

BIBLIOGRAPHY

- Adams, S., Clay, T. D., Hasani, A., Turner, M., & Cruickshank, T. (2026). Multidimensional Sleep Health and Sleep Environment Factors in Individuals with Cancer Undergoing Outpatient Chemotherapy: An Exploratory Cross-Sectional Analysis. *Nature and Science of Sleep*, 18. <https://doi.org/10.2147/NSS.S572577>
- Anand, U., Dey, A., Singh, A. K., Sanyal, R., Mishra, A., & Kumar, D. (2023). *ScienceDirect Cancer chemotherapy and beyond : Current status , drug candidates , associated risks and progress in targeted therapeutics*. <https://doi.org/10.1016/j.gendis.2022.02.007>
- Arana- chिकास, E., Lin, P., Gada, U., Sun, H., Chakrabarti, A., Mattick, L. J., Rieth, K., Chay, C. H., Ruzich, J., Esparaz, B. T., Cupertino, A. P., Altman, B. J., Vertino, P. M., Mohile, S. G., & Mustian, K. M. (2024). The effect of YOCAS © ® yoga on cancer-related fatigue and quality of life in older (60 +) vs . younger (≤ 59) cancer survivors : Secondary analysis of a nationwide , multicenter , phase 3 randomized controlled trial. *Journal of Geriatric Oncology*, 15(8), 102076. <https://doi.org/10.1016/j.jgo.2024.102076>
- Arana-Chicas, E., Lin, P. J., Gada, U., Sun, H., Chakrabarti, A., Mattick, L. J., Rieth, K., Chay, C. H., Ruzich, J., Esparaz, B. T., Cupertino, A. P., Altman, B. J., Vertino, P. M., Mohile, S. G., & Mustian, K. M. (2024). The effect of YOCAS©® yoga on cancer-related fatigue and quality of life in older (60+) vs. younger (≤ 59) cancer survivors: Secondary analysis of a nationwide, multicenter, phase 3 randomized controlled trial. *Journal of Geriatric Oncology*, 15(8), 102076. <https://doi.org/10.1016/j.jgo.2024.102076>
- Armer, J. S., & Lutgendorf, S. K. (2021). The impact of yoga on fatigue in cancer survivorship: A meta-analysis. *JNCI Cancer Spectrum*, 4(2), 1–12. <https://doi.org/10.1093/JNCICS/PKZ098>
- Bakım, P., Cancer, A., & Aromatherapy, H. (2023). *Aromatherapy in Cancer Patients Receiving Palliative Care*. 11(2), 229–241. <https://doi.org/10.14235/bas.galenos.2022.66588>
- Brown, S., & Martinez, H. (2025). *Chemotherapy : Open Access Advancing Cancer Treatment Research t hrough Investigations and Innovations*. See also Articles 10–11. <https://doi.org/10.35248/2167-7700.25.13.2>
- Budikayanti, A., Hakim, M., Mutiani, F., Handayani, S., Lailiyya, N., Khosama, H., Jehosua, S. Y., Puspitasari, V., Gunawan, P. Y., Hambarsari, Y., Islamiyah, W. R., Gofir, A., Vidyanti, A. N., Devicaesaria, A., Ibonita, R., Suryawati, H., & Tedjasukmana, R. (2024). The Impact of Post-COVID-19 Conditions on Sleep and Quality of Life in Indonesia: A Nationwide Cross-Sectional Study.

- Nature and Science of Sleep*, 16(June), 907–916. <https://doi.org/10.2147/NSS.S456979>
- Burch, J. B., Delage, A. F., Zhang, H., McLain, A. C., Ray, M. A., Miller, A., Adams, S. A., & He, J. R. (2024). Sleep disorders and cancer incidence : examining duration and severity of diagnosis among veterans. *Frontiers in Oncology*. <https://doi.org/10.3389/fonc.2024.1336487>
- Cancer, N. (2020). *Yoga Post for Peopel with a Brain and Spine Tumor*. National Cancer Institute. <https://www.cancer.gov/rare-brain-spine-tumor/living/self-care/spirituality/yoga-poses-cancer-infographic>
- Capri, et al. (2025). *The Pittsburgh Sleep Quality Index : a brief review*. 14–15.
- Carpi, M. (2025). *The Pittsburgh Sleep Quality Index : a brief review*. 14–15.
- Cheng, H., Lin, L., Wang, S., Zhang, Y., Liu, T., Yuan, Y., Chen, Q., & Tian, L. (2022). Aromatherapy with single essential oils can significantly improve the sleep quality of cancer patients: a meta-analysis. *BMC Complementary Medicine and Therapies*, 22(1), 1–12. <https://doi.org/10.1186/s12906-022-03668-0>
- Dewi, E. U., & Widari, N. P. (2022). *Factors that affect the quality of life of cancer patients during the Covid-19 pandemic at the Indonesian Cancer Foundation Surabaya*. 10–19.
- Durán-Gómez, N., Martín-Parrilla, M. Á., López-Jurado, C. F., Montanero-Fernández, J., Nadal-Delgado, M., & Cáceres, M. C. (2025). The need for comprehensive sleep disturbances assessment and management in breast cancer care. *Scientific Reports*, 15(1), 1–18. <https://doi.org/10.1038/s41598-025-05315-3>
- Endeshaw, D., Yohannes, S., Biresaw, H., Asefa, T., & Yesuf, N. N. (2022). Sleep Quality and Associated Factors Among Adult Cancer Patients Under Treatment at Oncology Units in Amhara Region, Ethiopia. *Nature and Science of Sleep*, 14(May), 1049–1062. <https://doi.org/10.2147/NSS.S356597>
- Ferlay, J., Rebecca, M. E., & Mph, L. S. (2024). *Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. February*, 229–263. <https://doi.org/10.3322/caac.21834>
- Giridharan, S., Soumian, S., & Ansari, J. (2024a). *Yoga for Cancer Survivors (YOCAS): A Systematic Review of the YOCAS Program 's Impact on Physical and Psychological Well-Being*. 16(10). <https://doi.org/10.7759/cureus.71857>
- Giridharan, S., Soumian, S., & Ansari, J. (2024b). *Yoga for Cancer Survivors (YOCAS): A Systematic Review of the YOCAS Program's Impact on Physical and Psychological Well-Being*. *Cureus*, 16(10). <https://doi.org/10.7759/cureus.71857>

- Gyawali, S., Tiwari, S., Sah, G. S., Panthi, B., Upreti, A., Pokhrel, B., Gyawali, B., Khanal, P., Shrestha, R., & Paudel, B. (2024). Prevalence of sleep disorders in patients with advanced cancer: a cross-sectional study. *Annals of Medicine & Surgery*, 86(7), 3954–3958. <https://doi.org/10.1097/ms9.0000000000002232>
- Hamzeh, S., Safari-faramani, R., & Khatony, A. (2020). *Effects of Aromatherapy with Lavender and Peppermint Essential Oils on the Sleep Quality of Cancer Patients : A Randomized Controlled Trial*. 2020.
- Han, J., Cheng, H. L., B. N., & Molasiotis, A. (2023). Mind-body therapies for sleep disturbance among patients with cancer: A systematic review and meta-analysis. *Complementary Therapies in Medicine*, 75(December 2022), 102954. <https://doi.org/10.1016/j.ctim.2023.102954>
- Hanahan, D. (2022). Hallmarks of Cancer: New Dimensions. *Cancer Discovery*, 12(1), 31–46. <https://doi.org/10.1158/2159-8290.CD-21-1059>
- Hofmeister, D., Schulte, T., Mehnert-Theuerkauf, A., Geue, K., Zenger, M., Esser, P., Götze, H., & Hinz, A. (2022). The association between sleep problems and general quality of life in cancer patients and in the general population. *Frontiers in Psychology*, 13(December), 1–9. <https://doi.org/10.3389/fpsyg.2022.960029>
- Huang, C. C., Fang, T. P., Lin, C. M., Chu, C. M., Hsiao, H. L., Liu, J. F., Li, H. H., Chiu, L. C., Kao, K. C., Kuo, C. H., Leu, S. W., & Lin, H. L. (2024). Evaluating the Efficacy of Inhaled Colistin via Two Nebulizer Types in Ventilator-Associated Pneumonia: Prospective Randomized Trial. *Antibiotics*, 13(11), 1–12. <https://doi.org/10.3390/antibiotics13111099>
- Ida Ayu Ningrat Pangruating Diyu, by Putu Kamaryati, N. M. A. Y., & Raswati Teja, N. M. A. Y. (2024). *OVERVIEW OF SLEEP QUALITY IN WOMEN WITH BREAST CANCER AND CERVICAL CANCER UNDERGOING CHEMOTHERAPY. That is why we need to be vigilant, and we need to be vigilant*.
- Jagiello, A. D., Benedict, C., & Spiegel, D. (2023). Circadian, hormonal, and sleep rhythms: effects on cancer progression implications for treatment. *Frontiers in Oncology*, 13(September), 1–7. <https://doi.org/10.3389/fonc.2023.1269378>
- Jayanti, N. P. I., Cahyono, H. D., & Prasetyo, H. (2023). Family Support with Quality of Life in Breast Cancer Patients Undergoing Chemotherapy. *Malang Journal of Nursing*, 8(1), 301–307.
- Kartika, W., Riduansyah, M., Rahman, S., & Wijaksono, M. A. (2024). The relationship between chemotherapy therapy and the stress level of cancer patients. *Journal of Psychiatric Nursing*, 12(1), 217–224.
- Ministry of Health BPS. (2023). Indonesian Health Survey (SKI). *Health Survey in Numbers*, 1–68.

