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Research

Contextual Effect of the Integrated Health Post (*Posbindu*) and Biopsychosocial Determinants of Tertiary Preventive Behavior in Patients with Hypertension

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ABSTRACT

Background: Tertiary prevention of hypertension is a preventive effort to make patients with hypertension do not have disabilities and further complications. It also improves the quality of life and makes life longer. The biopsychosocial aspect affects individuals in learning, doing, and maintaining certain behaviors based on social cognitive theory. This study aimed to analyze the biopsychosocial determinants of tertiary preventive behavior among patients with hypertension.

Subjects and Method: This study was an analytical observational study with a cross-sectional design. The study was conducted at 25 Integrated Health Posts (Posbindu) in Sragen, Central Java. A sample of 200 hypertensive patients was selected by stratified random sampling. The dependent variable was the tertiary preventive behavior of hypertension. The independent variables were observational learning, role model, imitation, vicarious learning, reinforcement, self-efficacy, self-regulation, outcome expectation, and attitude. The data were collected by questionnaire and analyzed by a multilevel multiple logistic regression.

Results: Hypertension preventive behavior increased with observational learning (b= 2.85; 95% CI= 0.17 to 5.53; p= 0.037), role model (b= 2.73; 95% CI =0.73 to 4.73; p=0.007), imitation (b= 3.46 ; 95% CI= 0.73 to 6.19; p= 0.013), vicarious learning (b= 2.54; 95% CI =0.16 to 4.93; p= 0.036), reinforcement (b= 3.89; 95% CI= 0.96 to 6.82; p= 0.009), self-efficacy (b= 3.04; 95% CI= 0.41 to 5.67; p= 0.024), self-regulation (b= 2.28; 95% CI= 0.02 to 4.54; p= 0.048), outcome expectation (b= 3.56; 95% CI= 0.75 to 6.38; p= 0.013), and a positive attitude (b= 2.86; 95% CI= 0.26 to 5.47; p= 0.031). Posbindu had a contextual effect on tertiary preventive behavior of hypertension with an Intra Class Correlation (ICC) value of 63.05%.

Conclusion: Tertiary preventive behavior of hypertension increases with high observational learning, strong role model, strong imitation, high vicarious learning, strong reinforcement, high self-efficacy, high self-regulation, positive outcome expectation, and positive attitude. Posbindu has a contextual effect on tertiary preventive behavior of hypertension.

Keywords: tertiary prevention, hypertension, social cognitive theory, multilevel analysis

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BACKGROUND

The disease pattern has an epidemiological transition in the last two decades, from communicable diseases (CD) to non-communicable diseases (NCD) (Ministry of Health RI, 2017). The increase of NCD harms economic stability and national productivity. NCD is the most common main

cause of mortality (Ministry of Health RI, 2018).

Cardiovascular disease was the largest proportion of mortality causes due to NCD (39%). In Central Java Province, hypertension was the largest proportion of all reported NCD by 57.10%. In Sragen Regency, hypertension was the most common disease in the last three years (Central Java Provincial Health Office, 2018).

Hypertension or high blood pressure is an increase in systolic blood pressure of more than 140 mmHg and diastolic blood pressure of more than 90 mmHg on two measurements. Complications can occur if the increase in blood pressure is persistent or lasts for a long time or not detected early and has received adequate treatment. Hypertension is the main risk factor for death (Geleta et al., 2019). The cause of 90% of cases of hypertension is unknown surely (Andriani and Chamidah, 2019).

This disease has an impact on the socioeconomic and the quality of life, both physically and psychologically (Putri et al., 2019). Hypertension is a health problem that is a global priority so that the early screening and diagnosis are important to plan an appropriate intervention (Datta et al., 2019). 76% of cases of hypertension in the community have not been diagnosed. It means that people do not know that they have hypertension. Hypertension is a "silent killer" where symptoms can vary from person to person. They are almost the same as symptoms of other diseases. A study showed that the awareness, care, and control of high blood pressure was still very low (Singh et al., 2017).

