

The Relationship between Smoking Behavior and the Occurrence of Hypertension in Pancaran Kasih General Hospital Manado

by Rolly Rondonuwu

Submission date: 29-May-2023 07:47AM (UTC+0700)

Submission ID: 2104050792

File name: The_Relationship_between_Smoking_Behavior_and_the_Occurrence.pdf (334K)

Word count: 2238

Character count: 11880

The Relationship between Smoking Behavior and the Occurrence of Hypertension in Pancaran Kasih General Hospital Manado

Rolly Rondonuwu*, Johana Tuegeh*, Dorce Sisfiani Sarimin*, Maharani Nazila*

³
*Nursing Department of Health Polytechnic of the Ministry of Health of Manado

Corresponding Author : First Author, Nursing Department of Health Polytechnic of the Ministry of Health of Manado

Email: rollyhsr@yahoo.com

ABSTRACT

⁴
Hypertension is one of the causes of death in the world. According to the WHO (*World Health Organization*) in 2016 cases of hypertension 972 million people (26.4%) people, this number is likely to increase 29.2% in 2025. Of 972 million people with hypertension, 333 million are in developing countries including Indonesia. According to, smokers in the world WHO in 2016 reached 1.1 trillion people and 800 million of them are in developing countries. This study aims to determine the relationship of smoking behavior with the incidence of hypertension in the General Hospital of Pancaran Kasih in Manado, in the Internal Medicine Polyclinic. The population in this study were patients who seek treatment at the Polyclinic. This type of research is *cross sectional* to describe the relationship between the dependent variable and the independent variable with a *purposive sampling technique* that meets the inclusion and exclusion criteria of 50 respondents, using questionnaires, and observation sheets which are analyzed using the test *chi-square*. The results of the study of 50 respondents obtained a value of $\alpha \leq 0.05$ which is 0.00. This shows that there is a significant relationship between smoking behavior and the incidence of hypertension. Heavy smoking behavior of 33 respondents (66%), moderate 8 (16%) and mild 9 respondents (18%). The incidence of hypertension is classified as severe 12 respondents (24%), moderate 29 respondents (58%), mild 9 respondents (18%). Conclusion: Smoking behavior is significantly related to the incidence of hypertension.

Keywords: Smoking Behavior, Occurrence of Hypertension

INTRODUCTION

Hypertension continues to increase year after year. Not only in Indonesia, but also in the world. As many as 1 billion people in the world or 1 in 4 adults suffer from this disease. In fact, it is estimated that the number of people with hypertension will continue to increase to 1.6 billion by 2025. Approximately 10-30% of the adult population in almost all countries experience hypertension, and around 50-60% of the adult population can be categorized as a major majority whose health status will be better if blood pressure can be controlled (Adib, 2009).

World Health Organization (WHO) said the number of people with hypertension will continue to increase along with the population increasing in the next 2025 estimated that around 29% of world citizens affected by hypertension. WHO states developing economies have hypertension by 40% while developed countries only 35%, Africa holds the top position of hypertension sufferers, which is equal to 40%. In the Region American 35% and Southeast Asia 36%. In the Asian Region this disease has killed 1.5 million people each year. This indicates one in three people suffer from hypertension. Whereas in Indonesia it is quite high, reaching 32% of the total population (Widyanto, 2013).

The number of smokers in Indonesia continues to increase from year to year. No exception the number of young smokers. Based on recent data from the 2013 Basic Health Research, active smokers from the age of 10 years and over amounted to 58,750,592 people "this number is more than ten times the entire population of Singapore," said the Head of the Health Research and Development Agency of the Ministry of Health that number consisted of 56,860.457 male smokers and 1,890,135 female smokers. The results also showed that every day there were 616,881,205 cigarettes in Indonesia or 225,161,640,007 cigarettes burned every year. If the price of 1 cigarette is Rp 1,000, then the money spent is more than 225 trillion Rupiah (Ministry of Health 2015).

