

## DAFTAR PUSTAKA

- Aggarwal, H., Pal-Singh, M., Mathur, H., Astekar, S., Gulati, P., dan Lahkani, S., (2015) Evaluation of the Effect of Transcutaneous Electrical Nerve Stimulation (TENS) on Whole Salivary Flow Rate. *J Clin Exp Dent.* 7(1): e13-17.
- Anandan, R., Lakshmi, K. C., Ganesan, A., dan K. Y. A., (2025) Efficacy of Tens and Ultrasound Stimulation to Increase Salivary Flow in Postmenopausal Women with Oral Dryness: A Clinical Study. *J Indian Acad Oral Med Radiol.* 37: 19-23.
- Ariyasa, I. G., Sandi, I. N., dan Murna, I. M., (2017) Hubungan Antara Pola Konsumsi dan Aktivitas Fisik Terhadap Status Gizi pada Lansia di Pantia Sosial Tresna Werdha Jara Mara Pati Buleleng. *Sport and Fitness Journal.* 5(2): 124-132.
- Arna, Y. D., Wasdili, F. A. Q., Rahayu, S. M., Agustina, F., Sya'diah, F., Hijriana, I., Wilankrisna, L. A., Firdaus, I., Hutagulung, R., Efendi, S., Yudiatma, M. F., Rahmi, S., Malia, A., Gultom, E. D., Rokot, A., Astuti, R. A., Tangka, J., Novilla, A., dan Imelda., (2024) *Anatomi Fisiologi Tubuh Manusia.* Cilacap: PT MEDIA PUSTAKA INDO. pp. 27-29.
- Ascaso-Del-Rio, A., Camargo-Mamani, P., Gilaberte, I., Díez-Hochleitner, M., Laredo-Velasco, L., Iglesias-Hernangómez, T., Salas-Butrón, M. R., Galán Caballero, L., Díaz-Rengifo, I. A., Pérez-Ingidua, C., Vargas-Castrillón, E., & Portolés-Pérez, A., (2025) Bioequivalence Study of Two Oral Methocarbamol Formulations in Healthy Subjects Under Fasting Conditions: A Randomized, Open-Label, Crossover Clinical Trial. *Pharmaceuticals.* 18(3):, 354.
- Astuti, N. R., Hanindriyo, L., Probosuseno., dan Prabandi, Y. S., (2023) Types and Effects of Oral Exercise on Oral Function in the Elderly: A Scoping Review of Interventional Studies. *J Int Oral Health.* 15: 328-336.
- Bechir, F., Pacruar, M., Tohati, A., dan Bataga, S. M., (2022) Comparative Study of Salivary pH, Buffer Capacity, and Flow in Patients with and without Gastroesophageal Reflux Disease. *Int. J. Environ. Res. Public Health.* 19(201): 1-11.
- Bolla, V. L., Munnangi, S. R., Kumar, M., Chowdary, U. K., Koppulu, P., dan Swapna, L. A., (2017) Correlation between the PH of Saliva, Plaque, and Buffering Capacity of Saliva. *Int. J. Appl. Dent. Sci.* 3(4): 48-50.
- Carlson, E. R., dan Ord, R. A., (2016) *Salivary Gland Pathology Diagnosis and Management 2nd Ed.* New Jersey: John Wiley & Sons, Inc. pp 8-9.

- Chhugani, S., Chhugani, G. K., Pratap, A. S. V., Adwani, L., Jain, S., dan Patil, S. R., (2021) Effectiveness of Transcutaneous Electrical Nerve Stimulation Therapy on Whole Salivary Flow in Patients with Xerostomia and Healthy Adults. *Pesqui Bras Odontopediatria Clin Integr.* 21:e0008.
- Chibly, A. M., Aure, M. H., Patel, V. N., dan Hoffman, M. P., (2022) Salivary Gland Function, Development, and Regeneration. *Physiol Rev.* 102: 1495-1552.
- Chiuzan, C., West, E. A., Duong, J., Cheung, K. Y. K., dan Einstein, A. J., (2015) Sample Size Considerations for Clinical Research Studies in Nuclear Cardiology. *J Nucl Cardiol.* 22(6): 1300-1313.
