DAFTAR PUSTAKA

Abdelaal, M., le Roux, C. W., & Docherty, N. G. (2017). Morbidity and mortality associated with obesity. *Annals of translational medicine*, *5*(7), 161.

Adam, FMS, Adam JMF, Seweng, A, Nang EEK, Tai ES. (2016) Prevalence of Diabetes Mellitus among Sub-Urban Population in Makassar, Indonesia. *International Journal of Science and Research*, 5(1):835-83

Adam, Fabiola MS. (2023). Correlation of Visceral Adiposity Index and Triglyceride-Glucose Index With Traditional Risk Factors of Cardiovascular Disease Among Urban Population: A Cross Sectional Study. Proceeding the ASEAN Federation of Endocrine Societies Congress. Thailand, 16-18 November 2023: AFES

Adam, JMF. (2006) Dislipidemia pada sindroma metabolik. *Obesitas dan sindroma metabolik*. 101-117

Akil, L., Ahmad A. (2011) Relationships between Obesity and Cardiovascular Diseases in Four Southern States and Colorado. *J Health Care Poor Underserved*, 22(4 Suppl): 61–72.

Ali, N., Ahmed, S., Mahmood, S., Trisha, A. D., & Mahmud, F. (2023). The prevalence and factors associated with obesity and hypertension in university academic staff: a cross-sectional study in Bangladesh. *Scientific reports*, 13(1), 7309.

Al-Sharafi BA, Qais AA, Salem K, Bashaaib MO. (2021). Family History, Consanguinity and Other Risk Factors Affecting the Prevalence of Prediabetes and Undiagnosed Diabetes Mellitus in Overweight and Obese Yemeni Adults. *Diabetes Metab Syndr Obes*. 14:4853-4863

American Diabetes Association. (2021) Classification and Diagnosis of Diabetes: *Standards of Medical Care in Diabetes—2021*. *Diabetes Care*, 44 (Supplement_1): S15–S33.

Barroso TA., Marins LB., Ales R., Goncalves A., Barroso SG., Rocha GS. (2017). Association of Central Obesity with The Incidence of Cardiovascular Diseases and Risk Factors. *International Journal of Cardiovascular Sciences*. 30(05)

Bigaard J, Frederiksen K, Tjønneland A, Thomsen BL, Overvad K, Heitmann BL, et al. Waist circumference and body composition in relation to all-cause mortality in middle-aged men and women. *Int J Obes*. (2005) 29:778–84. doi: 10.1038/sj.ijo.0802976

Biswas, T., Townsend, N., Magalhaes, R. J. S., Islam, M. S., Hasan, M. M., & Mamun, A. (2019). Current Progress and Future Directions in the Double Burden of Malnutrition among Women in South and Southeast Asian Countries. *Current developments in nutrition*, *3*(7), nzz026.

Brannick, B., & Dagogo-Jack, S. (2018). Prediabetes and Cardiovascular Disease: Pathophysiology and Interventions for Prevention and Risk Reduction. *Endocrinology and metabolism clinics of North America*, *47*(1), 33–50.

Centers for Disease Control and Prevention. (2011) *Overweight and obesity*. Available from: www.cdc.gov/obesity.

Centers for Disease Control and Prevention. (2023) Obesity and Overweight. Available from: https://www.cdc.gov/nchs/fastats/obesity-overweight.htm

Chacko, M., Sarma, P. S., Harikrishnan, S., Zachariah, G., & Jeemon, P. (2020). Family history of cardiovascular disease and risk of premature coronary heart disease: A matched case-control study. *Wellcome open research*, *5*, 70.

Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL Jr, Jones DW, Materson BJ, Oparil S, Wright JT Jr, Roccella EJ. (2003) National Heart, Lung, and Blood Institute Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure; National High Blood Pressure Education Program Coordinating Committee. The Seventh Report of the Joint

National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: the JNC 7 report. 289(19):2560-72.

Dai, H., Alsalhe, T. A., Chalghaf, N., Riccò, M., Bragazzi, N. L., & Wu, J. (2020). The global burden of disease attributable to high body mass index in 195 countries and territories, 1990-2017: An analysis of the Global Burden of Disease Study. *PLoS medicine*, *17*(7), e1003198.

Dhurandhar, N.V. (2022) What is obesity?. *International Journal of Obesity*, 46, 1081–1082.

Du, Z., & Qin, Y. (2023). Dyslipidemia and Cardiovascular Disease: Current Knowledge, Existing Challenges, and New Opportunities for Management Strategies. *Journal of clinical medicine*, *12*(1), 363.

Frąk, W., Wojtasińska, A., Lisińska, W., Młynarska, E., Franczyk, B., & Rysz, J. (2022). Pathophysiology of Cardiovascular Diseases: New Insights into Molecular Mechanisms of Atherosclerosis, Arterial Hypertension, and Coronary Artery Disease. *Biomedicines*, *10*(8), 1938.

Fuchs, F. D., & Whelton, P. K. (2020). High Blood Pressure and Cardiovascular Disease. *Hypertension (Dallas, Tex. : 1979)*, *75*(2), 285–292.

