



The Role of Health Workers in Managing Degenerative Diseases in the Elderly at the Negeri Lama Community Health Center: A Case Study

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ABSTRACT

Introduction: The increasing elderly population in Indonesia presents significant challenges in managing degenerative diseases, particularly in primary health care facilities with limited resources. This study aims to explore the role of health workers in managing degenerative diseases in the elderly at the Negeri Lama Community Health Center.

Methods: This research employed a qualitative approach with a case study design. Data were collected through in-depth interviews with seven informants (elderly cluster officers, non-communicable disease program holders, doctors, pharmacists, and nutritionists),

observation, and documentation. Data analysis used thematic analysis with source triangulation, method triangulation, member check, and audit trail to ensure data validity.

Results: Health workers performed curative roles through integrated medical services including comprehensive examinations, diagnosis, medication provision (amlodipine, metformin, glimepiride, simvastatin, allopurinol), pharmaceutical and nutritional counseling, and referral systems. Preventive roles were implemented through routine health screenings using E-pus and P-care applications, counseling on healthy lifestyles, education on balanced nutrition, and lifestyle modifications. Challenges included complex disease complications (multimorbidity), unpredictable drug shortages from the District Health Office, limited diagnostic facilities, declining memory and cognitive function in the elderly, low health literacy, irregular visits, unstable internet networks, poor road conditions, flooding, geographical distance, and economic constraints. Communication patterns applied were patient-centered with specific adjustments for the elderly including louder volume, slower speech, simple language, and family involvement in the education process. Interprofessional collaboration involved medical records staff, elderly cluster officers, pharmacists, and nutritionists working according to standard operating procedures.

Discussion: The findings align with previous research emphasizing comprehensive geriatric assessment, the effectiveness of pharmacist counseling in improving medication adherence, the importance of family support in chronic disease management, and the impact of geographical and economic barriers on healthcare access. The study highlights the need for

integrated approaches addressing both clinical and social determinants of health in elderly care.

Conclusion: Health workers at the Negeri Lama Community Health Center have implemented comprehensive curative and preventive roles despite various challenges. Improvements are needed in logistics management systems, development of educational media, strengthening interprofessional collaboration, innovation in education methods, and family and community support to optimize health services for the elderly with degenerative diseases.

Keywords: Health Workers, Degenerative Diseases, Elderly, Curative Services, Preventive Services, Community Health Center

INTRODUCTION

The elderly population in Indonesia is a continuously growing age group alongside increasing life expectancy and advances in health services. This phenomenon causes population ageing, namely an increase in the proportion of elderly people in the national demographic structure. According to WHO (2023), globally the number of people aged 60 years and over has reached 1 billion, and is estimated to increase to 1.4 billion by 2030 (Monavia Ayu Rizaty, 2024). According to the National Central Bureau of Statistics, the elderly population in Indonesia exceeds 29.3 million people, representing approximately 10.82% of the total population. Based on the 2023 Indonesian Population Census, nearly 12 percent or around 29 million Indonesian residents are categorized as elderly (Kementerian Kesehatan, 2024).

Along with increasing life expectancy and the growing elderly population, the health challenges faced by this group are becoming increasingly complex, marked by the gradual decline of organ or tissue function (Mylonas & O'Loghlen, 2022). Degenerative diseases often suffered by the elderly such as hypertension, diabetes mellitus, coronary heart disease, cardiovascular disease, chronic lung disease, osteoarthritis, and Alzheimer's are becoming more common and require special attention from the health system (Guo et al., 2022; Leyane et al., 2022). Additionally, changes in lifestyle and environment also contribute to the increasing prevalence of these diseases. Loss of role or purpose in life after retirement, children's independence, or the death of a spouse or close friend can cause psychological damage (Haslam et al., 2023).

Elderly health is an important issue in public health development, considering the increasing elderly population in various countries, including Indonesia. The elderly often face various health problems, such as degenerative diseases which are included in the chronic disease group, mental disorders, and decline in physical function, which require special attention in the health system (Asa et al., 2023; Yang et al., 2021). Therefore, it is important to develop health programs that focus on prevention, early detection, and disease management, as well as improving access to health services for the elderly. Special attention to elderly health covers various aspects, such as maintaining physical and mental health. The elderly often face high risks of degenerative diseases, so routine

health checks are needed for early detection and prevention (Y. Wang et al., 2025). The mental health aspect also plays an important role, considering that psychological disorders in the elderly can affect therapy adherence and overall quality of life, because good mental health contributes to better quality of life (Thakur & Varma, 2023).

According to research (Maria Karolina Selano & Oke Dwi Astuti, 2025), health workers have a very important role in managing degenerative diseases in the elderly, covering preventive, curative, promotive, and rehabilitative aspects. The preventive role of health workers includes health screening, early detection of degenerative diseases, as well as prevention education for the elderly and families to reduce the risk of complications and improve quality of life (Maria Karolina Selano & Oke Dwi Astuti, 2025). Nurses as the frontline of health services play a crucial role in providing holistic nursing care, pain management, daily activity support, as well as disease management education and safe medication use for the elderly (Wakefield et al., 2021). Interprofessional collaboration between doctors, nurses, pharmacists, nutritionists, and physiotherapists is key to success in providing comprehensive and integrated health services, considering the complexity of clinical conditions in the elderly who often experience multimorbidity and polypharmacy (Wakefield et al., 2021). However, according to (D. P. Astuti et al., 2025), various obstacles are still faced in optimizing the role of health workers, including limited resources, disproportionate ratio of health workers to the number of elderly, lack of specific geriatric training, as well as barriers in coordination between health professions that require systemic and innovative solutions.

The Negeri Lama Community Health Center is located on the coast of Labuhan Batu Regency, North Sumatra Province, with a very wide working area and provides outpatient and inpatient services. With its geographical location and extensive working area, this community health center has an important role in providing health services to people living in a wide and diverse area. Limited health facilities and distance from the city center pose their own challenges for this community health center. The working area of the Negeri Lama Community Health Center is dominated by coastal communities with main livelihoods as fishermen and farmers, who have limited access to health information and services. The geographical condition of the Negeri Lama

Community Health Center, which is in a remote area, adds to the complexity of the problem, where access to specialist referrals and availability of medical equipment are limited. With limited resources, health workers at the community health center must innovate in providing services, including integrated disease prevention and management programs, especially for degenerative diseases often experienced by the elderly such as diabetes, hypertension, and coronary heart disease. These limitations require health workers to maximize competence and creativity in providing promotive, preventive, curative, and rehabilitative services for the elderly with degenerative diseases.

Based on data from the Negeri Lama Community Health Center in 2025, the three main degenerative diseases most experienced by the elderly are hypertension (402 cases), diabetes mellitus (203 cases), and osteoarthritis (106 cases), with 89% of them being elderly patients. The increase in the number of patients indicates an urgent need to understand the role of health workers in managing diseases experienced by the elderly. Challenges faced by health workers, such as limited facilities, lack of resources, and long distances to city service centers, can affect the effectiveness of the treatment provided. Additionally, the elderly with degenerative diseases generally experience decline in cognitive function, hearing, and vision, which can complicate the communication process. Language differences, education levels, and understanding of the disease are also challenges that can potentially reduce the effectiveness of the health education provided, thereby impacting medication adherence and quality of life of the elderly.

In-depth understanding of the strategies, efforts, and obstacles faced by health workers in carrying out their roles is very important to study in order to formulate appropriate solutions in improving the quality of elderly health services in areas with limited resources. Research on the role of health workers in specific contexts such as the Negeri Lama Community Health Center, which has unique geographical and demographic characteristics, is still limited. Therefore, researchers are interested in conducting research with a case study approach on "The Role of Health Workers in Managing Degenerative Diseases in the Elderly at the Negeri Lama Community Health Center" with the aim of identifying and analyzing in depth the roles, strategies, obstacles, and communication patterns of health workers in managing degenerative diseases in the elderly. It is

hoped that the results of this study can become input for improving the quality of health services for the elderly, especially in first-level health facilities with limited resources, as well as providing practical recommendations for policymakers in optimizing the geriatric health service system in Indonesia.

Research Questions

- a) What are the forms of health workers' roles in managing degenerative diseases in the elderly at the Negeri Lama Community Health Center?
- b) What challenges and obstacles are faced by health workers in carrying out these roles?
- c) What are the communication and interaction patterns between health workers and the elderly in the process of managing degenerative diseases?
- d) What is the impact of health workers' roles on the quality of life of the elderly suffering from degenerative diseases?

