., Parmenter, B. J., Tassitano, R. M., Cucato, G. G., & Ritti-Dias, R. M. (2018). Association of time spent in physical activities and sedentary behaviors with carotid-femoral pulse wave velocity: A systematic review and meta-analysis. *Atherosclerosis*, 269, 211–218. <https://doi.org/10.1016/j.atherosclerosis.2018.01.009>
- González, L. D. M., Romero-Orjuela, S. P., Rabeya, F. J., Del Castillo, V., & Echeverri, D. (2023). Age and vascular aging: An unexplored frontier. *Frontiers in Cardiovascular Medicine*, 10, 1278795. <https://doi.org/10.3389/fcvm.2023.1278795>
- Green, D. J., & Smith, K. J. (2018). Effects of Exercise on Vascular Function, Structure, and Health in Humans. *Cold Spring Harbor Perspectives in Medicine*, 8(4), a029819. <https://doi.org/10.1101/cshperspect.a029819>
- Hahad, O., Schmitt, V. H., Arnold, N., Keller, K., Prochaska, J. H., Wild, P. S., Schulz, A., Lackner, K. J., Pfeiffer, N., Schmidtmann, I., Michal, M., Schattenberg, J. M., Tüscher, O., Daiber, A., & Münz, T. (2023). Chronic cigarette smoking is associated with increased arterial stiffness in men and women: Evidence from a large population-based cohort. *Clinical Research in Cardiology*, 112(2), 270–284. <https://doi.org/10.1007/s00392-022-02092-1>
- Hanson, J. A., & Huecker, M. R. (2023). Sleep Deprivation. *StatPearls Publishing*. <https://www.ncbi.nlm.nih.gov/books/NBK547676/>
- Hastono, S. P. (2007). *Analisis Data Kesehatan*. Fakultas Kesehatan Masyarakat Universitas Indonesia.
- Hoevenaar-Blom, M. P., Spijkerman, A. M. W., Kromhout, D., Van Den Berg, J. F., & Verschuren, W. M. M. (2011). Sleep Duration and Sleep Quality in Relation to 12-Year Cardiovascular Disease Incidence: The MORGEN Study. *Sleep*, 34(11), 1487–1492. <https://doi.org/10.5665/sleep.1382>
- Hopkins, N. D., Stratton, G., Tinken, T. M., McWhannell, N., Ridgers, N. D., Graves, L. E. F., George, K., Cable, N. T., & Green, D. J. (2009). Relationships between measures of fitness, physical activity, body composition and vascular function in children. *Atherosclerosis*, 204(1), 244–249. <https://doi.org/10.1016/j.atherosclerosis.2008.09.004>

- Hu, H., Li, H., Huang, X., Bao, H., Song, Y., Wang, B., Liu, C., Xu, R., Liu, L., Wang, X., Huo, Y., Xu, X., Cheng, X., Qin, X., & Li, P. (2020). Association of self-reported sleep duration and quality with BaPWV levels in hypertensive patients. *Hypertension Research*, 43(12), 1392–1402. <https://doi.org/10.1038/s41440-020-0509-y>
- Hussain, T., Tan, B., Yin, Y., Blachier, F., Tossou, M. C. B., & Rahu, N. (2016). Oxidative Stress and Inflammation: What Polyphenols Can Do for Us? *Oxidative Medicine and Cellular Longevity*, 2016, 1–9. <https://doi.org/10.1155/2016/7432797>
- Hwang, C.-L., Muchira, J., Hibner, B. A., Phillips, S. A., & Piano, M. R. (2022). Alcohol Consumption: A New Risk Factor for Arterial Stiffness? *Cardiovascular Toxicology*, 22(3), 236–245. <https://doi.org/10.1007/s12012-022-09728-8>
- Islam, S. J., Beydoun, N., Mehta, A., Kim, J. H., Ko, Y.-A., Jin, Q., Baltrus, P., Topel, M. L., Liu, C., Mujahid, M. S., Vaccarino, V., Sims, M., Ejaz, K., Searles, C., Dunbar, S. B., Lewis, T. T., Taylor, H. A., Pemu, P., & Quyyumi, A. A. (2022). Association of physical activity with arterial stiffness among Black adults. *Vascular Medicine*, 27(1), 13–20. <https://doi.org/10.1177/1358863X211032725>
- James, T., & Sunil, N. (2020). Heart rate variability in different phases of menstrual cycle among healthy medical students of a teaching institution, South India. *National Journal of Physiology, Pharmacy and Pharmacology*, 0, 1. <https://doi.org/10.5455/njppp.2020.10.03064202022032020>
- Janampa-Apaza, A., Pérez-Mori, T., Benites, L., Meza, K., Santos-Paucar, J., Gaby-Pérez, R., Francia-Romero, I., & Morales, J. (2021). Physical activity and sedentary behavior in medical students at a Peruvian public university. *Medwave*, 21(05), e8210–e8210. <https://doi.org/10.5867/medwave.2021.05.8210>
- Jayanti, I. G. A. N., Wiradnyani, N. K., & Ariyasa, I. G. (2017). Hubungan pola konsumsi minuman beralkohol terhadap kejadian hipertensi pada tenaga kerja pariwisata di Kelurahan Legian. *Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)*, 6(1), 65.