Gidey, G., Hiruy, M., Teklu, D., Ramanathan, K., & Amare, H. (2023). Prevalence of Prediabetes and Related Modifiable Cardiovascular Risk Factors Among Employees of Ayder Comprehensive Specialized Hospital, Tigray, Northern Ethiopia. *Diabetes, metabolic syndrome and obesity : targets and therapy*, *16*, 643–652.

Goyal R, Nguyen M, Jialal I. (2023) Glucose Intolerance. [Updated 2023 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK499910/

Haam, J. H., Kim, B. T., Kim, E. M., Kwon, H., Kang, J. H., Park, J. H., Kim, K. K., Rhee, S. Y., Kim, Y. H., & Lee, K. Y. (2023). Diagnosis of Obesity: 2022 Update of Clinical Practice Guidelines for Obesity by the Korean Society for the Study of Obesity. *Journal of obesity & metabolic syndrome*, *32*(2), 121–129.

Hauguel-Moreau, M., Hergault, H., Cazabat, L. et al. Prevalence of prediabetes and undiagnosed diabetes in a large urban middle-aged population: the CARVAR 92 cohort. *Cardiovasc Diabetol.* 22:31.

Hebebrand J, Hinney A. (2009) Environmental and Genetic Risk Factors in Obesity. Child Adolesc Psychiatr Clin N Am. 18(1):83–94.

Hedayatnia, M., Asadi, Z., Zare-Feyzabadi, R., Yaghooti-Khorasani, M., Ghazizadeh, H., Ghaffarian-Zirak, R., Nosrati-Tirkani, A., Mohammadi-Bajgiran, M., Rohban, M., Sadabadi, F., Rahimi, H. R., Ghalandari, M., Ghaffari, M. S., Yousefi, A., Pouresmaeili, E., Besharatlou, M. R., Moohebati, M., Ferns, G. A., Esmaily, H., & Ghayour-Mobarhan, M. (2020). Dyslipidemia and cardiovascular disease risk among the MASHAD study population. *Lipids in health and disease*, *19*(1), 42.

Henry RR, Mudalier S. (2003) Mechanism and Clinical Management in Obesity In: Eckel RH, ed. Textbook of Obesity. 229-72.

Hiuge-Shimizu A, Kishida K, Funahashi T, Ishizaka Y, Oka R, Okada M, et al. Absolute value of visceral fat area measured on computed tomography scans and obesity-related cardiovascular risk factors in large-scale Japanese general population (the VACATION-J study). *Ann Med.* (2012) 44:82–92. doi: 10.3109/07853890.2010.526138

Hunt, A., Ferguson, J. (2014) Health costs in the European Union: how much is related to EDCS? the Health and Environment Alliance. Available from: https://www.env-health.org/IMG/pdf/18062014_final_health_costs_in_the_european_union_how_much_is_realted_to_edcs.pdf

Hussain, M. A., Al Mamun, A., Peters, S. A., Woodward, M., & Huxley, R. R. (2016). The Burden of Cardiovascular Disease Attributable to Major Modifiable Risk Factors in Indonesia. *Journal of epidemiology*, *26*(10), 515–521.

Imes, C. C., & Lewis, F. M. (2014). Family history of cardiovascular disease, perceived cardiovascular disease risk, and health-related behavior: a review of the literature. *The Journal of cardiovascular nursing*, *29*(2), 108–129.

Iqbal AM, Jamal SF. (2023) Essential Hypertension. [Updated 2023 Jul 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK539859/

Izquierdo AG, Crujeiras AB, Casanueva FF, Carreira MC. (2019) Leptin, Obesity, and Leptin Resistance: Where Are We 25 Years Later? Nutrients. 11(11):2704.

Jacob BS, Balachandran J., Paul B. (2014). A Study on Prevalence of Dyslipidemia in Obese Patients in a teaching hospital in Kerala. *Scholars Journal of Applied Medical Sciences.* 2 (2B): 642–646

Jebari-Benslaiman, S., Galicia-García, U., Larrea-Sebal, A., Olaetxea, J. R., Alloza, I., Vandenbroeck, K., Benito-Vicente, A., & Martín, C. (2022). Pathophysiology of Atherosclerosis. *International journal of molecular sciences*, *23*(6), 3346.

Jin J. (2018) Risk Assessment for Cardiovascular Disease With Nontraditional Risk Factors. *JAMA.* 320(3), 316.

Joseph, JJ., Deedwania, P., Acharya, T., Aguilar, D., Bhatt, DL., Chyun, DA., Di Palo, KE., Golden SH., Sperling, LS., et al. (2022) Comprehensive Management of Cardiovascular Risk Factors for Adults With Type 2 Diabetes: A Scientific Statement From the American Heart Association. *Circulation. 145(9):* e722–e759

Jousilahti, P., Vartiainen, E., Toumilehto, J., Puska, P. (1999) Sex, Age, Cardiovascular Risk Factors, and Coronary Heart Disease. *Circulation*. 99(9): 1165–1172

Kadouh HC, Acosta A. (2017) Current paradigms in the etiology of obesity. Tech Gastrointest Endosc. 19(1):2–11.