Hypertension can be influenced by the way and habits of one's life, one of which is smoking. Smoking is part of people's lives and one of the habits that is often found in everyday life. Everybody can smoke like men, women, teenagers, rich, poor, and no exception. Smoking is a part of people's lives. Where in terms of health, no one agrees or sees the benefits it contains and it is not easy to reduce and eliminate it, therefore this lifestyle is attractive as a health problem and is considered a risk factor for various diseases (Bustan, 2007).

Based on an initial survey conducted on 21 January 2019 at the GMIM Pancaran Kasih Hospital in Manado, the number of outpatients suffering from hypertension in the past year was 2,370 patients. Based on interviews and blood pressure measurements conducted on several patients in the internal medicine clinic.

METHODS

This type of research is analytic with design *cross sectional* (cross section) research that uses design or observational design of all measurement variables (dependent and independent that are studied together then do an analysis of the dynamics of correlations between phenomena. The population in this study was 372 active smoker men in Pancaran Kasih Public Hospital Manado. Data collection techniques using interview techniques through questionnaires and study documentation. Using a list of statements (questionnaire) related to smoking behavior. The instrument in this study used a questionnaire of 20 numbers and an observation sheet, where in this measurement the researcher collected data ordinarily to the subject to answer questions in writing using a *scale likert* (Nursalam, 2011). Analysis *Univariate* to see the frequency distribution of each variable. In this study the independent variable is smoking behavior and the dependent variable is the incidence of hypertension. The Analysis *bivariate* used is the analysis of the relationship using the test *chi-square* with the significance level if $\alpha \leq 0.05$ means there is a relationship between behavior *smoking* and the incidence of *hypertension* in men if $\alpha \geq 0.05$ means it does not there is a relationship between behavior *smoking* and the incidence of *hypertension*.

RESULTS

The results of research conducted at GMIM Pancaran Kasih Manado General Hospital in June 2019 were divided into two, namely univariate research results to describe the characteristics of independent and dependent variables and the results of bivariate research namely to analyze the relationship between independent and dependent variables analyzed using *chi-square*.

Table 1. Distribution of Respondents by Sex

| Gender | Number of | Presentations (%) |
|--------|-----------|-------------------|
| Male | 46 | 92 |
| Women | 4 | 8 |
| Total | 50 | 100 |

Based on the data in table 1 above, 46 respondents (92%) are male.

Table 2 Distribution of Respondents by Age

| Age | Number of | Presentations (%) |
|-------|-----------|-------------------|
| 36-45 | 12 | 24 |
| 46-55 | 12 | 24 |
| 56-65 | 12 | 24 |
| >65 | 14 | 28 |
| Total | 50 | 100 |

Based on the data in table 2 above, 14 respondents, aged > 65 (28.0%).

Table 3. Distribution of respondents based on Education

| Education | Number of | Percentages (%) |
|-----------|-----------|-----------------|
| SD | 23 | 46 |
| SMP | 8 | 16 |
| SMA | 7 | 14 |
| S1 | 12 | 24 |
| Total | 50 | 100 |

Based on the data in table 3 above, Elementary Education 23 respondents (46%)

Table 4. Distribution of respondents based on Occupation

| Occupation | Total | Percentage (%) |
|----------------|-----------|----------------|
| Civil Servants | 11 | 22 |
| PRIVATE | 10 | 20 |
| WIRASWASTA | 9 | 18 |
| TANI | 3 | 6 |
| WORK | 16 | 32 |
| IRT | 1 | 2 |
| Total | 50 | 100 |

Based on the data in table 4 above, many respondents' jobs are in rush 16 (32%)

Table 5 Distribution respondents based on smoking behavior Smoking

| Behavior | Number of | Presentations (%) |
|--------------|-----------|-------------------|
| Mild | 14 | 28 |
| Medium | 16 | 32 |
| Weight | 20 | 40 |
| Total | 50 | 100 |

Based on table 5 smoking behavior of respondents most heavy 20 (40%)

Table 6 Distribution of respondents based on the incidence of hypertension

| Occurrence of hypertension | Number of | Presentations (%) |
|----------------------------|-----------|-------------------|
| Mild | 9 | 18 |
| Moderate | 29 | 58 |
| Weight | 12 | 24 |
| Total | 50 | 100 |

Based on table 6 the incidence of hypertension 29 respondents (58%).

