

DAFTAR PUSTAKA

- Albert, K.M. & Newhouse, P.A., 2019. Estrogen, stress, and depression: Cognitive and biological interactions. *Annual Review of Clinical Psychology*, 15, pp.1–26. doi:10.1146/annurev-clinpsy-050718-095557.
- Almarhoon, F.H., Almubarak, K.A., Alramdhan, Z.A., Albagshi, R.S., Alotayriz, J.K. Alqahtani, A.H., 2021. The association between depression obesity among adults in the Eastern Province, Saudi Arabia. *Cureus*, 13(10), p.e18794.
- Alugubelli, N., Abuissa, H. and Roka, A., 2022. Wearable devices for remote monitoring of heart rate heart rate variability—what we know what is coming. *Sensors*, 22, p.8903.
- Bangasser, D.A. & Valentino, R.J., 2014. Sex differences in stress-related psychiatric disorders: Neurobiological perspectives. *Nature Neuroscience*, 15, pp.477–484.
- Bekhbat, M. & Neigh, G.N., 2018. Sex differences in the neuro-immune consequences of stress: Focus on depression and anxiety. *Brain, Behavior, and Immunity*, 67, pp.1–12.
- Blasco, B.V., García-Jimenez, J., Bodoano, I. and Gutiérrez-Rojas, L., 2020. Obesity depression: its prevalence influence as a prognostic factor: a systematic review. *Psychiatry Investigation*, 17(8), pp.715–724.
- Bray, M.S., Loos, R., McCaffery, J., Ling, C., Franks, P., Weinstock, G., *et al.*, 2016. NIH working group report—using genomic information to guide weight management: from universal to precision treatment. *Obesity*, 24, pp.14–22.
- Chen, J.-H., Yang, Y., Fang, C., 2025. Balancing work and earnings: The long-term impact on mental health. *Social Science & Medicine*, 364, 116276.
- Chen, H.S, Wang, F., Chen, J.G., 2024. Epigenetic mechanisms in depression: Implications for pathogenesis and treatment. *Current Opinion in Neurobiology*: Volume 85,
- Cowan, M.J., Pike, K. & Burr, R.L., 1994. Effects of gender and age on heart rate variability in healthy individuals and in persons after sudden cardiac arrest. *Journal of Electrocardiology*, 27(Supplement 1), pp.1–9.
- Dahlan, M.S., 2023. Statistik Untuk Kedokteran dan Kesehatan. Edisi 6. PT Epidemiologi Indonesia.

- De Maria, B., Parati, M., Dalla Vecchia, L.A., 2023. Day and night heart rate variability using 24-h ECG recordings: A systematic review with meta-analysis using a gender lens. *Clinical Autonomic Research*, 33, pp.821–841.
- Elks, C.E., de Hoed, M., Zhao, J.H., Sharp, S.J., Wareham, N.J., Loos, R.J.F. *et al.*, 2012. Variability in the heritability of body mass index: a systematic review meta-regression. *Frontiers in Endocrinology*, 3, p.29.
- Espinoza-Salinas, A., Brito, C., Arenas Sánchez, G., Peiret Villacura, L., Molina Sotomayor, E., Cigarroa Cuevas, I. *et al.*, 2022. Autonomic function and its relationship with central obesity and hemodynamic variables in obese and overweight adults. *Nutrición Hospitalaria*, 39(2), pp.320–328.
- Wessel CR, Karakas C, Haneef Z, Mutchnick I. , 2024. Vagus nerve stimulation and heart rate variability: A scoping review of a somatic oscillatory signal. *Clin Neurophysiol.*;160:95-107.
- Lehrer, P., *et al*, 2020. Heart Rate Variability Biofeedback Improves Emotional and Physical Health and Performance: A Systematic Review and Meta Analysis. *Applied Psychophysiology and Biofeedback*
- Furlan, R., 2018. Sympathetic activity and obesity. *Frontiers in Physiology*, 9, 1349.
- Galín, S. and Keren, H., 2024. The predictive potential of heart rate variability for depression. *Neuroscience*, 546, pp.88–103.
- Ge, L., Sadeghirad, B., Ball, G.D.C., da Costa, B.R., Hitchcock, C.L., Svendrovski, *et al.*, 2020. Comparison of dietary macronutrient patterns of 14 popular named dietary programmes for weight cardiovascular risk factor reduction in adults: systematic review network meta-analysis of randomised trials. *BMJ*, 369, p.m696.
- Ginting, H., Näring, G., van der Veld, W.M., Srisayekti, W. and Becker, E.S., 2013. Validating the Beck Depression Inventory-II in Indonesia's general population coronary heart disease patients. *International Journal of Clinical Health Psychology*, 13(3), pp.235–242.
- Gjermani, E., Kirstein, A.S., Kolbig, F., Kirchhof, M., Bundalian, L., Katzmann, *et al.*, 2021. Obesity—an update on the basic pathophysiology review of recent therapeutic advances. *Biomolecules*, 11(10), p.1426.
- Hall, K.D., Sacks, G., Chramohan, D., Chow, C.C., Wang, Y.C., Gortmaker, S.L., *et al.*, 2011. Quantification of the effect of energy imbalance on bodyweight. *The Lancet*, 378, pp.826–837.
- Hamilton, J. L. and Alloy, L. B., 2016. Atypical reactivity of heart rate variability to stress depression: Systematic review of the literature directions for future research. *Clinical Psychology Review*, 50, pp. 67–79.