Research Objectives

General Objective

To analyze the role of health workers in managing degenerative diseases in the elderly at the Negeri Lama Community Health Center and its impact on the quality of life of the elderly.

Specific Objectives

1. To explain the forms of health workers' roles in managing degenerative diseases in the elderly at the Negeri Lama Community Health Center.
2. To identify the challenges and obstacles faced by health workers in managing degenerative diseases in the elderly.
3. To analyze the communication and interaction patterns between health workers and the elderly in managing degenerative diseases.
4. To assess the impact of health workers' roles on the quality of life of elderly patients with degenerative diseases.

METHODS

Type and Research Approach

This study employed a qualitative research design with a case study approach. The qualitative approach was chosen because it allows researchers to explore phenomena in depth and understand the meanings and perspectives of participants in their natural context (Rusandi & Muhammad Rusli, 2021). A case study is a research method in which researchers explore a program, event, activity, process, or individual in depth and comprehensively within a specific setting (Dr. Ubaid Ridlo, 2020). This qualitative research method aims to explore health workers' perceptions regarding obstacles and barriers faced in serving elderly patients with degenerative diseases. The case study design was chosen because it is appropriate for analyzing complex phenomena of health services in real contexts and allows holistic understanding of health workers' subjective experiences through data collection from various sources (Miller et al., 2022).

Location and Time of Research

Research Location

This research was conducted in the working area of the Negeri Lama Community Health Center, Bilah Hilir District, Labuhanbatu Regency, North Sumatra. There are 9 villages in the working area of the Negeri Lama Community Health Center. This location was chosen because the Negeri Lama Community Health Center is a health facility with a high number of degenerative disease cases in the elderly and faces limited resources, making it relevant to the research focus.

Research Time

The research was conducted from September to December 2025.

Research Informants

This qualitative study used purposive sampling to select relevant informants. Informants consisted of health workers on duty in the service section at the Negeri Lama Community Health Center. They were selected based on good communication skills and willingness to become informants for in-depth interviews aimed at understanding the obstacles and barriers encountered. There were 7 informants with the classification of Elderly Cluster Officers (3 informants) as main

informants, and Medical Records Officer (1 informant), Pharmacists (2 informants), and Nutritionist (1 informant) as supporting informants.

Inclusion Criteria:

- a) Health workers (doctors, nurses, midwives, nutritionists, pharmacists) on duty at the Negeri Lama Community Health Center
- b) Minimum working period of 1 year
- c) Directly involved in managing patients with degenerative diseases
- d) Willing to become informants and sign informed consent

Exclusion Criteria:

- a) On extended leave or about to retire soon
- b) Have health/communication disorders that hinder interviews

Table 3.1 Research Informants

No	Informant	Number	Total Informants
1	Medical Records Officer	1	1 Informant
2	Elderly Cluster Officers	3	3 Informants
3	Pharmacists	2	2 Informants
4	Nutritionist	1	1 Informant
Total			7 Informants

Data Collection Techniques

To obtain the data needed in this study, data collection was carried out through observation and in-depth interviews.

Observation

Observation is the process of systematically observing and recording visible elements in a phenomenon or research object. The observation technique involves systematically recording patterns of subject behavior (people), objects (items), or events without any statement or communication with the individuals being studied. To perfect this technique, researchers must follow the daily activities carried out by informants over a certain period, pay attention to what

happens, listen to what they say, question interesting information, and study the documents they have. Observations were conducted on health workers' service activities in providing care to the elderly with degenerative diseases, including health worker-elderly interactions and interprofessional coordination.

In-Depth Interviews

Interviews involve questions and answers between two or more people face-to-face, verbally, to exchange information in scientific research. In this study, interviews were conducted with health workers at the Negeri Lama Community Health Center directly involved in managing the elderly with degenerative diseases, including doctors, pharmacists, midwives, and nurses. The interviews aimed to explore information regarding the roles, strategies, efforts, and obstacles faced by health workers in providing health services to elderly patients with degenerative diseases. Interviews were conducted semi-structurally using an interview guide prepared based on research objectives, to provide flexibility in exploring informants' experiences.

Source Triangulation

Source triangulation involves steps to recheck data obtained from informants by asking about the truth of data or information to one informant compared to other informants.

Method Triangulation

Method triangulation is a method for checking research results using different data collection techniques such as interviews, observation, and documentation so that the degree of trustworthiness can be valid.

Member Check

Member check is a data validation technique where initial findings are returned to informants to obtain feedback, ensure accuracy, and confirm that informants' statements match what was given.

Research Ethics

This research was conducted after obtaining a recommendation letter from Prima Indonesia University and permission from the Negeri Lama Community Health Center. This research began with procedures related to research ethics including:

1. **Informed Consent Form:** The informed consent form was given to respondents before the research was conducted so that respondents knew and understood the purpose and objectives of the research as well as the impacts that would occur during data collection. Respondents willing to be studied had to sign the informed consent form; otherwise, the researcher had to respect the respondents' rights.

Data Analysis Technique

Data Analysis Model

In this study, the data analysis model used a thematic analysis approach. Thematic analysis is a systematic method for identifying, analyzing, and reporting patterns of meaning or themes in qualitative data (Braun & Clarke, 2021). The analysis process includes familiarization with data, initial code generation, theme searching, theme reviewing, theme defining and naming, and final report preparation (Miller et al., 2022). Researchers conducted coding and data sorting while still referring to the research questions, but with insight and an open mind to identify important findings emerging from the data.

Stages of Data Analysis

Qualitative data analysis in this study aimed to explore the roles, strategies, obstacles, and barriers of health workers in managing the elderly with degenerative diseases. In this study, there were several stages of data analysis:

- a) **Data Reduction:** Data reduction is the process of compacting, classifying, focusing, and filtering information to eliminate irrelevant data. This process aims to arrange data systematically, allowing more accurate depiction and verification of final findings.
- b) **Data Presentation:** In this study, data were presented in a concise and systematic narrative form. The main objective of this presentation was to combine information clearly to gain faster and deeper understanding.
- c) **Conclusion Drawing and Verification:** Drawing conclusions in this study referred to new findings that had not been previously established and had to go through a verification process. These findings could be in the form of depiction or understanding of an object that was previously ambiguous.

Data Validity

Credibility Test

The credibility test is a test of trustworthiness of qualitative research data. In this study, for the credibility test, the researcher used the triangulation method. Triangulation is checking data validity by utilizing something else outside that data for data checking purposes, or often called triangulation as data comparison. Triangulation in this study used source triangulation. To increase credibility, researchers conducted member checks with informants, namely asking for confirmation of the transcribed interview results.

Transferability Test

The transferability test is a technique for testing external validity in qualitative research. For the application of the transferability test in this study, the researcher will provide a detailed, clear, and systematic description of the research results. The research results will be described in detail, clearly, and systematically with the aim that this research can be easily understood by others.

Dependability Test

Dependability is often referred to as reliability in qualitative research. The dependability test is carried out by auditing the entire process within the research. In this study, the researcher will conduct an audit by consulting again with the supervisor, then the supervisor will audit the entire research process. Then the researcher will consult with the supervisor to reduce errors in presenting research results and the process during the research. For dependability, the researcher documented the entire research process (audit trail) to ensure traceability of the analysis process.

Confirmability Test

In this study, the researcher will re-examine the data obtained about the role of health workers in managing degenerative diseases in the elderly at the Negeri Lama Community Health Center. This confirmability test can be done using four techniques: 1) increasing persistence, 2) triangulation, source triangulation, 3) peer discussion, 4) using reference materials.

RESULTS

Overview of Research Location

The Negeri Lama Community Health Center is a first-level health service facility located in Bilah Hilir District, Labuhanbatu Regency, North Sumatra. It serves a wide working area covering 9 villages, with a population predominantly consisting of coastal communities whose main livelihoods are fishing and farming. The community health center provides outpatient and inpatient services and faces challenges typical of remote areas, including limited access to specialist referrals, constrained medical equipment availability, and geographical barriers such as poor road conditions and periodic flooding.

