

DAFTAR PUSTAKA

- Ahmad SS, Choi I. (2024). Current situation and publication trends of skeletal muscle related research: A bibliometric analysis. *Heliyon*, 10(3), e24942. doi: 10.1016/j.heliyon.2024.e24942.
- Akbar, F., Darmiati, D., Arfan, F., & Zanzadila Putri, A. A. (2021). Pelatihan dan pendampingan kader Posyandu lansia di Kecamatan Wonomulyo. *Jurnal Abdidas*, 2(2), 392-397. <https://doi.org/10.31004/abdidas.v2i2.282>
- Andrade, M. S., Honorato, M. P., Vargas, J. P., et al. (2023). Comparison of two handgrip dynamometers in older adults before elective surgery. *Perioperative Medicine*, 12, 46. <https://doi.org/10.1186/s13741-023-00334-y>
- Apsari, R. S., Alifah, M. S., Kristianti, M. C., & Hafizh, D. H. (2023). *Profil penduduk lanjut usia di Provinsi DKI Jakarta Tahun 2022*. Badan Pusat Statistik Provinsi DKI Jakarta. <https://jakarta.bps.go.id/id/publication/2023/07/28/deca0b3c662929af819ddac7/profil-penduduk-lanjut-usia-di-provinsi-dki-jakarta-2022-.html>
- Ayvat, F., Doğan, M., & Ayvat, E. (2025). Detecting inactivity in aging populations: The discriminative potential of the Physical Activity Scale for the Elderly. *BMC Public Health*, 25, 2960. <https://doi.org/10.1186/s12889-025-24388-3>
- Bahat, G., Kilic, C., Altinkaynak, M., & Akif Karan, M. (2020). Comparison of standard versus population-specific handgrip strength cut-off points in the detection of probable sarcopenia after launch of EWGSOP2. *Aging Male*, 23(5), 1564-1569. <https://doi.org/10.1080/13685538.2020.1870038>
- Cai, Y., et al. (2022). The landscape of aging. *Science China Life Sciences*, 65(12), 2354-2454. doi: 10.1007/s11427-022-2161-3
- Cai, Y., Han, Z., Cheng, H., Li, H., Wang, K., Chen, J., Liu, Z. X., Xie, Y., Lin, Y., Zhou, S., Wang, S., Zhou, X., & Jin, S. (2024). The impact of ageing mechanisms on musculoskeletal system diseases in the elderly. *Frontiers in Immunology*, 15, 1405621. doi: 10.3389/fimmu.2024.1405621
- Chan J, Lu YC, Yao MM, Kosik RO. (2022). Correlation between hand grip strength and regional muscle mass in older Asian adults: an observational study. *BMC Geriatrics*, 22(1), 206. doi: 10.1186/s12877-022-02898-8
- Chen J, Yan L, Chu J, Wang X, Xu Z. (2024). Pain Characteristics and Progression to Sarcopenia in Chinese Middle-Aged and Older Adults: A 4-Year

Alyaa Hanandra Triannisa, 2026

GAMBARAN KEKUATAN OTOT GLOBAL PADA LANSIA MENGGUNAKAN HANDGRIP DAN BACK AND LEG DYNAMOMETER DI PANTI SOSIAL TRESNA WERDHA BUDI MULIA 3

UPN Veteran Jakarta, Fakultas Ilmu Kesehatan, S1 Fisioterapi

[www.upnvj.ac.id - www.library.upnvj.ac.id - www.repository.upnvj.ac.id]

