The Correlation Between Health Behavior in the Elderly and Public Policy, Nursing Function and Health Education

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INFO ARTIKEL

ABSTRACT

Population projection data in Indonesia in 2017 says that the elderly population is 23,660,000 people. Yogyakarta has the highest number of elderly, especially those domiciled in Sleman Regency with a total of about 105,955 people. Health behaviors in the elderly can be influenced by public policy, nursing functions, and health education. To find out the correlation between health behaviors in the elderly and public policy, nursing functions, and health education. This study uses a cross-sectional design with a quantitative research type. This research used the survey method with a questionnaire sheet as a research instrument and then the data will be processed using Stata test. Analysis of data conducted with chi-square analysis. The technique used is purposive sampling due to sampling with certain criteria. The criteria of this study include elderly who come to the health center to conduct examinations, have families, and live in the working area of Sleman District health center. The research will take place from March 2020 until completion. The elderly who were domiciled in the working area of Sleman District health center became the population in this study as many as 103,686 elderly. There is a correlation between public policy and elderly health behavior with a Pearson chi-square value of 0,472. There is a correlation nursing function with elderly health behavior with a Pearson Chi-Square value of 0,210. There is a correlation between health education and elderly health behavior, with Pearson Chi-Square value -0,210.

Conclusion: There is a significant correlation between health behaviors in the elderly and public policy, nursing function, and health education.
INTRODUCTION

The Human Development Index (HDI) in Indonesia is at a medium and stagnant level. Indonesia’s HDI in 2015-2016 is still moderate with growth of 0.63 percent from 2015. Indonesia's HDI has reached 70.18 in 2016. Indonesia's HDI number increased by 0.63 compared to 69.55 in 2015. HDI forming components also increased during the period 2014 until 2016. In Indonesia, the life expectancy (LE) of newborns has an opportunity to live till the age of 72.1 years in SUPAS activities in 2015, this figure increased by 0.19 years from the previous year. Opportunities for schoolchildren in Indonesia started at the age of 7 years for 12.55 years, this figure also increased by 0.16 years from 2014. Education for 7.84 years on average has been achieved by the population aged ≥25 years, this figure increased by 0.11 years from the previous year in SUPAS activities in 2015. The figure for per capita expenditure of people that has been adjusted to the constant price in 2012 reached Rp 10,15 million in 2015, this figure increased by Rp 247,000 from 2014 (1).

The advancement of a country's science and technology will increase in line with LE. The government's success in national development is influenced by increasing technological advances, including positive things from various fields such as economic and scientific advances and technology (Science and Technology), environmental advances and increasing quality of life of the population so that the age of life expectancy is also increased which is influenced by advances in health and medicine (2).

The program that has been implemented by the Ministry of Health since 2015 in line with the Millennium Development Goals (MDGs) then continued to Sustainable Development Goals (SDGs) until 2030 which emphasizes the 5P program namely: people, planet, peace, prosperity and partnership. According to the Ministry of Health, health issues integrated into the objectives of SDGs number 3 include welfare guarantees and healthy living for all age groups including the elderly in it (3).

The active role of all components of society greatly influences the successful development of the health sector of both central and local governments, academics and professional organizations, community institutions and information media. Internalization in the national health development agenda is necessary to achieve the implementation goals of SDGs (Sustainable Development Goals). The vision and mission of health development
need to be aligned with the SDGs indicators and this vision and mission are outlined through the National Medium Term Development Plan (RPJMN) in 2017, the Regional Medium Term Development Plan (RPJMD) in 2017 as well as the Strategy Plan (Renstra) of the Ministry of Health and Regional Planning. If able to run the programs and activities that have been arranged together then the target SDGs will be realized. According to the Ministry of Health (2015), the targets of SDGs which are related to the elderly are the health center for affection for the elderly and posyandu for the elderly (4).

The elderly are the age group ≥ 60 years as the final stage in the life cycle (5). This phase will be experienced by each individual so it is inevitable. Biologically the elderly will experience the aging process which is characterized by the appearance of many changes cognitively, physically and psychosocially. A common psychological change is a decline in social abilities and functions. Physical changes are a normal process but are often a threat to the integrity of the elderly, namely white hair, wrinkles appearing on the skin, decreased body immunity and decreased function of the senses. In social life, the elderly will face a loss of social standing, self-role and loss of loved ones as well as various other conditions that make the elderly more at risk of depression or other mental problems (6). The aging process starts from the conception stage in the uterus until the individual dies. The aging process is a reasonable and unavoidable condition of the life process.