Kaur H. & Aeri B. (2020). Assessing the Prevalence of Dyslipidemia in Apparently Healthy Urban Obese Adults Residing in South Delhi, India. *Journal Gizi Pangan*. 15(2):63-70

Kementrian Kesehatan Republik Indonesia. (2018) Laporan Nasional Riset Kesehatan Dasar. Badan Penelitian dan Pengembangan Kesehatan.

Kementrian Kesehatan Republik Indonesia. (2023) Panduan Hari Obesitas Sedunia. Available from: https://ayosehat.kemkes.go.id/pub/files/0b43c48e8765bf62a02f42a1359349d5.pdf

Kinlen D, Cody D, O'Shea D. (2018) Complications of obesity. QJM. 111(7):437-443.

Kolber, M. R., & Scrimshaw, C. (2014). Family history of cardiovascular disease. *Canadian family physician Medecin de famille canadien*, *60*(11), 1016.

Kwiterovich, PO. (2010) Lipid, Apolipoprotein, and lipoprotein metabolism: implications for the diagnosis and treatment of dyslipdemia. The Johnson Hopkins Textbook of Dyslipidemia. 1 – 21

Lauer MS, Anderson KM, Kannel WB, Levy D. (1991) The impact of obesity on left ventricular mass and geometry. The Framingham Heart Study. JAMA. 266(2):231-236.

Lee, J. S., Chang, P. Y., Zhang, Y., Kizer, J. R., Best, L. G., & Howard, B. V. (2017). Triglyceride and HDL-C Dyslipidemia and Risks of Coronary Heart Disease and Ischemic Stroke by Glycemic Dysregulation Status: The Strong Heart Study. *Diabetes care*, *40*(4), 529–537.

Li, M., Zhu, P., Wang S. (2022). Risk for Cardiovascular Death Associated With Waist Circumference and Diabetes: A 9-Year Prospective Study in the Wan Shou Lu Cohort. *Front. Cardiovasc. Med. Sec. Cardiovascular Epidemiology and Prevention.* 9.

Liu, X., Chen, Y., Boucher, N.L., Rothberg, A.E. *(*2017) Prevalence and change of central obesity among US Asian adults: NHANES 2011–2014. *BMC Public Health* 17, 678.

Lyons-Reid J, Ward LC, Kenealy T, Cutfield W. Bioelectrical Impedance Analysis-An Easy Tool for Quantifying Body Composition in Infancy? Nutrients. 2020 Mar 27;12(4):920.

Mingrone, G. and Castagneto, M. (2015) The Pathopysiology of Obesity. In: Lucchese M. and Scopinaro, N., Eds., Minimally Invasive Bariatric and Metabolic Surgery, Springer International Publishing, Cham, 17-23.

Nathan, DM., Davidson, MB., DeFronzo, RA., Heine, RJ., Henry, RR., Pratley, R., Zinman, B. (2007) Impaired Fasting Glucose and Impaired Glucose Tolerance: Implications for care. *Diabetes Care*. 30 (3): 753–759.

National Cholesterol Education Program. (2001). ATP III guidelines at-a-glance quick desk reference. National Institutes of Health, National Heart, Lung, and Blood Institute.

Noor SK., Fadlelseed M., Bushara SO., Badi S., Mohamed O., Elmubarak A., Kheir M., Abubaker NE.., Ahmed MH., Ahmed M. (2023). Prevalence of obesity related hypertension among overweight or obese adults in River Nile State in Northern Sudan: a community based cross-sectional study. *Cardiovascular Diagnosis & Therapy*. 13(2)

Okorare, O., Evbayekha, E. O., Adabale, O. K., Daniel, E., Ubokudum, D., Olusiji, S. A., & Antia, A. U. (2023). Smoking Cessation and Benefits to Cardiovascular Health: A Review of Literature. *Cureus*, *15*(3), e35966.

Oparil, S., Acelajado, M. C., Bakris, G. L., Berlowitz, D. R., Cífková, R., Dominiczak, A. F., Grassi, G., Jordan, J., Poulter, N. R., Rodgers, A., & Whelton, P. K. (2018). Hypertension. *Nature reviews. Disease primers*, *4*, 18014.

Panuganti KK, Nguyen M, Kshirsagar RK. (2023) Obesity. [Updated 2023 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK459357/

Pappan N, Rehman A. (2023) Dyslipidemia. [Updated 2023 Jul 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK560891/

Pineda E, Sanchez-Romero LM, Brown M, Jaccard A, Jewell J, Galea G, Webber L, Breda J. (2018) Forecasting Future Trends in Obesity across Europe: The Value of Improving Surveillance. Obes Facts. 11(5):360-371.