- Knoerl, R., Bockhoff, J., Fox, E., Giobbie-hurder, A., Berry, D. L., Berfield, J., Meyerhardt, J., Wright, A., & Ligibel, J. (2022). *Cancer Survivors' Perspectives on Virtual Yoga for Pain*. 40, 641–647. <https://doi.org/10.1097/CIN.0000000000000937>
- Lanza, G., Mogavero, M. P., Salemi, M., & Ferri, R. (2024). *The Triad of Sleep, Immunity, and Cancer: A Mediating Perspective*. 1–15.
- Lestari, N., Amran, A. J., & Mawaddah, B. (2025). The Effectiveness of Peppermint Aromatherapy (*Mentha Piperita* L) to Overcome *E-Dent*, 13(1), 211–216.
- Li, Y., Zhao, F., Zhou, Y., Fu, E., Zhu, S., Yu, L., Xu, H., Li, Q., Li, Q., Li, Q., Li, Q., Zhang, P., Wang, J., & Mo, H. (2025). Associations between sleep disturbance, treatment-related adverse events, and psychological distress in patients with breast cancer: a prospective cohort study. *The Lancet Regional Health - Western Pacific*, 55(June), 101325. <https://doi.org/10.1016/j.lanwpc.2024.101325>
- Lorens, M., Butar, B., & Stephens, S. A. (2023). The Effect of Simple Inhalation Using Mint Leaf Aromatherapy (*Mentha Piperita*) on Reducing Shortness of Breath in Pulmonary Tuberculosis Patients at the Pon Village Health Center, Sei Bamban District. *Sumatra Deli Health*, 1(1), 1–7.
- Mahdavian, S., Fallahi, M., & Khatony, A. (2021). Comparing the Effect of Aromatherapy with *Peppermint* and Lavender Essential Oils on Fatigue of Cardiac Patients: A Randomized Controlled Trial. *Evidence-Based Complementary and Alternative Medicine*, 2021. <https://doi.org/10.1155/2021/9925945>
- Malveiro, C., Boavida, S., Cargaleiro, C., Bernardino, A. V., Correia, I. R., Reis, C., Matos, L., Sardinha, L. B., Cardoso, M. J., & Saint-Maurice, P. F. (2025). Sensor based sleep patterns and reported sleep quality in breast cancer patients undergoing neoadjuvant chemotherapy. *Scientific Reports*, 15(1), 1–10. <https://doi.org/10.1038/s41598-025-99208-0>
- Maqbali, M. Al, Admin, D., Sinani, M. Al, Alsayed, A., & Gleason, A. M. (2022). Prevalence of Sleep Disturbance in Patients With Cancer : A Systematic Review and Meta-Analysis. *Clinical Nursing Research*, 31(6), 1107–1123. <https://doi.org/10.1177/10547738221092146>
- Murillo, L. L., Green, M., Mahon, N., & Saiani, A. (2025). Modelling Cancer Pathophysiology : Mechanisms and Changes in the Extracellular Matrix During Cancer Initiation and Early Tumour Growth. *Cancers*, 1–31.

- Mussa, M. V., Allegra, S., Armando, T., Storto, S., Ghezzi, B., Soave, G., Abbadessa, G., Chiara, F., Di Maio, M., Dagnoni, F. M., & de Francia, S. (2024). Self-Completion Questionnaire on Sleep Evaluation in Patients Undergoing Oxaliplatin Therapy: An Observational Study. *Cancers*, 16(5), 1–13. <https://doi.org/10.3390/cancers16050946>
- Mutiara, S., Yulianto, S. P., Marta, S., Susilowati, S., Masfufah, D. S., Idu, C. J., & Ngasu, K. E. (2025). Factors Related to the Quality of Life of Patients with Breast Cancer Undergoing Chemotherapy at Dharmais Cancer Hospital. *Indonesian Journal Of Cancer*, 19(3), 386–393.
- Nidhal, B., Sonia, M., Imene, B., Fatma, C., & Soraya, F. (2021). Comparison of sleep quality before and after chemotherapy in locally advanced non-small-cell lung cancer patients. *The Egyptian Journal of Chest Diseases and Tuberculosis*, 70(4), 516–525. https://doi.org/10.4103/ejcdt.ejcdt_221_19
- Nissen, E. R., Neumann, H., Knutzen, S. M., Henriksen, E. N., Amidi, A., Johansen, C., Von Heymann, A., Christiansen, P., & Zachariae, R. (2024). Interventions for insomnia in cancer patients and survivors-a comprehensive systematic review and meta-analysis. *JNCI Cancer Spectrum*, 8(3). <https://doi.org/10.1093/jncics/pkae041>
- Peattie, A., Mark, S., Block, A., Cooper, B. A., Paul, S. M., Hammer, M. J., Cartwright, F., Conley, Y. P., Levine, J. D., & Miaskowski, C. (2025). Risk factors associated with the co-occurrence of severe pain and sleep disturbance in oncology outpatients receiving chemotherapy. *Supportive Care in Cancer*, 33(12). <https://doi.org/10.1007/s00520-025-10151-2>
- Putri, D. S. R., & Makiyah, S. N. N. (2021). Factors affecting sleep quality of breast cancer patients with chemotherapy. *Open Access Macedonian Journal of Medical Sciences*, 9(T4), 130–136. <https://doi.org/10.3889/oamjms.2021.5816>
- Dr. M. Yunus Hospital, B. (2025). *Chemotherapy Patient Data of dr. M. Yunus Hospital Bengkulu City*.
- Said, N. B., & Alsayed, A. (2026). Cancer-Related Fatigue, Psychological Symptoms, and Sleep Quality and Influencing Factors in Cancer Patients Receiving Chemotherapy. *Inquiry : A Journal of Medical Care Organization, Provision and Financing*, 63. <https://doi.org/10.1177/00469580261422596>
- Salamung, N., & Elmiyanti, N. K. (2023). Effect of Aromatherapy on Sleep Quality: A Systematic Review. *International Journal of Nursing and Health Services (IJNHS)*, 6(5), 292–302. <https://doi.org/10.35654/ijnhs.v6i5.728>
- Saman, Ulfa, L., Sulistyowati, Y., & Buwana, C. (2025). Determinants of Quality of Life of Cancer Patients Undergoing Chemotherapy at Dharmais Cancer Hospital. *Indonesian Journal Of Cancer*, 19(3), 359–366.