One of the government's efforts to control NCD is by implementing the Integrated Health Post (Posbindu) for Non-Communicable Diseases program. It is in line with the Regulation of the Minister of Health of the Republic of Indonesia Number 71 of 2015 concerning the prevention of NCD. It aimed to increase community participation in prevention and early discovery of risk factors for NCD, including hypertension (Febrianti and Prabawati, 2017).

Regency/city governments are required to provide standardized health cares to all sufferers with hypertension sufferers, which include: blood pressure check-up and monitoring, education for lifestyle changes, (balanced diet, adequate rest, physical activity, and stress management) and pharmacological management. Standard health care is provided to maintain blood pressure at <140/90 mmHg and to prevent cardiac complications, stroke, diabetes mellitus, and chronic kidney disease (CKD). This prevention includes tertiary prevention. It aims to make people with hypertension do not have further complications, improve the quality of life, and make life longer (Ministry of Health RI, 2018).

The factors causing hypertension are not only biological factors but also behavioral factors (Puspita et al., 2017). An approach shows that the sick condition is not only from a physical medical but also from a psychological condition due to environmental factors. This biopsychosocial concept involves the interaction between biological, psychological, and social factors to understand the disease process (Wulandari, 2018). One of the most influential and common theories used is the Social Cognitive Theory (SCT). This theory explains how individuals learn and carry out behavior and how to maintain certain patterns of behavior (Murti, 2018).

This study aimed to analyze the contextual effect of the Integrated Health Post and the biopsychosocial determinants on tertiary preventive behavior among patients with hypertension in Sragen Regency.

SUBJECTS AND METHOD

1. Study Design

This study was an analytical observational study with a cross-sectional approach. This study was conducted at 25 Integrated Guidance Posts in Sragen Regency, Central Java from January to February 2020.

2. Population and Sample

The target population of this study was patients with hypertension. There were 200 patients with hypertension as the sample of the study that was selected by stratified random sampling.

3. Study Variables

The dependent variable was the tertiary preventive behavior of hypertension. The independent variables at level 1 in this study were observational learning, role model, imitation, vicarious learning, reinforcement, self-efficacy, self-regulation, outcome expectation, and attitude toward behavior. The independent variable at level 2 was Integrated HealthPost (Posbindu).

4. Operational Definition of Variables

Tertiary preventive behavior of hypertension was an effort to prevent complications, further complications, disability, and mortality in patients with hypertension. The measuring instrument was questionnaires. The data scale was continuous data. The data was converted into dichotomous data with the code 0= poor (<mean), 1= good (≥mean).

Observational learning was observing someone else's behavior, imitating, and repeating the behavior pattern. The measuring instrument was questionnaires. The data scale was continuous data. The data was converted into dichotomous data with the code 0=few (<mean), 1=many (≥mean).

Role model was the process of imitating every behavior that a person did and paying attention to the people behavior around him (eg friends, family, and environment). The data scale was continuous data. The data was converted into dichotomous data with the code 0= weak (<mean), 1= strong (≥mean).

Imitation was duplicating others with the consequences of a positive or negative response. The data scale was continuous data. The data was converted into dichotomous data with the code 0= weak (<mean), 1= strong (≥ mean).

Vicarious learning was an indirect observation of someone else's behavior (through television, media, and advertising news), then that person imitated the behavior. The data scale was continuous data. The data was converted into dichotomous data with the code 0=few (<mean), 1=many (≥ mean).

Reinforcement was a stimulus or response from outside. If it was given to someone, it would increase the likelihood of repeating both positive and negative behavior. The data scale was continuous data. The data was converted into dichotomous data with the code 0=weak (<mean), 1=strong (≥mean).

Self-efficacy was an individual's positive belief and ability to control tertiary preventive behavior through daily habits. The data scale was continuous data. The data was converted into dichotomous data with the code 0= low (<mean), 1= high (≥mean).

Self-regulation was the ability to maintain a commitment to a health goal related to the tertiary prevention of hypertension. The data scale was continuous data. The data was converted into dichotomous data with the code 0=low (<mean), 1=high (≥mean).