- Joy, V., Vincent, Dr. J., & Assistant Professor, Department of Community Medicine, Amala Institute of Medical Sciences, Thrissur, Kerala, India. (2020). The prevalence of physical activity among MBBS students in a medical college in Kerala. *Public Health Review : International Journal of Public Health Research*, 7(4), 28–34. <https://doi.org/10.17511/ijphr.2020.i04.01>
- Jung, W.-S., Hwang, H., Kim, J., Park, H.-Y., & Lim, K. (2019). Effect of interval exercise versus continuous exercise on excess post-exercise oxygen consumption during energy-homogenized exercise on a cycle ergometer. *Journal of Exercise Nutrition & Biochemistry*, 23(2), 45–50. <https://doi.org/10.20463/jenb.2019.0016>
- Kemenkes, K. (2018). *Laporan Nasional Riskesdas 2018*.
- Kim, C.-W., Chang, Y., Zhao, D., Cainzos-Achirica, M., Ryu, S., Jung, H.-S., Yun, K. E., Choi, Y., Ahn, J., Zhang, Y., Rampal, S., Baek, Y., Lima, J. A., Shin, H., Guallar, E., Cho, J., & Sung, E. (2015). Sleep Duration, Sleep Quality, and Markers of Subclinical Arterial Disease in Healthy Men and Women. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 35(10), 2238–2245. <https://doi.org/10.1161/ATVBAHA.115.306110>
- Kline, C. E., Taylor, C., Kriska, A. M., & Barinas-Mitchell, E. (2019). Short Sleep Duration is Associated With Greater Arterial Stiffness Independent of Sleep Quality. *Circulation*, 139(Suppl\_1). [https://doi.org/10.1161/circ.139.suppl\\_1.P277](https://doi.org/10.1161/circ.139.suppl_1.P277)
- Kloc, M., & Ghobrial, R. (2014). Chronic allograft rejection: A significant hurdle to transplant success. *Burns & Trauma*, 2(1), 3. <https://doi.org/10.4103/2321-3868.121646>
- Kohn, J. C., Lampi, M. C., & Reinhart-King, C. A. (2015). Age-related vascular stiffening: Causes and consequences. *Frontiers in Genetics*, 06. <https://doi.org/10.3389/fgene.2015.00112>

- Kumar, A., Kar, S., & Fay, W. P. (2011). Thrombosis, physical activity, and acute coronary syndromes. *Journal of Applied Physiology*, 111(2), 599–605. <https://doi.org/10.1152/japplphysiol.00017.2011>
- Kunutsor, S. K., Mäkikallio, T. H., Seidu, S., De Araújo, C. G. S., Dey, R. S., Blom, A. W., & Laukkonen, J. A. (2020). Physical activity and risk of venous thromboembolism: Systematic review and meta-analysis of prospective cohort studies. *European Journal of Epidemiology*, 35(5), 431–442. <https://doi.org/10.1007/s10654-019-00579-2>
- Lamarche, L., Gammie, K. L., & Ozimok, B. (2018). The Gym as a Culture of Body Achievement: Exploring Negative and Positive Body Image Experiences in Men Attending University. *Sage Open*, 8(2), 2158244018778103. <https://doi.org/10.1177/2158244018778103>
- Lan, Y. S., Khong, T. K., & Yusof, A. (2023). Effect of Exercise on Arterial Stiffness in Healthy Young, Middle-Aged and Older Women: A Systematic Review. *Nutrients*, 15(2), 308. <https://doi.org/10.3390/nu15020308>
- Lao, X. Q., Liu, X., Deng, H.-B., Chan, T.-C., Ho, K. F., Wang, F., Vermeulen, R., Tam, T., Wong, M. C. S., Tse, L. A., Chang, L., & Yeoh, E.-K. (2018). Sleep Quality, Sleep Duration, and the Risk of Coronary Heart Disease: A Prospective Cohort Study With 60,586 Adults. *Journal of Clinical Sleep Medicine*, 14(01), 109–117. <https://doi.org/10.5664/jcsm.6894>
