



**THE IMPLEMENTATION OF GERMAS
(HEALTHY LIFE MOVEMENT) IN SENIOR CITIZENS
WITH DEGENERATIVE DISEASES**

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Abstract:

Healthy Life Movement or Germas is a government program to increase life quality. It is a systematic planned action simultaneously done by all components of this state with their own awareness and willingness as well as ability to live healthily to increase life quality. The objective of this study is to explore the implementation of healthy life movement in senior citizens with degenerative diseases descriptively. The population of this study is 191 people and the samples are taken using purposive sampling. There are 108 samples in this study; those are the senior citizens who participated in the implementation of healthy life movement and those with degenerative diseases. The result of this study shows that implementation of implementation of healthy life. The movement in Luwoo Village of Telaga Jaya Sub-district in Gorontalo Regency is through encouraging the senior citizens are urged to do exercises. It shows that 81.5% of the senior citizens conduct physical activities, and 97.2% of them consumed fruit and vegetables, and 96.3% conduct routine medical check up. In addition, large proportion of these senior citizens also suffers from hypertension (54,6%). The conclusion of this observational study is that Implementation of healthy life movement in Luwoo Village of Telaga Jaya sub-district has been properly implemented.

Keywords: healthy life movement, Germas, disease, degenerative, senior citizens

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1. Introduction

Degenerative disease is one of the leading causes of death in the world. World Health Organization (WHO) notes that each year around seventeen million people die from degenerative diseases (Ministry of Health of the Republic of Indonesia, 2016). Several types of degenerative disease are hypertension, stroke, cardiovascular disease, diabetes, rheumatoid arthritis, gout arthritis which are not contagious diseases (Andianti, Betty, & Herti 2009). Baseline Health Research in 2007, reveals 59.5% of degenerative diseases prevalence in Indonesia. For Gorontalo itself, the prevalence of these degenerative diseases is within the fourth rank with the percentage of 69.14% (Ministry of Health of the RI, 2012). The Ministry of Health of the RI, study (2018) showed that the prevalence of these degenerative diseases are: hypertension 57.6%, arthritis 51.9%, stroke 46.1%, DM 4.8%, PJK 3.6%, kidney failure 0.5%, heart failure 0.9%, cancer 3.9%, kidney stone 1.2% on those whose age are sixty years old or above (Ministry of Health of the RI, 2016). In Gorontalo province, especially in Luwoo village of Telaga Jaya sub-district, 58.4% of the elderly population suffers from hypertension, 8.4% suffer from gout arthritis, 2.2% suffer from rheumatoid arthritis, 2% suffer from DM, and that elderly population usually suffers from this disease (Verawati *et al.*, 2017). It shows that the elderly population is vulnerable to these degenerative diseases.

The increasing proportion of the elderly population will have an impact on the health problem. This is due to the reason that age 60 and beyond population experience biological, psychological, social, and spiritual changes. Physically, there are changes and reduction of bodily functions and structure which often made elderly people prone to various diseases and this condition is often worsened by poor healthy lifestyle. The result of Baseline Health Research study in 2007, mentioned that the prevalence of these degenerative diseases were due to several factors such as: (a) excessive consumption of fatty food by 12.8%; (b) lack of vegetable and fruit consumption by 93.6%; (c) lack of physical activities by 48.2%; (d) active smoking habit by 23.7%, and (e) excessive consumption of alcohol in the last year by 4.6% (Ministry of Health of the RI, 2012).

Prior to the implementation of this GERMAS, there was a program to prevent and reduce a number of illness (Depkes, 2013). This program is called Healthy and Clean behaviors (henceforth will be called as PHBS). This PHBS has several indicators such as, birth delivery with the assistance of health worker, exclusive breastfeeding for newborn, weighing the new baby every month, availability of clean water, availability of toilet, eradication of mosquito larvae, washing hands with clean water and soap, not smoking inside the house, do daily physical activities, and consume fruit and vegetables. However, this program had yet shown an expected result, as the data still shown an increasing trend of illness number including the high prevalence of degenerative disease. Therefore, the government issues another strategy called GERMAS program. Initially, GERMAS was nationally established by focusing on physical activities 30 minutes a day, consuming fruit and vegetables, and carry routine health checkup (Ministry of Health of the RI, 2016). The implementation of this GERMAS program has