Outcome expectation was the expected outcome of a behavior which was usually a consequence if the behavior would be carried out independently. The data scale was continuous data. The data was converted into dichotomous data with the code 0= negative (<mean), 1= positive (≥mean).

Attitude towards behavior (expectancy) was the tendency of a person's response in the form of behavior towards an event in the form of beliefs, feelings, or behavior towards an event. The data scale was continuous data. The data was converted into dichotomous data with the code 0= negative (<mean), 1= positive (≥mean).

Integrated Health Post (Posbindu) was one of the activities of the Effort of Health community-based services (UKBM) which provided monitoring and checking up of the risk factor causing hypertension as the NCD.

5. Study Instruments

The instrument of this study was a questionnaire in the form of statements to measure biopsychosocial variables and tertiary preventive behavior of hypertension.

6. Data Analysis

The data were analyzed in univariate for the characteristics of patients with hypertension, bivariate with Chi-square test, and multivariate with multilevel multiple logistic regression analysis using STATA 13.

7. Research Ethic

Research ethics included informed consent, anonymity, confidentiality, and ethical clearance. The ethical clearance of this study came from the Health Research Ethics Committee at Dr. Moewardi Hospital Number: 125/I/HREC/2020.

RESULTS

1. Univariate analysis

Table 1 shows that the mean value of the age of the study subjects was 52 years, the standard deviation was 5.85, the minimum age was 38 years, and the maximum age was 60 years; The mean value of income of the study subjects was Rp. 1,434,500, the standard deviation was 1,051,278, the minimum income was Rp. 0, and the maximum income was Rp. 5,000,000; The mean value of the length of the study subjects suffering from hypertension was 5 years, the standard deviation was 3.92, the minimum length of suffering from hypertension was 1 year, and the maximum length of suffering from hypertension was 20 years.

Table 1. Frequency distribution of the variables (continuous data)

Variable	n	Mean	SD	Min.	Max.
Age (years)	200	52	5.85	38	60
Income (Rp)	200	1,434,500	1,051,278	0	5,000,000
Length of hypertension (years)	200	5	3.92	1	20
Preventive behavior	200	15	3.10	10	20
Observational learning	200	8	1.47	5	10
Role model	200	5	1.03	3	6
Imitation	200	5	1.06	2	6
Vicarious learning	200	5	1.07	2	6
Reinforcement	200	8	1.34	5	10
Self-efficacy	200	7	1.92	3	10
Self-regulation	200	8	1.59	4	10
Outcome expectation	200	8	1.59	4	10
Attitude towards behavior	200	7	1.36	3	8

Mean of hypertension preventive behavior was 15, the minimum was 10, and the maximum was 20. Mean of observational learning was 8, the standard deviation was 1.47, the minimum was 5, and the maximum was 10.

The mean value of the role model was 5, with the minimum value was 3, and the maximum value was 6. Mean of imitation was 5, the minimum value was 2, and the maximum value was 6.

Table 2. The characteristic of the study subjects (dichotomous data)

Variable	n	Percentage (%)
Age		
<50 Years	68	34.0
≥50 Years	132	66.0
Sex		
Female	162	81.0
Male	38	19.0
Education		
<Senior High School	129	64.5
≥ Senior High School	71	35.5
Occupation		
Unemployed	81	40.5
Employed	119	59.5
Income		
<Minimum wage	132	66.0
≥Minimum wage	68	34.0
Length of hypertension		
<5 Years	107	53.5
≥5 Years	93	46.5
Complication		
No complication	157	78.5
With complication	43	21.5
Tertiary preventive behavior of hypertension		
Poor	117	58.5
Good	83	41.5
Observational Learning		
Low	98	49.0
High	102	51.0
Role Model		
Weak	112	56.0
Strong	88	44.0
Imitation		
Weak	101	50.5
Strong	99	49.5
Vicarious Learning		
Low	71	35.5
High	129	64.5
Reinforcement		
Weak	75	37.5
Strong	125	62.5
Self-Efficacy		
Low	109	54.5
High	91	45.5
Self-Regulation		
Low	92	46.0
High	108	54.0
Outcome Expectation		
Negative	70	35.0
Positive	130	65.0
Attitude towards Behavior		
Negative	101	50.5
Positive	99	49.5

Mean of various learning was 5, the standard deviation was 1.07, the minimum was 3, and the maximum was 6. Mean of reinforcement was 8, the 10. Mean of outcome expectation was 8, the standard deviation was 1.59, the minimum value was 4, and the maximum value was 10. Mean of attitude towards behavior was 7, the standard deviation was 1.36, the minimum was 3, and the maximum was 8.