- Lee, Y., Ahn, S. I., & Kim, Y. (2019). Organs-on-Chips. Dalam *Encyclopedia of Biomedical Engineering* (hlm. 384–393). Elsevier. <https://doi.org/10.1016/B978-0-12-801238-3.64120-X>
- Li, X., Chattopadhyay, K., Chen, X., Li, J., Xu, M., Chen, X., & Li, L. (2023). Association Between Physical Activity and Arterial Stiffness in Patients with Type 2 Diabetes in Ningbo, China: A Cross-Sectional Study. *Diabetes, Metabolic Syndrome and Obesity, Volume 16*, 4133–4141. <https://doi.org/10.2147/DMSO.S438344>
- Liu, D., Kahathuduwa, C., & Vazsonyi, A. T. (2021). The Pittsburgh Sleep Quality Index (PSQI): Psychometric and clinical risk score applications among college students. *Psychological Assessment*, 33(9), 816–826. <https://doi.org/10.1037/pas0001027>
- Liu, J.-J., Liu, S., Gurung, R. L., Ang, K., Ee Tang, W., Sum, C. F., Tavintharan, S., Hadjadj, S., & Lim, S. C. (2019). Arterial Stiffness Modulates the Association of Resting Heart Rate With Rapid Renal Function Decline in Individuals With Type 2 Diabetes Mellitus. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 39(11), 2437–2444. <https://doi.org/10.1161/ATVBAHA.119.313163>
- Lopes, S., Mesquita-Bastos, J., Garcia, C., Leitão, C., Bertoquini, S., Ribau, V., Carvalho, P., Oliveira, J., Viana, J., Figueiredo, D., Guimarães, G. V., Polonia, J., Alves, A. J., & Ribeiro, F. (2021). Physical Activity is Associated With Lower Arterial Stiffness in Patients With Resistant Hypertension. *Heart, Lung and Circulation*, 30(11), 1762–1768. <https://doi.org/10.1016/j.hlc.2021.06.532>
- Lu, Y., Kiechl, S. J., Wang, J., Xu, Q., Kiechl, S., Pechlaner, R., Aguilar, D., Al-Hashmi, K. M., Alvim, R. O., Al-Zakwani, I. S., Antza, C., Cicero, A. F. G., Avramovska, M., Avramovski, P., Baek, H. J., Bäck, M., Bailey, K., Baldo, M. P., Batista, R. F. L., ... Zócalo, Y. (2023). Global distributions of age- and sex-related arterial stiffness: Systematic review and meta-analysis of 167 studies with 509,743 participants. *eBioMedicine*, 92, 104619. <https://doi.org/10.1016/j.ebiom.2023.104619>
- Luciano, F., Cenacchi, V., Vegro, V., & Pavei, G. (2021). COVID-19 lockdown: Physical activity, sedentary behaviour and sleep in Italian medicine students. *European Journal of Sport Science*, 21(10), 1459–1468. <https://doi.org/10.1080/17461391.2020.1842910>

- Mahriani, Y., Indriyanti, R., Musnamirwan, I. A., & Setiawan, A. S. (2022). A cross-sectional study on dietary assessment, oral hygiene behavior, and oral health status of adolescent girls. *Frontiers in Nutrition*, 9, 973241. <https://doi.org/10.3389/fnut.2022.973241>
- Maier, J. A., Andrés, V., Castiglioni, S., Giudici, A., Lau, E. S., Nemcsik, J., Seta, F., Zaninotto, P., Catalano, M., & Hamburg, N. M. (2023). Aging and Vascular Disease: A Multidisciplinary Overview. *Journal of Clinical Medicine*, 12(17), 5512. <https://doi.org/10.3390/jcm12175512>