- Sari, C. M., Herbert, T., & Edison, C. (2023). Effects of *Peppermint* Aromatherapy in Cardiovascular Disease Patients: A Literature Review. *Indonesian Scientific Journal of Nursing*, 13(01), 1–13. <https://doi.org/10.33221/jiiki.v13i01.2376>
- Sari, W. I., & Purwanza, S. W. (2022). Relationship of Age, Gender, and Formal Education with Symptom Clusters in Head and Neck Cancer Patients: An Observational Study. *Health Information: Journal of Research*, 14(2), 153–160. <https://doi.org/10.36990/hijp.v14i2.494>
- Selviana, S. (2024). *The Relationship Of Anxiety Level And Sleep Quality In Cancer Patients Undergoing Chemotherapy*. 16(2), 96–103.
- Setia, V. M., & Rosa, E. M. (2024). The Effectiveness of Sleep Hygiene on Sleep Quality Cancer Patients Undergoing Chemotherapy: A literature Review. *Journal of Health Sciences*, 9(2), 741–760. <https://doi.org/10.30604/jika.v9i2.2697>
- Siegel, Sung, H., Mph, T. B. K., & Msph, A. N. G. (2025). *Cancer statistics, 2025*. October 2024, 10–45. <https://doi.org/10.3322/caac.21871>
- Souza, R. C. da S., dos Santos, M. R., das Chagas Valota, I. A., Sousa, C. S., & Costa Calache, A. L. S. (2020). Factors associated with sleep quality during chemotherapy: An integrative review. *Nursing Open*, 7(5), 1274–1284. <https://doi.org/10.1002/nop2.516>
- Taskaynatan, H., Ersoz, B., Camanli, U., Gezici, B., Arslan Tan, F., Mercan, K., Kahraman, E. G., & Unal, O. U. (2025). Prevalence of Insomnia and Associated Factors in Female Patients Undergoing Chemotherapy. *Nature and Science of Sleep*, 17(October), 2517–2528. <https://doi.org/10.2147/NSS.S554960>
- Thi Hong Anh, V., Thuy Vy, H., Ngoc Cam Van, N., Nguyen Huyen Trang, H., Huynh Phuong, T. N., Quoc Trung, L., Thi Tam Minh, H., & Tat Bang, H. (2026). Factors Associated with Poor Sleep Quality in Cancer Patients Undergoing Chemotherapy: A Cross-sectional Study in Vietnam. *International Journal of Cancer Management*, 19(1), 1–8. <https://doi.org/10.5812/ijcm-171063>
- Tianto, A. N., & Khayati, N. (2023). Peppermint aromatherapy (mentha reduces nausea and vomiting due to chemotherapy. *Young Ners*, 4(1), 20–29.
- Valencia, Utama, D. S., & Widyasari, F. (2025). Risk Factors Associated with Chemotherapy Response in Nasopharyngeal Carcinoma: A Cross-Sectional Study from a Tertiary Referral Center in Indonesia. *Sriwijaya Journal of Medicine*, 8(1), 129–139. <https://doi.org/10.32539/SJM.v8i2.309>
- Wang, J., Zhou, B. Y., Lian, C. L., Zhou, P., Lin, H. J., & Wu, S. G. (2021). Evaluation of Subjective Sleep Disturbances in Cancer Patients: A Cross-Sectional Study in a Radiotherapy Department. *Frontiers in Psychiatry*, 12(March), 1–7. <https://doi.org/10.3389/fpsyt.2021.648896>

- Wardana, N. K. S. K., Armerinayanti, N. W., & Cahyawati, P. N. (2025). Correlations of Protein 53 (p53) Expression with the Degree of Tumor Budding in Cervical Carcinoma. *Indonesian Journal Of Cancer*, 19(3), 352–358.
- Xie, Y., Yang, S. H., Liu, S. Y., Zhu, G. H., Wang, Y., Fang, L. Y., Fang, Y. H., Wang, R. X., Sui, B. L., & Zhang, Y. (2025). Characteristics and associated factors of insomnia in gynecological cancer patients: A cross-sectional study. *Supportive Care in Cancer*, 33(12). <https://doi.org/10.1007/s00520-025-10148-x>
- Yang, F., Lin, C., & Yan, Y. (2024). *Chemotherapy : Open Access Deciphering Molecular Underpinnings and Therapeutic Avenues for Eczema and Atopic Dermatitis through Integrated Omics and Immunohistochemical Analysis*. 12(1000225), 1–10. <https://doi.org/10.35248/2167-7700.24.12.225>
- Yang, H. X., Fan, B. F., Zhao, J., Ji, J. H., Ding, W. Bin, & Shen, W. G. (2024). Development of an indicator framework for assessing nursing quality in interventional therapy for intracranial aneurysms in China. *Frontiers in Neurology*, 15(December), 1–10. <https://doi.org/10.3389/fneur.2024.1403637>
- Yang, R., Jin, H., Zhao, C., Wang, W., & Li, W. Y. (2025). Oral Cancer and Sleep Disturbances: A Narrative Review on Exploring the Bidirectional Relationship. *Cancers*, 17(8), 1–17. <https://doi.org/10.3390/cancers17081262>
- Yanti, E., Harmawati, Irman, V., & Dewi, R. I. S. (2021). Increasing the readiness of cancer patients to undergo chemotherapy. *Journal of Scientific Studies*, 3(1), 85–88.
- Zelege, G. (2025). *Double Burden : Fatigue and Poor Sleep quality comorbidity and its predictor Among Cancer Patients , Northwest Ethiopia : Institutional based cross- sectional study design*.
- Zetzi, T., Renner, A., Pittig, A., Jentschke, E., Roch, C., & Oorschot, B. van. (2021). *Yoga effectively reduces fatigue and symptoms of depression in patients with different types of cancer*. 2973–2982.
- Zhao, H., Ren, S., Yang, H., Tang, S., Guo, C., Liu, M., & Tao, Q. (2022). Biomedicine & Pharmacotherapy *Peppermint* essential oil : its phytochemistry , biological activity , pharmacological effect and application. *Biomedicine & Pharmacotherapy*, 154, 113559. <https://doi.org/10.1016/j.biopha.2022.113559>
- Zhu, G. hui, Li, J., Li, J., Xu, B. wen, Wang, H. ping, Wang, X. miao, Hu, J. qi, & Dai, M. hao. (2021). The characteristics and related factors of insomnia among postoperative patients with gastric cancer: a cross-sectional survey. *Supportive Care in Cancer*, 29(12), 7315–7322. <https://doi.org/10.1007/s00520-021-06295-6>

Zhu, J., Chen, X., Zhen, X., Zheng, H., Chen, H., Chen, H., Liao, H., Zhu, J., Wang, C., Zheng, Z., Chen, R., & Wang, Y. (2023). Meta-analysis of effects of yoga exercise intervention on sleep quality in breast cancer patients. *Frontiers in Oncology*, 13(June). <https://doi.org/10.3389/fonc.2023.1146433>



A

P

P

E

N

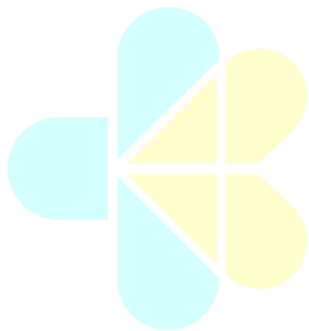
D

I

C

E

S



Kemkes
Poltekkes Bengkulu

APPENDICES

Appendices 1 Master Table

No	Nama	Usia	Jenis Kelamin	Stadium Kanker	Jumlah Siklus Kemoterapi	Penyakit Penyerta	Pretest	Posttest	Kelompok
1	Ny. S	64	2	3	6	1	10	4	1
2	Ny. E	51	2	3	6	1	9	4	1
3	Ny. R	46	2	2	6	1	10	3	1
4	Ny. S	62	2	2	12	4	7	3	1
5	Ny.S	38	2	3	8	1	6	4	1
6	Ny.T	45	2	3	6	1	9	3	1
7	Ny.A	43	2	3	6	4	10	3	1
8	Ny. B	52	2	2	6	1	10	4	1
9	Ny.D	39	2	2	6	4	8	3	1
10	Ny.M	60	2	2	6	1	9	4	1
11	Ny.R	37	2	2	12	1	7	4	1
12	Ny.D	51	2	2	6	1	8	3	1
13	Ny.A	36	2	2	6	4	7	4	1
14	Ny.S	57	2	3	6	1	9	3	1
15	Ny.I	65	2	3	6	4	10	3	1
16	Ny.S	43	2	3	6	1	6	4	1
17	Ny.I	40	2	2	6	1	10	4	1
18	Ny.E	49	2	3	6	4	7	4	1
19	Ny.J	44	2	2	6	1	7	4	1

20	Ny.E	45	2	3	6	1	10	4	1
21	Ny.Y	43	2	3	6	1	10	4	1
22	Ny.D	34	2	1	12	1	9	4	1
23	Ny.R	65	2	2	6	1	8	4	1
24	Tn. L	58	1	3	6	2	10	3	1
25	Ny.S	56	2	3	6	1	7	3	1
26	Ny.R	48	2	2	6	4	10	3	1
27	Tn. P	50	1	2	6	2	9	4	1
28	Ny. M	50	2	3	6	4	8	4	1
29	Ny. N	40	2	2	6	1	8	3	1
30	Ny. N	45	2	3	8	4	9	4	1
31	Ny. S	51	2	1	6	1	9	3	1
32	Ny. Y	53	2	2	6	4	7	4	1
33	Ny. L	39	2	3	6	1	10	3	1
34	Ny. T	51	2	3	6	4	8	3	1
35	Ny. M	55	2	3	6	2	6	3	1
36	Ny. D	49	2	3	6	1	9	4	1
37	Ny. M	54	2	3	6	1	10	4	1
38	Ny. E	46	2	3	6	3	7	3	1
39	Ny. E	55	2	3	8	1	9	4	1
40	Ny. I	40	2	2	6	1	9	3	1
41	Ny.S	40	2	2	6	1	8	4	1
42	Tn. S	69	1	3	6	2	10	3	1
43	Ny. Z	55	2	3	6	1	6	4	1