yet to be fully implemented all over Indonesia. In Gorontalo regency, the implementation of this program is only in Telaga Biru and Telaga Jaya sub-districts. Implementation of Gernas in Telaga Jaya sub-district is established by the Nurse Students Batch 2015 in November 2017 as a program during their Nurse Community Practice (KKG) which focused on three activities namely, carrying out physical activities, consuming fruit and vegetables, and conducting routine medical checkup. However, this program has yet to be evaluated.

Initial observation carried out by the researcher in Luwoo village on the 3rd of January 2018 by an interview with seven elderly populations. Four out of seven elderly populations reveal that they suffer from hypertension, two elderly people suffer from arthritis gout, and one elderly person suffers from diabetes mellitus. They all agree that there is no need to do morning walk as part of their exercise as they considered doing house chores as physical activities, they rarely consume expensive fruit and that they have limited access to fruit sellers which located far away from their residence and for routine medical checkup was only carried out when they feel pain. In Rosmaini (2010), it is revealed that routine walking exercise has many benefits which can prevent degenerative diseases, where one of those degenerative diseases are the deadliest in the world. Walking exercise is one of the most basic activities which can be carried out by almost anyone. Based on this background, the researcher would like to study the *“implementation of healthy lifestyle movement (Gernas) in elderly people with the degenerative disease in Luwoo village of Talaga Jaya subdistrict of Gorontalo regency”*.

2. Research Method

This study employed observational design with descriptive analysis. Out of 191 population, 108 elderly people were taken as samples using purposive sampling method. These samples are those elderly people with degenerative diseases who participated in Gernas program.

3. Results

The following results are revealed from 108 respondents in this study:

3.1 Respondents Characteristics

Table 1 on characteristics of respondents showed that demographically the elderly population who participated in this study resides in Luwoo village of Telaga Jaya subdistrict of Gorontalo regency.

Table 1: Demographic Data

Demographic data	(n)	(%)
Age		
60-74	99	91,67%
75-90	9	8,33%
Total	108	100%
Sex		
Male	73	67,7%
Female	35	32,4%
Total	108	100%
Educational level		
Elementary School	51	47,22 %
Junior High School	9	8,33 %
Senior High School	28	25,93 %
Higher Education	10	18,52 %
Total	108	100%
Employment		
Jobless		
Work	54	50,0 %
Entrepreneur	11	10,2%
Retiree	31	28,7%
Others (merchant, farmer, seamstress)	12	11,1 %
Total	108	100%
Marital status		
Single	14	13,0%
Married	94	87,0%
Total	108	100 %
Disease diagnosis		
Hypertension	59	54,6%
RA	24	22,2%
GA	7	6,5%
DM	18	16,7%
Total	108	100%

Source: Primary Data, 2018.

3.2 Research Variables

Table 2 describes the implementation of Germas program in elderly population with degenerative disease in Luwoo village of Telaga Jaya Subdistrict of Gorontalo regency.

Based on Table 2 below, age classification is based on WHO classification. In this study, a large proportion of the respondents' age is between 60-74 years old. Based on sex, it is found that women occupy a large proportion. This also means that sex is an influencing factor for degenerative diseases, such as gout arthritis. Based on the level of education, a large proportion of respondents' education level is an elementary school. Mostly they do not work or housewives by 54 respondents. Whereas, a large proportion of respondents is suffer from hypertension by 59 respondents.

