

## The effectiveness of health education in elderly with ineffective health maintenance in Sidoagung, Godean Yogyakarta

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### Abstract

The aging process is characterized by the progressive accumulation of cellular and molecular damage over time, often associated with the onset of non-communicable diseases. Among elderly individuals, thyroid disorders significantly impact quality of life and are closely linked to various other health conditions. When health complaints go undetected or untreated, they can lead to deterioration in physical condition and a decline in overall well-being. A lack of disease-related knowledge among the elderly can hinder their ability to carry out daily activities, resulting in ineffective health maintenance. Appropriate interventions are essential to address this issue. This case study focuses on Mrs. W, a 68-year-old Javanese woman diagnosed with a thyroid disorder. Due to limited knowledge about her condition, Mrs. W demonstrates ineffective health maintenance behaviors. Conclusion: Ineffective health maintenance among the elderly can be improved through targeted health education interventions. Recommendation: Future studies are encouraged to develop and implement more comprehensive health education materials, considering the diverse levels of knowledge and varying informational needs among elderly individuals.

**Keywords:** Health Education; Thyroid Gland; Elderly; Ineffective Health Maintenance

### 1. Introduction

Older adults (elderly individuals) are defined as those aged over 60 years who possess the same rights as other members of society (Law of the Republic of Indonesia No. 13 of 1998). The elderly population continues to increase, both in developed and developing countries. The World Health Organization (WHO) estimates that by 2025, the global elderly population will reach 1.2 billion and is projected to rise to 2 billion by 2050. In Indonesia, the number of elderly individuals has reached 23.66 million (9.03% of the total population). It is projected that the elderly population will grow to 27.08 million in 2020, 33.69 million in 2025, 40.95 million in 2030, and 48.19 million in 2035 (Kemenkes, 2022). Data from Statistics Indonesia (BPS) indicates that the elderly population increased from 18 million (7.6%) in 2010 to 27 million (10%) in 2020, and is expected to further increase to 40 million (13.8%) by 2035 (Kemenkes, 2022).

In line with WHO projections, Indonesia is one of the countries experiencing a significant rise in the elderly population. WHO estimates that by 2025, Indonesia will see a 41.4% increase in its elderly population—one of the highest rates globally. Furthermore, projections suggest that by 2050, the number of elderly individuals in Indonesia will reach approximately 60 million, placing the country 41st in the world for the largest elderly population (Akbar et al., 2021). According to BPS, the elderly population in Indonesia was estimated at 31,320,066 in 2022 and is expected to continue growing annually (Kemenkes, 2022). In 2024, the prevalence of elderly individuals in the Special Region of Yogyakarta (DIY) reached approximately 16.8% of the total population. Specifically, in Yogyakarta City, the elderly accounted for 15.46% of the population, totaling 64,267 out of 415,605 residents. Meanwhile, Sleman Regency recorded the highest number of elderly individuals in DIY, with a total of 168,527. This number is expected to continue increasing in 2025 (Akbar et al., 2021).

The elderly are a population group vulnerable to biological, psychological, social, and economic disorders (Satria et al., 2023). Older adults are categorized as a population at risk, with their numbers increasing each year (WHO, 2020). Common issues affecting older adults, known as the "series of I's," include immobility, instability and falls, incontinence, intellectual impairment, infection, impairment of vision and hearing, isolation (depression), inanition (malnutrition), insomnia (sleep disturbances), and immune deficiency (Ewys et al., 2021). In response, the government has implemented programs to improve the quality of life among the elderly by establishing elderly health posts (Posyandu Lansia).

These centers aim to promote health awareness, facilitate early disease detection, and provide affordable healthcare services (Siti Rochmah et al., 2023).