44	Ny. P	53	2	2	6	1	8	3	1
45	Ny. Y	44	2	2	6	1	6	3	1
46	Ny. S	50	2	1	6	1	9	4	1
47	Ny. A	70	2	3	12	1	7	4	1
48	Ny. S	51	2	3	6	1	7	4	1
49	Ny. E	41	2	1	6	1	10	4	1
50	Tn. B	36	1	2	6	4	10	4	1
51	Ny. H	51	2	1	6	4	9	3	1
52	Ny. W	41	2	2	12	4	6	4	1
53	Ny. L	65	2	1	6	1	8	3	1
54	Ny. Y	54	2	2	8	2	7	3	1
55	Ny. N	44	2	2	6	4	8	4	1
56	Ny. Z	42	2	3	6	1	9	3	1
57	Ny. S	38	2	1	6	4	9	4	1
58	Ny. L	45	2	2	8	1	10	4	1
59	Ny. M	35	2	2	6	1	7	4	1
60	Ny. S	42	2	3	6	4	7	3	1
61	Ny. Y	52	2	3	6	1	9	3	1
62	Tn. Z	58	1	3	6	1	9	4	1
63	Ny. W	37	2	2	6	4	8	3	1
64	Ny. A	60	2	3	6	2	6	4	1
65	Tn. S	45	1	3	6	1	6	4	1
66	Ny. T	36	2	1	6	1	6	4	1
67	Ny. R	52	2	2	6	1	7	3	1

68	Ny. F	39	2	1	8	1	9	4	1
69	Ny. I	49	2	2	6	1	9	4	1
70	Ny. A	36	2	1	6	1	10	3	1
71	Ny. H	41	2	2	6	4	10	3	1
72	Ny. S	45	2	3	6	4	8	3	1
73	Ny. M	34	2	2	8	4	8	4	1
74	Ny. L	49	2	3	6	1	8	4	1
75	Ny. H	57	2	2	6	1	10	4	1
76	Ny. M	50	2	2	6	1	9	4	1
77	Ny. S	45	2	3	6	1	7	3	1
78	Ny. R	44	2	3	12	1	7	4	1
79	Ny. E	36	2	2	6	1	8	3	1
80	Ny. A	38	2	2	6	4	6	4	1
81	Ny. W	67	2	3	6	4	6	4	1
82	Ny. Y	42	2	3	6	1	6	4	1
83	Ny. S	45	2	3	8	1	6	3	1
84	Ny. N	61	2	3	6	1	8	3	1
85	Ny. T	45	2	3	6	1	9	4	1
86	Ny. E	40	2	3	6	4	9	4	1
87	Ny. I	45	2	3	6	4	7	4	1
88	Ny. R	59	2	3	6	1	8	4	1
89	Ny. S	43	2	2	6	4	10	3	1
90	Ny. S	41	2	2	6	4	7	4	1

OUTPUT SPSS

A. UJI UNIVARIAT

3. Karakteristik Responden

a. Usia

Descriptives

Kelompok		Statistic	Std. Error
Usia	Intervensi Mean	47.84	.931
	95% Confidence Interval for Mean	Lower Bound	45.99
		Upper Bound	49.70
	5% Trimmed Mean	47.48	
	Median	45.00	
	Variance	78.088	
	Std. Deviation	8.837	
	MiStudent IDum	34	
	Maximum	70	
	Range	36	
	Interquartile Range	12	
	Skewness	.580	.254
	Kurtosis	-.354	.503

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Kelompok		Statistic	df	Sig.	Statistic	df	Sig.
Usia	Intervensi	.137	90	.000	.957	90	.004

a. Lilliefors Significance Correction

b. Jumlah Siklus Kemoterapi

Descriptives

		Kelompok		Statistic	Std. Error
Jumlah_Siklus_Kemoterapi	Intervensi	Mean		6.58	.165
		95% Confidence Interval for Mean	Lower Bound	6.25	
			Upper Bound	6.91	
		5% Trimmed Mean		6.31	
		Median		6.00	
		Variance		2.449	
		Std. Deviation		1.565	
		MiStudent IDum		6	
		Maximum		12	
		Range		6	
		Interquartile Range		0	
		Skewness		2.893	.254
		Kurtosis		7.373	.503

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Kelompok		Statistic	df	Sig.	Statistic	df	Sig.
Jumlah_Siklus_Kemoterapi	Intervensi	.488	90	.000	.409	90	.000

a. Lilliefors Significance Correction

		Jenis_Kelamin		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Laki laki	6	6.7	6.7	6.7
	Perempuan	84	93.3	93.3	100.0
	Total	90	100.0	100.0	

		Stadium_Kanker		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Stadium I	6	6.7	6.7	6.7
	Stadium II	9	10.0	10.0	16.7
	Stadium III	75	83.3	83.3	100.0
	Total	90	100.0	100.0	

		Penyakit_Penyerta		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Hipertensi	56	62.2	62.2	62.2
	Diabetes Mellitus	6	6.7	6.7	68.9
	Asma	1	1.1	1.1	70.0
	Tidak Ada	27	30.0	30.0	100.0
	Total	90	100.0	100.0	

4. **Figurean Rata-Rata Gangguan Tidur Pada Pasien Kanker Yang Menjalani Kemoterapi Sebelum Dan Sesudah Dilakukan Intervensi**

Case Processing Summary

		Cases					
		Valid		Missing		Total	
Kelompok		N	Percent	N	Percent	N	Percent
Pretest Intervensi		90	100.0%	0	0.0%	90	100.0%
Posttest Intervensi		90	100.0%	0	0.0%	90	100.0%

Descriptives

Kelompok		Statistic	Std. Error
Pretest Intervensi	Mean	8.20	.145
95% Confidence Interval for Mean		Lower Bound	7.91
		Upper Bound	8.49
5% Trimmed Mean		8.22	
Median		8.00	
Variance		1.892	
Std. Deviation		1.376	
MiStudent IDum		6	
Maximum		10	
Range		4	
Interquartile Range		2	
Skewness		-.184	.254
Kurtosis		-1.221	.503

Posttest Intervensi Mean	3.59	.052
95% Confidence Interval for Mean	Lower Bound	3.49
	Upper Bound	3.69
5% Trimmed Mean	3.60	
Median	4.00	
Variance	.245	
Std. Deviation	.495	
MiStudent IDum	3	
Maximum	4	
Range	1	
Interquartile Range	1	
Skewness	-.367	.254
Kurtosis	-1.908	.503

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Kelompok		Statistic	df	Sig.	Statistic	df	Sig.
Pretest Intervensi		.186	90	.000	.890	90	.000
Posttest Intervensi		.386	90	.000	.625	90	.000

a. Lilliefors Significance Correction

Statistics

		Pretest	Posttest
N	Valid	90	90
	Missing	0	0
Percentiles	25	7.00	3.00
	50	8.00	4.00
	75	9.00	4.00

Pretest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	13	14.4	14.4	14.4
	7	18	20.0	20.0	34.4
	8	17	18.9	18.9	53.3
	9	22	24.4	24.4	77.8
	10	20	22.2	22.2	100.0
	Total	90	100.0	100.0	

Posttest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	37	41.1	41.1	41.1
	4	53	58.9	58.9	100.0
	Total	90	100.0	100.0	

B. Analisa Bivariat

Ranks

	N	Mean Rank	Sum of Ranks
Posttest - Pretest Negative Ranks	90 ^a	45.50	4095.00
Positive Ranks	0 ^b	.00	.00
Ties	0 ^c		
Total	90		

a. Posttest < Pretest

b. Posttest > Pretest

c. Posttest = Pretest

Test Statistics^a

	Posttest - Pretest
Z	-8.278 ^b
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Appendices 3 Activity Documentation





RESPONDENT'S APPLICATION LETTER

Dear Sir.