- Longitudinal Study. *J Gerontol A Biol Sci Med Sci*, 79(5). doi: 10.1093/gerona/glae080
- Dao T, Green AE, Kim YA, Bae SJ, Ha KT, Gariani K, Lee MR, Menzies KJ, Ryu D. (2020). arcopenia and Muscle Aging: A Brief Overview. *Endocrinology and Metabolism*, 35((4)), 716-732. doi: 10.3803/EnM.2020.405
- Do KT, Hoang DK, Luong QN, Nguyen HG, Do AT, Ho-Pham LT, Nguyen TV. (2025). Reference Values of Handgrip and Lower Extremity Strength for Vietnamese Men and Women: The Vietnam Osteoporosis Study. *Journal of Cachexia, Sarcopenia and Muscle*, 16((1)). doi: 10.1002/jcsm.13689
- Englund DA, Zhang X, Aversa Z, LeBrasseur NK. (2021). Skeletal muscle aging, cellular senescence, and senotherapeutics: Current knowledge and future directions. *Mechanisms of Ageing and Development*, 200, 111595. doi: 10.1016/j.mad.2021.111595
- Fernández-Rodríguez, R., Martínez-Vizcaíno, V., Reina-Gutiérrez, S., Bizzozero-Peroni, B., Torres-Costoso, A., Rodríguez-Gutiérrez, E., Díaz-Goñi, V., & Cadenas-Sánchez, C. (2024). Sex differences in effects of exercise on physical function in aging: A systematic review with meta-analysis. *World Journal of Men's Health*, 42(4), 694-711. <https://doi.org/10.5534/wjmh.230257>
- Fhon JRS, Silva ARF, Lima EFC, Santos Neto APD, Henao-Castaño ÁM, Fajardo-Ramos E, Püschel VAA. (2023). Association between Sarcopenia, Falls, and Cognitive Impairment in Older People: A Systematic Review with Meta-Analysis. *International Journal of Environmental Research and Public Health*, 20(5), 4156. doi: 10.3390/ijerph20054156
- Gao Q, Hu K, Yan C, Zhao B, Mei F, Chen F, Zhao L, Shang Y, Ma Y, Ma B. (2021). Associated Factors of Sarcopenia in Community-Dwelling Older Adults: A Systematic Review and Meta-Analysis. *Nutrients*, 13(12), 4291. doi: 10.3390/nu13124291
- Gustafsson, T., & Ulfhake, B. (2024). Aging Skeletal Muscles: What Are the Mechanisms of Age-Related Loss of Strength and Muscle Mass, and Can We Impede Its Development and Progression? *International Journal of Molecular Sciences*, 25(20), 10932. doi: 10.3390/ijms252010932
- Hadipranoto, H., Satyadi, H., & Rostiana. (2020). Gambaran kualitas hidup lansia yang tinggal di Panti Sosial Tresna Wreda X Jakarta. *Jurnal Muara Ilmu Sosial, Humaniora, dan Seni*, 4(1), 119-127. 10.24912/jmishumsen.v4i1.7535.2020

- Halma, M., Marik, P., Varon, J., & Tuszynski, J. (2025). eversing decline in aging muscles: Expected trends, impacts and remedies. *Journal of Functional Morphology and Kinesiology*, 10(1), 29. doi: 10.3390/jfmk10010029
- Hanafi, M., Kriswoyo, P. G., & Priyanto, S. (2022). Gambaran pengetahuan dan sikap pendamping lansia setelah menerima pelatihan tentang perawatan kesehatan lanjut usia. *Jurnal Kesehatan*, 11(1). <https://share.google/40BeWFCNJpmKv85UZ>
- Huang L, Liu Y, Lin T, Hou L, Song Q, Ge N, Yue J. (2022). Reliability and validity of two hand dynamometers when used by community-dwelling adults aged over 50 years. *BMC Geriatrics*, 22((1)), 580. doi: 10.1186/s12877-022-03270-6
- Hwang, J., & Park, S. (2022). Gender-specific risk factors and prevalence for sarcopenia among community-dwelling young-old adults. *International Journal of Environmental Research and Public Health*, 19(12), 7232. <https://doi.org/10.3390/ijerph19127232>
- Jeong, W., Moon, J. Y., & Kim, J. H. (2023). Association of absolute and relative hand grip strength with all-cause mortality among middle-aged and old-aged people. *BMC Geriatrics*, 23(1), 321. oi: 10.1186/s12877-023-04008-8
- Khan, H. T. A., Addo, K. M., & Findlay, H. (2024). Public health challenges and responses to the growing ageing population. *Public Health Challenges*, 3(3), e213. <https://doi.org/10.1002/puh2.213>
- Komala, D. W., Novitasari, D., Sugiharti, R. K., & Awaludin, S. (2021). Mini-Mental State Examination untuk mengkaji fungsi kognitif lansia [Mini-Mental State Examination to assess cognitive function in elderly]. *Jurnal Panti Waluya*, 6(2). <https://jurnal.stikespantiwaluya.ac.id/index.php/JPW/article/view/137/100>
- Laboratorium Olahraga JPOK FKIP Universitas Lambung Mangkurat. (2017). Petunjuk pengoperasian back and leg dynamometer. Universitas Lambung Mangkurat. <https://share.google/IhFS9PixpRrn2dj2p>
- Lin, Y. H., Chen, H. C., Hsu, N. W., & Chou, P. (2021). Using hand grip strength to detect slow walking speed in older adults: The Yilan study. *BMC Geriatrics*, 21, 428. <https://doi.org/10.1186/s12877-021-02361-0>
- Li Z, Zhang Z, Ren Y, Wang Y, Fang J, Yue H, Ma S, Guan F. (2021). Aging and age-related diseases: from mechanisms to therapeutic strategies. *Biogerontology*, 22(2), 165-187. doi: 10.1007/s10522-021-09910-5