Aging is a gradual process characterized by the accumulation of cellular and molecular damage over time, often associated with the development of non-communicable diseases (Kemenkes, 2022). According to Yurizali & Adhyka (2024), advancing age increases vulnerability to changes in thyroid function. The thyroid gland, a butterfly-shaped endocrine organ located in the front of the neck below the vocal cords, plays a critical role in metabolism. In older adults, the thyroid gland may undergo various changes, increasing the risk of functional disorders (Thiruvengadam & Luthra, 2021). Besides genetic factors, women—especially those over the age of 60—are at higher risk than men for thyroid disorders (Yurizali & Adhyka, 2024). The global prevalence of thyroid disorders among older adults is estimated to range from 4% to 15% (Thiruvengadam & Luthra, 2021). Epidemiological studies have shown that prevalence increases with age (Yurizali & Adhyka, 2024).

Gerontological nursing is a specialized practice of professional nursing aimed at providing comprehensive care—biological, psychological, social, and spiritual—to both healthy and ill older adults. This care follows the nursing process, including assessment, nursing diagnosis, planning, implementation, and evaluation (Kholifah, 2016). The focus of gerontological nursing includes health promotion, disease prevention, optimization of mental function, and management of common health issues among older adults (Kholifah, 2016). Its objectives are to enable older adults to live independently and productively, maintain their health and functional abilities, support their life motivation, assist in the care of those with chronic or acute illnesses, and preserve independence to the greatest extent possible (Kholifah, 2016). Older adults frequently encounter health challenges, including chronic diseases, physical decline, and mental changes (Hasifah, 2024). The role of gerontological nurses involves a comprehensive understanding of prevalent health conditions among older adults and the ability to provide tailored care based on their specific needs (Hasifah, 2024). By recognizing age-related physical and psychological changes, gerontological nurses can design appropriate interventions to improve the quality of life of the elderly (Kholifah, 2016). In addition to addressing physical health, gerontological nursing also emphasizes social and psychosocial aspects to prevent social isolation, depression, and the loss of social roles (Hasifah, 2024). Gerontological nurses facilitate social interaction, provide psychosocial support, and design holistic health programs to enhance elderly well-being (Kholifah, 2016).

Undetected and untreated health complaints can worsen physical conditions and reduce quality of life (Thiruvengadam & Luthra, 2021). A lack of knowledge about diseases may impair older adults' ability to perform daily activities, resulting in ineffective health maintenance. Ineffective health maintenance occurs when individuals or groups are unable to recognize, manage, or access necessary resources for maintaining their health. Optimizing elderly health is crucial to ensuring they can live meaningful and productive lives (Wijayanti et al., 2024). One effective approach is through health education programs (Tamim & Subroto, 2023). These programs aim to increase awareness and knowledge regarding healthy lifestyles, proper nutrition, physical activity, and stress management (Wijayanti et al., 2024). Health education interventions also align with government efforts to achieve a healthy and prosperous society, particularly among the elderly, through health promotion activities. With adequate knowledge, older adults are expected to adopt healthy behaviors in their daily lives, leading to more effective health maintenance (Wijayanti et al., 2024). Preliminary studies revealed that many elderly individuals lack understanding of thyroid disorders they suffer from, resulting in ineffective health maintenance regarding their thyroid condition. Therefore, proper management strategies are required to address this issue.

## 2. Method

The research method employed in this study was an observational case study. The subject of this case study was an older adult residing in Sentul Hamlet, Sidoagung Village, Godean District, who had been previously coordinated with local community health volunteers (kader) in the area. This case study utilized a nursing care approach, which included the stages of assessment, nursing diagnosis, nursing intervention, implementation, and evaluation. Data collection techniques involved the use of primary data obtained through direct interviews conducted over seven sessions. A structured assessment format was used to gather demographic information and clinical factors such as existing diseases, medication

use, nutritional status, and lifestyle. In addition, a head-to-toe physical examination was performed on the elderly participant.

### **3. Results and Discussion**

#### **3.1. Result**

Based on the assessment findings, the older adult identified as Mrs. W is a 68-year-old female and a housewife. Her medical history includes heart disease, hypertension, gastric acid disorder, thyroid gland disorder, and a urinary tract infection during the birth of her second child in 2022. Currently, she undergoes routine medical check-ups once a month. Her father had a history of lung cancer, and her husband has a history of lung disease and gastric acid problems. During the assessment, the patient expressed limited knowledge regarding her thyroid condition. She occasionally consumes restricted foods and beverages and continues to engage in strenuous activities despite medical advice against such behavior. She appeared confused and lacked understanding of the potential dangers of her thyroid disorder.