The impact of increasing the elderly population for life is the increasing physical dependence to fulfill daily activities nevertheless, the elderly are expected to be independent and have good life skin to reduce the number of dependency on other family members (7).

According to the World Health Organization (5), the number of elderly people in the world amounted to 11.7% of the total population and it is estimated that this number will increase in line with the increase in LE. The total elderly population in 2009 was about 7.49% and in 2011 it increased to 7.69%. In 2000 the age of life expectancy in the world was 66 years then increased to 70 years (in 2012) and 71 years (2013).

The elderly population in the Association of Southeast Asian Nations (ASEAN) which is a member of the WHO is 8% or about 142.000.000 people, this figure will continue to increase until 2050. In 2000 the elderly population was 5.300.000 (7.4%) of the total population while in 2010 the number of elderly was 24.000.000 (9.77%) of the total
population and 2020 it is estimated that the number of elderly reaches 28.800.000 (11,34%) total population (1).

Population projection data in Indonesia in 2017 said that the elderly population is 23.660.000 people. It is predicted that by 2025 the elderly population will be 27.080.000, from that figure in 2025 will increase to 33.690.000. In 2030 amounted to 40.950.000 people and in 2035 amounted to 48.190.000 people (8). The number of elderly people in Indonesia from 2008 to 2012 was more than 7% of the population. According to Susenas in 2015, 13,04% of the 3.700.000 residents live in DIY, 10,34% in central Java, 10,4% in East Java, and 9,78% in Bali (1).

Yogyakarta has the highest number of elderly, especially those domiciled in Sleman Regency with a total of about 10.955 people (9). When compared to other cities and districts, Sleman district has a life expectancy of up to 74,57 years and the highest number of elderly. Rising life expectancy is characterized by an increasingly elderly population. Contributing factors to the increase in life expectancy include the safety of the residential environment. Elderly development program, successful birth control program, and access to health care (10). According to law No. 36 article 19 on health, realizing a high life expectancy requires maintenance and improvement of health as an effort to achieve productively, empowered, happy, and healthy old age.

The function of the family is as a function of health care that affects the size and small of the problems that exist in the elderly. The family is tasked with providing support and care for the elderly who have physical illness and dependence to do daily activities. Five health care functions that are the duty of the family are: identify health problems, making decisions regarding health issues that occur, caring for sick family members, regulating residential environments that have an impact on family health, using health care facilities (11).

Families play a role as a function of health care which means families provide the support needed by the elderly especially in the event of a dependency to meet daily needs, where the role of the family is very important to provide basic care. Health care functions play a role that has a huge impact on life in all age groups, especially the elderly. The elderly will feel neglected if the family does not become a part of his life (2).
The high mobility of workers at productive age will result in less elderly care in the family, in addition to the shift of the family structure from extended family to nuclear family impacts on the reduction even the loss of certain functions in the family such as health care functions for the elderly and decreased morale responsibility of the family to provide a place for other members/relatives (5).

Knowledge and skills must be possessed by family members to conduct health care independently of various health problems that occur to be able to perform family health care functions. Elderly families can work with health workers in carrying out family health care functions. The health workers in question are nurses. Nurses are tasked with promotive, preventive, curative, and rehabilitative following its role and function. Reconstruction programs are needed to improve people's quality of life which ensures that all factors related to the quality of life can increase life expectancy. Quality of life is a double dimension composed of physical health, mental and social health (12).

Health care in the community is a health service effort that focuses on disease prevention and health promotion through a series of Puskesmas programs with attention to Primary Health Care (PHC) or primary health services. Primary health care is the main health service based on practical, scientific and social methods and technologies so that it can be good for individuals and families in the community. Through community participation and easy-to-reach costs aim to maintain and improve the development of society to determine their destiny and live independently (13).

Puskesmas is a basic health care facility that is the backbone in Indonesia. Health services in Puskesmas include community services that are tasked to establish the community in their work area. Community services run by nurses include family, school and work health nurses (11).

The Perkesmas program is an effort of nursing services that is an integral part of the health service implemented by nurses by including other health teams and the community to obtain higher levels of health from individuals, families and groups. The Perkesmas program in the elderly is a special field of nursing that is a combination of nursing, public health sciences and social sciences that is an integral part of the health services provided to individuals, families, special groups of the elderly and the community both healthy and sick
(have health problems / nursing) comprehensively through promotive, preventive, curative and rehabilitative efforts aimed at the elderly by engaging the active role of the community in an organized manner, e.g. posyandu lansia. The objective of the Perkesmas program, in general, is to improve people's ability to live healthily so that they achieve optimal levels of health to perform life functions following their capacity and the main goal is to identify health and nursing problems faced, establish health or nursing problems and priority problems, formulate various alternatives to solving nursing problems they face, assess health outcomes in solving health/nursing problems, encourage and increase community participation in health services/nursing, improve the ability to maintain health independently (self-care), instill healthy behaviors through health education efforts, handled high-risk groups prone to health problems, high-risk groups, such as the elderly (14).