Purnell JQ. (2023) Definitions, Classification, and Epidemiology of Obesity. In: Feingold KR, Anawalt B, Blackman MR, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com. Available from: https://www.ncbi.nlm.nih.gov/books/NBK279167/

Quesada, O., Claggett, B., Rodriguez F., Cai, J., Moncrieft, AE., Garcia, K., Rivera, MDR., Hanna DB., Davigius ML., Talavera, GA., Merz, CNB., Solomon, SD., Cheng, S., Bello NA. (2021) Associations of Insulin Resistance With Systolic and Diastolic Blood Pressure: A Study From the HCHS/SOL. *Hypertension*, *78(*3), 716–725

Ritchie SA, Connell JM. (2007) The link between abdominal obesity, metabolic syndrome and cardiovascular disease. *Nutrition Metabolism and Cardiovascular Diseases*. 17(4):319–326

Rodgers, J. L., Jones, J., Bolleddu, S. I., Vanthenapalli, S., Rodgers, L. E., Shah, K., Karia, K., & Panguluri, S. K. (2019). Cardiovascular Risks Associated with Gender and Aging. *Journal of cardiovascular development and disease*, *6*(2), 19.

Romero-Corral, A., Somers, V. K., Sierra-Johnson, J., Thomas, R. J., Collazo-Clavell, M. L., Korinek, J., Allison, T. G., Batsis, J. A., Sert-Kuniyoshi, F. H., & Lopez-

Jimenez, F. (2008). Accuracy of body mass index in diagnosing obesity in the adult general population. *International journal of obesity*, *32*(6), 959–966.

Roy A, Rawal I, Jabbour S, Prabhakaran D. Tobacco and Cardiovascular Disease: A Summary of Evidence. In: Prabhakaran D, Anand S, Gaziano TA, et al., editors. Cardiovascular, Respiratory, and Related Disorders. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 17. Chapter 4.

Rutherford WJJ, Gary A. (2010) Comparison of Bioelectrical Impedance and Skinfolds with Hydrodensitometry in the Assessment of Body Composition in Healthy Young Adults. Available from: https://files.eric.ed.gov/fulltext/EJ954505.pdf

Sai XY, Gao F, Zhang WY, Gao M, You J, Song YJ, Luo TG, Sun YY. (2021). Combined Effect of Smoking and Obesity on Coronary Heart Disease Mortality in Male Veterans: A 30-year Cohort Study. *Biomed Environ Sci.* 34(3):184-191.

Setiadi, A. P., & Halim, S. V. (2018). Penyakit Kardiovaskular; Seri Pengobatan Rasional. Graha Ilmu, XII+204. http://repository.ubaya.ac.id/37369/7/Seri Pengobatan Rasional 1-Penyakit Kardiovaskular.pdf

Shahoud JS, Sanvictores T, Aeddula NR. (2023) Physiology, Arterial Pressure Regulation. [Updated 2023 Aug 28]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing ; 2023 Jan Available from: https://www.ncbi.nlm.nih.gov/books/NBK538509/

Sun, D. K., Zhang, N., Liu, Y., Qiu, J. C., Tse, G., Li, G. P., Roever, L., & Liu, T. (2023). Dysglycemia and arrhythmias. *World journal of diabetes*, *14*(8), 1163–1177.

Tackling G, Borhade MB. (2023) Hypertensive Heart Disease. [Updated 2023 Jun 26]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK539800/

Tham, K. W., Abdul Ghani, R., Cua, S. C., Deerochanawong, C., Fojas, M., Hocking, S., Lee, J., Nam, T. Q., Pathan, F., Saboo, B., Soegondo, S., Somasundaram, N., Yong, A. M. L., Ashkenas, J., Webster, N., & Oldfield, B. (2023). Obesity in South and Southeast Asia-A new consensus on care and management. *Obesity reviews : an official journal of the International Association for the Study of Obesity*, *24*(2), e13520. Tiwari A, Balasundaram P. (2023) Public Health Considerations Regarding Obesity. [Updated 2023 Jun 5]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK572122/

Thiriet M. (2019). Cardiovascular Disease: An Introduction. *Vasculopathies: Behavioral, Chemical, Environmental, and Genetic Factors*, *8*, 1–90.

Torres-Fuentes C, Schellekens H, Dinan TG, Cryan JF (2017) The microbiota–gut–brain axis in obesity. Lancet Gastroenterol Hepatol. 2(10):747–56.

Tuovinen, E. L., Saarni, S. E., Männistö, S., Borodulin, K., Patja, K., Kinnunen, T. H., Kaprio, J., & Korhonen, T. (2016). Smoking status and abdominal obesity among normal- and overweight/obese adults: Population-based FINRISK study. *Preventive medicine reports*, *4*, 324–330.

van Oort S, Beulens JWJ, van Ballegoooijen AJ, Grobbee DE, Larsson SC. (2020). Association Risk Factors and Lifestyle Behaviors With Hypertension. *Hypertension*, *76*(6):1971-1979

van Son J, Koekkoek LL, Fleur SEL, Serlie MJ, Nieuwdorp M. (2021) The role of the gut microbiota in the gut–brain axis in obesity: Mechanisms and future implications. Int J Mol Sci. 22(6):1–19.