Physical examination revealed that her general condition was good, with proper orientation to time and place, and a slightly stooped posture. Integumentary system assessment showed wrinkled, medium brown skin with good turgor (<2 seconds), and clean. Eye examination revealed symmetrical eyes, non-anemic conjunctiva, and good vision, although she requires glasses for reading and writing. Oral cavity was clean and moist with no lesions. No palpable nodules were found in the neck, although she is undergoing treatment for thyroid disease and reported pain during fatigue. Cardiovascular assessment indicated a history of heart disease since 2022, with current treatment, and a blood pressure of 130/80 mmHg. Gastrointestinal system showed no tenderness or masses. Musculoskeletal assessment indicated occasional aches in the legs and waist during heavy activity. Random blood glucose test (RBG) showed 93 mg/dL. Urinary system was normal, with no issues in controlling urination.

Psychosocial and spiritual assessments were within normal limits. The patient demonstrated good social interaction with her neighbors and regularly participated in community events, religious gatherings, and elderly associations. Spiritually, she is a practicing Muslim and performs the five daily prayers. Functional assessment using the Katz Index categorized her as independent. The Barthel Index score was 130, indicating full independence. Mental status assessment using the Short Portable Mental Status Questionnaire (SPMSQ) showed a score of 0, indicating intact intellectual function, and the Mini-Mental State Examination (MMSE) score was 30, indicating good cognitive functioning. Geriatric Depression Scale (GDS) score was 1, indicating no signs of depression. Decubitus risk assessment score was 28, showing no risk for pressure ulcers. Fall risk assessed using the Timed Up and Go (TUG) Test was 18 seconds, categorized as mostly independent.

Based on the comprehensive assessment, the priority nursing diagnosis according to the Indonesian Nursing Diagnosis Standards (SDKI) was ineffective health maintenance. This diagnosis was supported by data indicating the patient's limited understanding of her thyroid disease, non-adherence to dietary and activity restrictions, and confusion regarding the risks of her condition. The targeted nursing outcome, based on the Indonesian Nursing Outcomes Standards (SLKI), was health maintenance (L.12106), with expected outcomes including improved adaptive behaviors, demonstrated understanding of healthy behaviors, and the ability to implement those behaviors.

The nursing intervention, according to the Indonesian Nursing Intervention Standards (SIKI), was health education (I.12383) focused on thyroid gland disorders. The intervention was implemented in one session using educational leaflets, with prior scheduling and agreement with the patient. Evaluation results showed improved understanding regarding her thyroid condition and healthy lifestyle practices. Objective responses included the patient's ability to accurately explain her health issues, commitment to healthy behaviors, and understanding of the educational content. Assessment findings indicated that the problem of ineffective health maintenance had been resolved. The next step in the care plan is to continue educational interventions and provide ongoing motivation to help the patient maintain consistent healthy behaviors.

#### **3.2. Discussion**

Nursing care is a process or series of activities in nursing practice that is provided directly to clients in various healthcare settings, carried out in accordance with nursing principles that are humanistic in nature and based on the client's needs to address their current health problems (Togubu et al., 2019).

The initial step in providing nursing care for older adults begins with assessment. Theoretical concepts define assessment as the first step in the systematic nursing process, conducted by nurses to collect essential data for identifying patient problems, care needs, and health status (Fitri et al., 2022). Assessment serves as the foundation of the nursing process and involves the collection of client data to determine their health condition (Widjjaningrum & Wulansari, 2022). Data collection methods include interviews, observation, and physical examination. In this case, the assessment revealed that the client is a 68-year-old woman, which aligns with the WHO classification defining individuals aged 60 to 74 years as older adults (Widjjaningrum & Wulansari, 2022). According to data from Statistics Indonesia (BPS) and other studies, the number of older women exceeds that of older men. The proportion of older women is 10.43%, compared to 9.42% for older men, indicating that the female elderly population is approximately 1% higher than that of males (Fitri et al., 2022).