The targets of the Perkesmas program are individuals, families, groups and communities that have health problems due to ignorance, unwillingness and inability to solve their health problems. According to Friedman (2010), the individual referred to as part of a family member. If the individual has health/nursing problems due to the inability to care for himself or herself by something and cause it will affect other family members both physically, mentally and socially (11).

As a health effort in improving the independence of the elderly can be seen from the quality of life. The efforts of health efforts are among others by promoting health through health education that aims to change behaviors that include knowledge, attitudes and practices (13).

This background encourages researchers to research the working area of Sleman District health center to identify the correlation between health behaviors in the elderly and public policy, nursing functions and health education.

**METHOD**

Cross-sectional is used as a design for this study because researchers do data retrieval simultaneously (15). Quantitative is the type of research in which this research generates numbers at the time of data collection. According to its type, this study includes survey research because it takes a portion of the analysis unit (sample) in one population as far as
the collects the main data using the questionnaire as its tool. The technique used is purposive sampling due to sampling with certain criteria. The criteria of this study include elderly who come to the health center to conduct examinations, have families, and live in the working area of Sleman District health center.

This research took place from March 2020 until completion. Elderly people living in the working area of Sleman District health center became the population in this study of 103,686 elderly (9). The number of samples taken uses the minimum sample size required to reduce bias in all SEM estimation types by 200 (16). Questionnaire sheet as a research instrument then the data is processed using Stata Test.

RESULT AND DISCUSSION

The results of the study can be found in the following tables:

<table>
<thead>
<tr>
<th>Table 1. Characteristics of respondents by gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Characteristics of respondents based on the education level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>No School</td>
</tr>
<tr>
<td>Elementary School</td>
</tr>
<tr>
<td>Junior High School</td>
</tr>
<tr>
<td>Senior High School</td>
</tr>
<tr>
<td>College</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Table 3. Characteristics of respondents based on religion

<table>
<thead>
<tr>
<th>Religion</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islam</td>
<td>211</td>
<td>94%</td>
</tr>
<tr>
<td>Catholic</td>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>Christian</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Amount</td>
<td>225</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4. Correlation of Health Behavior in the Elderly (Y), Public Policy (X1), Nursing Function (X2) and Health Education (X3)

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>Y1</th>
<th>Y2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.472</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>X2</td>
<td>0.210</td>
<td>0.013</td>
<td>0.841</td>
</tr>
<tr>
<td>X3</td>
<td>-0.210</td>
<td>-0.237</td>
<td>-0.154</td>
</tr>
</tbody>
</table>

The correlation between X1 and Y is a positive correlation of 0.472 and significant with a p-value of 0.000. It means the better X1 then the better Y. The correlation between X2 and Y is a positive correlation of 0.210 and significant with a p-value of 0.000. It means the better X2 then the better Y. The correlation between X3 and Y is a negative correlation of -0.210 and significant with a p-value of 0.001. That is, the better X3 then Y the less good. All three correlations are relatively low. Because a close correlation is a correlation whose value is 0.7 and above.

The results of this study show that there is a correlation between public policy and elderly health behavior. Family empowerment is part of the coaching of the elderly which is the policy of the ministry of health. Respondents who stated healthy public policies such as referrals to health facilities, treatment, home care, social security cards, social assistance for the elderly, health information systems, existing areas of Sleman Regency Special Region of Yogyakarta are running and in good categories. This research was supported by Pradana.
(2016) which stated that one of the health policies of the government is National Health Insurance. This policy aims to allow all communities to receive health care that is evenly distributed and fair by using the premium system as in health insurance in general. One form of implementation of this policy is through the Social Security Regulatory Agency (BPJS) which is hereby called BPJS-Kesehatan. BPJS-Kesehatan ensures that every community obtains health care with a premium system. Following BPJS-Kesehatan implementation manual, health centers and clinics that are classified into first-rate health facilities are the first health facilities that people should use to receive health services. The BPJS-Kesehatan implementation manual describes that the existing level one health facility in the area must be selected by the community (between health centers or clinics) which will then be listed on the accepted BPJS card. BPJS policy shows that puskesmas become the first level health facility that should be reached by the community (17). This is following the definition of puskesmas according to Widaningrum (2007) "The Puskesmas, an Indonesian acronym for (community) health center is at the forefront of government's efforts in ensuring universal access to health service" (18). Based on the statement, puskesmas is the spearhead of the government in providing health services, therefore the quality of puskesmas must be continuously improved not only the number of doctors, the number of paramedics, and the quality of medicine, but also the overall improvement of quality (17).