Volpe, M., & Gallo, G. (2023). Obesity and cardiovascular disease: An executive document on pathophysiological and clinical links promoted by the Italian Society of Cardiovascular Prevention (SIPREC). *Frontiers in cardiovascular medicine*, *10*, 1136340.

Wang, L., Lei, J., Wang, R., Li, K. (2023) Non-Traditional Risk Factors as Contributors to Cardiovascular Disease. *Rev. Cardiovasc. Med.*, 24(5), 134.

Wharton, S., Lau, D. C. W., Vallis, M., Sharma, A. M., Biertho, L., Campbell-Scherer, D., Adamo, K., Alberga, A., Bell, R., Boulé, N., Boyling, E., Brown, J., Calam, B., Clarke, C., Crowshoe, L., Divalentino, D., Forhan, M., Freedhoff, Y., Gagner, M., Glazer, S., … Wicklum, S. (2020). Obesity in adults: a clinical practice guideline. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, *192*(31), E875–E891.

Wilkins E, Wilson L, Wickramasinghe K, Bhatnagar P, Leal J, Luengo-Fernandez R, Rayner M, Townsend N. (2017) European cardiovascular disease statistics. Brussels: *European Heart Network*

Wofford MR, Hall JE. (2004) Pathophysiology and treatment of obesity hypertension. 10(29):3621-37.

World Health Organization. (2019) Cardiovascular disease. Available from: https://www.who.int/health-topics/cardiovascular-diseases#tab=tab_1

World Health Organization. (2020) Tobacco responsible for 20% of deaths from coronary heart disease. Available from: https://www.who.int/news/item/22-09-2020-tobacco-responsible-for-20-of-deaths-from-coronary-heart-disease

World Health Organization. (2022a) Regional Office for Europe. WHO European regional obesity report 2022. [Internet] Regional Office for Europe; 2022. p. 206 Available from: https://www.who.int/europe/publications/i/item/9789289057738

World Health Organization. (2022b) World Obesity Day 2022 – Accelerating action to stop obesity. Available from: https://www.who.int/news/item/04-03-2022-world-obesity-day-2022-accelerating-action-to-stop-obesity

World Heart Federation. (2023) World Heart Report 2023. Available from: https://world-heart-federation.org/wp-content/uploads/World-Heart-Report-2023.pdf

World Obesity Federation. (2023) World Obesity Atlas 2023. Available from: https://data.worldobesity.org/publications/WOF-Obesity-Atlas-V5.pdf

Xu W., Zhang H., Paillard-Borg S., Zhu H., Qi X., Rizzuto D. 2016. Prevalence of Overweight and Obesity among Chinese Adults: Role of Adiposity Indicators and Age. *Obes Facts*. 9(1):17-28

Zhou, MS., Wang, A. & Yu, H. Link between insulin resistance and hypertension: What is the evidence from evolutionary biology?. *Diabetol Metab Syndr* **6**, 12 (2014). https://doi.org/10.1186/1758-5996-6-12

LAMPIRAN

LAMPIRAN 1. PERMOHONAN IZIN PENELITIAN

KEMENTERIAN PENDIDIKAN KEBUDAYAAN,
RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS KEDOKTERAN
JL. PERINTIS KEMERDEKAAN KM. 10, MAKASSAR 90245
TELEPON (0411) 586200, (6 SALURAN), 584200, FAX (0411) 585188
Laman: www.unhas.ac.id

Nomor : 34329/UN4.6.8/PT.01.04/2023 — 21 Desember 2023
Hal : Permohonan Izin Penelitian

Yth.

Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu
Provinsi Sulawesi Selatan
Di
Tempat

Dengan hormat, disampaikan bahwa mahasiswa Program Studi Sarjana Kedokteran Fakultas Kedokteran Universitas Hasanuddin di bawah ini :

N a m a : Johanna Aurelle Azarya Tabitha Sitorus
N i m : C011201151

bermaksud melakukan penelitian di Pusat Penelitian Lipid dan Diabetes, Rumah Sakit Akademis Jaury Jusuf Putra dengan judul penelitian "**Profil Faktor Risiko Tradisional Penyakit Kardiovaskular pada Subyek Obesitas di Kota Makassar**".

Sehubungan hal tersebut kiranya yang bersangkutan dapat diberi izin untuk melakukan Penelitian dalam rangka penyelesaian studinya.

Demikian permohonan kami, atas bantuan dan kerjasamanya disampaikan terima kasih.