Characteristics of Informants

Data collection was carried out through in-depth interviews with informants who participated in the research. This study involved a total of 7 informants consisting of medical records officers, pharmacists, elderly cluster officers, and a nutritionist. The classification included Elderly Cluster Officers (3 informants) as main informants, and Medical Records Officer (1 informant), Pharmacists (2 informants), and Nutritionist (1 informant) as supporting informants.

Table 4.1 Characteristics of Research Informants

No	Name	Age	Gender	Education	Position
1	Mahyuni	33	Female	D-3 Midwifery	Medical Records Officer
2	Faristiwana Rambe	41	Female	Bachelor of Midwifery	Elderly Cluster Officer
3	Julianti Ginting	41	Female	Bachelor of Public Health	Elderly Cluster Officer (NCD Program Holder)
4	Sumihar Sibutar Butar	52	Female	Medical Doctor	Doctor, Elderly Cluster
5	Desy Khairani	32	Female	Pharmacist Profession	Pharmacist
6	Elva Rahayu	36	Female	Pharmacist	Pharmacist

	Nasution			Profession	
7	Elija Aulia Riski	24	Female	D-4 Nutrition	Nutritionist
	Dalimunthe				

Analysis of Health Workers' Roles at the Negeri Lama Community Health Center

Medical Records Officer (Informant 1)

Based on the in-depth interview, Informant 1 had worked for 11 years in the medical records section with main duties of patient registration and explaining service flow. The most frequently encountered degenerative diseases were hypertension, diabetes, and back pain. The main challenge faced was difficulty communicating with the elderly due to decreased hearing function and slow comprehension, as well as patients' sometimes fussy attitudes. Health screening programs were conducted through the E-Pus application with internet network disruption as an obstacle. Collaboration between health workers proceeded according to flow and SOPs, involving medical records officers, cluster 3, pharmacy, and nutritionists. The informant improved knowledge through webinars organized by the District Health Office or Ministry of Health, with the future hope of building a closer hospital so patients would not have to travel long distances to the city.

Elderly Cluster Officer (Informant 2)

Informant 2 had worked in cluster 3 as a doctor's assistant for approximately 2 years serving adults and the elderly. Diseases frequently encountered included diabetes mellitus, hypertension, osteoarthritis, and osteoporosis. Specific challenges faced included lack of elderly understanding about disease prevention, habit of taking medication without consultation, irregularity of visits to the community health center, and unsupportive natural conditions such as damaged roads and flooding. Screening programs were conducted for DM, hypertension, TB, and mental health with obstacles including unstable internet network and patients who had difficulty answering questions. Education was delivered in simple language recommending healthy eating patterns and physical activity, with frequently occurring complications being DM accompanied by hypertension or cholesterol. Other obstacles included patients' impaired physical condition, lack of family support, limited medication availability, and economic decline in retired elderly, with hopes for specialized elderly health training and technology optimization.

Elderly Cluster Officer (NCD Program Holder) (Informant 3)

Informant 3 was the non-communicable disease program holder targeting productive age to elderly individuals and had worked for approximately 3 years. Diseases frequently encountered were hypertension, diabetes mellitus, and osteoporosis with the main challenge being difficulty communicating with the elderly. Screening programs were conducted through the Satu Sehat application with obstacles including lack of elderly knowledge about early detection. Counseling focused on maintaining diet with good responses from the elderly, and education was delivered with a soft but firm tone of voice. Recommended lifestyle modifications included healthy eating patterns with boiled foods and reducing sugar and salt consumption. Collaboration between health workers was done by synchronizing patient information, involving medical records, elderly cluster, nutritionist, and pharmacist. Obstacles faced included patients not wanting to return for check-ups, difficulty being approached for communication, limited medical equipment, damaged roads and flooding, and lack of transportation costs, with hopes for frequent elderly-related training and increasingly solid health workers.

Doctor (Informant 4)

Informant 4 was a doctor in cluster 3 who had worked for approximately 4 years treating various types of diseases. Types of diseases frequently encountered included diabetes mellitus, hypertension, osteoarthritis, cholesterol, and low back pain. Challenges faced were difficulty communicating with the elderly due to lack of patient knowledge, fussy attitudes, and belief in uncertain information. Examination procedures began with anamnesis according to complaints, diagnosis based on examination results, and education regarding the disease covering adequate sleep, reducing sugar and salt, avoiding oily foods, and stress management. Medications given included amlodipine, metformin, glimepiride, simvastatin, allopurinol, and diclofenac sodium adjusted to the diseases suffered. Frequently occurring complications were diabetes accompanied by hypertension, hypertension with headache and cholesterol. Collaboration between health workers proceeded well with smooth patient information flow, with main obstacles being communication difficulty due to decreased hearing function, long distances, and damaged roads, with hopes for regular elderly-specific competency training and unlimited availability of medical equipment.

Pharmacist (Informant 5)

Informant 5 had worked for 4 years and 10 months with main activities of pharmaceutical services and counseling to certain patients. Types of diseases frequently encountered were diabetes mellitus, hypertension, and dementia with challenges of patients having difficulty understanding explanations, complaining a lot, and not focusing on advice given. Screening programs were conducted through the E-pus application with obstacles of unstable network. Counseling focused on medication timing with positive responses from the elderly who were happy to have someone to talk to. Medications commonly given included amlodipine, glimepiride, metformin, simvastatin, omeprazole, and allopurinol adjusted to doctor's prescriptions, with monitoring of medication adherence. Frequently occurring complications were DM accompanied by hypertension, hypertension with uric acid, and DM with numbness or tingling. Collaboration between health workers proceeded well with delivery of latest information regarding patients. Main obstacles were drug and medical device shortages from the District Health Office that could not be predicted, difficulty communicating with the elderly, long distances, damaged roads, and flooding, with hopes for increasingly compact health workers.

Pharmacist (Informant 6)

Informant 6 had worked for 4 years and 10 months with main activities of ensuring drug availability for services at the community health center and auxiliary community health centers, providing services, and counseling. Types of diseases frequently encountered were diabetes mellitus, hypertension, and hyperlipidemia with challenges of modulating voice during counseling because the elderly had difficulty hearing clearly. Screening programs were conducted through the P-care application with obstacles of poor network and patients not understanding questions. Counseling focused on medication adherence with positive responses from the elderly. Medications commonly given included amlodipine, glimepiride, metformin, simvastatin, and omeprazole adjusted to doctor's prescriptions. Frequently occurring complications were DM patients accompanied by TB, DM with gangrene or itching. Collaboration proceeded quite well with synchronization of drug availability to the team, with adequate facilities including comfortable rooms, pharmaceutical equipment, computers, wifi, and 2 ambulances. Main obstacles were

unpredictable drug and medical device shortages, difficulty communicating with the elderly, and economic constraints related to referral costs due to long distances, with hopes for increasingly competent and solid health workers.

Nutritionist (Informant 7)

Informant 7 had worked for 1 year and 5 months with main activities of counseling, nutrition education, program planning, and recording and reporting. Types of diseases frequently encountered were diabetes mellitus, hypertension, chronic heart disease, and arthritis with challenges of lack of memory and discipline of the elderly in maintaining daily healthy lifestyles. Screening programs were conducted per disease type with time obstacles because patients were reluctant to be asked at certain times. Counseling focused on balanced nutrition with open responses and active questioning from the elderly. Education was delivered in simple language and providing visual examples, recommending eating patterns with healthy diet, physical activity, and routine checks. Counseling was conducted for approximately 15 minutes involving family to accompany the healing process. Collaboration was conducted well and structured following SOPs, involving medical records, cluster 3 officers, pharmacists, and nutritionists. Main obstacles were patients having difficulty applying education or lack of motivation, with limited facilities for educational media, leaflets, and visual books, with hopes for increasingly improved elderly health services and reaching communities that have not yet been touched by health services at all.

Data Analysis

The purpose of this data analysis was to simplify data into a form that is easier to read and interpret. In this study, data analysis used source triangulation, method triangulation, member check, and audit trail methods.

