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DEGENERATIVE DISEASE EDUCATION AND HEALTH EXAMINATION IN THE COMMUNITY IN RW 02 AND RW 15 OF JAYARAGA VILLAGE, TAROGONG KIDUL, GARUT

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ABSTRACT

The Community Service Program titled “Health Education on Degenerative Diseases and Health Screenings for Residents of RW 02 and RW 15 in Jayaraga Village, Tarogong Kidul Subdistrict, Garut Regency” aims to increase public awareness of degenerative diseases and promote early detection through health screenings. This initiative was prompted by the rising prevalence of noncommunicable diseases—such as hypertension, diabetes mellitus, heart disease, and stroke—which negatively impact the community’s quality of life. The program included educational sessions on the definition, types, risk factors, prevention, and initial management of degenerative diseases, along with blood pressure checks, random blood glucose tests, and guidance on healthy lifestyles. The activity involved faculty members and students as part of the implementation of the Tri Dharma of Higher Education. The results showed high levels of community participation and enthusiasm in attending the educational sessions and health screenings. The community gained a better understanding of risk factors, prevention methods, and the importance of regular health checkups, as well as insight into their health status based on screening results. This program is expected to raise public awareness regarding the prevention of degenerative diseases and serve as a sustainable promotive and preventive effort to support improvements in public health.

Keywords: Degenerative, Health, Screening, Health Education.

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1. INTRODUCTION

Currently, degenerative diseases are the leading cause of death worldwide. Hypertension, for example, is a major cause of death and complications from other diseases globally (Khairani, 2025). Other diseases, such as diabetes mellitus, are also considered major health crises at both the local and global levels (Trenggono & Bachtiar, 2023). The rising incidence of these degenerative diseases is occurring in nearly every country, including Indonesia.

Indonesia currently faces a “double burden of disease”: infectious diseases that remain a public health challenge, coupled with the rising prevalence of noncommunicable diseases (NCDs) such as hypertension, diabetes mellitus, stroke, heart disease, and cancer (Ismail & Ns, 2022). This shift in disease patterns is influenced by changes in lifestyle, urbanization, an aging population, lack of physical activity, consumption of foods high in sugar, salt, and fat, and the rising prevalence of obesity (Perceka et al., 2022). NCDs are now the leading cause of morbidity, mortality, and healthcare costs in Indonesia. According to the 2023 Indonesian Health Survey (SKI), hypertension is one of the leading risk factors for mortality, while the prevalence of diabetes mellitus continues to rise. In addition, data from the Ministry of Health’s Free Health Check-up Program (CKG) in 2025 show that approximately 1 in 5 participants had hypertension and 5.9% had diabetes mellitus, underscoring the importance of early detection and prevention of noncommunicable diseases. Through health system transformation, the government continues to promote the strengthening of promotive and preventive services, including routine health screenings, education on adopting healthy lifestyle behaviors, and the management of risk factors in the community to reduce the burden of degenerative diseases in the future (Ramdani et al., 2022).

The rising prevalence of degenerative diseases in several developing countries due to recent increases in prosperity has been widely highlighted. Rising per capita income and changing lifestyles—particularly in major cities—have led to an increase in degenerative diseases. This is linked to population growth, lifestyle patterns, rising obesity rates, and insufficient physical activity(... et al., n.d.).

According to the International Diabetes Federation (IDF) Diabetes Atlas, 10th Edition (2021), Indonesia ranks fifth globally in the number of people with diabetes mellitus, with approximately 19.5 million adults (aged 20–79 years). This number is projected to continue rising to approximately 28.6 million people by 2045 if effective prevention and control measures are not implemented (Muhammad et al., n.d.). Data from the 2023 Indonesian Health Survey (SKI) also indicate that the prevalence of noncommunicable diseases—particularly diabetes mellitus and hypertension—remains a major public health challenge in Indonesia. This situation indicates that noncommunicable diseases—most of which are degenerative diseases associated with the aging process—have become the leading causes of morbidity, disability, and mortality. In addition to being influenced by age and genetic factors, the rise in degenerative diseases is also closely linked to changes in lifestyle, such as lack of physical activity, unhealthy diets, obesity, smoking, alcohol consumption, and environmental factors. Therefore, promotive and preventive efforts through health education, early detection, and risk factor management are crucial strategies for curbing the rise in cases of degenerative diseases in Indonesia (Nasrudin et al., 2025).