Ketua Program Studi S1
Pendidikan Dokter
Fakultas Kedokteran

dr. Ririn Nislawati, M.Kes.,Sp.M
NIP 198101182009122003

LAMPIRAN 2. REKOMENDASI PERSETUJUAN ETIK

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK

Nomor : 976/UN4.6.4.5.31/ PP36/ 2023

Tanggal: 27 Desember 2023

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH23120933	No Sponsor	
Peneliti Utama	**Johanna Aurelle Azarya Tabitha Sitorus**	Sponsor	
Judul Peneliti	Profil Faktor Risiko Tradisional Penyakit Kardiovaskular pada Subyek Obesitas di Kota Makassar		
No Versi Protokol	**1**	Tanggal Versi	**27 Desember 2023**
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Pusat Penelitian Lipid dan Diabetes, Rumah Sakit Akademis Jaury Jusuf Putra Makassar.		
Jenis Review	[X] Exempted [ ] Expedited [ ] Fullboard Tanggal	Masa Berlaku **27 Desember 2023** sampai **27 Desember 2024**	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama **Prof. dr. Muh Nasrum Massi,PhD,SpMK, Subsp. Bakt(K)**	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama **dr. Firdaus Hamid, PhD, SpMK(K)**	Tanda tangan	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

LAMPIRAN 3. SURAT KETERANGAN IZIN PENELITIAN

PEMERINTAH PROVINSI SULAWESI SELATAN
DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU
Jl.Bougenville No.5 Telp. (0411) 441077 Fax. (0411) 448936
Website : http://simap-new.sulselprov.go.id Email : ptsp@sulselprov.go.id
Makassar 90231

Nomor	: **32299/S.01/PTSP/2023**	**Kepada Yth.**
Lampiran	: -	1. Direktur RS Akademis Jaury Jusuf Putra
Perihal	: **Izin penelitian**	2. Pimpinan Pusat Penelitian Lipid dan Diabetes
		di- **Tempat**

Berdasarkan surat Ketua Prog. Studi S1 Pend. Dokter Fak. Kedokteran Univ. Hasanuddin Makassar Nomor : 34329/UN4.6.8/PT.01.04/2023 tanggal 21 Desember 2023 perihal tersebut diatas, mahasiswa/peneliti dibawah ini:

N a m a	: **JOHANNA AURELLE AZARYA TABITHA SITORUS**
Nomor Pokok	: C011201151
Program Studi	: Pendidikan Dokter Umum
Pekerjaan/Lembaga	: Mahasiswa (S1)
Alamat	: Jl. P. Kemerdekaan Km 10, Makassar

Bermaksud untuk melakukan penelitian di daerah/kantor saudara dalam rangka menyusun SKRIPSI, dengan judul :

" PROFIL FAKTOR RISIKO TRADISIONAL PENYAKIT KARDIOVASKULAR PADA SUBYEK OBESITAS DI KOTA MAKASSAR "

Yang akan dilaksanakan dari : Tgl. ***27 Desember 2023 s/d 27 Januari 2024***

Sehubungan dengan hal tersebut diatas, pada prinsipnya kami ***menyetujui*** kegiatan dimaksud dengan ketentuan yang tertera di belakang surat izin penelitian.

Demikian Surat Keterangan ini diberikan agar dipergunakan sebagaimana mestinya.

Diterbitkan di Makassar
Pada Tanggal 27 Desember 2023

KEPALA DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU PROVINSI SULAWESI SELATAN

ASRUL SANI, S.H., M.Si.
Pangkat : PEMBINA TINGKAT I
Nip : 19750321 200312 1 008

Tembusan Yth
1. Ketua Prog. Studi S1 Pend. Dokter Fak. Kedokteran Univ. Hasanuddin Makassar di Makassar;
2. *Pertinggal.*

LAMPIRAN 4. DATA PENELITIAN

JENIS KELAMIN SUBYEK

Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	210	26.7	26.7	26.7
	Female	576	73.3	73.3	100.0
	Total	786	100.0	100.0	

MEAN SD IMT

Statistics

		age	sbp1	dbp1	Gluf	Chol	LDL	HDL	TG
N	Valid	107	107	107	107	107	107	107	107
	Missing	0	0	0	0	0	0	0	0
Mean		47.16	130.561	84.159	103.093	216.673	152.159	49.495	141.065
Std. Deviation		11.703	22.7406	11.8458	40.3888	54.6898	66.2407	12.0419	72.7690

MEAN SD LP

Statistics

		age	sbp1	dbp1	Gluf	Chol	LDL	HDL	TG
N	Valid	164	164	164	164	164	164	164	164
	Missing	0	0	0	0	0	0	0	0
Mean		50.29	132.256	84.024	106.415	224.134	150.610	53.957	159.579
Std. Deviation		10.686	25.6050	13.9991	50.2749	47.8570	67.0223	17.2372	91.6952

MEAN SD IMT + LP

Statistics

		age	sbp1	dbp1	Gluf	Chol	LDL	HDL	TG
N	Valid	515	515	515	515	515	515	515	515
	Missing	0	0	0	0	0	0	0	0
Mean		47.86	133.443	85.000	96.120	221.944	148.423	51.736	151.460
Std. Deviation		11.118	24.7165	13.4620	31.6059	43.0103	55.5254	13.8697	67.7747

SMOKING FEMALE IMT

Smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	34	97.1	97.1	97.1
	Smoker	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

SMOKING FEMALE LP

Smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	148	99.3	99.3	99.3
	Smoker	1	.7	.7	100.0
	Total	149	100.0	100.0	

