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The Influence of Knowledge, Attitude and Action on Family Health Tasks in Controlling Hypertension through the *Germas* Approach

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ABSTRACT

One of the government's efforts in controlling hypertension, among others, is by launching the *Germas* (Healthy Living Movement) through activities: increasing physical activity, consumption of vegetables and fruits, regular health checks and not smoking. Through its tasks in the health sector, families are expected to be able to apply early to all family members about how to control hypertension through *Germas*. This study was to analyze the effect of knowledge, attitudes and actions on the implementation of family health tasks in controlling hypertension. This study used a cross sectional design conducted where subjects consisted of 120 family heads/family members. Data on knowledge, attitude, action, implementation of family health tasks in controlling hypertension through the *Germas* approach were obtained. Almost all subjects had good knowledge in the category, most of them had an attitude in the good category, most of them had an action in the sufficient category. This study shows a significant influence of knowledge, attitude and action on the implementation of family health tasks in controlling hypertension.

Keywords: *Germas, Knowledge, Attitude, Action, Family health tasks, Hypertension*

INTRODUCTION

Family as the smallest unit in community is an important component in the effort to succeed the government program in realizing a healthy Indonesian society. Through its duties in the field of health, families are expected to be able to apply early to all members of their families regarding healthy lifestyles, especially those related to improving health and preventing disease. In addition, the family also plays a role in providing support to sick family members through environmental modifications and facilitating relationships with health facilities.

Hypertension is a condition where there is an increase in blood pressure in the arteries and is one of the conditions that usually precedes heart and blood vessel disease. In the early stages of the course of hypertension, often have no symptoms even though they have been diagnosed with hypertension. This causes the patient not to seek treatment immediately, resulting in hypertension will develop and cause heart disease, blood vessels, kidney failure and stroke. This in addition to causing prolonged suffering to the sufferer will also cause high health costs to be incurred. WHO[(1)] reports that among non-communicable diseases the burden of heart and blood vessel disease ranks highest at 36.7 trillion USD. The increase in the prevalence of hypertension from year to year is caused by an increase in the population, also due to unhealthy lifestyles such as an unhealthy diet where there is a lack of fruit and vegetable consumption, lack of physical activity, smoking habits and lack of public awareness to check health and control blood pressure if you have been diagnosed with hypertension. Hypertension control aims to help lower blood pressure and maintain blood pressure under normal circumstances[(2)].

One of the government's efforts in controlling hypertension is by launching the *Germas* through activities: increasing physical activity, consumption of vegetables and fruits, regular health checks and not smoking. *Germas* to control hypertension is packaged in the form of integrated and conceptual activities that must be carried out by all members of the community so that hypertension can be prevented, and if it has been diagnosed with hypertension, blood pressure can be

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controlled so as not to cause more severe complications. As the smallest unit of the community, the family has responsibility for controlling hypertension through the implementation of family health tasks including knowing family health problems, deciding on appropriate actions, caring for family members who experience health problems, modifying the environment that supports health and utilizing health facilities[3]. Through his duties in the field of health, the family is expected to be able to apply early to all family members about how to control hypertension through the *Germas* by: increasing physical activity, consumption of vegetables and fruits, regular health checks and not smoking. This study aims to explain the model of the implementation of family health tasks in controlling hypertension through the *Germas* approach.

MATERIALS AND METHOD

The design of this study was a cross sectional, conducted in the general polyclinic and elderly *posyandu* (Integrated Service Post) in the Pucang Sewu Health Center in July 2018. The population were all families who went to the health center in July to August 2018. The sample size was 120 people, selected by non random sampling. Data of knowledge, attitude, action and family tasks in controlling hypertension were obtained by interview using a questionnaire. The data collected was categorical data so it was presented in the form of frequency and percentage[4], then analyzed using Partial Least Square (PLS).

FINDINGS

Table 1 shows that some families had good levels of knowledge, good attitude and action in enough categories.