Table 7 Relationship between smoking behavior and the incidence of hypertension

| Smoking behavior | incidence of hypertension | | | | Severe(%) | p | |
|------------------|---------------------------|-----------|--------------|-----------|-----------|-----------|-------|
| | mild (%) | | moderate (%) | | | | |
| mild | 6 | 66.7 | 3 | 33.3 | 0 | 0 | 0.000 |
| moderate | 3 | 37.5 | 5 | 62.5 | 0 | 0 | |
| weight | 0 | 0 | 21 | 63.6 | 12 | 36.4 | |
| Total | 9 | 18 | 29 | 58 | 12 | 24 | |

Table 7 shows the role of smoking behavior that is heavy smokers totaling 33 respondents (66%), moderate behavior is 8 (16%) and mild behavior is 9 respondents (18%). The incidence of hypertension that is classified as severe or second degree is 12 respondents (24%), the incidence of moderate or first degree hypertension is 29 respondents (58%), and the incidence of hypertension that is classified as mild is 9 respondents (18%).

DISCUSSION

The results showed that the incidence of hypertension in respondents at the General Hospital. GMIM Pancaran Kasih Manado found the highest number in the medium category. According to researchers this is due to poor behavior of the respondents so the lack of awareness to check their health from the start.

This is supported by the opinion of Agrina (2011), which concludes that a behavior is determined by past experiences and experiences of people around as well as individuals themselves about how difficult or easy it is to conduct a behavior. This is in line with the results of research Kusumastuti (2014), which states that there is a relationship of knowledge with adherence to the hypertension diet in the elderly who experience hypertension at the Dharma Bakti Kasih Surakarta Nursing Home.

Based on the research results of Smoking Behavior at the Pancaran Kasih General Hospital GMIM Manado shows there is a significant relationship between smoking behavior and the incidence of hypertension. According to

study this is the bad behavior of respondents who often consume cigarettes, as a result the chemicals contained in cigarettes damage the artery walls so that they are more susceptible to plaque buildup (atherosclerosis). This is mainly caused by nicotine which can stimulate the sympathetic nerves so that the spur of the heart work harder and cause narrowing of vessels blood and carbon monoxide from cigarette smoke can force the heart to meet oxygen needs.

This result is also in line with the opinion of Tandra (2003), who said that smoking is a major factor causing vascular disease, nicotine disrupts the sympathetic nervous system due to the increased demand for myocardial oxygen. Besides causing addicted to smoking, nicotine also stimulates the release of adrenaline and increases heart frequency, increased blood pressure, as well cause heart rhythm disorders. This is supported by the results of research from Kurniawan (2017), which states that there is a relationship between smoking behavior and the incidence of hypertension inHealth Center Panjalu Bantul.

Through the test *Chi-square* with a confidence level of 95% or a value of α 0.05, the value of p value 0.00 is smaller than α 0.05. This shows that there is a significant correlation between smoking behavior and the incidence of hypertension among respondents at the Pancaran Kasih Manado General Hospital, Manado

This study is also in line with Retnaningsih (2017), a study conducted with a sample size of 50 respondents and using the *chi-square test* with a 95% confidence level or α 0.05 get p value 0.026 smaller than α 0.05 and the hypothesis which states that there is a significant relationship between the age of smoking behavior with proven incidence of hypertension.

CONCLUSION

There is a relationship between behavior smoking and the incidence of hypertension. Smoking behavior of patients at GMIM General Hospital Pancaran Kasih Manado in the Weight category.

