The relationship between dental care perception towardoral Health ofpatients with primary hypertension in Padongko Health Center, Barru Regency

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Abstract

Background: The problem of unsanitary dental and that is influenced by several individual perception factors including perception of knowledge, perception of relatives people, and perception of desires. To find out whether the perception of knowledge, perception of relatives people of desires have a relationship toward oral hygiene in respondents with primary hypertension.

Material and Method: This research was an analytical observation using cross-sectional study. The population was the patients with primary hypertension, a purposive sampling technique was applied through path analysis test.

Results: The results of the research showed the relationship of perception of knowledge toward primary hypertension, it was obtained p 0.560> α 0.05, the perception of relatives toward primary hypertension, it was obtained p 0.394> α 0,05, and the perception of desire toward primary hypertension, it was obtained p value 0.762> α 0.05. Based on the three variables of perception, Ha obtained has a relationship but does not seem significant. Perception of knowledge toward oral health, it was obtained p 0.368> α 0.05 so that Ha obtained has a relationship but does not seem significant. Next, perceptions of relatives toward oral health, it was obtained p value 0.040 <α 0.05. Last, perception of desires toward oral health, it was obtained p 0.001 <α 0.05, thus Ha obtained has a significant relationship. The relationship of primary hypertension toward oral health has a significant relationship where the results of p 0.012 <α 0.05.

Conclusion: There is a relationship between perception of dental care toward oral health in patients with primary hypertension but it did not appear significantly.

Keywords: *Knowledge, Relative, Desires, Primary Hypertension, Oral Hygiene (OHI-S).*

Introduction

Hypertension or famously known as the silent killer is a conditionwherethe increase of blood pressure

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above normal. Increased age is one factor causing the occurrence of hypertension, this is due to the increasing age of organ function decreased marked by decreased elasticity of the arteries and stiffness occurs blood vessels so vulnerable to an increase in blood pressure. Hypertension isdefinedas persistent blood pressure where the systolic pressure is above 140 mmHg and diastolic over 90 mmHg.[1,2,3,4,5,6] Primaryhypertension is a hypertension which causes is unknown (idiopathic), although it is associated with a combination of certain lifestyle factors such as lack of movement (inactivity) and diet. The prevalence of hypertension is predicted

to continue increasing, by 2025 it is predicted as many as 29% of adults sufferingfrom hypertension worldwide.[7,8,9,10]

WHO explained that found that around the world there are about 972 million people or 26.4% people worldwide suffer from hypertension, this number is likely to increase to 29.2% people in 2025. Oral hygiene that is not maintained properly will cause disease in the oral cavity. The indicator of oral health is the level of oral and dental hygiene, where the way to maintain oral and dental hygiene is certainly influenced by the treatment in the oral cavity, that is by gargling and brushing the teeth regularly. [7,11, 12]

The condition of the oral cavity that is often encountered in patients with primary hypertension is influenced by the numbers of the drugs used that have side effects on the oral cavity condition which is caused by a decrease in the flow rate of saliva which can cause xerostomia. The reduced amount of saliva will also cause the pH of saliva in the mouth to be low so that the growth of the bacteria Streptococcus Mutans, Lactobacillus, and *Candida Albicans* increase.[13,14, 15]

In patients with primary hypertension whose use of the drug is not regularly as directed by the doctor will be a predisposing factor of someone's oral hygiene and it is supported by cleaning teeth and mouth that is not maintained properly (OHI-S) so that it can cause the conditions there are many debris and calculus in the mouth. [16, 17]

In general, hypertension does not provide specific symptoms. Generally, the symptoms complained are related to: increased blood pressure (BP), vascular disorders, underlying diseases. For clinical blood pressure classifications include: optimal, nominal, high hypertension, first degree hypertension, second degree hypertension, third degree hypertension, and isolated systolic hypertension. [18,19,20, 21]

Method

The design of this research used analytic observational research and this research was included in the cross-sectional study. The research was conducted in September-February 2020. The sample used in this study was 60 people with Primary Hypertension through appropriate purposive sampling method.

Result

The subjects of the researchwhere conducted were 60 people with a diagnosis from a primary hypertension doctor and the sampling was adjusted according to inclusion criteria.

Regression Model I:

Table 1 (Regression model I Variable X3, X1, and X2)

Model	R	R Square	AdjustedR Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,164[a]	,027	-,024	20,452	,027	,527	3	57	,665

1.Predictors: (Constant), Desire (X3), knowledge (X1), Relative (X2).

Table 2 (Contribution of Variable X toward Variable Z)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	661,578	3	220,526	,527	,665[b]
Residual	23843,340	57	418,304		
Total	24504,918	60			
Dependent Variable: TD_Hypertension (Z).					
Predictors: (Constant), Desire (X3), Knowledge (X1), Relative (X2).					

Table 3 CoeffisienVariable X1, X2, and X3

Model	UnstandardizedB	Unstandardized Std. Error	Standardized Coefficients Beta	T	Sig
1(Constant)	164,688	10,961		15,026	,000
Knowledge(X1)	-,183	,313	-,080	-,586	,560
Relatives(X2)	-,249	,290	-,151	-,858	,394
Desire(X3)	,084	,275	,052	,305	,762

a. Dependent Variable: TD_Hypertension (Z)

RegressionModel II

Table 4 (RegressionModel II Variable X3, X1, X2, and Z)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,699[a]	,489	,453	20,268	,489	13,401	4	56	,000

a. Predictors: (Constant), TD_Hypertension (Z), desire (X3), knowledge (X1), Relatives (X2).