- Maron, B. A., & Michel, T. (2012). Subcellular Localization of Oxidants and Redox Modulation of Endothelial Nitric Oxide Synthase. *Circulation Journal*, 76(11), 2497–2512. <https://doi.org/10.1253/circj.CJ-12-1207>
- Merino, P., Catzín-Kuhlmann, A., Monge, A., Yunes, E., Espinosa, L., Cantú-Brito, C., Lajous, M., & Lopez-Ridaura, R. (2017). Sleep Quality is Associated with Subclinical Cardiovascular Disease in Mid-Life Mexican Women. *Circulation*, 135(suppl\_1). [https://doi.org/10.1161/circ.135.suppl\\_1.mp087](https://doi.org/10.1161/circ.135.suppl_1.mp087)
- Moir, F., Yielder, J., Sanson, J., & Chen, Y. (2018). Depression in medical students: Current insights. *Advances in Medical Education and Practice*, Volume 9, 323–333. <https://doi.org/10.2147/AMEP.S137384>
- Moscatelli, F., La Torre, M. E., Vasco, P., Valenzano, A., Monda, V., Cibelli, G., Messina, G., & Polito, R. (2023). The Differences in Physical Activity Levels of Male and Female University Students. *Physical Education Theory and Methodology*, 23(3), 431–437. <https://doi.org/10.17309/tmfv.2023.3.16>
- Murakami, T., Asai, K., Kadono, Y., Nishida, T., Nakamura, H., & Kishima, H. (2019). Assessment of Arterial Stiffness Index Calculated from Accelerated Photoplethysmography. *Artery Research*, 25(1–2), 37–40. <https://doi.org/10.2991/artres.k.191120.001>
- Nelson, K. L., Davis, J. E., & Corbett, C. F. (2022). Sleep quality: An evolutionary concept analysis. *Nursing Forum*, 57(1), 144–151. <https://doi.org/10.1111/nuf.12659>
- Ogola, B. O., Zimmerman, M. A., Clark, G. L., Abshire, C. M., Gentry, K. M., Miller, K. S., & Lindsey, S. H. (2018). New insights into arterial stiffening: Does sex matter? *American Journal of Physiology-Heart and Circulatory Physiology*, 315(5), H1073–H1087. <https://doi.org/10.1152/ajpheart.00132.2018>
- Ohayon, M., Wickwire, E. M., Hirshkowitz, M., Albert, S. M., Avidan, A., Daly, F. J., Dauvilliers, Y., Ferri, R., Fung, C., Gozal, D., Hazen, N., Krystal, A., Lichstein, K., Mallampalli, M., Plazzi, G., Rawding, R., Scheer, F. A., Somers, V., & Vitiello, M. V. (2017). National Sleep Foundation's sleep quality recommendations: First report. *Sleep Health*, 3(1), 6–19. <https://doi.org/10.1016/j.sleh.2016.11.006>
- Ono, T., Miyoshi, T., Ohno, Y., Shokoku, G., Yamamoto, K., Tokioka, K., Kawai, Y., Ito, H., & Ooe, T. (2017). Increased Cardio-Ankle Vascular Index Is Associated With the Development of Heart Failure in Patients With Preserved Ejection Fraction. *Journal of Cardiac Failure*, 23(10), S86–S87. <https://doi.org/10.1016/j.cardfail.2017.08.439>
- Osonoi, Y., Mita, T., Osonoi, T., Saito, M., Tamasawa, A., Nakayama, S., Someya, Y., Ishida, H., Kanazawa, A., Goshio, M., Fujitani, Y., & Watada, H. (2015). Poor sleep quality is associated with increased arterial stiffness in Japanese patients with type 2 diabetes mellitus. *BMC Endocrine Disorders*, 15(1), 29. <https://doi.org/10.1186/s12902-015-0026-1>
- Pack, A. I. (2023). *Fishman's pulmonary diseases and disorders* (M. A. Grippi, D. E. Antin-Ozerkis, C. S. Dela Cruz, & R. M. Kotloff, Ed.; Sixth edition). McGraw-Hill Education.