- Hillebr, S., Gast, K.B., de Mutsert, R., Swenne, C.A., Jukema, J.W., Middeldorp, S., *et al.*, 2013. Heart rate variability first cardiovascular event in populations without known cardiovascular disease: meta-analysis dose-response meta-regression. *EP Europace*, 15, pp.742–749.
- Karason, K., Mølgaard, H., Wikstrand, J. & Sjöström, L., 1999. Heart rate variability in obesity and the effect of weight loss. *International Journal of Obesity*, 23, pp.948–956.
- Kaur, H., Jindal, K., Akash, Sharma, A., Dhillon, K.S. and Garry, G.K., 2022. Depression and heart rate variability in physically healthy subjects: implications for cardiovascular risk. *Journal of Cardiovascular Disease Research*, 13(8).
- Kemp, A.H., Quintana, D.S., Gray, M.A., Felmingham, K.L., Brown, K. & Gatt, J.M., 2010. Impact of depression and antidepressant treatment on heart rate variability: A review and meta-analysis. *Biological Psychiatry*, 67(11), pp.1067–1074.
- Koch, C., Wilhelm, M., Salzmann, S., Rief, W. & Euteneuer, F., 2019. A meta-analysis of heart rate variability in major depression. *Psychological Medicine*, 49(12), pp.1948–1957.
- Koenig, J. & Thayer, J.F., 2016. Sex differences in healthy human heart rate variability: A meta-analysis. *Neuroscience & Biobehavioral Reviews*, 64, pp.288–310.
- Koschke, M., Boettger, M.K., Schulz, S., Berger, S., Terhaar, J., Voss, A., Yeragani, V.K. and Bär, K.J., 2009. Autonomy of autonomic dysfunction in major depression. *Psychosomatic Medicine*, 71(8), pp.852–860.
- Kubota, Y., Chen, L.Y., Whitsel, E.A. and Folsom, A.R., 2017. Heart rate variability lifetime risk of cardiovascular disease: the Atherosclerosis Risk in Communities study. *Annals of Epidemiology*, 27, pp.619–625.e2.
- Jo, Y.T., 2024. Association between heart rate variability metrics from a smartwatch and self-reported depression and anxiety symptoms: A four-week longitudinal study. *Front. Psychiatry*. Volume 15 - 2024
- Laborde, S., Mosley, E. & Thayer, J.F., 2017. Heart rate variability and cardiac vagal tone in psychophysiological research: Recommendations for experiment planning, data analysis, and data reporting. *Frontiers in Psychology*, 8, 213.
- Lambert, E., 2010. Obesity and the sympathetic nervous system. *Frontiers in Physiology*, 1, 143.
- Lesnewich, L.M., Conway, F.N., Buckman, J.F., Brush, C.J., Ehmann, P.J., Eddie, D., *et al.*, 2019. Associations of depression severity with heart rate heart