The main complaint reported by Mrs. W is a thyroid gland disorder that has persisted for the past three years. The thyroid gland is part of the endocrine system responsible for producing hormones that regulate the body's metabolic processes (Godbole et al., 2023). According to Wardana et al (2023), thyroid abnormalities or disorders refer to conditions that affect both the function and structure of the thyroid gland, resulting in an imbalance in thyroid hormone production. Thyroid disorders commonly occur in older adults, influenced by increasing age, which raises the body's iodine requirements while being accompanied by a decline in immune system function (Wardana et al., 2023). The prevalence of thyroid disorders is higher in females compared to males due to hormonal influences (Wardana et al., 2023). In addition to genetic factors, women over the age of 60 have a higher risk of developing thyroid disorders compared to men (Yurizali & Adhyka, 2024). Thyroid dysfunction is common among the elderly and leads to significant morbidity, as its symptoms are often mild or subclinical, making diagnosis difficult and frequently delayed or even missed (Godbole et al., 2023).

Mrs. W, an elderly patient, routinely visits the hospital for monthly check-ups; however, her understanding of thyroid gland disorders remains limited. Consequently, she sometimes consumes prohibited foods and beverages and continues engaging in strenuous activities despite medical advice against them. The above description represents subjective data obtained during the assessment phase. Subjective data refer to information based on the client's perceptions of their health problems, including their opinions, feelings, and perceptions related to their health condition (Rahmayanti et al., 2024). In addition, supporting objective data were collected. Objective data are factual and independent information obtained through observation, measurement, or physical examination (Rahmayanti et al., 2024). In this case, objective data indicated that the elderly patient appeared confused and lacked awareness of the dangers associated with her thyroid condition.

The nursing diagnosis is the second step after analyzing assessment data to determine or formulate the patient's health problems (Salsabilla & Kholid, 2025). It is a clinical judgment concerning the client's responses to actual or potential health problems or life processes (Widjjaningrum & Wulansari, 2022). The nursing diagnosis identified for Mrs. W's case is ineffective health maintenance. This diagnosis is established when major signs and symptoms are present, such as a lack of adaptive behavior toward environmental changes and inadequate understanding of healthy behaviors (Widjjaningrum & Wulansari, 2022). Ineffective health maintenance occurs when an individual or group is unable to recognize, manage, or seek resources necessary to maintain health (Salsabilla & Kholid, 2025). Potential consequences include increased risk of non-communicable diseases, difficulty adhering to treatment plans, and developmental disabilities. Therefore, the expected outcome for the nursing diagnosis of ineffective health maintenance is improved health maintenance, characterized by elderly individuals demonstrating adaptive behaviors, understanding healthy behaviors, and possessing the ability to carry out healthy practices.

The nursing action plan or priority intervention for the diagnosis of ineffective health maintenance is health education for the elderly. Health education is a process or effort aimed at enhancing the ability of individuals, groups, and communities to maintain, improve, and protect their health through the enhancement of knowledge, willingness, and skills (Haq et al., 2024). Health education programs can also equip elderly individuals with the necessary information to make informed decisions regarding their health (Wijayanti et al., 2024). Health education enables the elderly to better manage their health, prevent serious complications, and improve both life expectancy and overall quality of life. Implementation is the subsequent step following the planning of nursing actions (Suprpto et al., 2024).

This program is designed to foster a desire for behavioral change in the elderly and to promote independence for both the elderly and their families. The health education was implemented using leaflets to enhance the elderly's understanding. Leaflets are sheets of paper containing targeted health education topics (Susanti et al., 2017). Using leaflets as a medium for health education is considered more effective due to several advantages, such as portability, cost-effectiveness, the ability to be read anytime, and the inclusion of easily comprehensible text and images that increase appeal and interest, thereby facilitating better information acceptance among the elderly (Febriyona et al., 2024).

