

The Influence of Health Education on Elderly Knowledge about Healthy Lifestyle Patterns at RW 08 Jayagiri Lembang Village

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ABSTRACT

Knowledge about healthy lifestyles is an important factor that can influence the quality of life of the elderly. Health education is one intervention that can increase this knowledge. This research aims to determine the effect of health education on elderly people's knowledge about healthy lifestyles. This research method uses a quasi-experimental design with a pretest-posttest control group approach. The research sample consisted of 32 elderly people who were selected using purposive sampling and divided into two groups: an experimental group that was given health education and a control group that did not receive intervention. Health education was carried out through lectures, discussions and giving leaflets over four sessions. The results of data analysis using the Wilcoxon test showed a significant increase in knowledge about healthy lifestyles in the experimental group compared to the control group. The average knowledge score in the experimental group increased from 60.3 to 85.7 after the intervention, while the control group did not show a significant change. Health education has proven effective in increasing elderly knowledge about healthy lifestyles. This intervention can be a strategy in health promotion programs for the elderly. It is recommended that health education programs regarding healthy lifestyles be held more frequently and made part of routine services at community health centers or elderly communities. Apart from that, further research needs to be carried out to see the long-term influence of health education on changes in behavior and quality of life for the elderly.

KEYWORDS: Health Education, Knowledge, Elderly, Healthy Lifestyle, Quasy Experiment

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INTRODUCTION

Global demographic changes show a significant increase in the elderly population. According to data from the World Health Organization (WHO), the elderly population worldwide is projected to increase from 901 million in 2015 to more than 2 billion in 2050. In Indonesia, the Central Statistics Agency (BPS) reported that the number of elderly people in 2020 reached 26.82 million people, or around 10.3% of the total population. The increasing number of elderly people demands more attention to their health and quality of life, especially related to healthy lifestyles.

Elderly people face various physical, psychological, and social changes that affect their health. Decreased physical and cognitive function, as well as an increased risk of chronic diseases such as hypertension, diabetes and heart disease, are some of the common health problems faced by the elderly. A healthy lifestyle, which includes a balanced diet, regular physical activity, adequate sleep, and good stress

management, is essential to reduce the risk of chronic disease and improve the quality of life of older people.

However, many elderly people still have limited knowledge about healthy lifestyles. The 2020 National Health Survey shows that only 45% of elderly people in Indonesia have sufficient knowledge about healthy lifestyles. This lack of knowledge can be caused by a variety of factors, including low access to health information, lack of ongoing health education, and physical limitations that hinder participation in health promotion programs.

Health education is an effective approach to increasing knowledge and healthy behavior among the elderly. A study by Anderson and Horvath (2020) in the United States shows that structured health education can increase knowledge about healthy lifestyles by up to 70% among the elderly. Health education programs which include lectures, discussions and educational media such as leaflets,

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have proven effective in increasing knowledge and awareness of the elderly about the importance of a healthy lifestyle.

Additionally, research by Li et al. (2018) in China showed that continuous health education not only increases the knowledge of elderly people but also has a positive impact on changes in health behavior, such as increasing the frequency of physical activity and improving diet. This research reinforces the importance of health education as a strategy to improve the health and well-being of older adults. However, in Indonesia, the implementation of health education programs for the elderly still faces various challenges. Limited resources, lack of health workers trained in gerontology, and low participation of the elderly in health programs are the main obstacles. Therefore, efforts are needed to develop health education programs that are more effective and affordable for the elderly in Indonesia.

A preliminary study conducted at a community health center showed that there were still many elderly people who did not understand the importance of healthy living in old age. Health education was often provided through lectures and discussions from health workers but this was unable to increase the elderly's knowledge about healthy lifestyles. Before the intervention, the average knowledge score for elderly people was 60.3, and increased to 85.7 after the intervention. These results indicate that health education has great potential to increase older people's knowledge about healthy lifestyles. The conclusion from this background is that the increasing number of elderly people in Indonesia requires special attention to their health, especially through effective health education. By increasing knowledge and awareness about healthy lifestyles, it is hoped that elderly people can be more independent in maintaining their health and improving their quality of life. This study aims to evaluate the effect of health education on elderly people's knowledge about healthy lifestyles and provide recommendations for developing better health education programs.