Source Triangulation

In this study, source triangulation used additional informants taken from supporting informants to check the truth of the first informant's information. In this study, the main informants were 3 Elderly Cluster Officers, and additional informants were 1 Pharmacist, with the following codes:

- Informant 1 = Elderly Cluster Officer

- Informant 2 = NCD Program Holder
- Informant 3 = Doctor
- Additional Informant = Pharmacist

Table 4.2 Source Triangulation

Question	Informant 1	Informant 2	Informant 3	Additional Informant
Can you tell me a little about your daily work at this community health center?	My work at the Negeri Lama Community Health Center is in cluster 3, namely services for adults and the elderly. More specifically, as a doctor's assistant.	My daily work at the community health center is as the holder of the non-communicable disease program, targeting productive age to the elderly.	I am a doctor in cluster 3, daily treating various types of diseases at the Negeri Lama Community Health Center.	My daily activities include providing pharmaceutical services, and sometimes providing counseling to certain patients.
How long have you been serving elderly patients with degenerative diseases?	Approximately 2 years I have been serving elderly patients with degenerative diseases.	I have been serving elderly patients with degenerative diseases for approximately 3 years.	I have been working at this community health center for approximately 4 years.	4 years 10 months
In your opinion, what is meant by degenerative diseases in the	Degenerative diseases in the elderly are diseases that result in	Degenerative diseases in the elderly are conditions where	Degenerative diseases in the elderly are health conditions that	Diseases that reduce life productivity.

elderly?	weakening of organ function due to the natural aging process.	the body experiences gradual damage so that it experiences decreased organ function along with increasing age.	experience decreased function along with increasing age.	
What types of degenerative diseases are most frequently encountered at this community health center?	Usually encountered at this community health center are DM, hypertension, osteoarthritis, osteoporosis.	Hypertension, DM, osteoporosis.	DM, hypertension, osteoarthritis, cholesterol, low back pain.	
What are the specific challenges in managing the elderly with degenerative diseases?	-Lack of elderly understanding about degenerative disease prevention -Elderly often take medication without consulting health workers and do not visit the community health center regularly -	Difficulty communicating with the elderly	The challenge is difficulty communicating with the elderly because of the patient's lack of knowledge, sometimes fussy and believing in uncertain things	Patients have difficulty understanding explanations given, complain a lot, do not focus on what is advised

Difficulty for the elderly to visit the community health center due to unfavorable natural conditions such as damaged roads, or flooding

Does this community health center have a health screening program for the elderly? Can you explain?	Yes, such as screening for DM, HT, TB, Mental Health. Screening usually begins with interviews, then examinations such as blood glucose, blood pressure, cholesterol, HB, and uric acid, and reading the results to the patient.	Yes, through the Satu Sehat application.	Yes, but I don't do it.	Yes, conducted through the E-pus application with various questions related to the elderly.
What topics are most frequently delivered in counseling?	About healthy lifestyles, and don't stress.	About maintaining diet.	The most frequently delivered is about healthy lifestyles.	Timing of medication intake.
How do elderly	Happy, like being	Respond well,	Respond well,	Happy because

people respond to the counseling activities provided?	listened to and also asking many questions.	and follow what is advised.	and say they will follow the advice given.	they have someone to talk to.
How do you educate the elderly about healthy lifestyles?	With simple and easy-to-understand language.	With a soft but firm tone of voice so that patients are easy to understand but not offended.	Adequate sleep, reduce sugar and salt, reduce oily food intake, and don't stress.	Exercise, maintain diet, don't eat fast food.
What lifestyle modifications are recommended to prevent degenerative diseases?	Regularly walk.	Healthy eating patterns, boiled foods, and reduce sugar and salt consumption.	Regularly exercise, and eat healthy food.	Move a lot and eat lots of fruits and vegetables.
What is the examination procedure for elderly people with degenerative disease complaints?	First register, then go to cluster 3 to consult with the doctor, then pick up medication at the pharmacy.	Starting with registering, then consulting with respective complaints, then conducting examinations according to what is	Conduct anamnesis according to complaints, then diagnose based on examination results. Then provide education related	Examinations are carried out by the doctor in the elderly cluster.

		complained of.	to the disease suffered.	
What examinations are usually carried out?	Blood glucose examination, cholesterol, uric acid, and blood pressure.	Usually blood pressure, blood glucose, cholesterol, and uric acid.	Blood pressure, blood glucose, uric acid, cholesterol adjusted to patient complaints and availability of medical equipment.	Usually blood pressure, blood glucose, cholesterol, and uric acid examinations.
What medications are commonly given?	Metformin, Glimepiride, amlodipine, mefenamic acid, simvastatin, and allopurinol.	Amlodipine, simvastatin, metformin, glimepiride.	Amlodipine, metformin, glimepiride, simvastatin, allopurinol, diclofenac sodium.	Amlodipine, glimepiride, metformin, simvastatin, omeprazole, allopurinol.
Are there specific adjustments in medication administration for the elderly? Explain.	Medication administration to the elderly is adjusted to whatever diseases they suffer from.	Adjustments are made by the treating doctor.	Medication administration to the elderly is adjusted to whatever diseases they suffer from, mostly giving	Adjusted to the prescription given by the doctor.

			more vitamins.	
How is the monitoring system for the health condition of elderly people who have received treatment?	Looking at the patient's visit schedule, if not appropriate, advising the patient for the next visit according to the doctor's instructions.	By paying attention to the patient's visit schedule, if not appropriate, directed to follow the doctor's advice.	I will advise them to visit regularly according to my advice, and advise them when they don't visit regularly.	Asking patients about medication adherence.
What parameters are routinely monitored (blood pressure, blood glucose, etc.)?	Blood pressure, blood glucose, and other examinations according to the patient's condition.	Blood pressure and examinations according to the patient's condition.	Blood pressure and other parameters according to the patient's complaints.	Parameters monitored according to patient complaints and monitored by elderly cluster officers.
What complications often occur in elderly people with degenerative diseases?	Usually DM sufferers accompanied by hypertension or cholesterol. Cholesterol sufferers are usually accompanied by	DM accompanied by hypertension.	Most patients here have DM accompanied by hypertension, hypertension accompanied by headache and cholesterol.	DM disease accompanied by hypertension, hypertension accompanied by uric acid, DM with numbness or tingling.

	headache and bone pain.			
How do you handle complications that arise?	With appropriate early detection and appropriate education.	By advising the family to provide support, and monitor their development.	By paying attention to medication administration and providing appropriate education.	Complications are handled by the doctor, I prescribe medication according to the doctor's instructions.
When do you decide to refer patients to a higher facility?	When the patient is in an emergency condition, and actions that cannot be performed at the community health center.	When the patient's condition cannot be handled at the community health center.	When the patient is in an emergency condition or actions needed cannot be performed at the community health center.	Usually when the patient cannot be handled at this community health center or medication is unavailable.
How do you conduct counseling for the elderly and their families?	With easy-to-understand language, advising the family to encourage the patient and monitor their development.	By advising the family to provide support, and monitor their development.	Empowering the patient's family to encourage the patient and monitor the patient's development.	Conducting home visits through village midwives or posyandu cadres.
How much time	The time allocated	Approximately 3	Minimum 3	Approximately 3

is allocated for counseling?	for me is none. Usually I counsel while the doctor is also counseling or when patients ask questions.	minutes.	minutes.	minutes.
How do you educate the elderly to manage their disease independently at home?	Advise to manage thoughts and diet.	To maintain diet so the disease doesn't get worse.	Control thoughts and get enough sleep.	Adequate sleep and don't stress.
How is education about diet for elderly people with degenerative diseases?	Reduce sugar, salt, and fatty foods.	Explain that most diseases come from diet, so advise to maintain diet.	Advise with easy-to-understand language to reduce sugar and salt, spicy and fatty foods.	Reduce oily and fatty foods, reduce sugar and salt.
What menu or diet is recommended?	Boiled foods, foods that are not oily, and eat fruits and vegetables.	Boiled foods, fruits and vegetables.	Boiled foods, increase water consumption, fruits and vegetables.	Boiled foods, eat fruits and vegetables.
How is collaboration	Connecting appropriate	Synchronizing information	So far it's been good, always	So far it's been good, because

between health workers at the community health center in managing the elderly?	information related to the patient.	related to the patient.	channeling patient information related.	always conveying the latest information to team colleagues regarding patients.
Who is involved in the elderly service team?	Medical records, elderly cluster officers, pharmacy, and nutritionist.	Medical records, elderly cluster, nutritionist, and pharmacist.	Counter, cluster 3, pharmacy, and nutritionist.	Medical records, cluster 3, pharmacy, and nutritionist.
What supports you in carrying out this role?	My responsibility as a health worker. Besides that, balanced task distribution, and adequate human resources.	Responsibility in work and a solid team.	The doctor's oath that has been taken.	Responsibility and the pharmacist's oath.
What facilities or means are adequate?	Comfortable service rooms, wifi, registration room, emergency room, inpatient room, laboratory, pharmacy, toilet, ambulance, and others.	There are many comfortable and adequate health rooms, wifi, toilet as well. For human resources, it's adequate and each has competence.	Various rooms available and comfortable.	There is AC, mortar, sink, medicine cabinet, and other pharmaceutical equipment, computer, wifi.
What obstacles	-Impaired physical	-Patients who	Difficulty	-Drug and