This result is supported by the previous research of Maharani. A.M et al. (2014) explained that Jamkesmas program is a social assistance program for health services for the poor and incapable that is organized nationally, in order to cross-subsidize to realize a comprehensive health service for poor society (19). Jamkesmas is the embodiment of the mandate of Law No. 40 of 2004 on the National Social Security System (SJSN) (20). The implementation of Jamkesmas policy is outlined in the Decree of the Minister of Health of the Republic of Indonesia No. 903/MENKES/ PER/V/2011 on Guidelines for The Implementation of Public Health Insurance Program (21).

The legal basis for the implementation of Jamkesmas program in Health Law No. 36 of 2009 and Law No. 40 of 2004 about the national social security system. In the implementation of Jamkesmas, the government releases technical instructions every year, as a benchmark or guideline for the implementation of JAMKESMAS in each region (22).
Along with the one-year policy, that social security policy that is also intended for the elderly can already finance 45% of the community but also there are still many complaints that arise in the community such as not knowing where the first level health facility (FKTP) where participants are registered. Participants felt that they were not given maximum service due to the number of patients who were discharged, the drug is given by standards, the early repatriation due to depleted claims and so on. In terms of service lenders, complaining of continuous regulatory changes and lack of coordination from implementers (BPJS) and service givers (FKTP). On the other hand, there are still many poor people who have not been covered by the National Health Insurance (JKN) as participants.

This is reinforced by theories that the publication of sound public policy is based on the need for problem-solving in society. Sound public policy is set by the parties (stakeholders), especially the government that is oriented on the fulfillment of the needs and interests of the community. The meaning of the implementation of healthy public policy is a correlation that allows the achievement of goals or goals as a result of the activities carried out by the government. The shortcomings or errors of healthy public policy will be known after the healthy public policy is implemented, the success of the implementation of healthy public policy can be seen from the impact caused as a result of the evaluation of the implementation of policy (23).

According to the UN Agency for Human Settlement, UN-Habitat (2015), public spaces include spaces that can be accessed and enjoyed by everyone, with no intention of taking advantage. Public spaces can be in the form of parks, roads, roadsides, markets and playgrounds. While it is important to form a comfortable and safe city, the existence of streets and public spaces that are friendly to everyone is still often overlooked. Elderly-friendly public spaces are usually supported by people who are also elderly-friendly. In this society services and structures related to the physical and social environment are designed to help the elderly "actively age" which is an environment that allows the elderly to live safely, have good health and can participate in their communities (24). In an elderly-friendly society, public and commercial services are designed to accommodate different levels of ability of older people.
Well-designed and well-managed public spaces are an asset to the life and economy of a city. It can improve property value, safety, citizen harmony, health and well-being, improve the quality of the environment, help create more effective and efficient transportation and mobility and ultimately make a city more attractive to live in (25).

Sudo et al. research (2018) found that healthy public policy on medical care and welfare services for the elderly in Japan is strongly related to elderly self-reliance. Healthy public policy on Japan's universal health insurance system has been around since 1961 and long-term care covers welfare services separated from medical care insurance schemes in 2000 when Japan was already recognized as an aging society (26).

Research conducted by researchers in the health insurance center Sleman district shows that healthy public policy affects the independence of the elderly, among others from health insurance factors namely BPJS, with the absence of BPJS elderly can enjoy health care facilities in health centers without being withdrawn, with this so that the elderly can make promotive and preventive efforts that can increase independence. Fostering attitudes and behaviors is the fostering of family health aimed at stimulating the family's ability to solve health problems with support and instruction from professionals to create a healthy family life.

The role of the family is closely related to the function of health nursing to establish health behaviors for family members entering the elderly stage. Friedman (2010) said that maintaining the health of family members to have high productivity is part of the health care function. This function is responsible for maintaining the health status of family members so that the function of family care is not limited to essential and basic functions only. The family's duties in the field of health are the description of nursing functions that include: identifying health in the family, determining health action decisions, caring for families with health problems, changing the environment to ensure family health, and utilizing the health facilities closest to the residence. Thus, it can be concluded that families should be able to make preventive, promotive, curative and rehabilitative efforts on health issues in all family members. The effect of family concern on health is supported by Friedman's opinion (2010) which explains that healthy and sick are influenced by culture, family, socio economic and
environmental. Family plays a very significant role in other family life, especially healthy and sick status (11).