- rate variability in young adults across normative clinical populations. *International Journal of Psychophysiology*, 142, pp.57–65.
- Li, C., Ning, G., Wang, L. & Chen, F., 2022. More income, less depression? Revisiting the nonlinear and heterogeneous relationship between income and mental health. *Frontiers in Psychology*, 13, 1016286.
- Locke, A.E., Kahali, B., Berndt, S.I., Justice, A.E., Pers, T.H., Day, F.R., C., *et al.*, 2015. Genetic studies of body mass index yield new insights for obesity biology. *Nature*, 518, pp.197–206.
- Mansur, R.B., Brietzke, E. and McIntyre, R.S., 2015. Is there a “metabolic-mood syndrome”? A review of the relationship between obesity mood disorders. *Neuroscience Biobehavioral Reviews*, 52.
- McEwen, B.S., 2004. Protection and damage from acute and chronic stress: Allostasis and allostatic overload and relevance to the pathophysiology of psychiatric disorders. *Annals of the New York Academy of Sciences*, 1032, pp.1–7.
- McGee, J.E., 2023. Effects of weight loss and weight loss maintenance on cardiac autonomic function in obesity: a randomized controlled trial. *Appl Physiol Nutr Metab.*;48(9):678–691.
- Milano, W., Ambrosio, P., Carizzzone, F., De Biasio, V., Di Munzio, W., Foia, M.G., *et al.*, 2020. Depression obesity: analysis of common biomarkers. *Diseases*, 8(2), p.23.
- Mumang, A.A., Liaury, K., Syamsuddin, S., Maria, I.L., Tanra, A.J., Ishida, T. *et al.*, 2020. Socio-economic-demographic determinants of depression in Indonesia: A hospital-based study. *PLoS ONE*, 15(12), e0244108.
- Newhouse, P. & Albert, K., 2015. Estrogen, stress, and depression: A neurocognitive model. *JAMA Psychiatry*, 72(7), pp.727–729.
- Oliveira, R.S., Barker, A.R., Wilkinson, K.M., Proctor, D.N. and Ainsworth, B.E., 2020. Heart rate variability and depression in adults: A systematic review of the association with obesity and metabolic risk. *Autonomic Neuroscience: Basic and Clinical*, 224, 102637.
- Ouakinin, S.R.S., Barreira, D.P. and Gois, C.J., 2018. Depression obesity: integrating the role of stress, neuroendocrine dysfunction inflammatory pathways. *Frontiers in Endocrinology*, 9, p.431.
- Owari, G., Kono, K. Nishida, Y., 2022. Association between depression heart rate variability. *Progress in Rehabilitation Medicine*, 7, p.20220029.

- Pariante, C.M. & Lightman, S.L., 2008. The HPA axis in major depression: Classical theories and new developments. *Trends in Neurosciences*, 31(9), pp.464–468.
- Pfaltz, M.C. & Schnyder, U., 2023. Allostatic load and allostatic overload: Preventive and clinical implications. *Psychotherapy and Psychosomatics*, 92(5), pp.279–282.
- Perhimpunan Dokter Spesialis Penyakit Dalam Indonesia (PAPDI), 2025. Konsensus Tata Laksana Multidisiplin Obesitas pada Dewasa. Jakarta: PAPDI.
- Pizzoli, S.F.M., 2021. A meta-analysis on heart rate variability biofeedback and depressive symptoms. *Applied Psychophysiology and Biofeedback*, 46, pp.1–14.
- Rabiei, S., Rajabian Tabesh, M., Razeghi Jahromi, S. Abolhasani, M., 2023. The association between depression, obesity body composition in Iranian women. *Clinical Nutrition Open Science*, 47, pp.44–52.
- Rottenberg, J., Wilhelm, F. H., Gross, J. J. and Gotlib, I. H., 2005. Respiratory sinus arrhythmia as a predictor of outcome in major depressive disorder. *Journal of Affective Disorders*, 89(1-3), pp. 29–36.
- Rottenberg, J., 2007. Cardiac vagal control in depression: A critical analysis. *Biological Psychology*, 74(2), pp. 200–211.
- Sarapultsev A, Gusev E, Chereshev V, Komelkova M, Hu D., 2024. Neuroimmune Interactions in Stress and Depression: Exploring the Molecular and Cellular Mechanisms within the Neuroinflammation-depression Nexus. *Curr Med Chem*.
- Sgoifo, A., Carnevali, L., Alfonso, M.-L. and Amore, M., 2015. Autonomic dysfunction heart rate variability in depression. *Stress*, 18, pp.343–352.
- Shaffer, F. and Ginsberg, J.P., 2017. An overview of heart rate variability metrics norms. *Frontiers in Public Health*, 5, p.258.
- Shatri,H., Putranto, R., Faisal, E., Mudjadjid, E., Abdullah, V. Poespitasari, V.I., *et al*, 2025. Penggunaan variabilitas denyut jantung pada praktek klinik psikosomatik dan paliatif. PIPInterna.
- Sorayah, 2018. Uji Validitas Konstruk Beck Depression Inventory-II (BDI-II)
- Soumya, B.A., Lohitashwa, R. and Nadiger, V.M., 2022. Obesity heart rate variability: a cross-sectional study in obese young adults. *Indian Journal of Health Sciences Biomedical Research (KLEU)*, 15(1), pp.34–37.