Some of these noncommunicable diseases include diabetes mellitus, hypertension, heart disease, and stroke. These diseases are caused by two types of factors: non-modifiable risk factors and modifiable risk factors. Non-modifiable risk factors include gender, age, and genetic factors. Modifiable risk factors include smoking, occupation, physical activity, alcohol consumption, Body Mass Index (BMI), and waist circumference (Ariyanti & Setyoargo, 2021).

These degenerative diseases can affect patients’ quality of life. Prevention of these conditions can be implemented both before and after diagnosis. Preventive measures include raising awareness of risk factors, avoiding these factors, and undergoing regular health checkups. Awareness can be raised through education, either in person or using technology. Education can boost patients’ motivation regarding adherence to self-management (Maisaroh & Rosdiana, 2020). Other preventive measures include exercise; for example, in patients with diabetes mellitus, research shows that exercise can improve blood glucose levels, reduce the risk of cardiovascular complications, and lead to weight loss. The objective of this community service program is to improve the community’s knowledge of degenerative diseases and their home management. In addition, the program also aims to conduct health screenings by measuring blood pressure and random blood glucose levels, as well as leading diabetes mellitus exercise sessions. Benefits of the Activity: After conducting health education sessions for the community in RW 02 and RW 15 of Jayaraga Village, Tarogong

Kidul, Garut, the program has increased the community's knowledge and provided educational guidance on how to prevent degenerative diseases among residents of Tarogong Kidul, Garut.

2. METHODS

The implementation of the Degenerative Disease Awareness and Community Health Screening program in RW 02 and RW 15 of Jayaraga Village, Tarogong Kidul Subdistrict, Garut Regency, utilized an educational, promotive, preventive, and participatory approach. This method aimed to increase community knowledge about degenerative diseases while conducting early detection of risk factors through health screenings. The program was carried out in the following stages:

1. Preparation Phase

During this phase, coordination took place with the Village Head of Jayaraga, the Chairpersons of RW 02 and RW 15, health cadres, and community leaders regarding the time, location, and target audience of the activities. The implementation team developed educational materials, prepared educational media (presentation slides, leaflets, and banners), designed health screening instruments, and prepared equipment such as digital blood pressure monitors, glucometers, blood glucose test strips, anthropometric measurement tools, and forms for recording screening results.

2. Implementation Phase

a. Participant Registration

Participants registered and provided their personal information to facilitate the documentation of health examination results and the evaluation of the activity.

b. Health Education Session

The health education session was conducted using an interactive lecture format with presentation slides and leaflets. The topics covered included:

- Definition of degenerative diseases.
- Types of degenerative diseases (hypertension, diabetes mellitus, heart disease, stroke, and high cholesterol).
- Risk factors for degenerative diseases.
- Prevention through the adoption of Clean and Healthy Living Practices (PHBS), physical activity, a healthy diet, and regular health checkups.
- Initial management of degenerative diseases at home.

To increase community participation, discussion and Q&A sessions were held so that participants could consult on the health issues they face.

c. Health Screenings

Following the health education session, participants undergo health screenings, including:

- Blood pressure measurement.
- Random blood glucose test.
- Weight and height measurements to determine nutritional status (if necessary).
- Brief counseling based on screening results.

Participants whose test results fell outside normal ranges were provided with further education and advised to undergo follow-up examinations at the community health center (Puskesmas) or the nearest health care facility.

3. Evaluation Phase

Evaluation was conducted using two approaches:

- Process evaluation, covering participant attendance, community engagement in discussions, the smooth implementation of activities, and schedule adherence.
- Outcome evaluation, conducted through pre- and post-education questionnaires (pre-tests and post-tests) to assess participants' knowledge gains, as well as analysis of health examination results to identify risk factors for degenerative diseases in the community.

4. Reporting Phase

All activities are documented in the form of attendance lists, photos of the activities, health examination results, and a final community service report. The evaluation results are used as the basis for formulating recommendations for the village government, health cadres, and the Community Health Center (Puskesmas) to support sustainable programs for the prevention and control of noncommunicable diseases.

Activity Implementation Flowchart

1. Coordination with the village government and health cadres.
2. Preparation of administrative documents, materials, media, and examination tools.
3. Participant registration.
4. Health education on degenerative diseases.
5. Discussion and Q&A session.
6. Health examinations (blood pressure, blood sugar, and anthropometric measurements if necessary).
7. Counseling on examination results.
8. Evaluation of participants' knowledge and activity outcomes.
9. Report preparation and follow-up in collaboration with the village government and the Community Health Center (Puskesmas).