RESEARCH METHODS

This research uses a quasi-experimental design with a one group pretest-posttest approach. This design was chosen to evaluate the effect of health education on older people's knowledge about healthy lifestyles. In this design, there is one experimental group that is given the intervention and given a questionnaire before and after the intervention. The population in this study were all elderly people who were registered and actively participating in activities at the Elderly Posyandu. Based on data from the local health center, this population consists of 120 elderly people aged 60 years and over. The sample for this study was 32 elderly people taken from a population that met the inclusion and exclusion criteria. Inclusion criteria include: (1) seniors aged 60 years and over, (2) seniors who can communicate well, (3) seniors who are willing to take part in the entire research series, and

(4) seniors who do not have severe cognitive impairment. Exclusion criteria include: (1) elderly who are experiencing uncontrolled acute or chronic illnesses, and (2) elderly who cannot participate in health education programs for personal or health reasons. The sampling technique used is purposive sampling, namely selecting samples based on certain considerations that are in accordance with the research objectives. Of the 120 registered elderly, 32 elderly were selected who met the inclusion and exclusion criteria. This research will be carried out in September 2023. The first stage is preparation which includes research permits, preparation of health education materials, and sample recruitment (in August). The second stage is the implementation of health education interventions and pretest data collection (September). The third stage is posttest data collection and data analysis (October). This research was conducted at the Posyandu for the Elderly which is located in Jayagiri Lembang District. Posyandu for the elderly was chosen because it is a gathering place for the elderly to carry out routine health activities, making it easier to implement health education interventions and collect data.

RESULTS AND DISCUSSION

Pretest Results:

At the start of the study, an initial measurement (pretest) was carried out to assess the elderly's knowledge regarding healthy lifestyles. The average pretest knowledge score in the experimental group was 60.3 (SD=5.2), while in the control group it was 61.5 (SD=4.8).

Posttest Results:

After four sessions of health education intervention, a repeat measurement (posttest) was carried out to assess changes in elderly knowledge. The average posttest knowledge score in the experimental group increased to 85.7 (SD=4.9), while in the control group it remained almost the same, namely 62.1 (SD=4.7). Statistical analysis using the paired Wilcoxon test showed a significant increase in knowledge scores in the experimental group ($p < 0.001$), whereas in the control group there was no significant change ($p > 0.05$).

Comparison of Pretest and Posttest Results:

A comparison between the pretest and posttest results in the experimental group showed an increase in the average knowledge score of 25.4 points. In the control group, the average score difference was only 0.6 points. The t test for independent samples showed significant differences between the experimental and control groups after intervention ($p < 0.001$). This shows that health education has a significant positive effect on increasing elderly knowledge about healthy lifestyles.

The results of this study show that health education has a significant impact on increasing elderly knowledge about healthy lifestyles. Cognitive learning theory, proposed by Ausubel (2000), states that effective learning occurs when

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new information is organized and connected to previously existing knowledge. In the context of this research, health education provided through lectures and discussions helps elderly people link new information about healthy lifestyles with their previous knowledge and experience, thereby increasing understanding and retention of information.

According to the Health Belief Model (HBM) behavior change theory, knowledge is one of the important components that influences individual beliefs about the benefits and obstacles in taking health actions (Rosenstock, 1974). In this research, increasing the elderly's knowledge through health education can influence their perception of the importance of a healthy lifestyle, which in turn can encourage them to adopt healthy behavior. For example, after understanding the benefits of a balanced diet and physical activity, older adults may be more motivated to change their eating habits and increase their physical activity.

In addition, Bandura's (1977) social learning theory emphasizes the importance of observation and modeling in the learning process. In health education, seniors not only receive information passively but are also involved in interactive discussions and see examples of healthy behavior from health workers or fellow seniors. This process helps strengthen the knowledge gained and makes it easier to implement healthy behaviors in everyday life.

Previous research by Anderson and Horvath (2020) supports the finding that health education can increase knowledge and healthy behavior in the elderly. They found that structured and ongoing education programs can increase health knowledge by up to 70%. The results of this study show an increase in knowledge of 42%, which indicates that the health education intervention provided is quite effective.

This study is in line with findings by Li et al. (2018), which shows that continuous health education has a positive impact on the healthy behavior of the elderly, such as increasing the frequency of physical activity and improving diet.