Prospective Respondents

Respectfully,

I am the undersigned:

Name : Alda Bhumi Nauli Batubara
Students : Department of Nursing Undergraduate Study Program
Applied Nursing and Nurse Profession
Address : Jl. Soekarno Hatta no. 09, Angguta Atas Village, Ratu
Samban District, Bengkulu City, Bengkulu.
No. Hp : 085182911424

Students of the Bengkulu Ministry of Health Polytechnic who are carrying out research. The purpose of this study is to find out "**The Effect of Yoga for Cancer Survivors (YOCAS) and the Administration of Aromatherapy *Metha Piperita L.* Against Sleep Disorders in the Chemotherapy Room of Dr. M. Yunus Hospital, Bengkulu Province**". The researcher (I) will provide this consent sheet and explain that your involvement in the study is voluntary.

In this study, I will maintain the confidentiality of the respondents in this study. The patient's name will not be recorded anywhere. Involvement in this study can provide direct benefits to respondents, the results of this study can be useful to increase respondents' knowledge about the Effect of *Yoga Therapy for Cancer Survivors* (YOCAS) and the Administration of *Aromatherapy Metha Piperita L.* Against sleep disorders. If after being involved in this study, the respondent still has questions, the respondent can contact me at the number above.

If you agree, I ask for your willingness to sign the consent sheet as a research respondent. I thank you for your attention, cooperation and willingness to be a respondent.

Sincerely,

Alda Bhumi Nauli Batubara

Appendices 5 Informed Consent Sheet and Research Explanation

**INFORMED CONSENT DAN
RESEARCH EXPLANATION**

Dear Sir.

Prospective Respondents

Respectfully,

I am the undersigned:

Name : Alda Bhumi Nauli Batubara
Students : Department of Nursing Undergraduate Study Program
Applied Nursing and Nurse Profession
Nim : P01720322001
No. Hp : 085182911424

I am a student of the Bengkulu Ministry of Health Polytechnic who is carrying out a research entitled "**The Effect of Yoga Therapy for Cancer Survivors (YOCAS) and the Administration of Aromatherapy Metha Piperita L. Against Sleep Disorders in the Chemotherapy Room of Dr. M. Yunus Hospital, Bengkulu Province**". The purpose of this study is to increase knowledge in the handling of non-pharmacological therapies to overcome the problem of sleep disorders in cancer patients undergoing chemotherapy.

In this study, respondents will be given observation sheets to assess the quality of sleep during chemotherapy. The study did not cause harm, harm to respondents and mild side effects such as fatigue. If you are a respondent and incriminating things occur, then it is allowed to report to the researcher or can immediately resign from this study by contacting the researcher at the phone number listed above. Respondents will be compensated for the reimbursement of time for filling out this observation sheet determined by the researcher.

The confidentiality of all information provided will be maintained and will only be used for research purposes. All results of records or respondent data will be stored at the Bengkulu Ministry of Health Polytechnic. After reading the information and understanding the objectives of the research and the expected role in this study, please be willing to sign the consent sheet as a respondent of this research.

Bengkulu, 2026

(Alda Bhumi Nauli Batubara)

Appendices 6 Respondent Consent Sheet

LETTER OF APPROVAL

THEY RESPOND

I am the undersigned

Name :

Age :

Gender :

Address :

I am hereby willing to participate as a respondent in a research conducted by Sister Alda Bhumi Nauli Batubara, a Student of Applied Bachelor of Nursing at the Health Polytechnic of the Ministry of Health of Bengkulu with the title "The Effect of *Yoga Therapy for Cancer Survivors* (YOCAS) and the Administration of *Aromatherapy Metha Piperita L.* Against Sleep Disorders in the Chemotherapy Room of Dr. M. Yunus Hospital, Bengkulu Province in 2026". This research will not harm me or have a bad effect on me and my family, so I am willing to be a respondent. Thus, I made this letter of approval to be used as it should.

Researcher

(Alda Bhumi Nauli Batubara)

Bengkulu, 2026

They respond

()

Appendices 7 Demographic Data Collection

DATA COLLECTION INSTRUMENTS
RESPONDENT DEMOGRAPHICS

No. They respond

1. Respondent's Name (initial) :
2. Current age : Year
3. Number of Chemotherapy : Kali
Cycles
4. Gender : ☐ Male
☐ Women
5. Stadium cancer : ☐ Stadium I
☐ Stadium II
☐ Stadium III
6. Authoritative Diseases : ☐ Hypertension
☐ Diabetes Mellitus
☐ Asthma
☐ None

* Mark (✓) in the box provided according to your answer!

Appendices 8 Pittsburgh Sleep Quality Index Observation Sheet

FORMAT INSTRUMENT *PITTSBURGH SLEEP QUALITY INDEX (PSQI)*

Name:

Gender:

Age:

Address:

Technician instructions:

Put a ✓ mark on the score of each item according to the patient's condition and the information below the question, in order to determine the patient's sleep quality.

NO	QUESTION	Score			
		0	1	2	3
1	How efficient is your sleep in a night? What time does bed usually start? What time do you usually wake up in the morning? $\frac{\text{Long bed}}{\text{long in bed}} \times 100\%$ If the following results are obtained, then the score: > 85% = 0 75 – 84% = 1 65 – 74% = 2 > 65% = 3				
2	How long do you usually sleep each night? Description: ≤ 15 minutes = 0 16-30 minutes = 1 31-60 minutes = 2 >60 minutes = 3				
3	How long do you sleep at night? Description: >8 hours = 0 8-7 hours = 1 5-6 hours = 2 <5 hours = 3				
4	Unable to fall asleep for 30 minutes from lying down Description:				

	Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3				
5	How often do the problems below interfere with your sleep? j. Do you wake up in the middle of the night? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 k. Do you often wake up to go to the bathroom? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 l. Do you often have trouble breathing while sleeping? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 m. Do you cough/sneeze while sleeping? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 n. Do you often feel cold? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 o. Do you often feel overheated? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 p. Do you often have nightmares while sleeping? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3 q. Do you wake up often because of pain? Description: Never = 0				

	Once a week = 1 2 times a week = 2 > 3 times a week = 3 r. Other reasons Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3				
Total score (5a-5i) Score 0 = 0 Score 1 – 9 = 1 Score 10 – 18 = 2 Score 19 – 27 = 3					
6	How often do you use sleeping pills? Description: Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3				
7	How often do you get sleepy during the day? Never = 0 Once a week = 1 2 times a week = 2 > 3 times a week = 3				
8	How enthusiastic are you about solving the problem you face? Not enthusiastic = 0 Small = 1 Medium = 2 Large = 3				
Total question scores 7&8 Score 0 = 0 Score 1 – 2 = 1 Score 3 – 4 = 2 Score 5 – 6 = 3					

Final score: add up all scores from components 1 to 9

Description :

Good Sleep Quality : 0-5

Poor Sleep Quality : >5

Appendices 9 SOP Sheet for Yoga for Cancer Survivors (Yocas) and Provision of Aromatherapy Metha Piperita L.

**STANDARD OPERATING PROCEDURES
YOGA FOR CANCER SURVIVORS (YOCAS) AND THE AROMATHERAPY
OF METHA PIPERITA L.**

	STANDARD OPERATING PROCEDURES YOGA FOR CANCER SURVIVORS (YOCAS) AND THE ADMINISTRATION OF AROMATHERAPY METHA PIPERITA L.
Definition	YOCAS (<i>Yoga for Cancer Survivors</i>) is a yoga program developed specifically for cancer patients and survivors, combining elements of <i>Hatha gentle yoga</i>, restorative yoga, breathing exercises (<i>pranayama</i>), and meditation or <i>mindfulness</i>. <i>Aromatherapy Mentha piperita L.</i> is a complementary therapy that uses the vapor of <i>peppermint</i> essential oil through inhalation to produce a relaxation effect, lower tension, and increase physical and emotional comfort.
Purpose	A combination intervention between <i>aromatherapy Metha Piperita L.</i> and YOCAS therapy aimed at increasing relaxation, reducing muscle tension, and improving sleep quality in patients undergoing chemotherapy treatment.
Preparation of tools/materials and training conditions	1. Chair with backrest 2. Supervisor / Expert 3. Stopwatch 4. Diffuser Aromatherapy Electrician 5. Clean water 100ml 6. <i>Mentha Piperita L. Essential Oil</i> 7. Yoga for 30 minutes / session 8. Yoga is done 1 time a week
So, Interaxis	1. Studying respondents' initial data 2. Preparing research tools and instruments 3. Prepare yourself emotionally and professionally 4. Establish goals and initial interaction plans