SMOKING FEMALE IMT + LP

Smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non	387	98.7	98.7	98.7
	Smoker	5	1.3	1.3	100.0
	Total	392	100.0	100.0	

SMOKING MALE IMT

Smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	55	76.4	76.4	76.4
	Smoker	17	23.6	23.6	100.0
	Total	72	100.0	100.0	

SMOKING MALE LP

Smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	14	93.3	93.3	93.3
	Smoker	1	6.7	6.7	100.0
	Total	15	100.0	100.0	

SMOKING MALE IMT + LP

Smoking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non	95	77.2	77.2	77.2
	Smoker	28	22.8	22.8	100.0
	Total	123	100.0	100.0	

HT FEMALE IMT

Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	18	51.4	51.4	51.4
	HT	17	48.6	48.6	100.0
	Total	35	100.0	100.0	

HT FEMALE LP

Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	76	51.0	51.0	51.0
	HT	73	49.0	49.0	100.0
	Total	149	100.0	100.0	

HT FEMALE IMT + LP

Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	188	48.0	48.0	48.0
	HT	204	52.0	52.0	100.0
	Total	392	100.0	100.0	

HT MALE IMT

Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	35	48.6	48.6	48.6
	HT	37	51.4	51.4	100.0
	Total	72	100.0	100.0	

HT MALE LP

Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	5	33.3	33.3	33.3
	HT	10	66.7	66.7	100.0
	Total	15	100.0	100.0	

HT MALE IMT + LP

Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non	50	40.7	40.7	40.7
	HT	73	59.3	59.3	100.0
	Total	123	100.0	100.0	

GDP FEMALE IMT

GDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	31	88.6	88.6	88.6
	Prediabetes	1	2.9	2.9	91.4
	Diabetes	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

GDP FEMALE LP

GDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	113	75.8	75.8	75.8
	Prediabetes	16	10.7	10.7	86.6
	Diabetes	20	13.4	13.4	100.0
	Total	149	100.0	100.0	

GDP FEMALE IMT + LP

GDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	307	78.3	78.3	78.3
	Prediabetes	53	13.5	13.5	91.8
	Diabetes	32	8.2	8.2	100.0
	Total	392	100.0	100.0	

GDP MALE IMT

GDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	52	72.2	72.2	72.2
	Prediabetes	9	12.5	12.5	84.7
	Diabetes	11	15.3	15.3	100.0
	Total	72	100.0	100.0	

GDP MALE LP

GDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	6	40.0	40.0	40.0
	Prediabetes	3	20.0	20.0	60.0
	Diabetes	6	40.0	40.0	100.0
	Total	15	100.0	100.0	

GDP MALE IMT + LP

GDP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	105	85.4	85.4	85.4
	Prediabetes	11	8.9	8.9	94.3
	Diabetes	7	5.7	5.7	100.0
	Total	123	100.0	100.0	

LIPID FEMALE IMT

TotalChol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	14	40.0	40.0	40.0
	Tinggi	21	60.0	60.0	100.0
	Total	35	100.0	100.0	

LDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	10	28.6	28.6	28.6
	Tinggi	25	71.4	71.4	100.0
	Total	35	100.0	100.0	

HDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	33	94.3	94.3	94.3
	Rendah	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

TGC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	26	74.3	74.3	74.3
	Tinggi	9	25.7	25.7	100.0
	Total	35	100.0	100.0	

LIPID FEMALE LP

TotalChol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	42	28.2	28.2	28.2
	Tinggi	107	71.8	71.8	100.0
	Total	149	100.0	100.0	

LDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	57	38.3	38.3	38.3
	Tinggi	92	61.7	61.7	100.0
	Total	149	100.0	100.0	

HDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	138	92.6	92.6	92.6
	Rendah	11	7.4	7.4	100.0
	Total	149	100.0	100.0	

TGC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	82	55.0	55.0	55.0
	Tinggi	67	45.0	45.0	100.0
	Total	149	100.0	100.0	

LIPID FEMALE BOTH

TotalChol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	108	27.6	27.6	27.6
	Tinggi	284	72.4	72.4	100.0
	Total	392	100.0	100.0	

LDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	139	35.5	35.5	35.5
	Tinggi	253	64.5	64.5	100.0
	Total	392	100.0	100.0	

HDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	340	86.7	86.7	86.7
	Rendah	52	13.3	13.3	100.0
	Total	392	100.0	100.0	

TGC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	232	59.2	59.2	59.2
	Tinggi	160	40.8	40.8	100.0
	Total	392	100.0	100.0	

LIPID MALE IMT

TotalChol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	30	41.7	41.7	41.7
	Tinggi	42	58.3	58.3	100.0
	Total	72	100.0	100.0	

LDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	29	40.3	40.3	40.3
	Tinggi	43	59.7	59.7	100.0
	Total	72	100.0	100.0	

HDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	53	73.6	73.6	73.6
	Rendah	19	26.4	26.4	100.0
	Total	72	100.0	100.0	

TGC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	49	68.1	68.1	68.1
	Tinggi	23	31.9	31.9	100.0
	Total	72	100.0	100.0	