Table 2 shows that 68 hypertensive patients aged <50 years (34.0%) and 132 hypertensive patients aged ≥50 years (66.0%). 162 hypertensive patients were female (81.0%) and 38 hypertensive patients were male (19.0%). 129 hypertensive patients had <Senior High School education (64.5%) and 71 hypertensive patients had ≥Senior High School education (35.5%). 81 hypertension patients did not work (40.5%) and 119 hypertensive patients worked (59.5%). 132 hypertensive patients had <minimum wage (66.0%) and 68 hypertensive patients had ≥minimum wage (34.0%). Patients with a long period of having hypertension <5 years were 107 people (53.5%), while patients with a long period of having hypertension were ≥5 years 93 (46.5%). 157 hypertensive patients had no complications (78.5%), while 43 hypertensive patients had complications (21.5%).

Patients with poor tertiary preventive behavior of hypertension were 117 people (58.5%), while patients with good tertiary preventive behavior of hypertension were 83 (41.5%). The number of hypertensive patients with little observational learning was 98 people (49.0%), while the number of hypertensive patients with a large amount of observational learning was 102 people (51.0%). There were 112 hypertensive patients with weak role models (56.0%) and 88 hypertensive patients with strong role models (44.0%). The hypertensive patients with weak imitation were 101 (50.5%), while the hypertensive patients with strong imitation were 99 (49.5%). The hypertensive patients with a little vicarious learning were 71 people (35.5%), while the hypertensive patients with a large amount of vicarious learning were 129 (64.5%).

There were 75 hypertensive patients with weak reinforcement (37.5%), while there were 125 hypertensive patients with strong reinforcement (62.5%). There were 109 hypertensive patients with low self-efficacy (54.5%), while there were 91 hypertensive patients with high self-efficacy (45.5%). There were 92 hypertensive patients with low self-regulation (46.0%), while there were 108 hypertensive patients with high self-regulation (54.0%). There were 70 hypertensive patients with a negative outcome expectation (35.0%), while there were 130 hypertensive patients with a positive outcome expectation (65.0%).

There were 101 hypertensive patients with a negative attitude (50.5%), while there were 99 hypertensive patients with a positive attitude (49.5%).

2. The result of Bivariate Analysis

Bivariate analysis described the effect of one independent variable on one dependent variable using the Chi-square test.

Table 3 presents a bivariate analysis using the Chi-square test for the effect of age, sex, education, occupation, income, length of suffering from hypertension, complication, observational learning, role model, imitation, vicarious learning, reinforcement, self-efficacy, self-regulation, outcome expectation, and attitude towards behavior towards tertiary preventive behavior of hypertension.

There was an effect of observational learning on tertiary preventive behavior of hypertension. Patients with a large amount of observational learning (66.67%) performed tertiary preventive behavior of hyper-

tension better than the patients who had little observational learning (15.31%) (OR= 11.07; p <0.001).

There was an effect of imitation on tertiary preventive behavior of hypertension. Patients with strong imitation (61.62%) performed tertiary preventive behavior of hypertension better than the patients with weak imitation (21.78%) (OR= 5.76; p <0.001).

There was an effect of vicarious learning on tertiary hypertension prevention behavior. Patients with a large amount of vicarious learning (56.59%) performed tertiary preventive behavior of hypertension better than the patients with little vicarious learning (14.08%) (OR= 7.95; p <0.001).