This implementation method integrates health promotion, early detection, and community empowerment, thereby aiming to improve the community's knowledge, awareness, and behaviors regarding the prevention of degenerative diseases and to encourage the sustainable use of health services.

3. RESULT

A. Participant Characteristics

The health education and screening activities were attended by 60 residents of RW 02 and RW 15 in Jayaraga Village, Tarogong Kidul Subdistrict, Garut Regency. The participants' characteristics by age, gender, and occupation are presented in the following table.

Table 1. Distribution of Participants by Age

Age Group	Frequency (n)	Percentage (%)
26–35 year	8	13,3
36–45 year	14	23,3
46–55 year	20	33,3
56–65 year	13	21,7
>65 year	5	8,4
Amount	60	100

Most participants were in the 46–55 age group, totaling 20 people (33.3%), followed by the 36–45 age group with 14 people (23.3%). This indicates that the majority of participants were in their late productive years and pre-elderly years, a demographic at higher risk for degenerative diseases.

Table 2. Distribution of Participants by Gender

Sex	Frequency	Percentage (%)
Male	22	36,7
Female	38	63,3
Amount	60	100

The majority of participants were women, totaling 38 (63.3%), while men numbered 22 (36.7%). The high participation rate among women indicates the active involvement of homemakers and health workers in promotive and preventive activities.

Table 3. Distribution of Participants by Occupation

Occupation	Frequency	Persentase (%)
Housewife	24	40,0
Self-Employed	11	18,3
Labor	8	13,3
Farmer	6	10,0
Private Employees	5	8,3
Government Employees	2	3,3
Not Work /retirement	4	6,8
Amount	60	100

Most participants were homemakers (40.0%), followed by self-employed individuals (18.3%) and wage earners (13.3%). This indicates that the program successfully reached community groups that play a key role in managing family health.

B. Health Examination Results

The health examination included blood pressure measurements and random blood glucose (RBG) tests. Based on the screening results, the following health conditions were identified:

Table 4. Screening Results for Degenerative Diseases

check up result	Frequency (n)	Percentage (%)
Hipertension	18	30,0
Diabetes Melitus (GDS High)	9	15,0
Hipertension+Diabetes	5	8,3
Hiperurisemia (high uric acid)	8	13,3
High Colestrol	10	16,7
Normal Result	10	16,7
Amount	60	100

The examination results showed that hypertension was the most common degenerative disease, affecting 18 participants (30.0%), followed by high cholesterol in 10 participants (16.7%), diabetes mellitus in 9 participants (15.0%), hyperuricemia in 8 participants (13.3%), and a combination of hypertension and diabetes mellitus in 5 participants (8.3%). A total of 10 participants (16.7%) had test results within the normal range.

Table 5. Distribution of Hypertension by Age Group

Age	Hipertension	Not Hipertensi	Amount
26–35 year	1	7	8
36–45 year	3	11	14
46–55 year	7	13	20
56–65 Year	5	8	13
>65 Year	2	3	5
Amount	18	42	60

Hypertension is most commonly found in the 46–55 age group, followed by the 56–65 age group. This indicates a tendency for blood pressure to rise with age.

C. Evaluation of the Health Education Program

The evaluation was conducted using pre-tests and post-tests to assess participants' knowledge of degenerative diseases.

Table 6. Knowledge Assessment Results

Knowledge Category	Pre-test	Post-test
Good	17 (28,3%)	48 (80,0%)
Enough	28 (46,7%)	10 (16,7%)
Less	15 (25,0%)	2 (3,3%)
Amount	60 (100%)	60 (100%)

There was an increase in public knowledge following the health education session. The proportion of participants with “good” knowledge increased from 28.3% to 80.0%, while those in the “poor” category decreased from 25.0% to 3.3%. These results indicate that health education is effective in improving public understanding of degenerative diseases, risk factors, and preventive measures.

4. CONCLUSION

Based on the results of the program, it can be concluded that the majority of participants were women aged 46–55 who were homemakers. The most common degenerative diseases were hypertension (30.0%), followed by high cholesterol (16.7%), diabetes mellitus (15.0%), hyperuricemia (13.3%), and hypertension accompanied by diabetes mellitus (8.3%). In addition to providing an overview of the community's health status, this activity also succeeded in increasing participants' knowledge regarding the prevention of degenerative diseases, as indicated by an increase in the “good” knowledge category from 28.3% to 80.0% following the health education session. These data serve as a basis for the village government, health cadres, and the Community Health Center (Puskesmas) to design regular health education and screening programs.

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