Table 2. The Implementation of Gervas Program

Research variable	Frequency (n)	Percentage (%)
Conduct physical activities		
Sufficient	88	81,5%
Insufficient	20	18,5%
Total	108	100%
Consumption of fruits and vegetables		
Sufficient	105	97,2%
Insufficient	3	2,8%
Total	108	100 %
Conduct Routine Health Checks		
Sufficient	104	96,3%
Insufficient	4	3,7%
Total	108	100%

Source: Primary Data, 2018

4. Discussion

4.1 Description of degenerative disease on elderly people in Luwoo village of Telaga Jaya subdistrict of Gorontalo regency

The description of degenerative disease on elderly people is hypertension, gout arthritis, and Diabetes. The largest proportion of respondents is suffered from hypertension by 59 people (54.6%). This result is in agreement with the Riskesdas research (2013) that many elderly people suffer from hypertension by 57.6% in age 65.74 years old and 63.8% in those who age ≥ 75 years old (Infodatin Kemenkes RI, 2016). According to the result of Riskesdasin 2007, it shows that the level of degenerative disease in Indonesia is 59.5%. This is due to the age of 60 and beyond, biological, psychological, social and spiritual changes happen in human. In the biological aspect, reduction of bodily function and structure happened in the human body which caused the elderly people become prone to various degenerative diseases such as hypertension, rheumatoid arthritis, gout arthritis, and DM.

In this study as well, it was revealed that most respondents who do the health checkup routinely are those with hypertension disease as based on the interview, the routine medical checkup procedure is very easy and affordable.

4.2 Description of implementation of Gervas activity on carrying out physical activity on elderly people in Luwoo village of Telaga Jaya subdistrict of Gorontalo regency

This study reveals that 88 respondents (81.5%) properly carry out physical activities and 20 respondents (18.5%) insufficiently carry out physical activities. Physical activities are body movement which exerts muscles and resulted in secretion of energy. Physical activities are continually carried out and appropriately implemented to prevent the risk of non-contagious disease such as blood vessel disease, diabetes, cancer, etc. (Wadani & Rosita, 2008).

According to Ambardini (2012), physical activity is every movement which needs energy such as walking, taking care of grandchildren, do house chores, etc. The lack of physical activities is an independent risk factor that may lead to chronic disease such as hypertension, arthritis, DM and overall estimated to become the global leading cause of death.

Francina (2008) in his research 'factors that correlated with death pattern due to degenerative diseases in Indonesia', describes that lack of physical activities may lead to the risk of degenerative disease. Physical activities such as exercise and activities that can be easily and cheaply done are beneficial to prevent cardiovascular disease. Exercise and other physical activities such as walking 6 km per hour, aerobic with medium load (healthy heart exercise), self-defense exercise, conduct similar activities such as stairs climbing while carrying 10 kgs of load, working in the field are according to WHO any activity for 30 minutes a day are able to increase the heart rate between 110-130 per minute, sweat and followed by breathing frequency, are able to prevent the heart attack and stroke.

According to Linder in Bayuni (2016) on the influence of physical activities on the level of MDA stated that light physical activities are everything related to a bodily movement which is similar to daily activities such as household chores like sweeping, which exerts 5.6-7 kcal/minute, washing the dishes which exert 3.56 kcal/minute. Medium physical activities are activities that needed continuous muscle movement with light intensity such as cycling, running, and speed walking. Heavy activities are activities that need many muscle activities and large calorie burning such as swimming, hiking, and weight lifting.

In this study, it is found that elderly population diagnosed with hypertension are those who rarely carry out physical activities such as morning walk for 30 minutes according to Hasibuan (2010), walking has several benefits such as reducing metabolic syndromes (such as heart disease, hypertension, diabetes, and stroke), reduce body weight, reduce the symptoms of osteoporosis, prevent diabetes, improve sleep quality, and reduce pain. Increasing self-fitness is one of the efforts to increase work productivity, and to avoid symptoms of the degenerative disease. In harmony with Rosmaini (2010), routine walking exercise has many benefits that can prevent degenerative disease which one of them is the number one leading cause of death. Walking exercise is one of the simplest activities that can be done by anyone.

It can also be said that sweeping the floor is an activity with many fans. Out of 108 respondents, 74 respondents (68.5%) said that they like this activity. This is because this activity is their daily routine.

Based on the data above, it can be concluded that implementation of GERMAS program on elderly community is within the good category by 81.5%.

4.3 Description of Gernas Activity on consumption of Fruit and Vegetables by Elderly people in Luwoo village of Telaga Jaya subdistrict of Gorontalo regency

Consumption of fruit and vegetables out of 108 respondents with good category 105 respondents (97.2%) and less category 3 respondents (2.8%). The diseases that often experienced by elderly people are dominated by chronic and degenerative diseases due to unhealthy lifestyle. According to Aghanuri (2015), health deterioration in elderly people is influenced by nutrition intake.