- Lockie, R. G., Dawes, J. J., & Alvarez, D. A. (2024). Validity and reliability of an adapted leg/back isometric strength testing device. *SportLogia*, 20(2), 1-12. <https://doi.org/10.7251/SGIA2402001L>
- Mustafa, D. G., Thanaya, S. A. P., Adiputra, L. M. I. S. H., & Saraswati, N. L. P. G. K. (2022). Hubungan antara kekuatan otot tungkai bawah dengan risiko jatuh pada lanjut usia di Desa Dauh Puri Klod, Denpasar Barat. *Majalah Ilmiah Fisioterapi Indonesia*, 10(1), 22–27. <https://ojs.unud.ac.id/index.php/mifi>
- Nasution, A. S., & Daulay, N. (2025). Layanan bimbingan karir tahap eksplorasi dalam meningkatkan kesiapan kerja mahasiswa tingkat akhir BKPI UINSU Medan. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 10(6), 265–272.
- Nunes, J. P., Cunha, P. M., Antunes, M., Costa, B. D. V., Kassiano, W., Kunevaliki, G., Ribeiro, A. S., & Cyrino, E. S. (2020). The generality of strength: Relationship between different measures of muscular strength in older women. *International Journal of Exercise Science*, 13(3), 1638-1649. <https://doi.org/10.70252/ZKYZ9673>
- Nurchaya, S., & Meilana, S. F. (2021). Hubungan antara perhatian orang tua dengan kemandirian belajar pada siswa kelas IV SDN Pinang Ranti 01. Volume VI(02).
- Nurhasanah, Martunis, Lubis, N. A., & Arsenda, G. (2023). Pengawasan orang tua terhadap aktivitas anak menggunakan media internet di SMA Lab School Unsyiah. *Jurnal Pencerahan*, 17(1), 21–37.
- Nurjanah, H., Asanti, E., & Utami, F. (2025). Hand grip strength as an early indicator of sarcopenia: The role of nutritional status and sociodemographic factors. *Nutriology: Jurnal Pangan, Gizi, Kesehatan*, 6(2). <https://doi.org/10.30812/nutriology.v6i2>
- Nur Riviati, Bima Indra. (2023). Relationship between muscle mass and muscle strength with physical performance in older adults: A systematic review. *SAGE Open Med.*, 11, 20503121231214650. doi: 10.1177/20503121231214650
- Pang, J., Tu, F., Han, Y., Zhang, E., Zhang, Y., & Zhang, T. (2023). Age-related change in muscle strength, muscle mass, and fat mass between the dominant and non-dominant upper limbs. *Frontiers in Public Health*, 11, 1284959. doi: 10.3389/fpubh.2023.1284959
- Prana, H. A., Mutnawasitoh, A. R., Ramadhani, A. N., & Mirawat, D. (2025). Hubungan aktivitas fisik terhadap risiko terjadinya sarcopenia pada lansia di Posyandu Lansia Ngrau Desa Tanjungsari. *Jurnal Kesehatan STIKes*

Sumber Waras, 7(1).
<https://jurnal.stikessumberwaras.ac.id/index.php/kesehatan/article/view/88>

- Putri, J. P., & Natalia, J. (2022). The Dynamics Of Aging Process Adaptation From the Late Adulthood To the Elderly in Panti Werdha X. *Jurnal Psikologi*, 11(3), 467-478. <https://doi.org/10.30872/psikostudia.v11i3>
- Puturija, I. G. (2024, Mei 3). *Tanggung di usia lanjut*. GoLantang BKKBN. <https://golantang.bkkbn.go.id/tanggung-di-usia-lanjut>
- Quattrocchi, A., Garufi, G., Gugliandolo, G., De Marchis, C., Collufio, D., Cardali, S. M., & Donato, N. (2024). Handgrip strength in health applications: A review of the measurement methodologies and influencing factors. *Sensors (Basel)*, 24(16), 5100. doi: 10.3390/s24165100
- Rodrigues, F., Domingos, C., Monteiro, D., & Morouço, P. (2022). A review on aging, sarcopenia, falls, and resistance training in community-dwelling older adults. *International Journal of Environmental Research and Public Health*, 19(2), 874. doi: 10.3390/ijerph19020874
- Russ DW, Manickam R, Tipparaju SM. (2025). Targeting intramyocellular lipids to improve aging muscle function. *Lipids in Health and Disease*, 24((1)), 197. doi: 10.1186/s12944-025-02622-6
- Saila, K., Clas-Håkan, N., Prakash, K. C., & Subas, N. (2023). Longitudinal profiles of occupational physical activity during late midlife and their association with functional limitations at old age: A multi-cohort study. *International Archives of Occupational and Environmental Health*, 96(9), 1245-1256. doi: 10.1007/s00420-023-02003-5
- Sánchez-Aranda, L., Fernández-Ortega, J., Martín-Fuentes, I., Toval, Á., Jurak, G., Ruiz, J. R., Csányi, T., & Ortega, F. B. (2025). Reliability and criterion validity of a low-cost handgrip dynamometer: The Camry. *American Journal of Occupational Therapy*, 79(5). doi: 10.5014/ajot.2025.051072
- Siregar, R., Efensy, I., & Syafitri, R. (2023). Faktor yang memengaruhi pemanfaatan posyandu lansia wilayah kerja Dumai Barat. *Sentri: Jurnal Riset Ilmiah*, 2(2). <https://doi.org/10.55681/sentri.v2i12.1903>
- Srisaphonphusitti, L., Manimmanakorn, N., Manimmanakorn, A., & Hamlin, M. J. (2022). Effects of whole body vibration exercise combined with weighted vest in older adults: A randomized controlled trial. *BMC Geriatrics*, 22(1), 911. doi: 10.1186/s12877-022-03593-4