Table 3. The bivariate analysis of the variables on the tertiary preventive behavior of hypertension in a dichotomy

Variable	Tertiary Preventive Behavior of Hypertension				OR	CI 95%		p
	Poor		Good					
	n	%	n	%		Lower Limit	Upper Limit	
Observational Learning								
Little	83	84.69	15	15.31	11.07	5.31	23.53	<0.001
A large number	34	33.33	68	66.67				
Role Model								
Weak	92	82.14	20	17.86	11.59	5.65	24.00	<0.001
Strong	25	28.41	63	71.59				
Imitation								
Weak	79	78.22	22	21.78	5.76	2.96	11.31	<0.001
Strong	38	38.38	61	61.62				
Vicarious Learning								
Little	61	85.92	10	14.08	7.95	3.60	18.81	<0.001
A large amount	56	43.41	73	56.59				
Reinforcement								
Strong	60	80.00	15	20.00	4.77	2.35	9.98	<0.001
Strong	57	45.60	68	54.40				
Self-Efficacy								
Low	83	76.15	26	23.85	5.35	2.78	10.35	<0.001
High	34	37.36	57	26.64				
Self-Regulation								
Low	75	81.52	17	18.48	6.93	3.46	14.16	<0.001
High	42	38.89	66	61.11				
Outcome Expectation								
Negative	56	80.00	14	20.00	4.52	2.20	9.64	<0.001
Positive	61	46.92	69	53.08				
Attitude towards Behavior								
Negative	85	84.16	16	15.84	11.12	5.37	23.42	<0.001
Positive	32	32.32	67	67.68				

There was an effect of reinforcement on tertiary preventive behavior of hypertension. Patients with strong reinforcement (54.40%) performed tertiary preventive behavior of hypertension better than the patients with weak reinforcement (20.20%) (OR= 4.77; p <0.001).

There was an effect of self-efficacy on tertiary preventive behavior of hypertension. Patients with high self-efficacy (26.64%) performed tertiary preventive behavior of hypertension better than the patients with low self-efficacy (23.85%) (OR= 5.35; p <0.001).

There was an effect of self-regulation on tertiary preventive behavior of hypertension. Patients with high self-regulation (61.11%) performed tertiary preventive be-

havior of hypertension better than the patients with low self-regulation (18.48%) (OR= 6.93; p<0.001).

There was an effect of outcome expectation on tertiary preventive behavior of hypertension. Patients with a positive outcome expectation (53.08%) performed tertiary preventive behavior of hypertension better than the patients with a negative outcome expectation (20.00%) (OR= 4.52; p <0.001).

There was an effect of attitude on tertiary preventive behavior of hypertension. Patients with positive attitude (67.68%) performed tertiary preventive behavior of hypertension better than the patients with negative attitudes towards behavior (15.84%) (OR= 11.12; p <0.001).

3. The result of Multivariate Analysis

Table 4 shows the multivariate analysis using a multilevel multiple logistic regression analysis models with Stata 13 of the effect of observational learning, role model, imitation, vicarious learning, reinforcement, self-efficacy, self-regulation, outcome expectation, and attitude towards behavior on tertiary preventive behavior of hypertension.

Observational learning affected tertiary preventive behavior in hypertensive patients. Patients with high observational learning had 2.85 units higher logodds of doing tertiary prevention of hypertension than the patients with little observational learning (b= 2.85; 95% CI= 0.17 to 5.53; p= 0.037).

Table 4. The multilevel multiple logistic regression analysis of the independent variables on tertiary preventive behavior of hypertension

Independent variable	Regression Coefficient (b)	95% CI		p
		Lower Limit	Upper Limit	
Fixed effect				
Observational Learning (A large amount)	2.85	0.17	5.53	0.037
Role Model (Strong)	2.73	0.73	4.73	0.007
Imitation (Strong)	3.46	0.73	6.19	0.013
Vicarious Learning (A large amount)	2.54	0.16	4.93	0.036
Reinforcement (Strong)	3.89	0.96	6.82	0.009
Self-efficacy (High)	3.04	0.41	5.67	0.024
Self-regulation (High)	2.28	0.02	4.54	0.048
Outcome Expectation (Positive)	3.56	0.75	6.38	0.013
Attitude towards behavior (Positive)	2.86	0.26	5.47	0.031
Constantan	-16.57	-26.58	-6.56	0.001
Random effect				
Integrated Health Post var (constantan)	5.61	0.79	39.67	
Log-likelihood= -37.60				
LR test vs. logistic regression				
p=0.007				
ICC= 63.05%				

The role model affected tertiary preventive behavior in hypertensive patients. Patients with strong role models had 2.73 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with weak role models (b= 2.73; 95% CI= 0.73 to 4.73; p= 0.007).