SUGGESTIONS

The importance of maintaining a healthy lifestyle by quitting smoking or reducing consumption, cigarette in order to avoid hypertension. Need to identify more deeply about smoking behavior and factors that can affect hypertension such as obesity, physical activity, consumption of saturated fat, excessive salt consumption, alcohol consumption and stress. And can be input and reference for further research related to smoking and hypertension behavior.

ETHICAL CLEARANCE

Ethical Exemption from Health Research Ethics Committee Manado Health Polytechnic Ministry of Health No : 326/KEPK/VIII/2019

REFERENCES

- Adib (2009) Easy Ways to Understand and Avoid Hypertension, Heart and Stroke. Yogyakarta Latest Edition: Dian Loka Printika
- Agrina, A., Rini, SS, & Hairitama, R. (2011). Compliance of elderly patients with hypertension in meeting the hypertension diet. *Highlight*, 6(1), 46-53.
- Bustan, MN (2007). *Epidemiology of Non-Communicable Diseases. Second Edition*. Jakarta. Rineka Cipta
- Kesehatan, K. (2013). Basic Health Research (Riskesdas). *RI Ministry of Health*.
- Kurniawan, I. (2017). *The Relationship between Smoking Behavior and the Occurrence of Hypertension in Pajangan Bantul Health Center* (Doctoral dissertation, STIKES Jenderal Achmad Yani Yogyakarta).
- Kusumastuti, DI, Nurhayati, Y., & Sari, FS (2014). Relationship between Knowledge and Hypertension Diet Compliance in Elderly People Who Have Hypertension at the Dharma Bakti Kasih Surakarta Nursing Home. *Surakarta: STIKES Kusuma Husada*.

- Report on Basic Health Research Results (RISKESDAS) 2013.
[http://www.depkes.go.id/resources/download/general/hasil%20 riskesdas% 20.2013.pdf](http://www.depkes.go.id/resources/download/general/hasil%20riskesdas%202013.pdf) (downloaded on 05 January 2019)
- Nuraini, N. , & Warno, SE (2018). FACTORS AFFECTING FATTY (Study of Warship Project Workers at PT. X in 2018). *ENVIRONMENTAL HEALTH EARTHQUAKE*, 16(3).
- Nursalam. (2011). *Concepts and Application of Nursing Science Research Methodologies*. Salemba Medika. Jakarta
- Ratnaningsih, D., Kustriyani, M., & Sanjaya, BT (2017). Smoking behavior with the incidence of hypertension in the elderly. In *PROSIDING NATIONAL & INTERNATIONAL SEMINARS* (Vol. 1, No. 1).
- Tandra, H. (2003). Smoking and health. *Spectrum Journal*, (61).
- Widyanto, S. And Triwibowo, C. (2013). *Disease Trend Current Disease Trend*. Trans Info Media. Jakarta
- The World Health Organization. (2016). *The Global Burden of Disease: Geneva: Who Library Cataloging in Publication Data*. (downloaded 31 January 2018)

The Relationship between Smoking Behavior and the Occurrence of Hypertension in Pancaran Kasih General Hospital Manado

ORIGINALITY REPORT

18%

SIMILARITY INDEX

17%

INTERNET SOURCES

5%

PUBLICATIONS

0%

STUDENT PAPERS

PRIMARY SOURCES

| | | |
|---|---|----|
| 1 | repo.stikesicme-jbg.ac.id Internet Source | 5% |
| 2 | repository.unar.ac.id Internet Source | 5% |
| 3 | Tuhu Pinaridi, Suparji Suparji. "Handwashing Behavior Using Soap, Physical Conditions of Cooking Food Storage and Deare Incidence", Open Access Macedonian Journal of Medical Sciences, 2021 Publication | 3% |
| 4 | garuda.kemdikbud.go.id Internet Source | 3% |
| 5 | www.dovepress.com Internet Source | 2% |

Exclude quotes On

Exclude matches < 2%

Exclude bibliography On

The Relationship between Smoking Behavior and the Occurrence of Hypertension in Pancaran Kasih General Hospital Manado

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5