Nursing evaluation is the final stage in the nursing process, aimed at assessing the effectiveness of the nursing care provided (Riasmini et al., 2017). A commonly used evaluation method is the SOAP approach, which includes subjective, objective, assessment, and planning components (Wijayanti et al., 2024). Following implementation, the nursing evaluation demonstrated that the issue of ineffective health maintenance related to insufficient knowledge about thyroid disease in the elderly had been resolved. The subjective response showed that the elderly reported understanding their thyroid condition and the necessary healthy lifestyle. The objective response indicated that the elderly were able to accurately explain their health problems, adhere to healthy behavior commitments, and showed comprehension of the material provided. Assessment of the collected data confirmed that the ineffective health maintenance problem had been addressed. The subsequent planning involves continuing interventions and motivation to maintain consistency in healthy behaviors.

The health education provided demonstrated a significant improvement in the elderly's knowledge regarding healthy lifestyles and chronic disease management, indicating that health education can effectively change behaviors and promote healthier habits (Suprayitno & Damayanti, 2020). An individual's health status can be influenced by their knowledge and attitudes (Rachman et al., 2018). Health education programs also equip the elderly with essential information to make informed decisions about their health (Wijayanti et al., 2024). Health education enables older adults to better manage their health, prevent serious complications, and enhance both life expectancy and overall quality of life. Despite positive outcomes, challenges such as limited tools and human resources remain (Purnamasari, 2019). Therefore, health education aims to empower patients and their families, improve adherence to care plans, and encourage independence in maintaining their health (Salsabilla & Kholid, 2025). This education is expected to enhance the elderly's understanding of the importance of preventive measures for health maintenance and motivate them to be more attentive to their own well-being (Khoiriyah et al., 2024).

Behavioral and lifestyle changes in the elderly require time and ongoing support. The increase in knowledge is anticipated to encourage elderly individuals to be more proactive in managing their health, thereby improving their quality of life and reducing the overall burden on public health (Fang et al., 2024). By adopting healthy lifestyles, adhering to medical advice, and comprehending comprehensive health maintenance, elderly individuals can enjoy better and longer quality lives. Awareness of the importance of health significantly influences the quality of life in the elderly. The WHO generally categorizes quality of life into four domains: physical health, psychological health, social relationships, and environment (Nuraisyah et al., 2021). By following healthy lifestyle practices, complying with medical recommendations, and understanding holistic health maintenance, the elderly can achieve improved and prolonged quality of life. The care process is essential for preserving the health and well-being of elderly individuals with chronic conditions, where health education supports their understanding and implementation of healthy behaviors. Comprehensive health education can equip the elderly with the knowledge and skills necessary to manage their health independently (Kwak et al., 2024).

#### **4. Cocnclusions**

The management of ineffective health maintenance among the elderly in Dusun Sentul, Kelurahan Sidoagung, Godean can be addressed through comprehensive and continuous health education. The assessment revealed that the elderly had limited understanding of their thyroid disorder. They occasionally consumed prohibited foods and beverages and engaged in strenuous activities despite medical advice to refrain. Additionally, the elderly appeared confused and lacked awareness of the potential dangers associated with their thyroid condition. Based on these findings, health education was selected as the primary intervention.

During implementation, family members or individuals serving as the elderly's health support system were involved. Evaluation showed that the issue of ineffective health maintenance was resolved, as the elderly demonstrated improved understanding of thyroid disease and committed to adopting a healthy lifestyle as agreed upon. It is recommended for future researchers to prepare more extensive health education materials, considering the varying levels of knowledge and differing informational needs among elderly individuals.