- Pälve, K. S., Pahkala, K., Magnussen, C. G., Koivistoisten, T., Juonala, M., Kähönen, M., Lehtimäki, T., Rönnemaa, T., Viikari, J. S. A., & Raitakari, O. T. (2014). Association of Physical Activity in Childhood and Early Adulthood With Carotid Artery Elasticity

- 21 Years Later: The Cardiovascular Risk in Young Finns Study. *Journal of the American Heart Association*, 3(2), e000594. <https://doi.org/10.1161/JAHA.113.000594>
- Park, H. E., Chung, G. E., Lee, H., Kim, M. J., Choi, S.-Y., Lee, W., & Yoon, J. W. (2022). Significance of Low Muscle Mass on Arterial Stiffness as Measured by Cardio-Ankle Vascular Index. *Frontiers in Cardiovascular Medicine*, 9, 857871. <https://doi.org/10.3389/fcvm.2022.857871>
- Pedralli, M. L., Marschner, R. A., Kollet, D. P., Neto, S. G., Eibel, B., Tanaka, H., & Lehnen, A. M. (2020). Different exercise training modalities produce similar endothelial function improvements in individuals with prehypertension or hypertension: A randomized clinical trial. *Scientific Reports*, 10(1), 7628. <https://doi.org/10.1038/s41598-020-64365-x>
- Pereira, R. M., Moura, L. P. D., Muñoz, V. R., Silva, A. S. R. D., Gaspar, R. S., Ropelle, E. R., & Pauli, J. R. (2017). Molecular mechanisms of glucose uptake in skeletal muscle at rest and in response to exercise. *Motriz: Revista de Educação Física*, 23(spe). <https://doi.org/10.1590/s1980-6574201700si0004>
- Pinho, C. S., Caria, A. C. I., Aras Júnior, R., & Pitanga, F. J. G. (2020). The effects of the COVID-19 pandemic on levels of physical fitness. *Revista da Associação Médica Brasileira*, 66(suppl 2), 34–37. <https://doi.org/10.1590/1806-9282.66.s2.34>
- Puspadewi, H. R., & Briawan, D. (2015). Persepsi tentang pangan sehat, alasan pemilihan pangan dan kebiasaan makanan sehat pada mahasiswa. *Jurnal Gizi Pangan*, 9(3), 211–218. <https://doi.org/10.25182/jgp.2014.9.3.%25p>
- Ramesh, S., Wilton, S. B., Holroyd-Leduc, J. M., Turin, T. C., Sola, D. Y., & Ahmed, S. B. (2015). Testosterone is associated with the cardiovascular autonomic response to a stressor in healthy men. *Clinical and Experimental Hypertension*, 37(3), 184–191. <https://doi.org/10.3109/10641963.2014.933966>
- Rico Martín, S., Vassilenko, V., De Nicolás Jiménez, J. M., Rey Sánchez, P., Serrano, A., Martínez Alvarez, M., Calderón García, J. F., & Sánchez Muñoz-Torrero, J. F. (2020). Cardio-ankle vascular index (CAVI) measured by a new device: Protocol for a validation study. *BMJ Open*, 10(10), e038581. <https://doi.org/10.1136/bmjopen-2020-038581>
- Roszman, M. J., LaRocca, T. J., Martens, C. R., & Seals, D. R. (2018). Healthy lifestyle-based approaches for successful vascular aging. *Journal of Applied Physiology*, 125(6), 1888–1900. <https://doi.org/10.1152/japplphysiol.00521.2018>
- Saladini, F. (2023). Effects of Different Kinds of Physical Activity on Vascular Function. *Journal of Clinical Medicine*, 13(1), 152. <https://doi.org/10.3390/jcm13010152>
- Salihefendic, D. (2023). Eating and Lifestyle Habits in Underweight Patients with Insulin Resistance. *Materia Socio-Medica*, 35(1), 18–22. <https://doi.org/10.5455/msm.2023.35.18-22>
- Saz-Lara, A., Cavero-Redondo, I., Álvarez-Bueno, C., Notario-Pacheco, B., Ruiz-Grao, M. C., & Martínez-Vizcaíno, V. (2021). The Acute Effect of Exercise on Arterial Stiffness in Healthy Subjects: A Meta-Analysis. *Journal of Clinical Medicine*, 10(2), 291. <https://doi.org/10.3390/jcm10020291>
- Saz-Lara, A., Lucerón-Lucas-Torres, M., Mesas, A. E., Notario-Pacheco, B., López-Gil, J. F., & Cavero-Redondo, I. (2022). Association between sleep duration and sleep quality with arterial stiffness: A systematic review and meta-analysis. *Sleep Health*, 8(6), 663–670. <https://doi.org/10.1016/j.slehd.2022.07.001>
- Segers, P., Rietzschel, E. R., & Chirinos, J. A. (2020). How to Measure Arterial Stiffness in Humans. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 40(5), 1034–1043. <https://doi.org/10.1161/ATVBAHA.119.313132>

- Shah, A. S., Wadwa, R. P., Dabelea, D., Hamman, R. F., D'Agostino, R., Marcovina, S., Daniels, S. R., Dolan, L. M., Fino, N. F., & Urbina, E. M. (2015). Arterial stiffness in adolescents and young adults with and without type 1 diabetes: The SEARCH CVD study: Arterial stiffness. *Pediatric Diabetes*, 16(5), 367–374. <https://doi.org/10.1111/pedi.12279>
- Sherwood, L. (2016). *Human physiology: From cells to systems* (9th ed). Cengage learning.