- Stotz, A., Mason, J., Groll, A., & Zech, A. (2023). Which trunk muscle parameter is the best predictor for physical function in older adults? *Heliyon*, *9*(10). doi: 10.1016/j.heliyon.2023.e20123
- Strandkvist, V., Larsson, A., Pauelsen, M., Nyberg, L., Vikman, I., Lindberg, A., Gustafsson, T., & Røijezon, U. (2021). Hand grip strength is strongly associated with lower limb strength but only weakly with postural control in community-dwelling older adults. *Archives of Gerontology and Geriatrics*, *94*, 104345. <https://doi.org/10.1016/j.archger.2021.104345>
- Sudibjo, P., Rismayanthi, C., & Apriyanto, K. D. (2021). Hubungan antara sindrom metabolik dengan kebugaran jasmani pada lanjut usia. *Jurnal Keolahragaan*, *9*(2), 159–167. <https://doi.org/10.21831/jk.v9i2.41007>
- Sumandar, Fadhli, R., & Mayasari, E. (2021). Sosio-ekonomi dan sindrom metabolik terhadap kekuatan genggam tangan lansia di komunitas. *Jurnal Kesehatan Vokasional*, *6*(1). <https://doi.org/10.22146/jkesvo.60813>
- Swales, B., Ryde, G. C., Fletcher, I., & Whittaker, A. C. (2023). The reliability and suitability of strength assessments in frail and pre-frail older adults: Recommendations for strength testing in older populations. *BMC Geriatrics*, *23*, 820. <https://doi.org/10.1186/s12877-023-04552-3>
- Tatangelo, T., Muollo, V., Ghiotto, L., Schena, F., & Rossi, A. P. (2022). Exploring the association between handgrip, lower limb muscle strength, and physical function in older adults: A narrative review. *Experimental Gerontology*, *167*, 111902. <https://doi.org/10.1016/j.exger.2022.111902>
- Teraž, K., et al. (2023). Sarcopenia parameters in active older adults-An eight-year longitudinal study. *BMC Public Health*, *23*(1), 917. <https://doi.org/10.1186/s12889-023-15734-4>
- Verschoor, C. P., Theou, O., Ma, J., et al. (2024). Age- and sex-specific associations of frailty with mortality and healthcare utilization in community-dwelling adults from Ontario, Canada. *BMC Geriatrics*, *24*, 223. <https://doi.org/10.1186/s12877-024-04842-4>
- World Health Organization. (2025, October 1). *Ageing and health*. World Health Organization (WHO). <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>
- Wu, X., Li, X., Xu, M., Zhang, Z., He, L., & Li, Y. (2021). Sarcopenia prevalence and associated factors among older Chinese population: Findings from the China Health and Retirement Longitudinal Study. *PLOS ONE*, *16*(3). <https://doi.org/10.1371/journal.pone.0247617>

Zanker, J., et al. (2023). Consensus guidelines for sarcopenia prevention, diagnosis and management in Australia and New Zealand. *Journal of Cachexia, Sarcopenia and Muscle*, 14(1), 142-156. <https://doi.org/10.1002/jcsm.13115>

Zhang, L., Liu, G., Huang, X., & He, F. (2025). Effects of protein supplementation on muscle mass, muscle strength, and physical performance in older adults with physical inactivity: A systematic review and meta-analysis. *BMC Geriatrics*, 25(1), 228. doi: 10.1186/s12877-025-05885-x