Table 1: Distribution of Knowledge, Attitude and Action toward Hypertension

Variable	Frequency	Percentage
Knowledge		
Good	112	93.3
Enough	7	5.8
Less	1	0.8
Attitude		
Good	62	51.7
Enough	52	43.3
Less	6	5.0
Action		
Good	30	25.0
Enough	66	55.0
Less	24	20.0

Table 2: Distribution of Family Tasks in Controlling Hypertension through the *Germas* Approach

Family Task	Frequency	Percentage
Physical activity		
Good	50	41.7
Enough	61	50.8
Less	9	7.5
Consuming fruit vegetables		
Good	51	42.5
Enough	65	54.2
Less	4	3.3
A routine control approach		
Good	57	47.5
Enough	57	47.5
Less	6	5.0
A non-smoking approach		
Good	52	43.4
Enough	61	50.8
Less	7	5.8

Table 2 shows that the results of the PLS between knowledge, attitude and action towards the implementation of family tasks through the *Germas* approach showed a significant effect with t-value of 10.614 (>1.96).

DISCUSSION

Family Knowledge, Attitude and Action Toward Hypertension: The level of knowledge about hypertension tends to be in the good category, not different from the report of Sinuraya, that the trend is in good category[5], while different from the report of Omoyeni et al.[6] and Kiliç et al.[7], which tended to be in the enough category. The level of knowledge about hypertension is the ability to mention, explain correctly about hypertension. Knowledge is influenced by, experience, level of education and sources of information[8]. The level of knowledge about hypertension that tends to be

high in this study, can be related to the characteristics of respondents who are mostly over 50 years old, the level of education is dominated by high school.

Family attitudes toward hypertension tend to be dominated by good categories, these results do not different from the report of Susiati et al, that attitudes tend to be positive[9]. Karamoy et al. got different results, that attitudes tended to be in the enough category[10]. Attitude is a reaction or response that is still closed from someone to a stimulus. Attitude is a level of affection that has a tendency to be both positive and negative. Attitudes cannot be directly seen, but can only be interpreted in advance of closed behavior[8]. The tendency towards a positive attitude in this study is probably due to the age of the respondents who are mostly >50 years old. Things that relate to one's psychological attitude towards the stimulus that is available, are the level of maturity.

Family actions towards hypertension tend to be in enough category, different from the report of Angkawijaya et al.[11] and Firmansyah et al[12], mostly in the good category. Another trend is the most dominant factor associated with family support in primary prevention of hypertension is a factor of family practice. Actions are responses to active and observable stimuli. To be able to realize an action, supporting factors or a condition that is needed include facilities and support from other parties. To be able to take good action it is necessary to get support for both facilities and family and environmental support. Support from health facilities is mostly good, but support from family and environment is still in sufficient category, so that family actions in controlling hypertension are mostly sufficient.

Implementation of Family Duties in Controlling Hypertension through *Germas* Approach: Controlling hypertension through physical activity shows that the results are mostly enough. Physical activities carried out by workers <600 MET (Metabolic Equivalent Task)/ week, risk 1.25 times greater suffering from hypertension than workers with physical activity >600 MET/week. MET score is a physical activity carried out continuously for 10 minutes or more in each activity. Physical activity reduces the risk of hypertension by reducing vascular resistance and suppresses the activity of the sympathetic nervous system and the reninnensin system[13]. Physical activity for >30 minutes every day of the week is a major protective factor against the development of hypertension[14]. Increasing the number of sufficient categories on family duties in controlling hypertension through physical activity, due to age characteristics family that is mostly >50 years old. Physical activity requires great intention and will, besides having to have a strong physique. Another possibility is that the family does physical activity but the type, frequency and duration of physical activity are not the same as those written on the research instrument.

Controlling hypertension through consuming vegetables shows that most results are enough. Lack of consumption of vegetables and fruit is a factor that contributes to the development of hypertension. This is related to the level of Potassium which serves to prevent narrowing of the arteries (atherosclerosis). Thus the artery wall remains elastic and optimizes its function so that it is not easily damaged due to increased blood pressure. An increase in potassium levels can increase intra-cellular fluid concentration and then attract extracellular fluids which have an impact on decreasing blood pressure[15]. Consumption of fruit <2 servings/ day at 1.01 times the risk of hypertension. Consumption of vegetables <3 times a day has a risk of 1.04 times suffering from hypertension[13].