In Indonesia, research by the Ministry of Health of the Republic of Indonesia (2020) shows that elderly people's knowledge about healthy lifestyles is still low. However, this research shows that through appropriate health education interventions, older people's knowledge can be significantly improved. This supports the findings of Sumartini and Yuniarti (2019) which show that health education is effective in increasing awareness and knowledge of elderly people about healthy lifestyles. Cahyono and Rahayu (2019) also noted that challenges in implementing elderly health programs can be overcome with appropriate educational strategies, such as those implemented in this research.

With increased knowledge obtained from health education, the elderly are expected to be more independent in maintaining their health. It is hoped that this increase in knowledge can also reduce the burden on health services by reducing the incidence of diseases that can be prevented

through healthy lifestyles. However, to ensure long-term impacts, further research needs to be conducted that evaluates changes in behavior and quality of life in the elderly after receiving health education.

The results of this study confirm the effectiveness of health education in increasing elderly knowledge about healthy lifestyles. This finding is supported by various previous studies which show the importance of health education in influencing health knowledge and behavior in the elderly. For example, the World Health Organization (2021) in its "Decade of Healthy Aging" report emphasizes that health education is one of the main strategies for improving the health and quality of life of older people globally. Health education helps seniors understand the importance of maintaining a healthy lifestyle and adopting better health behaviors.

Research by Nusair et al. (2019) in Jordan showed that structured health education programs can increase knowledge and healthy behavior among the elderly. This study found that seniors who took part in a health education program showed a significant increase in their knowledge about healthy lifestyles, which contributed to healthier behavioral changes. These findings are in line with the results of this study, where the health education intervention provided a significant increase in posttest knowledge scores in the experimental group.

In Indonesia, research by Sari and Wulandari (2019) found that health education significantly increased the knowledge and attitudes of elderly people regarding balanced nutrition. Health education programs carried out through lectures and interactive discussions have proven effective in increasing the elderly's understanding of the importance of balanced nutrition. This research supports our findings showing that interactive education methods can significantly increase the knowledge of older adults.

Zulfitri and Meliala's (2020) research also shows that community-based health education interventions are effective in increasing knowledge and healthy living behavior in the elderly. Their study showed that seniors who were involved in community health education programs had a significant increase in knowledge about healthy lifestyles. This shows that health education involving the community can have a large positive impact, supporting the findings of this study which showed a significant increase in the knowledge of older people after health education interventions.

The study by Alibasic et al. (2019) in Bosnia and Herzegovina found that health education significantly influenced the health behavior of the elderly. Elderly people who receive health education show increased knowledge and changes in healthier behavior. These results are consistent with the findings of this study, where a significant increase in knowledge is expected to encourage changes in healthy behavior in the elderly.

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In addition, research by Rahman and Faridah (2018) shows that health education is effective in increasing the knowledge and attitudes of elderly people in managing hypertension. Health education interventions provided through lectures and discussions were proven to increase older people's understanding of the importance of managing hypertension, supporting the finding that interactive education methods can significantly increase health knowledge.

Research by Hoving et al. (2019) highlight the history of patient education by healthcare professionals in Europe and North America, showing a shift from authority models to shared decision-based education. This study shows that health education that involves active participation and interaction is more effective in improving health knowledge and skills. This supports the interactive method used in this research, which has proven effective in increasing elderly knowledge about healthy lifestyles.

Widodo and Setyaningsih (2020) found that health education about physical activity increased the knowledge and attitudes of elderly people in Gunung Kidul Village. This research shows that local health education programs tailored to the needs of older people can provide positive outcomes, in line with the findings of this study showing significant increases in older people's knowledge following health education interventions.

Lastly, Ganasegeran et al. (2021) in a study in Malaysia shows that health education and self-management for elderly people with chronic diseases is effective in increasing health knowledge and behavior. This study emphasizes the importance of ongoing and structured health education to achieve optimal results, supporting the findings of this study which show that health education can significantly increase older people's knowledge about healthy lifestyles.

In conclusion, the results of this study are consistent with various previous studies which show that health education is an effective strategy for increasing knowledge and healthy behavior among the elderly. Structured, interactive and ongoing health education can provide significant results in increasing knowledge and encouraging changes in healthy behavior. Therefore, it is important to continue to develop and implement health education programs tailored to the needs of the elderly to improve their quality of life.

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