- Dawood, I. M., dan El-Samarrai, S. K., (2018) Saliva and Oral Health. *Int. J. Adv. Res. Biol. Sci.* 5(7): 1-45.
- de Paula, F., Teshima, T. H. N., Hsieh, R., Souza, M. M., Nizo, M. M. S., dan Lourenco, S. V., (2017) Overview of Human Salivary Glands: Highlight of Morphology and Developing Processes. *The Anatomical Record.* 300:1180-1188.
- Debkota, D., Mathema, S. R. B., dan Bhusal, L., (2021) Salivary Flow Rate Before, During, and After Insertion of Complete Denture in Different Age Group: a Comparative Study. *J Med Sci.* 3(2): 53-59.
- Dinas Sosial DIY. Magang dan Penelitian. <https://dinsos.jogjaprovo.go.id/layanan/2e7fdc8f-6319-4ad4-bc3a-c2555d291cc7>.
- Direktorat Statistik Kesejahteraan Rakyat., (2024) *Statistik Penduduk Lanjut Usia 2024*. Badan Pusat Statistik.
- do Nascimento-Júnior, E. M., Dos Santos, G. M. S., Tavares Mendes, M. L., Cenci, M., Correa, M. B., Pereira-Cenci, T., & Martins-Filho, P. R. S. (2019). Cryotherapy in reducing pain, trismus, and facial swelling after third-molar surgery: Systematic review and meta-analysis of randomized clinical trials. *Journal of the American Dental Association (1939)*, 150(4), 269–277.
- Gil-Montoya, J. A., de Mello, A. L., Barrios, R., Gonzalez-Moles, M. A., dan Bravo, M., (2015). Oral health in the elderly patient and its impact on general well-being: a nonsystematic review. *Clinical interventions in aging.* 10: 461–467.
- Hamza, E. M., Aziz, T. M. A. E., dan Obeid, M. F., (2024) The Influence of Intraoral Cryotherapy on Postoperative Pain and Substance P in Symptomatic Apical Periodontitis: Randomized Clinical Study. *Scientific Reports.* 14: 13890.

- Harika, P. D., Garlapati, K., Badam, R. K., Gone, P., Aiman, A., Rajani, H., Kataram, S. S., Kulkarni, M., Manne, A., dan Bontha, M., (2024) Taste Changes and Salivary Flow Rate Disparities in Premenopausal and Postmenopausal Women: Exploring the Zinc Connection. *Cureus*. 16(6): 1-16.
- Ibayashi, H., Fujino, Y., Pham, T. M., dan Matsuda, S., (2008) Intervention Study of Exercise Program for Oral Function in Health Elderly People. *Tohoku J. Exp. Med*. 215: 237-245.
- In, J., Kang, H., Kim, J. H., Kim, T. K., Ahn, E. J., Lee, D. K., Lee, S., dan Park, J. H., (2020) Tips for Troublesome Sample-Size Calculation. *Korean J Anesthesiol*. 73(2): 114-120.
- Irayani, S., Lesmana, H., Sitanaya, R., Ab, S., Widyastuti, N., Aida, W. N., Asriawal., Febriani, D., dan Achmad, D., (2015) Facial Exercises Effect to Increase Salivary Secretion in the Elderly. *J Int Dent Med Res*. 18(1): 291-295.
- Juanita, J., Nurhansah, N., Jufriзал, J., dan Febriana, D., (2022) Health Related Quality of Life of Indonesian Older Adults Living in Community. *Enfermeria Clinica*. S71-S75.
- Kapourani, A., Kontogiannopoulos, K. N., Manioudaki, A. E., Pouloupoulos, A. K., Tsalikis, L., Assimopoulou, A. N., dan Barmpalexis, P., (2022) A Review on Xerostomia and Its Various Management Strategies: The Role of Advanced Polymeric Materials in the Treatment Approaches. *Polymers*. 14(850): 1-20.
- Kasuma, N., (2015) *Fisiologi dan Patologi Saliva*. Padang: Andalas University Press.