Onboarding Phase	1. Give therapeutic greetings 2. Evaluation of the initial data validation of the respondent 3. <i>Informed consent</i> (describes the type of action, objectives, benefits, risks, time, procedure, consent to the action (oral/written))
Work Phase	Patient preparation 1. Ask the client to sit in a chair 2. Ensure the client's condition is cooperative Environmental preparation 1. Make sure the room is quiet, safe, with enough light and good air circulation. 2. Make sure the chair is sturdy and safe to sit on Tool preparation 1. Set up the tools 2. Place the diffuser in a safe location, with a distance of about one to one and a half meters from the patient. Preparation of officers 1. Nurses wash their hands before making contact with clients
Implementation of action procedures	<i>Mentha Piperita L. Aromatherapy Preparation.</i> 1. Fill the diffuser with 100 ml of clean water 2. Add 10 drops of Mentha Piperita L essential oil. 3. Turn on the diffuser 5 minutes before the YOCAS session starts Persiapan Yoga for Cancer Survivors (YOCAS) 1. <i>Sun Salutations with Twists</i> 1. Sit up straight and relax 2. Breathe in, raise both hands up

	3. Exhale, rotate your body to the right, place the right hand on the back of the chair, and the left hand on the right knee 4. Breathe in, return to the center and raise your hands up 5. Exhale, rotate your body to the left, place your left hand on the seat back, and your right hand on your left knee 6. Do it for 5 minutes/session 1. Assisted Neck Stretches (Regangan leher Berbantuan) 1. Sitting up straight with relaxed shoulders 2. Tilt your head slowly to the right 3. Breathe in, place the right hand on the left side of the head and press slightly to deepen the stretch 4. Exhale, then return to the center 5. And repeat in the opposite direction 6. Do it for 5 minutes/session 2. High Altar Side Leans (Condong Samping Altar Tinggi) 1. Sitting upright, feet touching the floor 2. Breathe in, raise both hands straight up, then bring your palms together 3. Exhale, lean slowly to the right to stretch the left side of the body 4. Breathe in, return to the center 5. Exhale, lean slowly to the left 6. Repeat right and left movements for 5 minutes/session 3. Sun Salutations Arms 1. Sitting upright, hands at the sides of the body 2. Breathe in, raise your hands up 3. Exhale, bring your hands forward
--	--

	4. Then bring your hands down like bending 5. Breathe in, straighten your back like making a "flat table", hands on your thighs 6. Then uphold the material and raise your hands back up 7. Exhale, lower your hands back to the side 8. Repeat this movement for 5 minutes/session 4. Eagle Post (Garuda Arm) 1. Lift both arms to the side until the upper arms are in line with the shoulders 2. Then the forearm is bent upwards to form a 90-degree angle 3. Inhale and slowly raise both hands until they are at ear level 4. Exhale, slowly lowering the arms back to their original position at shoulder level 5. Repeat the movement for 5 minutes/session 5. Backbend Arch (Lengkungan Punggung) 1. Sit on the edge of the front seat 2. Hold the backrest or side of the chair 3. Breathe in, lift your chest up, push your shoulders back while gently arching your hips 4. Look slightly upwards, stay relaxed 5. Exhale, return to an upright sitting position a. Repeat the 5 minutes/session movement
Termination and Evaluation Stage	1. Tidying up tools and materials 2. Evaluation after YOCAS therapy and follow-up contract. 3. Documentation of the results of the activity

Source : (Zhao *et al.*, 2022) (Cancer, 2020)

Source : (Zhao *et al.*, 2022) (Cancer, 2020)

Appendices 10 Pre-Research Permit Application LetterS

	PEMERINTAH PROVINSI BENGKULU DINAS KESEHATAN UPTD KHUSUS RSUD dr. M. YUNUS Jl. Bhayangkara Bengkulu 38229 Telp. (0736) 52004 – 52006 Fax (0736) 52007	
---	---	---

Nomor : 074/ 385/BID-DIK/VIII/2025 Lampiran : - Perihal : Permohonan Izin Pra Penelitian	Bengkulu, 26 Agustus 2025 Yth. Kepada Kabid. Pelayanan Keperawatan di- Tempat
---	--

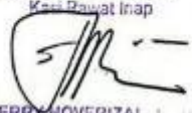
Menindaklanjuti surat dari Poltekkes Kemenkes Bengkulu Nomor :
PP.06.02/F.XXIII.1/6491/2025. Perihal Izin Pra Penelitian :

Nama	: ALDA BHUMI NAULI BATUBARA
NIM	: P01720322001
Prodi	: DIV Keperawatan
Judul Penelitian	: Efektifitas Terapi Yoga For Cancer Survivors (YOCAS) dengan Pemberian Aromaterapi Mentha Piperita L. Terhadap Gangguan Tidur di Ruang Kemoterapi di RSUD dr. M. Yunus Kota Bengkulu.
Ruangan	: Kemoterapi

Bersama ini kami mohon kesediaan unit bersangkutan untuk memberikan izin terhitung mulai 26 Agustus s.d 26 September 2025

Demikian kami sampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

Bengkulu, 27 Agustus 2025
Bidang Pelayanan Keperawatan
Kasi Rawat Inap



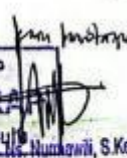
HERRY NOVERIZAL, S.Kep.
NIP. 19701119 198503

KEPALA BIDANG PENDIDIKAN



FEVRI HERMINA, A.P., S.Sos., M.Si
NIP. 19760102 199412 2 001

**INSTALASI RAWAT INAP
RUANG KEMOTERAPI**
RSUD Dr. M. Yunus Bengkulu



Herry Noverizal, S.Kep.

CS Dipindai dengan CamScanner

Appendices 11 Ethical Exemption Letter



Kementerian Kesehatan
Poltekkes Bengkulu

📍 Jalan Indragiri No. 3 Padang Harapan
Bengkulu 38225
☎ (0736) 341212
🌐 <https://poltekkesbengkulu.ac.id>

KETERANGAN LAYAK ETIK
DESCRIPTION OF ETHICAL APPROVAL
"ETHICAL APPROVAL" No.KEPK.BKL/316/02/2026

Protokol penelitian versi 2 yang diusulkan oleh :
The research protocol proposed by

Peneliti utama : Alda Bhumi Nauli Batubara
Principal In Investigator

Nama Institusi : Poltekkes Kemenkes Bengkulu
Name of the Institution

Dengan judul:
Title

"Pengaruh Yoga for Cancer Survivors (YOCAS) dan Pemberian Aromaterapi Metha Piperita L. Terhadap Gangguan Tidur di Ruang Kemoterapi RSUD dr. M. Yunus Provinsi Bengkulu"

"The Effect of Yoga for Cancer Survivors (YOCAS) and the Administration of Mentha piperita L. Aromatherapy on Sleep Disturbances in the Chemotherapy Unit of RSUD dr. M. Yunus, Bengkulu Province"

Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, yaitu 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan/Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indikator setiap standar.

Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Consent, referring to the 2016 CIOMS Guidelines. This is as indicated by the fulfillment of the indicators of each standard.

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 27 Februari 2026 sampai dengan tanggal 27 Februari 2027.

This declaration of ethics applies during the period February 27, 2026 until February 27, 2027.

February 27, 2026
Chairperson,



apt. Zamharira Muslim, M.Farm

Appendices 12 Letter Of Recommendation



PEMERINTAH PROVINSI BENGKULU
DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU
Jalan Batang Hari No.108, Kelurahan Tanah Patah, Kecamatan Ratu Agung, Kota Bengkulu
Website: <https://dpmpstp.bengkuluprov.go.id> | Email: dpmpstp@bengkuluprov.go.id
BENGKULU 38224

REKOMENDASI

Nomor : 503/82.650/531/DPMPSTP-P.4/2026

TENTANG PENELITIAN

- Dasar :
1. Peraturan Gubernur Bengkulu Nomor 13 Tahun 2022 Tentang Pendelegasian Wewenang Penyelenggaraan Pelayanan Perizinan Berusaha Berbasis Risiko dan Non perizinan Kepada Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu.
 2. Surat Wakil Direktur I Bidang Akademik Poltekkes Kemenkes Bengkulu
Nomor : PP.01.01/F.XXIII.1/3435/2026, Tanggal 04 Maret 2026 Perihal Rekomendasi Penelitian.
Permohonan diterima tanggal 05 Maret 2026

Nama / NPM	: ALDA BHUMI NAULI BATUBARA/P01720322001
Pekerjaan	: Mahasiswa
Maksud	: Melakukan Penelitian
Judul Proposal Penelitian	: Pengaruh Terapi Yoga for Cancer Survivors (YOCAS) dan Pemberian Aromaterapi <i>Mentha Piperita L.</i> terhadap Gangguan Tidar di Ruang Kemoterapi di RSUD Dr. M. Yunus Bengkulu Tahun 2026
Duara Penelitian	: Rumah Sakit Umum Daerah Dr. M. Yunus Bengkulu
Waktu Penelitian/Kegiatan	: 09 Maret 2026 s.d 09 Juni 2026
Penanggung Jawab	: Wakil Direktur I Bidang Akademik Poltekkes Kemenkes Bengkulu