or barriers are often faced?	condition due to chronic degenerative diseases -Lack of family support - Unsupportive natural conditions, such as damaged roads, overflowing rivers, and long distances to the community health center -Medication availability not always there, limited stock - Increasing living costs, retired elderly usually experience economic decline	don't want to return for check-ups -Patients are difficult to approach for communication - Limited availability of medical equipment	communicating with patients due to decreased hearing function and lack of knowledge so they have difficulty understanding.	medical device shortages from the District Health Office - Difficulty communicating with elderly patients, because they have difficulty understanding and their hearing is reduced
Are there limitations in human resources or competence?	No	For human resources, it's adequate and each has competence.	No, everything is sufficient.	Everything is sufficient.
How do you	Patiently explain	Patiently explain	Provide	Patiently educate

deal with elderly people who are uncooperative or difficult to communicate with?	until they understand.	until they understand.	unlimited understanding until the patient understands it.	until they understand.
What obstacles are faced related to economic conditions or travel distance of the elderly?	Not coming regularly to the community health center because of long distance or no money to buy gasoline to go to the community health center.	Damaged roads, and sometimes flooding due to overflowing rivers. Also lack of funds to go to the community health center.	Facilities to the community health center are lacking, and long distance and damaged roads.	Long distance and damaged roads and frequent flooding.
How do you improve your knowledge and skills?	Reading articles, watching educational videos.	By attending webinars or watching videos related to health.	By attending various trainings held.	Attending provided webinars.
In your opinion, what needs to be improved in elderly services at this community health center?	Increased patience, friendliness to the elderly.	Increased patience in handling elderly patients.	Improved communication skills with the elderly.	Need to increase patience in handling patients.

What are your hopes for elderly health services in the future?	Special training for elderly health, and more optimal technology.	Frequent training related to the elderly and increasingly solid health workers.	Regular elderly-specific competency training, and unlimited availability of medical equipment.	Hope to be more advanced and more compact between teams.
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Based on the source triangulation analysis from interview documents with 4 informants at the Negeri Lama Community Health Center, it can be concluded that there is high consistency in the information provided by the four health workers. The four informants consisting of a nurse assisting doctors, NCD program holder, doctor, and pharmacist had aligned understanding of degenerative diseases as conditions of decreased organ function along with increasing age. They also agreed that the types of diseases most frequently encountered at the community health center were Diabetes Mellitus (DM), hypertension, and osteoporosis, with frequently occurring complications being DM accompanied by hypertension.

In terms of services, all informants confirmed the existence of elderly health screening programs through examinations of blood pressure, blood glucose, cholesterol, and uric acid. The administration of medications mentioned by the four informants was also consistent, namely amlodipine, metformin, glimepiride, simvastatin, and allopurinol adjusted to the diseases suffered by patients. Education provided to the elderly was also uniform, namely recommending healthy eating patterns in the form of boiled foods, reducing sugar and salt consumption, increasing fruits and vegetables, as well as doing regular exercise and stress management.

The main challenges faced in elderly services according to the four informants were difficulty communicating with the elderly due to decreased hearing function and lack of patient understanding of explanations given. Other obstacles consistently mentioned were unsupportive geographical conditions such as damaged roads and flooding due to overflowing rivers, economic limitations of retired elderly, as well as limited availability of drugs and medical equipment.

Nevertheless, all informants agreed that collaboration between health workers has been going well involving the medical records team, elderly cluster, pharmacy, and nutritionist, and the existing human resources are adequate and competent in their respective fields.

Method Triangulation

In this study, the researcher used observation techniques to strengthen data validity.

Table 4.3 Method Triangulation

Role Aspect	Interview Results	Observation Results	Conclusion
Screening	Conducting screening	Conducting screening every day	Consistent
Education	Educating about healthy lifestyles	Education at all informant sections	Consistent
Examination	Disease examination according to complaints	Conducting disease examination according to complaints	Consistent
Medication	Providing medication and monitoring adherence	Medication given and adherence monitoring also conducted	Consistent
Counseling	Conducting counseling according to complaints	Counseling only conducted with doctor and nutritionist	Partially Consistent
Monitoring	Monitoring patient development	Monitoring patient development	Consistent
Inhibiting Factors	Difficulty communicating with elderly patients	Difficulty in communicating with elderly patients exists	Consistent
	Lack of availability of medical equipment and drugs	Shortage of medical equipment and drugs exists	Consistent
	Long distance to higher-level health facilities	Long distance to higher-level health facilities	Consistent

DISCUSSION

Forms of Health Workers' Roles in Managing Degenerative Diseases in the Elderly at the Negeri Lama Community Health Center

Curative Role of Health Workers

The research results indicate that the curative role of health workers at the Negeri Lama Community Health Center includes a series of structured treatment and care activities. The examination procedure begins with registration at the medical records counter, continues to cluster 3 for consultation with a doctor, then medication pickup at the pharmacy, and nutritional counseling if needed. Examinations conducted include measurement of blood pressure, blood glucose levels, cholesterol, uric acid, and hemoglobin according to patient complaints. Medications commonly given include amlodipine, metformin, glimepiride, simvastatin, allopurinol, mefenamic acid, and omeprazole adjusted to the diagnosis and patient's condition.

This finding aligns with research emphasizing that elderly health services at community health centers require comprehensive health examinations covering complete geriatric patient assessment, physical examination, and adequate supporting examinations for early detection of elderly health conditions (Wijayanti et al., 2024). Curative services for the elderly with degenerative diseases must be carried out through appropriate disease treatment efforts both in the form of basic-level health services and specific health services through referral mechanisms (Halimsetiono, 2021).

The pharmacist's role in providing pharmaceutical services and counseling regarding medication adherence is an important component in the curative role. This is reinforced by research (Budiyanti et al., 2022) which found that pharmacist counseling can improve medication adherence in hypertensive patients by 1.1 points and improve quality of life in the physical health domain by 8.5 points and the environmental domain by 4.5 points. Research (Fatiha & Sabiti, 2021) also affirms that pharmacist counseling significantly influences medication adherence in Type 2 Diabetes Mellitus patients with adherence levels reaching 62.80% using the pill count method. Medication adherence monitoring conducted by pharmacists through direct questions to patients

and use of measuring tools such as MMAS (Morisky Medication Adherence Scale) shows systematic efforts to ensure therapeutic effectiveness in the elderly with chronic diseases such as hypertension and diabetes mellitus.

The referral system to higher health facilities is implemented when patients are in emergency conditions or necessary medical actions cannot be performed at the community health center. An effective referral system is an integral part of primary health services, considering patient medical needs, facility capabilities, accessibility, and geographical conditions that can affect response time and service effectiveness (PERSI Jatim, 2025). However, geographical obstacles in the form of difficult-to-access geographical conditions, minimal resources, poor road infrastructure, long distances, and transportation limitations often hinder the fulfillment of adequate health service access for communities in remote areas (Cahya et al., 2023), especially in handling degenerative disease complications requiring specialist treatment.

Preventive Role of Health Workers

The preventive role of health workers at the Negeri Lama Community Health Center is realized through health screening programs conducted through the E-pus, P-care, and Satu Sehat applications. Screening covers various degenerative diseases such as diabetes mellitus, hypertension, tuberculosis, and mental health disorders. The screening process begins with interviews to explore medical history, followed by examination of blood glucose levels, blood pressure, cholesterol, hemoglobin, and uric acid, then results are read and explained to patients.

Referring to research (Wijayanti et al., 2024), health screening activities are effective in detecting health problems and increasing elderly awareness about the importance of prevention and early management. (Yuliet et al., 2024) also found that early detection through examination of blood pressure, blood glucose levels, and lipid profiles can determine the risk of developing degenerative diseases early, so diseases can be detected before further development. This aligns with the statement from (WHO, 2025c) affirming that detection, screening, and treatment of non-communicable diseases (NCDs) are key components in the response to NCDs, especially in the elderly population who are more vulnerable to chronic and degenerative diseases.