Table 5 Contributionof Variable Xand Z toward Y

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	22018,762	4	5504,691	13,401	,000[b]
Residual	23003,467	56	410,776		
Total	**45022,230**	**60**			

a. Dependent Variable: OHIS (Y).

b. Predictors: (Constant), TD_Hypertension (Z), Desire (X3), Knowledge (X1), relative (X2).

Table 6 Coeffisien ofVariable Xand Z toward Y

Model	Unstandardize B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1 (Constant)	-36,252	24,192		-1,499	,140
Knowledge (X1)	,301	,311	,097	,967	,338
Relative (X2)	,606	,289	,272	2,098	,040
Desire (X3)	,955	,273	,441	3,504	,001
TD_Hypertension (Z)	,339	,131	,250	2,581	,012

a. Dependent Variable: OHIS (Y)

Discussion

Tables 1, 2, and 3 explain the relationship of variable X against variable Z (Primary Hypertension). Based on the knowledge characteristics of respondents have a relationship at the level of education that affect respondents with Primary Hypertension. At a high level of education, it certainly will also influence in terms of knowledge that will support someone behaving that concerns the individual's needs. The knowledge of respondents with Primary Hypertension in this research influences the continuity of prevention or anticipates the disease does not get worse, affects the consumption of drugs that are only recommended not in long-term and the most priority thing in Primary Hypertension respondents in this research is able to restore lifestyle to be stable or improved.

Extensive knowledge makes it easier to understand, digest, and comprehend the information that can be obtained either from social media or from information obtained from the family or relatives. Respondents with Primary Hypertension who are not handled properly by the doctor's advice will continue to become resistant hypertension or secondary hypertension, and new disease problems may arise, therefore, sufficient knowledge is very necessary to support the individual's understanding of the seriousness of diseases,especially primary hypertension.

That higher of the knowledge and understanding of health will also improve the way of viewing the concept of health and sickness into a stable which will ultimately affect the perspective, way of life and efforts to improve one's health status. [22]

Based on theresearch conducted the researcher wanted to see the relationship of respondent characteristics based on closest person to Primary Hypertension patients. Some people who visit the hospital and check themselves are encouragedby the family or relatives. [23]

Based on this researchwhere conducted the researcher wanted to see the relationship between the characteristics of respondents, namely the relationship of perception of desire towards patients with Primary Hypertension. Based on the understanding of researcher at the interview, the respondent who came himself to visit the hospital, take medication according to the doctor's recommendations, and follow the doctor's instructions is none other than the desire of the individual.

PameswariPuspa (2016) said that one's own desire plays an important role as astrong motivation from within, being a major factor in the high level of patient compliance in taking medication prescribed by the doctor and when it should be stopped.[24]

Tables 4, 5, and 6 explain the relation of the variable X is toward the variable Y (oral hygiene). Research conducted is relationship of the characteristics of respondents based on Knowledge. Knowledge and education are two things that cannot be separated because higher education will support higher insight and vice versa, but in this research these two things do not guarantee that respondents who have a higher education and extensive knowledge are able to maintain a clean and healthy oral or otherwise.

Respondents also suggested that knowledge of dental and oral health due to the lack of several health services was promoted through counseling, conducted either from the health center or health department students. Knowledge obtained by respondents is also still considered trivial for some respondents who tend not to apply in everyday life to maintain oral hygiene and can have an impact on dental and oral health problems, so the relationship of knowledge to oral hygiene does not have a very significant relationship.

Thisresearch also found the relationship between characteristics of respondents namely relativestoward Oral Hygiene. Some respondents who came alone did not guarantee that their family did not care about the respondent, but based on interviews conducted with respondents who came by themselves said that the family plays an important role in supporting the desire of patients to seek treatment.

Based on the research conducted at the perception of familyor relatives has a great influence for each individual to keep oral hygiene in maintaining oral health problems which can also have an impact on general body health. Thisresearch also consists of the relationship between the characteristics of respondents namely the desire toward oral hygiene where this condition is the reason for patients to check themselves because they have desire that is subjective, in this case the desire is something that cannot be measured or assessed.

People are really need treatment, but to get it, is strongly influenced by individual desires. This is known as the "need and demand of oral health". The need for care is not always followed by demand because it depends on the individual. It is Influenced by several things, namely quality of life and perception of needs (need), psychological factors, belief in health conditions (behavior, values, and habits), social structure (education and culture), demographics (age, gender, income, facilities, and distance). [25]

In the research conducted at wherevariable Z which is Primary Hypertension toward Y is (OHI-S) 0.012 <0.05, it can be concluded that there is a significant direct effect of the Z variable towardvariable Y. However, in the research conducted, these respondents are not recommended to take long-term medication,it only lasts 3 days, after that it is stopped, because the respondent is given the drug only to lower blood pressure which suddenly rises.

This is supported by theory that explains the proper use of anti-hypertensive drugs influenced by adherence (compliance or adherence) which is described the extent to which patients follow medical instructions or advice. Disobedience to treatment will result in high rates of treatment failure, so that in patients with primary hypertension the administration of the drug is only temporary to stabilize the increased blood pressure for patients.[22,26,27, 28]

Research in cases of hypertension patients whom has been suffering for 2 years, so that the consumption of anti-hypertensive drugs must be continuous, the working process of the drug affects the salivary glands which can lead to xerostomia. Hypertension or famously known as the silent killer is a condition where the increase of blood pressure above normal.[29,30]

Conclusion

There is a relationship between perception of dental care toward oral health in patients with primary hypertension but it did not appear significantly.

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