- Kementerian Kesehatan RI., (2016) *Peraturan Menteri Kesehatan Republik Indonesia Nomor 25 Tahun 2016 Tentang Rencana Aksi Nasional Kesehatan Lanjut Usia Tahun 2016-2019*. Jakarta: Kementerian Kesehatan RI. pp. 6, 10.
- Kessler, A. T., dan Bhatt, A. A., (2018) Review of the Major and Minor Salivary Glands, Part 1: Anatomy, Infectious, and Inflammatory Processes. *J Clin Imaging Sci*. 8: 47.
- Khanum, N., Mysore-Shivalingu, M., Bassapa, S., Patil, A., dan Kanwar, S., (2017) Evaluation of Changes in Salivary Composition in Renal Failure Patients Before and After Hemodialysis. *J Clin Exp Dent*. 9(11): 1340-1345.
- Kim, H. J., Lee, J. Y., Lee, E. S., Jung, H. J., Ahn, H. J., dan Kim, B., (2019) Improvements in Oral Functions of Elderly After Simple Oral Exercise. *Clin Interv Aging*. 14: 915-924.

- Kochar, A., Larian, B., dan Azizzadeh, B., (2016) Facial Nerve and Parotid Gland Anatomy. *Otorayngol Clin N Am.* 49(2016): 273-284.
- Krishnan, R., Elangovan, N. A., dan Ramadoss, R., (2024) Neurostimulation Device For Ameliorating Salivary Dysfunction Neuromodulatory Perspective. *Oral Oncology Reports.* 10: 100373.
- Kubala, E., Strzelecka, P., Grzegocka, M., Lietz-Kijak, D., Gronwald, H., Skomro, P., dan Kijak, E., (2018) A Review of Selected Studies That Determine the Physical and Chemical Properties of Saliva in the Field of Dental Treatment. *BioMed Res Int.* 2018(6572381).
- Kwiecien, S. Y., dan McHush, M. P., (2021) The Cold Truth: The Role of Cryotherapy In The Treatment of Injury and Recovery From Exercise. *European Journal of Applied Physiology.* 121: 2125-2142.
- Lee, Y. H., Won, J. H., Auh, Q. S., Noh. Y. K., dan Lee, S. W., (2024) Prediction of Xerostomia in Elderly based on Clinical Characteristics and Salivary Flow Rate with Machine Learning. *Sci Rep.* 14(1): 3423.
- Ligtenberg, A. J. M., Meuffels, M., dan Veerman, E. C. I., (2020) Effects of Environmental Temperature on Saliva Flow Rate and Secretion of Protein, Amylase, and Mucin 5B. *Archives of Oral Biology.* 109: 104593.
- Lim, C-Y., dan In, J., (2021) Considerations for Crossover Design in Clinical Study. *Korean J Anesthesiol.* 74(4): 293-299.
- Louis, J., Schall, K., Bieuzen, F., Meur, Y, L., Filliard, J-R., Volondat, M., Brisswalter, J., dan Hausswirth, C., (2015) Head Exposure to Cold during Whole-Body Cryostimulation: Influence on Thermal Response and Autonomic Modulation. *PloS ONE.* 10(4): 1-18.
- Medawati, A., dan Utami, M. K., (2024) Management of Xerostomia in Elderly Patients with Edentulous and Hypertension: Case Report. *Indonesian Journal of Society Development.* 3(2): 45-52.
- Meidyawati, R., Adiyasa, J., dan Djauharie, N., (2019) Phosphate Concentration in Unstimulated Saliva of Patients with Type 2 Diabetes Melitus. *J Int Dent Med Res.* 12(3): 1182-1188.
- Millsop, J. W., Wang, E. A., dan Fazel, N., (2017). Etiology, Evaluation, and Management of Xerostomia. *Clinics in dermatology.* 35(5): 468–476.
- Miranda-Rius, J., Brunet-Llobet, L., Lahor-Soler, E., dan Farre, M., (2015) Salivary Secretary Disorders, Inducing Drugs, and Clinical Management. *Int. J. Med. Sci.* 12(10); 811-824.
- Miyaji, A., Sugimori, K., dan Hayashi, N., (2018) Short and Long Term Effects of Using A Facial Massage Roller on Facial Skin Blood Flow and Vascular Reactivity. *Complementary Therapies in Medicine.* 41: 271-276.