Health counseling activities are an important component in the preventive role. Topics frequently delivered include healthy lifestyles, the importance of adequate sleep, reducing sugar and salt consumption, avoiding oily and fatty foods, stress management, medication adherence, and balanced nutrition. Education is delivered with simple and easy-to-understand language, with a soft but firm tone of voice so patients can understand without feeling offended. Elderly responses to counseling are generally positive; they feel happy, open, and actively ask questions.

Research (Intan Pratiwi et al., 2022) found that health education delivered with a therapeutic communication approach can increase elderly knowledge about degenerative disease prevention by 54%. The use of simple language and visual examples in education, especially by nutritionists, has proven effective in improving understanding among elderly people experiencing cognitive decline.

Recommended lifestyle modifications include physical activities such as regular walking, healthy dietary patterns in the form of boiled foods, increasing fruit and vegetable consumption, reducing fast food and oily foods, and increasing water consumption. Specific menu recommendations are adjusted to the type of disease, for example, a low-salt diet for hypertension and a low-sugar diet for diabetes mellitus. This is supported by research (Permatasari et al., 2022) showing that comprehensive lifestyle modification can reduce cardiovascular disease risk by 35% and mortality risk by 40% in adults adopting healthier lifestyles.

Counseling for the elderly and families is conducted with varying durations between 3-15 minutes, involving families to provide support and monitor patient development. Research (Lestari et al., 2022) shows a significant relationship ($p=0.000$) between family support and medication adherence in elderly hypertensives, with 90% of respondents receiving good family support showing high adherence. Home visits conducted through village midwives or posyandu cadres also demonstrate preventive efforts reaching elderly people who have difficulty coming to the community health center.

Challenges and Obstacles Faced by Health Workers

Challenges in Curative Services

The main challenge in curative services is complex disease complications. Research results indicate that most elderly patients experience multimorbidity, where diabetes mellitus sufferers are

often accompanied by hypertension, hypertension accompanied by uric acid and headaches, and diabetes mellitus with complications such as tuberculosis, gangrene, numbness, tingling, or skin itching. This condition complicates diagnosis and determination of appropriate therapy.

Research (Nurbidayah et al., 2024) shows that the prevalence of multimorbidity in the elderly in Jakarta reaches 60%, with the most frequent medical conditions being joint disease (70.8%), gastric disorders (62.5%), and back pain (58.3%). Riskesdas 2007 data shows that 52.2% of elderly in Indonesia suffer from two or more types of diseases (multimorbidity), with non-communicable diseases commonly occurring in the elderly being diabetes mellitus, hypertension, coronary heart disease, stroke, joint disease, and emotional mental disorders (Selano et al., 2025). Management of multimorbidity requires special consideration in drug selection to avoid drug interactions and more severe side effects in the elderly. This aligns with research findings where medication administration is adjusted to doctor's prescriptions considering the patient's entire health condition.

Availability of drugs and medical equipment is a serious obstacle in curative services. Research results indicate drug and medical equipment shortages from the District Health Office whose availability cannot be predicted, with limited and uncertain stock. Research by Sulistyowati et al. (2020) at community health centers in Jombang Regency found average drug vacancy time reaching 27.60% (Sulistyowati et al., 2020), which can disrupt patient treatment continuity. Patient non-adherence in taking medication can lead to disease progression, unwanted drug side effects, and addition of unnecessary drug doses and types (Alomedika, 2022).

Limited health facilities are also an obstacle. Although the Negeri Lama Community Health Center has various comfortable service rooms, emergency room, inpatient room, laboratory, pharmacy, and ambulances, the availability of medical equipment for supporting examinations is still limited. Examination results must be adjusted to patient complaints and available equipment. The Directorate General of Public Health of the Indonesian Ministry of Health revealed that not all community health centers have medical equipment for diagnostics and screening such as ultrasound, ECG, hematology analyzer, chemistry analyzer, urine analyzer, and molecular test

equipment, so early disease detection is hampered (Kementerian Kesehatan Republik Indonesia, 2024).

Challenges in Preventive Services

The biggest challenge in preventive services is the characteristics of the elderly themselves. Research results indicate that the elderly experience lack of memory so they easily forget education provided, low discipline in maintaining healthy lifestyles, difficulty understanding explanations given, often complain and do not focus on advice, and are reluctant to be asked at certain times during screening. This is exacerbated by decreased hearing and vision functions that complicate communication.

Research (A. Nurhasanah & Nurdahlia, 2020) shows that elderly people experiencing decreased cognitive function due to lack of concentration and stimulation will affect memory stored in the brain, and when information received by the senses is not noticed, the information will be lost and damaged. Therefore, repetition of education and involvement of family as supporters is needed to ensure implementation of health recommendations at home.

Lack of knowledge and understanding of the elderly about degenerative disease prevention and early detection is a significant barrier. Many elderly people still believe in uncertain health information or myths, and have habits of taking medication without consulting health workers. Low health literacy in the elderly is one of the factors hindering them from managing health services independently, with findings showing that on average 55.3 percent of the population in five Southeast Asian countries have limited health literacy levels. Elderly people with limited health literacy tend to face difficulties in understanding the importance of preventive care and managing their medical conditions more independently (Wening, 2024).

Irregularity of elderly visits to the community health center is a challenge in implementing sustainable preventive programs. Patients often do not return for check-ups according to doctor-recommended schedules, so health condition monitoring is disrupted. According to a survey (PERGEMI, 2022), 24.6% of elderly in Indonesia have a history of chronic diseases, but health control adherence is still low with main obstacles including transportation costs, travel distance, and lack of knowledge about the importance of routine control.

Lack of family support is also an obstacle in implementing preventive programs. Research results (Subekti & Dewi, 2022) show that not all elderly receive adequate support from families in undergoing disease prevention and treatment programs. Family support is an important factor significantly related to elderly quality of life, with research results showing a strong correlation ($r = 0.935$, $p = 0.000$) between family support and quality of life of elderly people with chronic diseases.

Technical obstacles in the form of unstable internet networks hinder the implementation of screening through digital applications. When the network is problematic or the system errors, the screening process cannot be conducted properly. This aligns with research (Suary & Yunengsih, 2020) that unstable internet networks affect internet coverage not reaching all community health center buildings and frequent application errors, thus hindering the health service process.

Geographical and economic conditions are significant structural barriers. Damaged roads, frequent flooding due to overflowing rivers, and long distances from elderly residences to the community health center cause difficulty in accessing health services. Limited transportation costs, especially in retired elderly experiencing economic decline, make them unable to come regularly for check-ups. This also aligns with research (Youlanda & Susilawati, 2023) stating that limited transportation costs, especially in retired elderly experiencing economic decline, make them unable to come regularly for check-ups. Geographical and economic factors are main determinants of low health service access, with main obstacles including limited transportation infrastructure, difficult-to-reach geographical conditions, and limited access to financing.

Communication and Interaction Patterns between Health Workers and the Elderly

Communication in Curative Context

Communication patterns in curative services at the Negeri Lama Community Health Center show a patient-centered approach with specific adaptations for the elderly. Doctors conduct anamnesis according to patient complaints, then diagnose based on examination results, and provide education related to the disease suffered. This process requires extra patience because the elderly often experience decreased hearing function and slow comprehension.

Effective communication between health workers and the elderly requires specific adjustments including louder voice volume, slower speech speed, use of simple sentences, and

repetition of important information. (Sri Wahyuni & Wa Seti Lahaja, 2025) in their research at Robert Wolter Mongisidi Hospital Manado found a significant relationship between nurse therapeutic communication and outpatient satisfaction through Chi-square testing. Similar research by (Jusliawati et al., 2023) also showed consistent results with p value = $0.001 < 0.05$. These findings indicate the importance of applying therapeutic communication in improving patient satisfaction and adherence, including in pharmaceutical services where pharmacists provide education about medication use to elderly patients.

Interaction between nurse assistants to doctors and the elderly shows therapeutic communication patterns. Nurses not only assist doctors in examinations but also provide additional counseling and answer patient questions. Counseling duration ranges from 3-15 minutes, adjusted to the complexity of the condition and patient needs. (Julfity Putri Hasjum et al., 2024) found that good therapeutic communication by nurses can increase patient satisfaction up to 83.9% with significant relationship ($p = 0.001$).