LIPID MALE LP

TotalChol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	6	40.0	40.0	40.0
	Tinggi	9	60.0	60.0	100.0
	Total	15	100.0	100.0	

LDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	6	40.0	40.0	40.0
	Tinggi	9	60.0	60.0	100.0
	Total	15	100.0	100.0	

HDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	11	73.3	73.3	73.3
	Rendah	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

TGC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	7	46.7	46.7	46.7
	Tinggi	8	53.3	53.3	100.0
	Total	15	100.0	100.0	

LIPID MALE IMT = LP

TotalChol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	41	33.3	33.3	33.3
	Tinggi	82	66.7	66.7	100.0
	Total	123	100.0	100.0	

LDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	43	35.0	35.0	35.0
	Tinggi	80	65.0	65.0	100.0
	Total	123	100.0	100.0	

HDLC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	90	73.2	73.2	73.2
	Rendah	33	26.8	26.8	100.0
	Total	123	100.0	100.0	

TGC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	62	50.4	50.4	50.4
	Tinggi	61	49.6	49.6	100.0
	Total	123	100.0	100.0	

LAMPIRAN 5. PROTOKOL PENELITIAN LIPID DAN DIABETES 2018

PROTOKOL PENELITIAN LIPID DAN DIABETES 2018

- Subyek yang bersedia mengikuti penelitian diberikan penjelasan mengenai hal-hal yang akan dilakukan pada saat penelitian dan diberitahukan agar berpuasa selama 10-12 jam sebelumnya.
- Setelah diberikan informasi tentang maksud dan manfaat penelitian ini, diminta kesediaan untuk berpartisipasi pada penelitian in dengan menandatangani surat persetujuan.
- Subyek diminta untuk mengisi kuesioner yang telah disiapkan dan dibantu oleh tim interviewer lalu dilakukan pemeriksaan fisik dan pengukuran antropometri (Tanda vital, IMT, Lingkar Pinggang) dan dilanjutkan dengan pemeriksaan darah (GDP dan Profil Lipid). Sampel darah diambil oleh flebolomist dari laboratorium Prodia dan dibawa ke laboratorium Prodia pada hari yang sama untuk diproses selanjutnya.
- Pemeriksaan berat badan dan tinggi badan tanpa alas kaki, kemudian dihitung indeks massa tubuh kemudian dihitung indeks massa tubuh. Berat badan diukur dengan timbangan satuan kilogram dan dinyatakan dalam 0.1 kg terdekat. Tinggi badan diukur dalam satuan sentimeter dan dicatat hingga 0.5 cm terdekat.
- Lingkar pinggang dilakukan menggunakan alat sentimeter dan ditentukan titik tengah antara arcus costae dan krista iliaka kiri dan kanan kemudian dilakukan pengukuran keliling perut melewati titik tersebut, kemudian dicatat hingga 0.1 cm terdekat.
- Pemeriksaan dilakukan di ruangan yang diam dan temperatur yang nyaman. Subyek tidak diperbolehkan untuk merokok, minum kopi atau berolahraga 30 menit sebelum pemeriksaan. Pemeriksaan dilakukan pada saat kandung kemih kosong dan subyek berada dalam keadaan yang santai. Pemeriksaan tekanan darah (TD) dilakukan dengan posisi duduk menggunakan sphygnomanometer air raksa merk Nova. *Cuff* yang digunakan sesuai ukuran lengan, lengan tidak ditutupi pakaian, lengan terletak di atas meja dengan bagian tengah lengan sejajar dengan jantung. Subyek duduk tegak terhadap sandaran kursi dengan kaki

diletakkan di lantai dan tidak berbicara selama pengukuran. Bunyi korotkoff 1 sebagai tekanan darah sistol (TDS) dan korotkoff 5 sebagai tekanan darah diastol (TDS). Tekanan darah diukur sebanyak dua kali dan rerata dari pengukuran tersebut diambil sebagai TD subyek penelitian.

- Pengambilan sampel darah berupa GDP, kolesterol total, trigliserida (TG), *High Density Lipoprotein* (HDL) dan *Low Density Lipoprotein* (LDL)
    - Pemeriksaan GDP dengan metode enzimatis kalorimetris menggunakan cara CHOD-PAP.
    - Pemeriksaan kolesterol total dengan cara enzimatis kolorimetrik menggunakan CHOD PAP.
    - Pemeriksaan TG dengan metode enzimatis kolerimetrik menggunakan Dimension buatan Dade Behring Inc.
    - Pemeriksan kolesterol LDL direk dengan cara enzimatis kolorimetrik.
    - Pemeriksaan kol HDL dengan metode enzimatis menggunakan Cholestat N HDL dari Dalichi Pure Chemicals Co, id.

LAMPIRAN 6. BIODATA PENELITI

Nama Lengkap	Johanna Aurelle Azarya Tabitha Sitorus
Tempat, Tanggal lahir	Manado, 10 Oktober 2002
Jenis Kelamin	Perempuan
Agama	Kristen Protestan
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