- Mondal, H., dan Mondal, S., (2024) A Brief Review on Good Clinical Practice and Its Training Methods. *Indian Dermatol Online J.* 15: 377-382.
- Moradi, S., Bikker, F. J., dan Hesse, D., (2025) Saliva Composition from Birth to Adolescence: A Systematic Review of The Literature. *Journal of Oral Biosciences.* 67: 100661.
- Nakashima, Y., Nagata, E., dan Oho, T., (2016) Impact of Physical Stress on Salivary Buffering Capacity. *Makara J. Health Res.* 20(2): 57-62.
- Ngcobo, N. N., (2025) Influence of Ageing on the Pharmacodynamics and Pharmacokinetics of Chronically Administered Medicines in Geriatrics Patients: A Review. *Clinical Pharmacokinetics.* 64: 335-367.
- Pangribowo, S., (2022) Lansia Berdaya, Bangsa Sejahtera. Pustadin.
- Park, S., Kim, Y-H.,, Bang, H. I., dan Park, Y., (2023) Sample Size Calculation in Clinical Trial Using R. *Journal of Minimally Invasive Surgery.* 26(1): 1-18.
- Patandianan, F., Wungouw, H. I. S., dan Marunduh, S., (2015) Pengaruh Latihan Beban Terhadap Kekuatan Otot Lansia. *Jurnal e-Biomedik.* 3(1): 334-342.
- Pedersen, A. M. L., Sorensen, C. E., Proctor, G. B., dan Carpenter, G. H., (2018) Salivary Functions in Mastication, Taste, and Textural Perception, Swallowing, and Initial Digestion. *Oral Diseases.* 24: 1399-1416.
- Pedersen, A. M. L., dan Belstrom, D., (2018) The Role of Natural Salivary Defences in Maintaining a Healthy Oral Microbiota. *Journal of Dentistry.* 80: S3-S12.
- Perić M, Miličić B, Kuzmanović Pfićer J, Živković R, dan Arsić Arsenijević V. A., (2024) Systematic Review of Denture Stomatitis: Predisposing Factors, Clinical Features, Etiology, and Global *Candida* spp. Distribution. *J Fungi (Basel).* 10(5): 328.
- Picco, D. C. R., Marangoni-Lopes, K., Parisotto, T. M., Mattos-Graner, R., dan Nobre-dos-Santos, M., (2019) Activity of Carbonic Anhydrase VI is Higher in Dental Biofilm of Children with Caries. *Int. J. Mol. Sci.* 20: 2673.
- Pinontoan, P. M., Marunduh, S. R., dan Wungouw, H. I. S., (2015) Gambaran Kekuatan Otot pada Lansia di BPLU Senja Cerah Paniki Bawah. *Jurnal e-Biomedik.* 3(1): 1-5.
- Proctor, G. B., dan Shaalan, A. M., (2021) Disease-Induced Changes in Salivary Gland Function and the Composition of Saliva. *Journal of Dental Research.* 100(11): 1201-1209.
- Rahiotis, C., Mitropoulos, P., dan Kakaboura, A., (2021) Comparative Evaluation of Chair-Side Saliva Tests According to Current Dental Status in Adult Patient. *Dent. J.* 9(10): 1-8.

- Raj, B. T., Sreelekha, B., dan Manjula, A., (2020) Effectiveness of Oral Exercise on Oral Function among The Elderly. *J Family Med Prim Care*. 9(4): 1896-1903.
- Rajendra, R. E., Srikanth, S., Kiranmayi, M., Swathi, S. P., Dutta, L. D., dan Kumar, A., (2023) Evaluation of Flow Rate, pH, and Buffering Capacity of Saliva in Children with Caries, Fluorosis, and Caries with Fluorosis. *Int J Clin Pediatr Dent*. 16(4): 587-590.
- Ramadoss, R., Krishnan, R., Raman, S., Padmanaban, R., Anbuelangovan, N., dan Eswaramoorthy, R., (2023) Salivary stimulatory effect of novel low level transcutaneous electro neurostimulator in geriatric patients with xerostomia. *BMC Oral Health*. 23: 334.