Pharmacists conduct pharmaceutical counseling focusing on medication adherence, correct drug storage methods, and possible side effects. Adherence monitoring is done by directly asking patients at the next medication pickup. (Wikan et al., 2021) in their research on elderly patient communities with chronic diseases in Muntilan District showed that patients receiving pharmaceutical counseling had better adherence levels in long-term medication use.

Communication challenges in curative contexts include patients who are fussy, uncooperative, complain a lot, and do not focus on explanations given. The strategy used by health workers is to explain patiently until patients understand, using easy-to-understand language, and avoiding complex medical terms. Research (Mahajan et al., 2020) found that the use of the teach-back method, where patients are asked to repeat information that has been delivered, is effective in improving patient understanding of discharge instructions from the emergency unit. After implementing teach-back, the proportion of patients leaving the emergency unit with understanding deficits decreased from 49% to 11.9%.

Communication in Preventive Context

Preventive communication is conducted through health counseling with a more informal and interactive approach. Health workers use simple language easily understood by the community, avoid medical jargon, and use concrete examples from daily life. The tone of voice used is soft but firm so patients easily understand without feeling offended or lectured.

Research (S. Nurhasanah et al., 2023) shows that the use of visual media such as posters in health education is effective in increasing hypertension knowledge in the elderly at posyandu. Verbal communication with visual media such as leaflets, posters, and picture books helps improve understanding and information retention in the elderly.

Elderly responses to counseling are generally positive. They feel happy because they are noticed, feel they have someone to talk to, are open in conveying complaints, and actively ask questions. This shows that an empathetic and non-patronizing communication approach can build good rapport between health workers and the elderly. Research (Mawaddah & Wijayanto, 2020) found that the application of therapeutic communication with a good approach significantly influences increasing elderly independence ($p=0.000$).

Nutrition counseling is conducted with longer duration (around 15 minutes) compared to other counseling, because it requires detailed explanation about food selection, processing methods, and daily menu preparation. Nutritionists involve family members in counseling to ensure implementation of recommended diets at home. Research (Santana et al., 2024) shows that family support has a significant relationship with dietary adherence in hypertensive patients, where good nutritional understanding levels and strong family support contribute to increased patient dietary adherence.

Communication barriers in preventive contexts are more complex because they involve long-term behavioral change. The elderly often forget education provided, have difficulty changing old habits, and require repeated motivation. The strategy used is to provide education repeatedly at each visit, create simple written guides, and involve family as reminders. Health education needs to be conducted continuously, especially for elderly people with diseases and high risk, to improve understanding and adoption of healthy behaviors.

Home visits conducted through village midwives or posyandu cadres show more informal and relaxed communication patterns, because they are conducted in environments familiar to the elderly. This approach allows health workers to directly see environmental conditions and lifestyles of the elderly, so education can be more contextual and applicable. Research shows that home visits are effective in improving health communication, where the elderly and families can understand material well, and interventions through home visits have proven effective in improving elderly self-care adherence (Putri et al., 2021).

Impact of Health Workers' Roles on Quality of Life of the Elderly

Impact of Curative Services on Quality of Life

Comprehensive curative services provide positive impacts on the quality of life of the elderly through disease symptom control and complication prevention. Appropriate medication administration to control blood pressure, blood glucose levels, cholesterol, and uric acid helps the elderly carry out daily activities more comfortably. Routine monitoring through scheduled visit systems ensures the health condition of the elderly remains controlled.

Elderly people with degenerative diseases who receive regular curative services show better quality of life compared to those not receiving routine services. Research in Indonesia using WHOQOL-BREF shows that chronic disease management such as the Prolanis program can help control degenerative diseases to improve elderly quality of life (Hariastuti et al., 2024). Quick and appropriate handling of complications through effective referral systems can prevent disability and increase elderly life expectancy. Although there are geographical and economic obstacles in the referral process, health workers' efforts to facilitate referrals for emergency patients demonstrate commitment to patient safety. Research (Prasetyo & Wahyu, 2025) shows that improving referral systems through multifaceted interventions covering emergency transportation, community empowerment, and strengthening communication between facilities can significantly reduce mortality risk, especially in rural areas far from referral hospitals.

Pharmaceutical counseling conducted by pharmacists about medication adherence impacts therapeutic effectiveness and relapse prevention. Monitoring drug side effects and dose adjustment when needed helps the elderly obtain optimal benefits from treatment while minimizing the risk of

adverse drug reactions. Evidence shows that pharmaceutical counseling interventions significantly improve medication adherence with a pooled odds ratio of 4.41 (95% CI: 2.46-7.91; $P < 0.01$), meaning patients receiving pharmaceutical counseling have 4.41 times higher adherence odds compared to without counseling (Kelly et al., 2023).

However, the positive impact of curative services can be hindered by limited medication availability. Unpredictable drug stock shortages cause treatment discontinuity, which can worsen health conditions and decrease elderly quality of life. Research shows that treatment discontinuity in the elderly can increase hospitalization risk, where when adverse drug withdrawal events (ADWEs) occur, they can result in substantial increases in health service utilization such as emergency unit visits and hospitalizations (Croke et al., 2021). This also aligns with research (Horvat et al., 2024), barriers to access to essential medicines in the elderly with chronic conditions, including availability issues and continuity of care, can worsen chronic disease management and increase morbidity and mortality.

Impact of Preventive Services on Quality of Life

Preventive services provide long-term impacts on elderly quality of life through empowerment and improvement of disease self-management. Education about healthy lifestyles, diet modification, and physical activity helps the elderly take active roles in managing their own health. Research (Paltzat et al., 2023) shows that structured self-management education interventions help increase elderly confidence in managing their health conditions, with participants reporting increased consistency in health behaviors including diet, physical activity, and medication adherence.

Routine screening programs enable early detection of complications or comorbid diseases, so interventions can be conducted earlier before irreversible organ damage occurs. Although there are technical obstacles and limited elderly knowledge about the importance of screening, health workers' efforts to continue conducting screening demonstrate commitment to secondary prevention. Research (Facciola et al., 2021) shows that screening programs can detect hypertension and diabetes in populations unaware of their conditions, with 27% of screening participants found

to have abnormal anthropometric or clinical-laboratory parameters but were unaware and not under treatment.

Health counseling responsive to elderly needs provides positive socio-emotional impacts. The elderly feel noticed, have someone to talk to, and receive social support from health workers. This is important for the mental health of the elderly who often experience social isolation. Research (Maydinar et al., 2024) shows that quality social interaction has a significant influence on elderly quality of life, with research results at Kedurang Community Health Center showing the closeness of the relationship between social interaction and quality of life in the elderly.

Lifestyle modification education provided by all health workers consistently helps the elderly make sustainable behavioral changes. Recommendations for physical activities such as walking, low-salt and low-sugar diets, and stress management provide holistic impacts on physical and mental health.

Involving families in counseling and education creates a strong support system for the elderly. Families who understand the health conditions of the elderly and how to manage them can provide comprehensive instrumental, emotional, and informational support. Research (Zhou et al., 2025) shows that elderly people receiving family support have 2.64 times higher likelihood of using community-based health services compared to those without family support. Another study found that social support from family is very important for reducing anxiety in elderly people living in rural elderly care organizations, with social support (especially from friends) playing an essential role in preventing and regulating anxiety (Zhao et al., 2022).

Home visits conducted through posyandu networks and village midwives expand the reach of preventive services to elderly people who have difficulty accessing the community health center. Services reaching into elderly homes reduce access gaps and ensure that elderly people in remote areas still receive education and health monitoring. Research in Sleman, Yogyakarta shows that home visit programs initiated by Posyandu cadres have proven effective in providing health services to the elderly in the community, with visits covering health condition checks, listening to complaints, and providing emotional support (Sumini et al., 2020). Another study found that remote monitoring systems for high-risk elderly can significantly reduce hospitalization rates, with 7 out of

12 studies showing decreases in rehospitalization and unplanned hospital admissions (Salma et al., 2025).

However, the optimal impact of preventive services is still hindered by several factors. Lack of memory and discipline of the elderly in implementing health recommendations, limited motivation to change lifestyles, and structural barriers such as geographical and economic conditions reduce the effectiveness of preventive programs. Another study identified that the most common barriers in healthy lifestyle adoption are time limitations due to competing priorities such as work and taking care of family, financial limitations making healthy food difficult to access and expensive, and lack of willingness and self-discipline to change old habits despite knowing the negative impacts (Subramaniam et al., 2022).