Imitation affected tertiary preventive behavior in hypertensive patients. Patients with strong imitation had 3.46 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with weak imitation (b= 3.46; 95% CI= 0.73 to 6.19; p= 0.013).

Vicarious learning affected tertiary preventive behavior in hypertensive patients. Patients with a large amount of vicarious learning had 2.54 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with little vicarious learning (b= 2.54; 95%CI= 0.16 to 4.93; p= 0.036).

Reinforcement affected on tertiary preventive behavior in hypertensive patients. Patients with strong reinforcement had 3.89 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with weak reinforcement (b= 3.89; 95% CI= 0.96 to 6.82; p= 0.009).

Self-efficacy affected tertiary preventive behavior in hypertensive patients. Patients with high self-efficacy had 3.04 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with low self-efficacy (b= 3.04; 95% CI= 0.41 to 5.67; p= 0.024).

Self-regulation affected tertiary preventive behavior in hypertensive patients. Patients with high self-regulation had 2.28 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with low self-regulation (b= 2.28; 95% CI= 0.02 to 4.54; p= 0.048).

Outcome expectation affected tertiary preventive behavior in hypertensive patients. Patients with a positive outcome expectation were 3.56 units more likely (logodds) to do tertiary preventive behavior of hypertension than the patients with a negative outcome expectation (b= 3.56; 95% CI= 0.75 to 6.38; p= 0.013).

Attitude towards behavior affected tertiary preventive behavior in hypertensive patients. Patients with positive attitudes had 2.86 units higher logodds of doing tertiary preventive behavior of hypertension than the patients with negative attitudes (b= 2.86; 95%CI= 0.26 to 5.47; p= 0.031).

Integrated Health Post affected tertiary preventive behavior in hypertensive patients with ICC of 63.05%. It means that 63.05% of the variation in tertiary preventive behavior of hypertension was determined by variables at the Integrated Health Post level.

DISCUSSION

1. The effect of observational learning on the tertiary preventive behavior of hypertension.

The result of the analysis showed that observational learning had a significant effect on tertiary hypertension prevention behavior. A person learnt behavior by observing the behavior of others and repeating the behavior. A person with a large amount of observational learning would try to successfully repeat the observed behavior (Murti, 2018).

Observational learning related to tertiary preventive behavior of hypertension included a healthy lifestyle by consuming foods and drinks that were suitable for people with hypertension, a good physical activity, and a routine blood pressure check-up. The result of this study is supported by Ghoreishi et al. (2019) that observational learning based on the SCT theory affected educational intervention in health promotion such as the tertiary prevention of hypertension.

2. The effect of role model on the tertiary preventive behavior of hypertension.

The result of the analysis showed that role model had a significant effect on tertiary preventive behavior of hypertension. A person who had a strong role model would follow the tertiary preventive behavior of hypertension carried out by the model who was his role model because he was motivated to do the same behavior.

The result of this study is in line with a study conducted by Keele (2019) that health workers were in a position to be role models for a healthy lifestyle. Many people in society believed that health care providers must practice what they taught. It could be assumed that people were more likely to obey advice about healthy behavior when imitated by those who provide it.

3. The effect of imitation on the tertiary preventive behavior of hypertension.

The result of the analysis showed that imitation had a significant effect on the tertiary preventive behavior of hypertension. A person with a strong imitation would be motivated to do a certain behavior well. The family and environment had a very crucial effect on the imitation process.

The result of this study is in accordance with McEwen et al. (2020) that family-based intervention was one of the potentials to increase social support, especially in physical activity and health management so that complications did not occur.