- Ramezani, J., Khaligh, M. R., Ansari, G., Yazdani, Y., dan Mohammadi, S., (2021) Association of Salivary Physicochemical Characteristics and Peptide Levels with Dental Caries in Children. *J Indian Soc Prev Dent*. 39: 189-195.
- Saleedaeng, P., dan Phloiman, P., (2024) Effect of the New Salivary Gland Stimulating Program on the Salivary Flow Rate Among Older Adults: A Randomized Control Trial. *J Int Dent Med Res*. 17(4): 1635-1641.
- Sari, M. P., Rais, S. W., dan Dewi, S. R. P., (2019) Perbandingan Laju Alir Saliva Lansia Pendertia Diabetes Melitus Pengguna dan Bukan Pengguna Gigi Tiruan Lepas. *ODONTO Dental Journal*. 6(2): 88-94.
- Sato, T., dan Ishii, H., (2017) Regulation of Hemodynamics in Major Salivary Glands by Parasympathetic Vasodilation. *Journal of Oral Biosciences*. 59: 80-86.
- Setyowati, D. I., bechirh, Z., Mashartini, A., Cholid, Z., Yuwono, B., dan Hernawati, S., (2024) Saliva Secretion and Viscosity Against Xerostomia in the Elderly. *J. Int. Dent. Med. Res*. 17(3): 1240-1244.
- Seo, S., Kim, T-S., dan Lee, Y-H., (2024) Changes in Salivary Parameters, Halitosis, Oral Health, and Systemic Disease with Increasing Age. *J Oral Med Pain*. 49(4): 124-134.
- Sholihkhah, D. U., Sudiana, I. K., dan Kurniawati, N. D., (2020) The Effectiveness of Chewing Gum versus Cryotherapy on Salivary Volume among Patients with Head and Neck Cancer Undergoing Radiotherapy. *Jurnal Ners*. 15(1): 91-97.
- Sutarjo, F. N. A., Rinthani, M. F., Brahmanikanya, G. L., Parmadiati, A. E., Radhitia, D., dan Mahdani, F. Y., (2024) Common Precipitating Factors of Xerostomia in Elderly. *J Health Allied Sci*. 14(1); 11-16.
- Toan, N. K. dan Ahn, S. G., (2021) Aging-Related Metabolic Dysfunction in the Salivary Gland: A Review of the Literature. *Int. J. Mol. Sci*. 22(11): 5835.

- Utami, W. J. D., Sukendro, S. J., Prakso dan Mulidah, S., (2023). Facial Exercise as an Effort to Improve The Quality of Life in Elderly with Xerostomia at Posyandu, Gedewang, Banyumanik, Semarang. *Jurnal Kesehatan Gigi*. 10(1):88-92.
- van Kalmthout, L. W. M., Lam, M. G. E. H., de Keizer, B., Krijger, G. C., Ververs, T. F. T., de Roos, R., dan Braat, A. J. A. T., (2018). Impact of external cooling with icepacks on <sup>68</sup>Ga-PSMA uptake in salivary glands. *EJNMMI research*, 8(1): 56.
- Washino, K., Ohnishi, A., Terada, T., dan Tsukamoto, M., (2025) Evaluation of Salivation Promotion by Odor, Pressure, and Thermal Stimulus for Designing Wearable Device to Increase Salivation. *Sci*. 7(33): 1-15.
- World Health Organization. (2024) Ageing and Health. <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>.
- Xu, F., Laguna, L., dan Sarkar, A., (2019) Aging Related Changes in Quantity and Quality of Saliva: Where Do We Stand in Our Understanding?. *Journal of Texture Studies*. 50(1): 27-35.
- Zhang, D., Jiang, H., Chen, J., dan Wang, X., (2022) Buffering Capacity of Saliva Influences the Perception of Acid-Related Sensory Properties. *Food Quality and Preference*. 97: 104454.
- Zhong, J., Dong, J., Ruan, W., dan Duan, X., (2023) Potential Theranostic Roles of SLC4 Molecules in Human Diseases. *Int. J. Mol. Sci*. 24:15166.
- Zhou, Y., dan Liu, Z., (2023) Saliva Biomarkers in Oral Disease. *Clinica Chimica Acta*. 548: 117503.