- Stetler, C. & Miller, G.E., 2011. Depression and hypothalamic–pituitary–adrenal activation: A quantitative summary of four decades of research. *Psychosomatic Medicine*, 73(2), pp.114–126.
- Struven, A., Holzapfel, C., Stremmel, C. and Brunner, S., 2021. Obesity, nutrition heart rate variability. *International Journal of Molecular Sciences*, 22(8), p.4215.
- Svensson, M.K., Lindmark, S., Wiklund, U., Rask, P. and Karlsson, M., 2016. Altered heart rate variability in obesity and insulin resistance. *Cardiovascular Diabetology*, 15, 1–10.
- Tahan, M., Saleem, T., Zygoulis, P., Pires, L.V.L., Pakdaman, M., Taheri, H. *et al.*, 2020. A systematic review of prevalence of depression in Iranian patients. *Neuropsychopharmacologia Hungarica*, 22(1), pp.16–22.
- Taylor, S.E., Klein, L.C., Lewis, B.P., Gruenewald, T.L., Gurung, R.A. & Updegraff, J.A., 2000. Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review*, 107(3), pp.411–429.
- Thayer JF, Lane RD., 2000. A model of neurovisceral integration in emotion regulation and dysregulation. *J Affect Disord*, 61(3):201-16.
- Yu, B., Funk, M., Hu, J., Wang, Q. & Feijs, L., 2018. Biofeedback for everyday stress management: A systematic review. *Frontiers in ICT*, 5, p.23
- Turcu, A.-M., Ilie, A.C., Ștefăniu, R., Țăranu, S.M., Su, I.A., Alexa-Stratulat, T., *et al.*, 2023. The impact of heart rate variability monitoring on preventing severe cardiovascular events. *Diagnostics*, 13(14), p.2382.
- Ul-Haq, Z., Mackay, D. F., Fenwick, E. and Pell, J. P., 2014. Meta-analysis of the association between body mass index depression in adults. *Obesity Reviews*, 15(2), pp. 113–120.
- Ul-Haq, Z., Smith, D.J., Nicholl, B.I., Cullen, B., Martin, D., Gill, J.M.R. *et al.*, 2014. Gender differences in the association between adiposity probable major depression: a cross-sectional study of 140,564 UK Biobank participants. *BMC Psychiatry*, 14(1), p.153.
- Wang, Y., 2021. Transcutaneous Auricular Vagus Nerve Stimulation: From Concept to Application. *Neurosci, bull*: 37(6): 853-862.
- Wang, Y.P. and Gorenstein, C., 2013. Assessment of depression in medical patients: a systematic review of the utility of the Beck Depression Inventory-II. *Clinics (Sao Paulo)*, 68(9), pp.1274–1287.

- WHO, 2024. Obesity and overweight. [online] World Health Organization. Available at: <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight> [Accessed 11 Jun. 2025].
- Winkler, T.W., Justice, A.E., Graff, M., Barata, L., Feitosa, M.F., Chu, S., *et al.*, 2015. The influence of age sex on genetic associations with adult body size shape: a large-scale genome-wide interaction study. *PLoS Genetics*, 11, e1005378.
- Wu, Q., Miao, X., Cao, Y., Chi, A. & Xiao, T., 2023. Heart rate variability status at rest in adult depressed patients: A systematic review and meta-analysis. *Frontiers in Public Health*, 11, 112233.
- Yadav, R.L., Yadav, P.K., Yadav, L.K., Agrawal, K., Sah, S.K. and Islam, M.N., 2017. Association between obesity heart rate variability indices: an intuition toward cardiac autonomic alteration – a risk of CVD. *Diabetes, Metabolic Syndrome Obesity: Targets Therapy*, 10, pp.57–64.
- Zalika, D., 2025. Perkembangan PDB per Kapita Indonesia 2020-2024. GoodStats. [online] Available at: <https://data.goodstats.id/statistic/perkembangan-pdb-per-kapita-indonesia-2020-2024-ooFqf> [Accessed 3 October 2025].