In research carried out by Zuraida (2015), on eating habit risk factor and its correlation with heart disease on adult male and female in Lampung province, it was revealed that there is a correlation between fruit and vegetable consumption with degenerative diseases, such as hypertension. Consumption of fruit and vegetable is a protecting factor toward the degenerative disease. It means the more the patient consume fruit and vegetable, the more they will provide protection against degenerative disease like hypertension. In Herwati (2011), on control of blood pressure in hypertension patients based on diet pattern and exercise habit in Padang describes that fiber intake is highly recommended for hypertension patient as it contains pectin, gom, and mucilage which influences the cholesterol metabolism in the body to control the salt in the pancreas, which in turn, will lower the level of cholesterol, when the patient consumes fruit and vegetable rarely then cholesterol metabolism process within the blood will be slow, hence, increase the level of cholesterol in blood and the narrowed the blood vessel diameter and increase blood pressure (hypertension). Based on the above data, it can be concluded that the description of the application of the germ program about consuming fruits and vegetables in the elderly is in the good category of 97.2%.

4.4 Description of the implementation of Gernas program on routine medical checkup on elderly people in Luwoo village of Telaga Jaya subdistrict of Gorontalo regency

In this research, there are only 3 respondents who rarely consume fruit and vegetables. They said that this was due to lack of money to purchase vegetables and fruit. Based on the data above, it can be concluded that the implementation of Gernas on consumption of fruit and vegetable is within the good category by 97.2%.

Based on the result of this study, it shows that physical medical checkup is routinely carried out by 104 respondents (96.3%) and only 4 respondents (3.7%) who rarely do a routine medical checkup. Implementation of routine health screening is one of the promotive, preventive efforts (Ministry of Health of the Republic of Indonesia, 2016). The objective is to encourage society to recognize risk factors of non-contagious disease related to behavior and carry on efforts to manage those diseases in personal, family, and community level; encourage the findings of physiological risk factors which may potentially lead to non-contagious disease such as obesity, high blood pressure, blood sugar level, sensory disorder, and mental disorder.

In this study, almost all respondents routinely check their blood pressure (102 out of 108 respondents or 94.4% respondents routinely carry out blood pressure check, and only 6 respondents (5.6%) who do not carry out blood pressure and cholesterol checkup due to lack of budget for this test.

Based on the data above, it can be concluded that implementation of Gernas program in routine medical checkup on elderly people is within the good category by 96.3%.

5. Recommendations

5.1 For community

The result of this study is expected to provide knowledge on Gernas program especially on degenerative diseases and how to manage those diseases.

5.2 For further research

It is recommended to study other indicators of this Gernas program such as not smoking, not consuming alcohol, using hygiene toilet, and clean sanitation by using similar or different variables.

6. Conclusion

Implementation of Gernas program on elderly people with the degenerative disease in Luwoo village of Telaga Jaya sub-district in Gorontalo regency can be concluded as follow:

- 1) Description of degenerative disease on elderly people in Luwoo village of Telaga Jaya subdistrict of Gorontalo regency out of 108 respondents, 59 respondents suffer from hypertension (54.6%), 24 respondents suffer from Rheumatoid Arthritis (22.2%), 7 respondents suffer from Gout Arthritis 7 (6.5%), and 18 respondents suffer from Diabetes Mellitus (16.7%).
- 2) Description of elderly people who carry out physical activity in Luwoo village is out of 108 respondents, 88 respondents (81.5%) is within the good category and 20 respondents (18.5%) is within less category.
- 3) Description of elderly people who consume fruit and vegetable in Luwoo village is out of 108 respondents there are 105 respondents who consume fruit and vegetables regularly (good category 97.2%) and only 3 respondents (2.8%) who consume less fruit and vegetables.
- 4) Description of elderly people who carry regular checkup in this village is 104 respondents (96.3%) and only 4 respondents who do not regularly carry out medical checkup (3.7%).

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