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## References

- Akbar, F., Darmiati, Arfan, F., & Putri, A. A. Z. (2021). Pelatihan dan Pendampingan Kader Posyandu Lansia di Kecamatan Wonomulyo. *Jurnal Abdidas*, 2(2), 392–297.
- Ewys, C. B. R. P., Kiswanto, Yunita, J., Mitra, & Zaman, K. (2021). Faktor-Faktor yang Berhubungan dengan Keaktifan Lansia (Active Aging) di Puskesmas Payung Sekaki Kota Pekanbaru. *Jurnal Kesehatan Komunitas*, 7(2), 208–213.
- Fang, X., Zhang, X., Yang, Z., Yu, L., Lin, K., Chen, T., & Zhong, W. (2024). Healthy lifestyles and rapid progression of carotid plaque in population with atherosclerosis: A prospective cohort study in China. *Preventive Medicine Reports*, 41(2), 1–7. <https://doi.org/10.1016/j.pmedr.2024.102697>
- Febriyona, R., Sudirman, A. N. A., & Napu, M. (2024). Efektivitas Pendidikan Kesehatan Melalui Media Leaflet terhadap Pengetahuan pada Penderita Gout Arthritis di Desa Hutuo Kecamatan Limboto. *Jurnal Kesehatan Tambusai*, 5(3), 9899–9906.
- Fitri, L., Amalia, R., & Juanita. (2022). Hubungan Jenis Kelamin Dengan Kualitas Tidur Lansia. *JIM FKep*, 7(4), 65–69.
- Godbole, G., Joshi, T., & Majumder, M. (2023). Management of thyroid disorders in older people. *Journal of Pharmacy Practice and Research*, 53(5), 291–297. <https://doi.org/10.1002/jppr.1883>
- Hasifah. (2024). Peran Keperawatan Gerontik dalam Meningkatkan Kualitas Hidup Lansia. *Jurnal Multidisipliner Bharasumba*, 3(1), 12–18.
- Haq, A. A. F. S., Az-Zahra, B. R., Sukmawati, & Kumalasari, I. (2024). Jaga Kesehatan Lansia dengan Deteksi Dini Penyakit tidak Menular sebagai Langkah Awal. *Jurnal Pengabdian Masyarakat Nusantara*, 6(4), 105–115.
- Kemendes. (2022). *Lansia Berdaya, Bangsa Sejahtera*.
- Kholifah, S. N. (2016). Modul Bahan Ajar Keperawatan Gerontik. In *Kementrian*. [http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484\\_Sistem\\_Pembetungan\\_Terpusat\\_Sta\\_tegi\\_Melestari](http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_Sistem_Pembetungan_Terpusat_Sta_tegi_Melestari)
- Khoiriyah, H., Rahayu, E., Liandani, M., Hidayati, N., & Puspasari, I. H. (2024). Upaya Peningkatan Pengetahuan Lansia Terhadap PTM ( Penyakit Tidak Menular ). *Jurnal Pengabdian kepada Masyarakat Nusantara*, 5(4), 6494–6498.
- Kwak, M. J., Inouye, S. K., Fick, D. M., Bonner, A., Fulmer, T., Carter, E., Tabbush, V., Maya, K., Reed, N., Waszynski, C., & Oh, E. S. (2024). Optimizing delirium care in the era of Age-Friendly Health System (AFHS). *Journal of the American Geriatrics Society*, 72(1), 14–23. <https://doi.org/10.1111/jgs.18631>
- Purnamasari, K. D. (2019). Nyeri Punggung Bawah Pada Ibu Hamil Trimester Ii Dan Iii. *Journal of Midwifery and Public Health*, 1(1), 9. <https://doi.org/10.25157/jmph.v1i1.2000>
- Rahmayanti, C. R., Mahdarsari, M., Maurissa, A., Yuswardi, & Yusuf, M. (2024). Pendokumentasian Asuhan Keperawatan: Studi Observasi Di Ruang Rawat Inap. *Jurnal Penelitian Perawat*