Dengan ini merekomendasikan penelitian yang akan diadakan dengan ketentuan :

- a. Sebelum melakukan penelitian harus melapor kepada Gubernur/Bupati/Walikota Cq.Kepala Badan Kesatuan Bangsa dan Politik atau sebutan lain setempat.
- b. Harus mentaati semua ketentuan Perundang-undangan yang berlaku.
- c. Selesai melakukan penelitian agar melaporkan/menyampaikan hasil penelitian kepada Kepala Badan Kesatuan Bangsa dan Politik Provinsi Bengkulu.
- d. Apabila masa berlaku Rekomendasi ini sudah berakhir, sedangkan pelaksanaan penelitian belum selesai, perpanjangan Rekomendasi Penelitian harus diajukan kembali kepada instansi pemohon.
- e. Rekomendasi ini akan dicabut kembali dan dinyatakan tidak berlaku, apabila ternyata pemegang surat rekomendasi ini tidak mentaati/mengindahkan ketentuan-ketentuan seperti tersebut di atas.

Demikian Rekomendasi ini dikeluarkan untuk dapat dipergunakan sebagaimana mestinya



Ditetapkan di : Bengkulu
Pada tanggal : 05 Maret 2026

KEPALA DINAS PENANAMAN MODAL DAN
PELAYANAN TERPADU SATU PINTU
PROVINSI BENGKULU



KHURRUS KENDO PASJU, S.NIP.,M.Si
Pemangku Utama Muda (IV/c)
NIP. 198112282000121001

Tersusun disampaikan kepada Yth.:

1. Kepala Badan Kesatuan Bangsa dan Politik Provinsi Bengkulu
2. Direktur Poltekkes Kemenkes Bengkulu
3. Wakil Direktur I Bidang Akademik Poltekkes Kemenkes Bengkulu
4. Yang bersangkutan

Appendices 13 Research Permit Letter

	PEMERINTAH PROVINSI BENGKULU DINAS KESEHATAN UPTD KHUSUS RSUD dr. M. YUNUS Jl. Bhayangkara Bengkulu 38229 Telp. (0738) 52004 – 52008 Fax (0738) 52007	
---	--	---

		Bengkulu, 09 Maret 2026
Nomor	:	074/253 /BID-DIK/V/2026
Lampiran	:	Yth Kabid. Pelayanan Keperawatan
Perihal	:	Permohonan Izin Penelitian

Kepada
di-
Bengkulu

Menindaklanjuti surat dari Poltekkes Kemenkes Bengkulu Nomor :
PP.01.01/F.XXIII.1/3307/2026, Perihal penelitian

Nama : Alda Bhumi Nauli Batubara
NIM : P01720322001
Prodi : D4 Keperawatan
Judul Penelitian : Pengaruh Terapi *Yoga for Cancer Survivors* (YOCAS) dan
Pemberian Aromaterapi Mentha Piperita L. Terhadap Gangguan
Tidur di Ruang Kemoterapi RSUD dr. M. Yunus Bengkulu Tahun
2026
Ruangan : Kemoterapi

Bersama ini kami mohon kesediaan unit bersangkutan untuk memberikan
izin terhitung mulai 09 Maret s.d 09 Juni 2026 Setelah melakukan penelitian yang
bersangkutan wajib melaporkan kembali hasil penelitian ke Bidang Pendidikan.

Demikian kami sampaikan, atas perhatian dan kerjasamanya diucapkan
terima kasih.

Bengkulu, 09/03/2026
Bidang Pelayanan Keperawatan
Kasi Rawat Jalan Dan Khusus


LOPI FERNANDES, SKM, MM
NIP. 19741216 199602 1 004

KEPALA BIDANG PENDIDIKAN


ATMAN GUSMADI, SKM
Mendik IV.B
NIP. 19730809 199303 1 003

BIDANG PAKAT INAP
RUANG KEMOTERAPI
RSUD dr. M. Yunus Bengkulu

Appendices 14 Research Completion Permit Letter

 **PEMERINTAH PROVINSI BENGKULU**
DINAS KESEHATAN
UPTD RSUD dr. M. YUNUS
Jl. Bhayangkara Bengkulu 38229 Telp. (0736) 52004 – 52006 Fax. (0736) 52007
BENGKULU 38229



SURAT KETERANGAN
Nomor : 074/ 361 /BID-DIK/VI/2026

Yang bertandatangan dibawah ini :

a. Nama : **LENI MARLINA, S.Si, Apt., M.Si**
b. Jabatan : Wakil Direktur Penunjang Medik dan Kependidikan

dengan ini menerangkan bahwa :

a. Nama : **ALDA BHUMI NAULI BATUBARA**
b. NIM : P01720322001
c. Prodi : D4 Keperawatan
d. Institusi : Poltekkes Kemenkes Bengkulu
e. Judul Penelitian : Pengaruh *Terapi Yoga for Cancer Survivors (YOCAS)* dan Pemberian Aromaterapi Mentha Piperita L. terhadap Gangguan TRidur di Ruang Kemoterapi RSUD dr. M. Yunus Bengkulu Tahun 2026
f. Ruang Penelitian : Kemoterapi
g. Maksud : Telah Selesai Melaksanakan Penelitian Dari Tanggal 06 Mei s.d 06 Juni 2026

Demikian Surat Keterangan ini dibuat untuk dipergunakan seperlunya.

Bengkulu, 23 Juni 2026
Wakil Direktur Penunjang Medik & Kependidikan


LENI MARLINA, S.Si, Apt., M.Si
NIP. 19750808 200312 2 007

Appendices 15 Thesis Guidance Consultant Sheet

LEMBAR KONSULTASI SKRIPSI

**PRODI SARJANA TERAPAN KEPERAWATAN
JURUSAN SARJANA TERAPAN KEPERAWATAN
JURUSAN KEPERAWATAN POLTEKKES KEMENKES BENGKULU
TAHUN AJARAN 2025**

Nama : Alda Bhumi Nauli Batubara
Nim : P017203220001
Judul : Pengaruh *Yoga for Cancer Survivors* (YOCAS) dan Pemberian Aromaterapi *Metha Piperita L.* Terhadap Gangguan Tidur Di Ruang Kemoterapi RSUD M. Yunus Kota Bengkulu.
Pembimbing I : Ns. Erni Buston, SST., M.Kes.

NO .	HARI/ TANGGAL	TOPIK	SARAN	PARAF PEMBIMBING
1	Jumat, 01 Agustus 2025	Konsul judul	• Cari masalah terkait penelitian yang diminati • Alasan mengenai pengambilan judul • Ganti Variabel Dependen	
2	Jumat, 04 Agustus 2025	Konsul judul	• ACC judul • Perbanyak referensi terkait judul yang diminati • Lakukan studi lapangan • Lanjutkan ke BAB I	
3	Rabu, 17 September 2025	Konsul BAB I	• Perbaiki BAB I • Cari data internasional dari asosiasi kanker dunia • Tambahkan data Indonesia secara spesifik dari tahun 2023-2025 • Tambahkan data RSUD M. Yunus	

			dari tahun 2023-2025 • Tambahkan Hasil Penelitian setiap Variabel Independen • Tambahkan Dampak dari kanker • Tambahkan Manfaat YOCAS • Perbaiki Penulisan sub BAB	
4	Senin, 03 November 2025	Konsul perbaikan BAB I dilanjutkan BAB II	• Perbaiki Latar Belakang • Tambahkan Data 2025 untuk data internasional • Tambahkan data di Bengkulu untuk data Indonesia • Perbaiki tanda baca • Perbaiki Paragraf penjabaran tentang efek kemo di BAB II • Perbaiki Tujuan Umum • Perbaiki Karakteristik • Perbaiki Hasil Instrumen menjadi tabel • Perbaiki Manifestasi Klinis Kanker menjadi Point • Perbaiki Komplikasi Kemoterapi secara terprinci • Perbaiki Kerangka Teori • Perbaiki Tujuan	27
5	Rabu, 12	Konsul	• Perbaiki Tujuan	