- Stadler, A., Weidlinger, S., & Stute, P. (2019). Impact of endogenous and exogenous progesterone exposure on stress biomarkers: A systematic review. *Climacteric*, 22(5), 435–441. <https://doi.org/10.1080/13697137.2019.1622085>
- Stanek, A., Grygiel-Górniak, B., Brożyna-Tkaczyk, K., Myśliński, W., Cholewka, A., & Zolghadri, S. (2023). The Influence of Dietary Interventions on Arterial Stiffness in Overweight and Obese Subjects. *Nutrients*, 15(6), 1440. <https://doi.org/10.3390/nu15061440>
- Stefanie, S., & Irawaty, E. (2019). Hubungan kualitas tidur dengan hasil belajar pada mahasiswa Fakultas Kedokteran Universitas Tarumanagara. *Tarumanegara Medical Journal*, 1(2), 403–409. <https://doi.org/10.24912/tmj.v1i2.3843>
- Stewart, B., Smith, A., & Moroney, B. (2013). Capital building through gym work. *Leisure Studies*, 32(5), 542–560. <https://doi.org/10.1080/02614367.2012.697183>
- Strain, W. D., & Paldánius, P. M. (2018). Diabetes, cardiovascular disease and the microcirculation. *Cardiovascular Diabetology*, 17(1), 57. <https://doi.org/10.1186/s12933-018-0703-2>
- Suchyta, D. J., Handa, H., & Meyerhoff, M. E. (2014). A Nitric Oxide-Releasing Heparin Conjugate for Delivery of a Combined Antiplatelet/Anticoagulant Agent. *Molecular Pharmaceutics*, 11(2), 645–650. <https://doi.org/10.1021/mp400501c>
- Sugimoto, H., Hamaoka, T., Murai, H., Hirai, T., Mukai, Y., Kusayama, T., Takashima, S., Kato, T., Takata, S., Usui, S., Sakata, K., Kawashiri, M., & Takamura, M. (2022). Relationships between muscle sympathetic nerve activity and novel indices of arterial stiffness using single oscillometric cuff in patients with hypertension. *Physiological Reports*, 10(10), e15270. <https://doi.org/10.14814/phy2.15270>
- Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (19th ed.). Penerbit Alfabeta.
- Sumarwati, M., Mulyono, W. A., Nani, D., Swasti, K. G., & Abdilah, H. A. (2022). Pendidikan Kesehatan tentang Gaya Hidup Sehat Pada Remaja Tahap Akhir. *Jurnal Abdimas BSI: Jurnal Pengabdian Kepada Masyarakat*, 5(1), 36–48. <https://doi.org/10.31294/jabdimas.v5i1.11354>
- Sundas, N., Ghimire, S., Bhusal, S., Pandey, R., Rana, K., & Dixit, H. (2020). Sleep Quality among Medical Students of a Tertiary Care Hospital: A Descriptive Cross-sectional Study. *Journal of Nepal Medical Association*, 58(222). <https://doi.org/10.31729/jnma.4813>
- Suni, E., & Singh, A. (2024, Januari 3). How Much Sleep Do You Need? *Sleep Foundation*. <https://www.sleepfoundation.org/how-sleep-works/how-much-sleep-do-we-really-need>
- Theodoridis, X., Chourdakis, M., Papaemmanoil, A., Chaloulakou, S., Georgakou, A. V., Chatzis, G., & Triantafyllou, A. (2024). The Effect of Diet on Vascular Aging: A Narrative Review of the Available Literature. *Life*, 14(2), 267. <https://doi.org/10.3390/life14020267>
- Tucker, W. D., Arora, Y., & Mahajan, K. (2023, Agustus 8). Anatomy, Blood Vessels. *National Center of Biotechnology Information*. <https://www.ncbi.nlm.nih.gov/books/NBK470401/>