Controlling hypertension through a routine control approach is in the good and enough category. Overall, almost 37% of Indonesian adults with hypertension are aware of their condition, significantly more women (43%) will have hypertension compared to men (30%). Greater awareness in urban areas than in rural areas. Among all hypertensive sufferers, 25% have taken hypertension drugs and significantly more women than men. Of all hypertensive patients who received treatment, blood pressure control was reached 25% (27% male, 24% female). Overall adequate blood pressure control is reached around 9%, occurs more in women than men[16]. Health facilities in this case the health center is a technical implementing unit that has authority and responsibility for public health maintenance in the area it works. Health services provided by health center are comprehensive health services which include curative, preventive, promotive and rehabilitative. The function of the health center in addition to providing direct health services to the community also provides guidance to the community[17].

Controlling hypertension through the no smoking approach tends to be in the sufficient category. Dwi Jatmika found a different reality where the results of the study were dominated by less behavior (66.67%).

Negative attitudes were also shown by respondents in research on smoking behavior in hypertensive patients in Sidokarto village, Yogyakarta[18]. If you have a smoking habit 52.2% suffer from non-smoking hypertension 27.7% suffer from hypertension[19]. Every day smokers are at risk of hypertension 1.38 times compared to nonsmokers. Whereas ex-smokers have OR 0.66 which means quitting smoking is a protective factor against the development of hypertension[13]. Smoking cessation behavior is influenced by: education and history of other diseases[20]. The high prevalence of hypertension is lack of awareness of treatment, low level of education, lack of consumption of fruits and vegetables, lack of physical activity[21]. General risk factors for hypertension: age, sex, smoker, drinking alcohol, lack of physical activity, time and sleep quality, diet, obesity[22]. Family health workers in controlling hypertension through a non-smoking approach, are generally sufficient. This is related to the sex characteristics of the family, most of whom do not generally have a smoking habit. Ideally the family health task in controlling hypertension through a non-smoking approach is good, but there are still families who do not understand the dangers of smoking for patients with hypertension in particular and for the community at large.

There is an influence between predisposing factors on family duties in controlling hypertension through the *Germas* approach. Predisposing factors consist of personal knowledge, attitudes, beliefs, skills and references. Knowledge plays an important role in building a person's behavior. Knowledge of respondents can be obtained both internally, namely knowledge originating from itself based on others. One way to obtain knowledge according to Notoatmodjo is based on personal experience. This experience is a source of knowledge or experience that is a way to obtain the truth of knowledge. Personal experience which is a way to gain knowledge, then experience can be a reference for acting in health. Respondents can see other people affected by hypertension.

To be able to carry out family duties in controlling hypertension, knowledge from the family is needed, if the family has good knowledge then it can administer family duties. Judging from the factors that influence knowledge, one of them is the educating factor, from 120 respondents almost half of them educated high school, the higher the level of education, the easier it is for someone to understand knowledge.

CONCLUSION

Knowledge, attitude and action affect the implementation of family tasks in controlling hypertension through *Germas* approach in Pucang Sewu Health Center, Surabaya.