	November 2025	Perbaikan BAB I, BAB II, dilanjutkan BAB III.	Khusus • Perbaiki Gambar di BAB II • Perbanyak Pembahasan pada point gangguan tidur • Tambahkan penjelasan tentang bagaimana terapi YOCAS dan aromaterapi pappermint dapat menurunkan gangguan tidur • Perbaiki Kerangka Teori • Perbaiki Variabel Perancu • Perbaiki Definisi Operasional	4
6	Rabu, 19 November 2025	Konsul perbaikan BAB I, BAB II dan BAB III, dilanjutkan BAB IV	• Perbaiki Point Tujuan Khusus • Tambahkan hasil penelitian bahwa YOCAS dan Aromaterapi merupakan kombinasi yang sangat bagus • Perbaiki Bab IV • One group • Perbaiki Jumlah Sampling	4
7	Senin 24 November 2025	Konsul Perbaikan BAB I, BAB II, BAB III, dan BAB IV	• Perbaiki Variabel perancu • Perbaiki Definisi operasiona • Perbaiki BAB IV	4
8	Kamis 26 November 2025	Konsul Perbaikan BAB I, BAB II, BAB III, BAB IV, dan	• ACC Proposal dan Lanjut Ujian Proposal	4

LEMBAR KONSULTASI SKRIPSI
PRODI SARJANA TERAPAN KEPERAWATAN
JURUSAN SARJANA TERAPAN KEPERAWATAN
JURUSAN KEPERAWATAN POLTEKKES KEMENKES BENGKULU
TAHUN AJARAN 2025

Pembimbing I :Ns. Erni Buston, SST., M.Kes.
 Nama :Alda Bhumi Nauli Batubara
 Nim :P017203220001
 Judul :Pengaruh *Yoga for Cancer Survivors* (YOCAS) dan Pemberian Aromaterapi *Metha Piperita L.* Terhadap Gangguan Tidur Di Ruang Kemoterapi RSUD M. Yunus Kota Bengkulu.

NO	HARI/TANGGAL	TOPIK	SARAN	PARAF PEMBIMBING
1	Rabu/ 10 Juni 2026	Konsul BAB V	1. Perbaiki Kalimat dengan menghapus kalimat yang berulang 2. Buat lebih terperinci lagi tentang alur penelitian 3. Tambahkan jumlah total populasi di alur penelitian	4
2	Kamis/ 11 Juni 2026	Konsul perbaikan alur penelitian dan tabel hasil BAB V	1. Perbaiki kalimat dan penulisan kata di alur penelitian 2. Tambahkan data penyakit penyerta yang di temukan pada responden di tabel 5.1 3. Tambahkan keterangan Uji normalitas apa yang di gunakan	4
3	Jumat/ 12 Juni 2026	Konsul BAB IV	1. Perbaiki hasil penelitian dengan mempertegas penulisan 2. Tambahkan jurnal di BAB IV 3. Perbaiki dengan membuat hasil penelitian sejalan kemudian dilanjutkan teori 4. Di Pengaruh YOCAS dan pemberian aromaterapi metha piperita l. Tambahkan penerapan bahwa intervensi berpengaruh	4
4	Rabu/ 17 Juni 2026	Konsul Keterbatasan penelitian	1. Ganti keterbatasan penelitian yang desain penelitian 2. Perbaiki awalan paragraf saat membahas jurnal	4
5	Kamis/ 18 Juni 2026	Konsul Perbaikan dan Keseluruhan Skripsi	1. Liat lagi penulisan yang kurang 2. Perhatikan halaman-halaman yang masih salah posisi	4

6	Jumat/ 19 Juni 2026	Konsul Perbaikan dan ACC skripsi	1. ACC perbaikan Skripsi 2. Persiapkan semua dokumen untuk syarat seminar hasil 3. Daftar seminar hasil	f.
---	---------------------	---	---	----

LEMBAR KONSULTASI SKRIPSI
PRODI SARJANA TERAPAN KEPERAWATAN
JURUSAN SARJANA TERAPAN KEPERAWATAN
JURUSAN KEPERAWATAN POLTEKKES KEMENKES BENGKULU
TAHUN AJARAN 2025

Pembimbing II : Ns. Hendri Heriyanto, S.Kep., M.Kep.,
 Nama : Alda Bhumi Nauli Batubara
 Nim : P017203220001
 Judul : Pengaruh *Yoga for Cancer Survivors* (YOCAS) dan Pemberian Aromaterapi *Metha Piperita L.* Terhadap Gangguan Tidur Di Ruang Kemoterapi RSUD M. Yunus Kota Bengkulu.

NO.	HARI/ TANGGAL	TOPIK	SARAN	PARAF PEMBIMBING
1	Kamis, 04 Agustus 2025	Konsul judul	1. Cari masalah terkait penelitian yang diminati 2. Alasan mengenai pengambilan judul	
2	Jumat, 05 Agustus 2025	Konsul judul	1. ACC judul 2. Perbanyak referensi terkait judul yang diminati 3. Lakukan studi lapangan 4. Lanjutkan ke BAB I	
3	Senin, 10 November 2025	Konsul BAB I	1. Perbaiki BAB I 2. Tambahkan tentang gangguan tidur jika tidak di atasi. 3. Perbaiki bahasa asing harus di miringkan. 4. Perbaiki spasi	
4	Selasa, 11 November 2025	Konsul perbaikan BAB I dilanjutkan BAB II dan BAB III	1. Tambahkan Hasil Instrumen PSQI 2. Perbaiki Gambar Gerakan YOCAS 3. Perbaiki Margin di BAB III 4. Perbaiki Variabel perancu disamakan dengan Karakteristik 5. Perbaiki Definisi operasional 6. Perbaiki Hipotesis	

5	Kamis, 27 November 2025	Konsul Perbaikan BAB I, BAB II, BAB III, dilanjutkan BAB IV, dan Daftar Pustaka	1. Perbaiki Uji Normalitas yang digunakan 2. Perbaiki spasi Daftar Pustaka 3. Rapikan Daftar Pustaka	
6	Jumat, 28 November 2025	Konsul perbaikan BAB I, BAB II, BAB III, BAB IV, dan Daftar Pustaka	1. ACC proposal dan lanjut ujian Proposal	

NO.	HARI/ TANGGAL	TOPIK	SARAN	PARAF PEMBIMBING
7	Jumat/12 Juni 2026	Konsul Alur Penelitian	1. Tambahkan Jumlah populasi untuk menentukan sampel di alur penelitian 2. Perbaiki kalimat dengan menghapus kalimat berulang	
8	Senin/15 Juni 2026	Konsul Perbaikan alur penelitian dan interpretasi hasil bab v	1. Pada Tabel 5.1 Interpretasi itu buat yang hasilnya paling banyak saja 2. Perbaikan kalimat dan penulisan kata di alur penelitian	
9	Rabu/17 Juni 2026	Konsul BAB IV	1. Perbaikan hasil penelitian dengan mempertegas penulisan 2. Perbaikan dengan membuat hasil penelitian sejalan kemudian dilanjutkan teori	
10	Kamis/18 Juni 2026	Konsul Keterbatasan penelitian	1. Memperjelas maksud kalimat di keterbatasan I 2. Rapikan halaman	
11	Jumat/19 Juni 2026	Konsul Perbaikan dan Keseluruhan Skripsi	1. Mengganti mengetahui menjadi diketahui di tujuan khusus 2. Menghilangkan apakah di tujuan umum 3. Untuk kutipan et al. di italic 4. Menghilangkan kata akan di bab iv 5. Rapikan penulisan 6. Ubah kalimat proposal menjadi skripsi	

12	Senin/22 Juni 2026	Konsul Perbaikan dan ACC Skripsi	1. ACC perbaikan Skripsi 2. Persiapan semua dokumen untuk syarat seminar hasil 3. Daftar seminar hasil	4/
----	--------------------	---	---	----

Appendices 16 Meeting Schedule with Respondents

No	Name	Age	Research Schedule																													
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6		
			S	R	K	J	S	M	S	S	R	K	J	S	M	S	S	R	K	J	S	M	S	S	R	K	J	S	M	S		
1	Ny. S	64																														
2	Ny. E	51																														
3	Ny. R	46																														
4	Ny. S	62																														
5	Ny.S	38																														
6	Ny.T	45																														
7	Ny.A	43																														
8	Ny. B	52																														
9	Ny.D	39																														
10	Ny.M	60																														
11	Ny.R	37																														
12	Ny.D	51																														
13	Ny.A	36																														
14	Ny.S	57																														
15	Ny.I	65																														
16	Ny.S	43																														
17	Ny.I	40																														
18	Ny.E	49																														
19	Ny.J	44																														
20	Ny.E	45																														
21	Ny.Y	43																														

[illegible]

[illegible]

[illegible]