- Vandercappellen, E. J., Henry, R. M. A., Savelberg, H. H. C. M., Van Der Berg, J. D., Reesink, K. D., Schaper, N. C., Eussen, S. J. P. M., Van Dongen, M. C. J. M., Dagnelie, P. C., Schram, M. T., Van Greevenbroek, M. M. J., Wesselius, A., Van Der Kallen, C. J. H., Köhler, S., Stehouwer, C. D. A., & Koster, A. (2020). Association of the Amount and Pattern of Physical Activity With Arterial Stiffness: The Maastricht Study. *Journal of the American Heart Association*, 9(20), e017502. <https://doi.org/10.1161/JAHA.120.017502>
- Virani, S. S., Alonso, A., Benjamin, E. J., Bittencourt, M. S., Callaway, C. W., Carson, A. P., Chamberlain, A. M., Chang, A. R., Cheng, S., Delling, F. N., Djousse, L., Elkind, M. S. V., Ferguson, J. F., Fornage, M., Khan, S. S., Kissela, B. M., Knutson, K. L., Kwan, T. W., Lackland, D. T., ... On behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. (2020). Heart Disease and Stroke Statistics—2020 Update: A Report From the American Heart Association. *Circulation*, 141(9). <https://doi.org/10.1161/CIR.0000000000000757>
- Von Wowern, E., Östling, G., Nilsson, P. M., & Olofsson, P. (2015). Digital Photoplethysmography for Assessment of Arterial Stiffness: Repeatability and Comparison with Applanation Tonometry. *PLOS ONE*, 10(8), e0135659. <https://doi.org/10.1371/journal.pone.0135659>
- Wang, H., Mo, Z., Sui, H., Qi, Y., Xu, P., Zheng, J., Zhang, T., Qi, X., & Cui, C. (2023). Association of baseline and dynamic arterial stiffness status with dyslipidemia: A cohort study. *Frontiers in Endocrinology*, 14, 1243673. <https://doi.org/10.3389/fendo.2023.1243673>
- WHO, P. A. (2022). Physical activity. *World Health Organization*. <https://www.who.int/news-room/fact-sheets/detail/physical-activity>
- Wilkinson, I. B., Mäki-Petäjä, K. M., & Mitchell, G. F. (2020). Uses of Arterial Stiffness in Clinical Practice. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 40(5), 1063–1067. <https://doi.org/10.1161/ATVBAHA.120.313130>
- Wondie, T., Molla, A., Mulat, H., Damene, W., Bekele, M., Madoro, D., & Yohannes, K. (2021). Magnitude and correlates of sleep quality among undergraduate medical students in Ethiopia: Cross –sectional study. *Sleep Science and Practice*, 5(1), 7. <https://doi.org/10.1186/s41606-021-00058-2>
- Ya, J., & Bayraktutan, U. (2023). Vascular Ageing: Mechanisms, Risk Factors, and Treatment Strategies. *International Journal of Molecular Sciences*, 24(14), 11538. <https://doi.org/10.3390/ijms241411538>
- Yadav, M. (2022). Diet, Sleep and Exercise: The Keystones of Healthy Lifestyle for Medical Students. *Journal of Nepal Medical Association*, 60(253), 841–843. <https://doi.org/10.31729/jnma.7355>
- Yang, T.-C., & Park, K. (2015). To What Extent do Sleep Quality and Duration Mediate the Effect of Perceived Discrimination on Health? Evidence from Philadelphia. *Journal of Urban Health*, 92(6), 1024–1037. <https://doi.org/10.1007/s11524-015-9986-8>
- Zhang, B., Wang, Y., Liu, X., Zhai, Z., Sun, J., Yang, J., Li, Y., & Wang, C. (2021). The association of sleep quality and night sleep duration with coronary heart disease in a large-scale rural population. *Sleep Medicine*, 87, 233–240. <https://doi.org/10.1016/j.sleep.2021.09.013>
- Zhang, X., Wang, D., & Li, F. (2022). Physical Exercise, Social Capital, Hope, and Subjective Well-Being in China: A Parallel Mediation Analysis. *International Journal of Environmental Research and Public Health*, 20(1), 303. <https://doi.org/10.3390/ijerph20010303>