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REFERENCES

1. Idaiani S, Wahyuni HS. Relationship between Emotional Mental Disorders and Hypertension in Indonesian Population. Media Litbangkes. 2016;26(3):137-144.
2. Andala S, Hermansyah, Mudatsir. Family Health Task to Know the Hypertension Diet for the Elderly. Journal of Nursing Science, Master of Nursing, Postgraduate Program, Syiah Kuala University. 2016;4(2).
3. Marwansyah, Sholikhah HH. The Influence of Family Empowerment for Patients with Pulmonary TB on the Ability to Carry Out Family Duties in Martapura and Astambul Health Center, Banjar Regency. Bul Pen Kes. 2015;18(4).
4. Nugroho HSW. Descriptive Data Analysis for Categorical Data. Ponorogo: FORIKES; 2014.
5. Sinuraya RK et al. Measurement of Knowledge Levels on Hypertension in Hypertensive Patients in Bandung City: An Preliminary Study. JFKI. 2017;6(4):290-297.
6. Omoyeni, OM, Adekemi OO, Eunice PO. Knowledge and Prevalence of Hypertension among Cleaners in a University in the Southwestern Region of Nigeria. International Journal of Caring Sciences. 2014;7(2):621-632.
7. Kiliç M, Uzunçakmak T, Ede H. The Effect of Knowledge about Hypertension on the Control of High Blood Pressure: A Multivariables Analysis. The American Journal of Cardiology. 2016;117:S102-S103.
8. Notoatmojo S. Health Promotion and Behavioral Science. Jakarta: Rineka Cipta Publisher; 2007.

9. Susiati I, Hidayati T, Yuniarti FA. Description of Client's Knowledge and Attitudes about How to Treat Hypertension. JC. 2016;4(3).

10. Karamoy SM, Kiling M, Tamunu E. Relationship between Knowledge and Attitudes of the Community with Prevention of Recurrence of Hypertension in Bitung Barat Satu Village, Maesa Sub-district, Bitung City. Unsrittomohon. 2017.

11. Angkawijaya, Pangemanan JM, Siagian IET. Relationship between Community Knowledge Level and Hypertension Prevention Action in Motoboi Kecil Village, Kotamobagu Selatan District. JKKT. 2016;4(1).

12. Firmansyah, Lukman M, Mambangsari CW. Factors Associated with Family Support in Primary Prevention for Hypertension. JKP. 2017;5(2)

13. Hardati AT, Ahmad RA. Physical Activity and Hypertension Event in Workers: Analysis of Basic Health Research Data in 2013. BKM. 2017;33(10):467-474.

14. Chang AK, Fritschi C, Kim MJ. Sedentary Behavior, Physical Activity, and Psychological Health of Korean Older Adults with Hypertension: Effect of an Empowerment Intervention. Gerontological Nursing. 2013;6(2):81-8.

15. Anwar R. Fruit and Vegetable Consumption and Milk Consumption as Risk Factors for Hypertension in S. Parman Health Center, Banjarmasin City. JSK. 2016;5(1).

16. Mohammad AH, Mamun AA, Reid C, Huxley RR. Prevalence, Awareness, Treatment and Control of Hypertension in Indonesian Adults Aged ≥40 Years: Findings from the Indonesia Family Life Survey (IFLS). PLoS One. 2016; 11(8).

17. Efendi F, Makhfudli. Community Health Nursing, Theory and Practice in Nursing. Jakarta: Salemba Medika Publisher; 2009.

18. Jatmika D. Smoking Behavior of Hypertension Patients in Sidokarto Village, Godean Sub-district, Sleman, Yogyakarta. JFKM. 2015;9(1):53-60.

19. Narayana IPA, Sudhana IW. Overview of Smoking Habits and Hypertension Events in Adult Communities in Work Area of Pekutatan I Health Center, 2013. E-Journal "Medika Udayana". 2015.

20. Winkasari NKN, Dewi FST. Determinants of Smoking Cessation Behavior among Hypertensive Patients in Sleman Regency. BKM. 2017;33(3):135-140.

21. Teklay AG, Kebede HM, Gebregiorgis YS, Kahsay AB, Weldehaweria NB, Meresa GW. Awareness, Treatment, and Control of Hypertension is Low among Adults Inaksum Town, Northern Ethiopia: A Sequential Quantitative-qualitative Study. PLoS One. 2017;12(5).

22. Wang J, Sun W, Wells GA, Li Z, Zli T, Wu J, Liu B. Differences in Prevalence of Hypertension and Associated Risk Factors in Urban and Rural Residents of the Northeastern Region of the People's Republic of China: A Cross-sectional Study. PLoS One. 2018;13(4).