- Profesional*, 6, 1767–1778. <http://jurnal.globalhealthsciencegroup.com/inde.php/jppp>
- UU RI No 13 Tahun 1998, Kementrian Hukum dan HAM 1 (1998).
- Riasmini, Ekaputri, M., Susanto, G., Paryono, Kusumaningtiyas, D. P. H., Aisyiyah, Farisi, M. F. Al, Naryati, Nur, Su., & Kosim, M. Y. (2017). Proses Keperawatan: Konsep, Implementasi, dan Evaluasi. In *Universitas Nusantara PGRI Kediri* (Vol. 01).
- Salsabilla, S. A., & Kholid, A. (2025). Jurnal Keperawatan Berbudaya Sehat Gambaran Pengelolaan Pemeliharaan Kesehatan Tidak Efektif melalui Edukasi Kesehatan pada Keluarga Lanjut Usia dengan Demensia ( Studi Kasus ). *Jurnal Keperawatan Berbudaya Sehat*, 3(1), 1–7.
- Siti Rochmah, Cahya Tri Purnami, & Farid Agushyvana. (2023). Analisis Pemanfaatan Posbindu oleh Lansia Melalui Pendekatan Health Belief Model : Literature Review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 6(2), 232–240. <https://doi.org/10.56338/mppki.v6i2.3057>
- Suprpto, S., Arda, D., & Kurni Menga, M. (2024). Community empowerment in an effort towards quality health. *Jurnal Pengabdian Masyarakat Edukasi Indonesia*, 1(2), 49–55. <https://doi.org/10.61099/jpmei.v1i2.40>
- Suprayitno, E., & Damayanti, C. N. (2020). Intervensi Supportive Educative Berbasis Caring Meningkatkan Self Care Management Penderita Hipertensi. *Jurnal Keperawatan dan Kesehatan*, 8(3), 460–468. <https://doi.org/10.20527/dk.v8i3.9067>
- Susanti, N., Qodariah, Harnani, Y., & Rasyid, Z. (2017). Efektifitas Leaflet Terhadap Pengetahuan Dan Mengatur Pola Makan Lansia Penderita Hipertensi Di Puskesmas Serasan Kabupaten Natuna. *Jurnal Sains dan Kesehatan*, 7(02), 33–38. <https://doi.org/10.37859/jp.v7i02.500>
- Tamim, R. G., & Subroto, M. (2023). Implementasi Program Pelatihan dan Keterampilan untuk Warga Binaan Pemasarakatan Lansia Memperkuat Persiapan Pembebasan. *Jurnal Intelektualita: Keislaman, Sosial dan Sains*, 12(02), 554–560. <https://doi.org/10.19109/intelektualita.v12i002.20094>
- Thiruvengadam, S., & Luthra, P. (2021). Thyroid disorders in elderly: A comprehensive review. *Disease-a-Month*, 67(11), 1–19. <https://doi.org/10.1016/j.disamonth.2021.101223>
- Togubu, F. N., Korompis, G. E. ., & Kaunang, W. P. . (2019). Faktor - Faktor Yang Berhubungan Dengan Pendokumentasian Asuhan Keperawatan Di Rumah Sakit Daerah Kota Tidore Kepulauan. *Jurnal Kesmas*, 8(3), 60–68.
- Wardana, R. C. A., Saraswati, M. R., Dwipayana, I. M. P., & Gotera, W. (2023). Karakteristik Pasien Gangguan Fungsi Tiroid di RSUP Sanglah Tahun 2019. *E-Jurnal Medika Udayana*, 12(4), 65. <https://doi.org/10.24843/mu.2023.v12.i04.p11>
- Widjaningrum, A., & Wulansari, W. (2022). Edukasi Kesehatan Keluarga dalam Melakukan Perawatan dengan Masalah Pengelolaan Pemeliharaan Kesehatan Tidak Efektif. *Indonesian Journal of Nursing Research (IJNR)*, 5(2), 104–109. <https://doi.org/10.35473/ijnr.v5i2.1775>
- Wijayanti, Y. T., Tira, D. S., Lontaan, A., Suprpto, S., & Montolalu, A. (2024). Optimizing the health of the elderly through screening and health education. *Jurnal Pengabdian kepada Masyarakat*, 3(2), 75–82. <https://doi.org/10.35816/abdimpolsaka.v3i2.75>
- Yurizali, B., & Adhyka, N. (2024). Profil Tingkat Hormon Stimulasi Tiroid dan Kondisi Kesehatan dalam Studi Populasi Dewasa. *Jurnal Kedokteran dan Kesehatan*, 20(1), 124–137.