Limited facilities specifically for education, such as limited visual media, leaflets, and updated posters, also reduce the effectiveness of preventive communication. This aligns with research (Wahab, 2025) finding that the use of appropriate and contextual health promotion media can significantly improve community knowledge and attitudes. Nevertheless, health workers' commitment to continuously improve competence through training, webinars, and self-learning demonstrates dedication to improving service quality. Good interprofessional collaboration and solidarity among health workers at the Negeri Lama Community Health Center are main strengths in providing services that positively impact the quality of life of elderly people with degenerative diseases. Research shows that effective interprofessional collaboration can improve patient safety, patient satisfaction, and quality of health services through improved communication skills and solid teamwork (Kusuma et al., 2021).

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the research results on the role of health workers in managing degenerative diseases in the elderly at the Negeri Lama Community Health Center, several conclusions can be drawn as follows:

1. Curative Role of Health Workers

Health workers at the Negeri Lama Community Health Center have carried out curative roles comprehensively through integrated medical services involving doctors, nurses, pharmacists, and nutritionists. The examination procedure begins with registration, examination in cluster 3 (elderly), medication dispensing at the pharmacy, and counseling. Medications given include antihypertensives (amlodipine), antidiabetics (metformin, glimepiride), cholesterol-lowering drugs (simvastatin), and other symptomatic medications adjusted to patient conditions. The health condition monitoring system is conducted through regular visit schedules and monitoring of health parameters such as blood pressure, blood glucose, cholesterol, and uric acid. Complication management is conducted through early detection and appropriate education, with a referral system to higher health facilities for emergency cases or conditions that cannot be handled at the community health center.

2. Preventive Role of Health Workers

The preventive role is implemented through routine health screening programs covering examinations for diabetes mellitus, hypertension, tuberculosis, and mental health using E-pus and P-care applications. Health counseling is delivered with priority topics such as healthy lifestyles, medication adherence, stress management, and balanced nutrition using simple language that is easy to understand. Lifestyle modification education includes recommendations for physical activity (regular walking), healthy eating patterns (low-salt and low-sugar diets, boiled foods, fruit and vegetable consumption), and self-management of diseases at home. Counseling for the elderly and families is conducted with a duration of 3-15 minutes, involving families to provide support and monitor patient development. Home visits are conducted through village midwives and posyandu cadres to reach elderly people who have difficulty accessing the community health center.

3. Challenges and Obstacles

Main challenges in curative services include the complexity of multimorbidity in the elderly (diabetes mellitus with hypertension, cholesterol, or other complications), unpredictable drug and medical equipment shortages from the District Health Office, and limited health facilities for supporting examinations. In preventive services, the biggest obstacles are the characteristics of the elderly who experience decreased memory, low discipline in maintaining healthy lifestyles,

difficulty understanding explanations, decreased hearing and vision functions, and lack of knowledge and health literacy. Structural barriers include irregularity of elderly visits, lack of family support, difficult-to-reach geographical conditions, economic limitations for transportation costs, internet network disruptions hindering digital screening, and limited updated educational media (leaflets, posters).

4. Communication and Interaction Patterns

Communication in the curative context uses a patient-centered care approach with specific adaptations for the elderly including louder voice volume, slower speech speed, simple sentences, and repetition of important information. Therapeutic communication is applied by all health workers (doctors, nurses, pharmacists) with strategies of explaining patiently, using easy-to-understand language, avoiding complex medical terms, and involving families in counseling. Communication in the preventive context is more informal and interactive using concrete examples from daily life, visual media (posters, leaflets, picture books), and empathetic approaches that are not patronizing. Home visits allow more relaxed and contextual communication because they are conducted in environments familiar to the elderly.

5. Impact on Elderly Quality of Life

Curative services have a positive impact through disease symptom control, complication prevention, increased medication adherence through pharmaceutical counseling, and effective referral systems to prevent disability. However, positive impacts can be hindered by treatment discontinuity due to drug stock shortages. Preventive services provide long-term impacts through empowerment and improvement of disease self-management, early detection of complications through screening programs, socio-emotional support that reduces social isolation, creation of support systems through family involvement, and expansion of service reach through home visits. Solid interprofessional collaboration among health workers is a main strength in providing comprehensive services that improve patient safety, patient satisfaction, and quality of health services.

Suggestions

Based on the research conclusions, the following suggestions can be given:

1. Suggestions for the Negeri Lama Community Health Center

- a) **Improvement of Logistics Management System:** Develop a drug and medical equipment needs forecasting system based on historical data of elderly visits, conduct more intensive coordination with the District Health Office to ensure continuity of essential drug supply, and build buffer stock for critical drugs frequently consumed by the elderly (antihypertensives, antidiabetics, cholesterol-lowering drugs).
- b) **Development of Educational Media:** Provide and regularly update visual educational media (leaflets, posters, picture books) adjusted to local culture and elderly literacy levels, develop digital-based educational media accessible through elderly family smartphones, and provide food models and portion examples to facilitate nutrition education.
- c) **Optimization of Digital Infrastructure:** Improve the quality and stability of internet networks to support screening systems and electronic recording (E-pus, P-care), provide backup computer devices for anticipating technical disruptions, and develop automatic reminder systems for elderly return visit schedules.
- d) **Strengthening Home Visit Programs:** Expand the coverage of home visit programs through coordination with village midwives and posyandu cadres, create structured home visit schedules for elderly people with limited mobility or difficult geographical conditions, and equip home visit teams with portable examination equipment (tensimeter, glucometer, scales).

2. Suggestions for the District Health Office

- a) **Improvement of Drug and Medical Device Distribution System:** Implement a more predictive and responsive supply chain management system to prevent drug shortages at community health centers, map essential drug needs based on disease profiles at each community health center, and provide emergency distribution mechanisms for critical drugs that run out.
- b) **Increase in Elderly Health Budget:** Allocate a special budget for elderly health programs covering procurement of educational media, training of health workers, and development of innovative programs, provide free transportation assistance or subsidies for elderly people

who have difficulty accessing the community health center, and develop mobile health clinic programs reaching remote areas.

- c) **Continuous Training Programs:** Organize regular training on geriatric care, effective communication with the elderly, and degenerative disease management for all health workers at community health centers, facilitate access to webinars and seminars on elderly health, and develop mentoring systems between community health centers for sharing best practices.
- d) **Strengthening Referral Systems:** Optimize online referral systems integrated between community health centers and referral hospitals, provide 24-hour standby ambulances equipped with adequate emergency equipment, and build better communication between community health centers and referral hospitals for patient follow-up.

3. Suggestions for Health Workers

- a) **Competence Improvement:** Actively participate in training, webinars, and workshops related to managing the elderly with degenerative diseases, conduct self-learning through scientific journals and latest clinical guidelines, and share experiences and knowledge with colleagues through regular case conferences.
- b) **Optimization of Therapeutic Communication:** Use the teach-back method technique to ensure elderly understanding of education provided, involve families in every counseling session to increase support at home, and document every education provided to ensure information continuity.
- c) **Interprofessional Collaboration:** Strengthen communication and coordination between health professions through regular team meetings, develop joint clinical pathways for managing degenerative diseases in the elderly, and conduct periodic evaluations of service quality and patient outcomes.
- d) **Innovation in Education Methods:** Develop more creative and interactive education methods according to elderly characteristics, create simple written educational materials that can be taken home by the elderly, and utilize simple technology such as short videos or audio for health education.

4. Suggestions for Families and Communities

- a) **Increase in Family Support:** Families need to be actively involved in elderly care by accompanying during health check-ups, helping to remind medication schedules and routine check-ups, and ensuring implementation of recommended healthy lifestyles at home. Provide emotional support and motivation to the elderly to remain disciplined in undergoing treatment and lifestyle modifications.
- b) **Improvement of Health Literacy:** Families and the elderly need to seek health information from trusted sources (health workers, official Ministry of Health media), not easily believe health information from unclear sources or myths circulating in the community, and actively ask health workers if there are things not understood.
- c) **Participation in Health Programs:** Regularly participate in elderly posyandu programs and prolanis activities organized by the community health center, actively participate in counseling and health screening conducted, and join support groups of fellow chronic disease sufferers to share experiences and motivation.

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