Among these functions, if performed by the family will have a good effect on the health behavior of the elderly. This alignment was strengthened by Dita Arviana's research in 2013 with the result that there was a significant correlation in hypertension complication behavior in the elderly with family roles (p value=0.005) (27).

Health behaviors in the elderly are influenced by the level of education, in this case, the education of the elderly with a low level of education can affect the mindset of the elderly. Therefore, health education should be held so that the public gets the right information given the educational goals of various layers of society both vertically and horizontally, then the health education material must be arranged in such a way that it must be following the level of development and the level of health behavior intended. According to research conducted by Purwati (2014), a person's level of education affects health behaviors. Education is a goal-conscious activity, which is a systematic activity directed at changing behavior towards achieving the desired goal. Education is the process of changing the attitudes and behaviors of a person or group of people to educate people through training and teaching efforts, processes, actions and ways of educating. The results of this study show that there are still many elementary school educated research respondents. The low level of education will be followed by a decrease in the degree of health of a person, due to sufficient knowledge for a person to prevent diseases related to elderly health behaviors (28). Similarly, Yuliani research (2015) states that a higher level of education will be able to develop knowledge related to elderly health behaviors and abilities so that one can manage themselves (29).

In addition to the level of health behavior education is also influenced by gender. The results of the study conducted by Purwati (2014) stated that Based on research on gender, the gender of women is more than the gender of men. Women are more at risk of developing a disease than men, before menopause women tend to be protected by the hormone estrogen where estrogen levels decrease after menopause. In women, it is often triggered by unhealthy behaviors (excessive consumption of food, overweight) that greatly affect their health behavior (28).
Health education is a plan pursued by educational actors or health promotion to influence the community individually and in groups so that the community realizes what is expected. The input element to this limitation is (the object and subject of education), the effort made to exert influence on society and implement what is the purpose as its output. Health education is expected to create healthy behaviors in the form of measures to maintain and improve the quality of health on the object of promoting health conductively (13). The World Health Organization cited by Suliha (2002) states that strategies for acquiring behavioral changes especially in health behaviors can use force or encouragement, information giving and discussion and participation. Behavior changes made with force and encouragement are behavior changes imposed on individuals so that individuals will behave as expected. Behavioral changes with information sharing are behavioral changes resulting from the provision of information that will improve ways of achieving healthy living, how to maintain health, and how to avoid disease. Discussion and participation are strategies to change behavior by improving providing information. Goals are no longer passive but participate in activities so that knowledge will be obtained deeper and the behavior obtained will be stronger. Each individual could have a different response to the same stimulus (30).

Based on the explanation, it can be concluded that health education is very important to change the health behavior of the elderly for the better. It is supported by research conducted by Rendi et al., (2017) on the influence of health education on hypertension on changes in the lifestyle behavior of hypertension clients in Puskesmas and Malang District which proves that health education is very important because it can change the lifestyle to achieve healthy living (31).

The results of another study conducted by Ignasius et al. (2017) entitled health education in the management of hypertension in the elderly in Posbindu Bokesan Ngemplak Sleman DIY, the results showed that there is an influence of health education on behavioral changes in the cognitive, affective and psychomotor domain in the elderly in the management of hypertension in Posbindu Pedukuhan Bokesan, Ngemplak Sleman Special Region of Yogyakarta Special Region. The results showed that health education influenced changes in cognitive, affective, and psychomotor domains in the elderly with hypertension in Bokesan (32). Changes in the cognitive domain after being educated following the results
of Lu's 2015 study involving 360 hypertension sufferers in China (33). The results also showed that providing education provides changes to psychomotor abilities. Changes in the psychomotor domain after education is provided following the results of Beigi's research (2014) that education will improve the ability of hypertension management (34).

In the process of awareness of society and individuals, it takes the role of health education so that it can change the behavior of the elderly to maintain its health. In line with Iswantiah's research in 2012 at Gondang shelter Yogyakarta which said that there is an influence between health education and hygiene behavior in the elderly (35).

**CONCLUSION**

There is a significant correlation between health behaviors in the elderly and public policy, nursing function and health education is the conclusion of this study.

**REFERENCE**


20. Undang Undang No. 40 tahun 2004 tentang Sistem Jaminan Sosial Nasional


