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## Improving the Quality of Life of the Elderly Through Health Check-ups and Education in Budrek Village

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**Abstract**— The increase in life expectancy leads to a growing number of elderly people who require special attention, especially in terms of health and education. This community service activity aims to improve the quality of life of the elderly through routine health check-ups and education on healthy lifestyles in Budrek Grogol Village. The implementation method used a participatory approach by conducting blood pressure and blood glucose screenings, as well as interactive education on diet, physical activity, and stress management. This community service successfully improved elderly knowledge, motivated them to prevent non-communicable diseases, and provided them with access to blood pressure, glucose, uric acid, and cholesterol screening. Most participants showed elevated blood pressure levels, and some experienced increased glucose, uric acid, or cholesterol levels. The program yielded positive outcomes in terms of increased health awareness and early disease detection, and encouraged active elderly participation in maintaining their health.

Keywords: Elderly, Health Check-up, Health Education

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### 1. Introduction

The increasing elderly population presents a demographic challenge in Indonesia. Data from the Central Bureau of Statistics in 2023 showed that the elderly accounted for 11.75% of the total population. Older adults are at high risk for degenerative diseases such as hypertension, diabetes mellitus, and mobility disorders [1]. This life stage is often viewed as a period of decline due to physical and cognitive impairments. Risk factors for non-communicable diseases (NCDs) include both uncontrollable factors—such as genetics, sex, and age—and controllable factors like obesity, lack of physical activity, smoking, coffee consumption, education, occupation, and diet [2].

Projections from 2010–2035 indicate that Indonesia will enter the aging phase, with 10% of the population over 60 years old. Aging leads to decreased physiological functions, increasing the prevalence of NCDs among the elderly. Moreover, degenerative problems reduce immunity, making the elderly more vulnerable to infectious diseases. Limited access to healthcare and lack of information about the importance of health check-ups contribute to the rise in elderly health issues [3].

Life expectancy and quality of life are critical for the elderly. With good quality of life, older adults can remain independent, healthy, and productive (Gureje, 2008). Sarafino and Smith (2011) noted that quality of life affects health outcomes, with healthier elderly individuals recovering more quickly when ill. Budrek Grogol Village has a high elderly population, necessitating health check-ups and educational

interventions. Previous studies have shown that community-based health education effectively promotes healthy behaviors in the elderly [4].

## 2. Method

This community service used a participatory method involving counseling, health check-ups, and interactive discussion sessions. The activity was held over two days in April 2025 at the Budrek Grogol Village Hall, in collaboration with the local health center and elderly Posyandu cadres.

Activity stages included:

- Preparation: Coordination with village authorities
- Implementation: Blood pressure, blood glucose, and body mass index (BMI) screenings; health education on nutrition, physical activity, and stress management
- Evaluation: Pre- and post-education questionnaires and short interviews

Educational media included leaflets, digital health measuring devices, and interactive videos.

## 3. Results and Discussion

The community service began with the introduction of the team, which included four Posyandu cadres and targeted elderly participants. A pretest was conducted using a questionnaire with 10 items to assess the elderly's understanding of quality-of-life aspects. Students and cadres assisted participants in completing the questionnaire.



Figure 1. Activity Documentation

The health education session focused on improving elderly quality of life using a digital pocketbook presented in a visual format to enhance comprehension. After the session, a posttest showed that participants' knowledge significantly improved compared to their pretest scores. Tabel 1. Peningkatan pengetahuan sebelum dan sesudah pemberian edukasi

Table 1. Improvement in Knowledge Before and After Education

Knowledge Level	Presentase	
	Pretest	Posttest
Good	11.5	23.1
Fair	27.0	53.8
Poor	61.5	23.1
Total	100	100

Table 1 shows that the majority (61.5%) of participants had poor knowledge during the pretest. After the educational session, 53.8% reached a fair level of knowledge, with a significant increase in the good

category (23.1%). This indicates that using digital pocketbooks in counseling positively influenced knowledge levels.

Providing education through counseling is an effective approach to enhance the elderly's understanding of independence, as part of efforts to improve their quality of life. Quality of life refers to how individuals experience well-being and engage with meaningful life events[5]

A good quality of life promotes longevity in the elderly. According to [6] Elderly people with higher quality of life are less likely to fall ill and recover more quickly. High quality of life contributes to overall well-being, while poor quality of life is associated with distress and diminished life satisfaction[7].

Another way to improve elderly quality of life is by fulfilling basic health needs, such as routine health check-ups for blood pressure, glucose, and cholesterol. Research shows that health status is the most significant factor affecting the quality of life among elderly individuals [8].

Elderly individuals with prehypertension should adopt a healthy lifestyle. In addition to a proper diet, daily activities must be considered. According to studies, people who rarely exercise are 4.7 times more likely to develop hypertension than those who exercise regularly. This relates to vascular flexibility and heart muscle function [9]. Other research indicates that complications from prediabetes include heart disease and stroke, and that preventive measures include healthy living habits [10].

#### 4. Conclusion

The community service activity successfully provided education on non-communicable diseases (NCDs), increasing the elderly's knowledge in Budrek Grogol. The Posbindu program conducted screenings for early NCD detection, offering a model for other community health centers in NCD monitoring and referral. Elderly residents in Budrek Grogol and other areas are encouraged to consistently monitor their health at nearby facilities to prevent disease. Those diagnosed with high blood pressure, high glucose, or high cholesterol are advised to seek further treatment at health centers

#### Acknowledgment

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