4. The effect of vicarious learning on the tertiary preventive behavior of hypertension.

The result of the analysis showed that vicarious learning had a significant effect on tertiary preventive behavior of hypertension. A person who had a large amount of vicarious learning would tend to imitate tertiary preventive behavior of hypertension more easily from the result of the indirect observations through the media. Media could affect a person's health behavior by publishing health messages through books, magazines, leaflets, and electronic media.

The result of this study is in line with a study conducted by Dewantara et al. (2019) that someone who had vicarious learning experience would have better behavior. However, someone who did not have vicarious learning experience had a negative attitude towards behavior.

5. The effect of reinforcement on the tertiary preventive behavior of hypertension.

The result of the analysis showed that reinforcement had a significant effect on the tertiary preventive behavior of hypertension. Someone who had a strong reinforcement would be easier to repeat positive behaviors related to tertiary preventive behavior of hypertension. The reinforcement from individuals or the environment affected someone to continue or stop a behavior (Murti, 2018).

Reinforcement in this study was in the form of reinforcement in tertiary preventive behavior of hypertension from the surrounding environment, including family, friends, and health workers. Social support would indirectly give emotional benefits. It would give the strength for someone to perform a behavior. Providing support made someone had positive experiences, increased self-confidence, and able to control changes in their environment (Simbolon and Sianipar, 2018).

This study is in line with the a study conducted by Wahyudi et al. (2020) that adherence to nutritional intake in adults with primary hypertension was associated with supportive families.

6. The effect of self-efficacy on the tertiary preventive behavior of hypertension.

The analysis showed that self-efficacy had a significant effect on the tertiary preventive behavior of hypertension. A person who had a high self-efficacy would be more confident with his ability to do and control certain behaviors (Murti, 2018).

The result of this study is in line with a study conducted by Imtichan et al. (2019) that self-efficacy increased one's adherence to behave. If a person believed that a new

behavior was useful or it could be useful but he felt that he was unable to do it, he was most likely to do the behavior.

7. The effect of self-regulation on the tertiary preventive behavior of hypertension.

The result of the analysis showed that self-regulation had a significant effect on the tertiary preventive behavior of hypertension. A person with high self-regulation was able to maintain his behavior better to achieve goals (Murti, 2018).

The result of this study is supported by Ferdianto et al. (2019) that self-regulation affected tertiary preventive behavior in hypertensive patients. Patients with high perceived self-regulation had a greater likelihood of doing tertiary prevention than patients with low perceived self-regulation.

8. The effect of outcome expectation on the tertiary preventive behavior of hypertension.

The result of the analysis showed that the outcome expectation had a significant effect on the tertiary preventive behavior of hypertension. A person with a positive outcome expectation had the likelihood of doing a good tertiary preventive behavior of hypertension because he expected similar results when doing this behavior.

Setiyaningsih et al. (2018) stated that the expectation of the benefits of the results of action directly motivated behavior and indirectly determined the activity plan to achieve the benefits as a result. The result of this study is in line with a study conducted by Andriyaningtiyas et al. (2020) that a positive outcome expectation increase behavior, and a negative outcome expectation would decrease behavior.

9. The effect of attitude on the tertiary preventive behavior of hypertension.

The result of the analysis showed that attitude towards behavior had a significant effect on tertiary preventive behavior of hypertension.

The result of other studies stated that people with hypertension would control their blood pressure by avoiding foods at risk of hypertension because it could increase or decrease the high blood pressure (Ferdianto et al., 2019).

10. The contextual effect of the Integrated Health Post on the tertiary preventive behavior of hypertension.

The result of this study showed that the Intra Class Correlation (ICC) was 63.05%. It showed that there was a contextual effect of the Integrated Health Post on tertiary preventive behavior of hypertension. The variety of tertiary prevention of hypertension was determined at the individual level and the contextual level at the Integrated Health Post.

AUTHOR CONTRIBUTION

Very Retnowati was the main researcher who selected the topic, developed the conceptual framework, collected the data, processed the data, and wrote the article. Pawito guided the formulation of the framework and discussions. Bhisma Murti guided the development of a conceptual framework, conducted the data analysis, and interpreted the results of the data analysis.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest in the publication of this article.

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