The Relationship Between Family History and Smoking Behavior of Family Members

Okky Oktaviyana Putri[1], Tantut Susanto[2],
Latifa Aini Susumaningrum[2]

[1] Undergraduate Nursing Program, Faculty of Nursing, University of Jember, Jember, Indonesia
[2] Department of Community, Family & Geriatric Nursing, Faculty of Nursing, Jember University, Jember, Indonesia

Correspondence
Okky Oktaviyana Putri,
Bachelor of Nursing Program,
Faculty of Nursing, University of Jember,
Jl. Kalimantan No.37, Sumbersari, Jember, East Java 68121, Indonesia.
Email:
okkyoktaviyanaputri27@gmail.com

ABSTRACT

Smoking is often found in various environments, especially in the family environment. Various efforts or programs that have been echoed and implemented to overcome these problems include the Healthy Indonesia Program with a Family Approach (PIS-PK). This study aimed to analyze the relationship between family health history and the smoking behavior of family members. The research design is correlational with a cross-sectional approach. The population in this study were all families in the working area of the Kaliwates Health Center, Jember Regency, totaling 12,840 families, with a sample of 170 respondents. The sampling technique used was multistage sampling with the data collection tools, namely the family health history questionnaire and the GN-SBQ smoking behavior questionnaire. The results of this study indicate that the Chi-Square statistical test obtained a p-value of 0.615 (<0.05) where there is no relationship between family health history and the smoking behavior of family members in the working area of the Kaliwates Health Center. In this study, most family health history was in good health, as seen from the history data (65.9%). However, most of the families in the working area of the Kaliwates Health Center showed smoking behavior in the very severe category (60.6%). This study concludes that no significant relationship exists between family health history and smoking behavior. It is hoped that with this research, health workers can help improve counseling related to smoking behavior in the working area of the Kaliwates Health Center.

KEYWORDS

Family Health History, Smoking Behavior of Family Member, Target of Achieving PIS-PK

1. BACKGROUND

Tobacco and its derivatives are still interesting to discuss even though the World Health Organization (WHO) has set as of May 31, 1988, to commemorate World Tobacco-Free Day. This is in line with reports related to the cause of death where every year more than 5 million people take their lives because of ironical tobacco in 2020 10 million of them from developing countries caused by diseases due to exposure to cigarette smoke so it is not surprising to be

the world's attention (Widiyaningsih and Rustiana, 2021). The smoking phenomenon is often found in various environments including the family environment, government institutions, educational environments, and even other public places, the impact of this behavior and phenomenon not only hits the perpetrators but also on people around who do not smoke (Attaqy et al, 2021). In the family sphere, interest in smoking is because other family members also smoke and there is no ban on smoking in the house. So that it is easier and greater the risk of someone becoming an active smoker. Family attachment acts as a protective factor for various kinds of risky health behaviors, one of which is smoking (Suryawati and Gani, 2022).

In 2018 data from Basic Health Research (Riskesdas) showed that the smoking incidence rate of the Indonesian population over the age of 15 years was 33.8%. Meanwhile, the percentage of cigarette use in each age group of 10-14 years is 0.7%, 15-19 years old is 12.7%, 20-24 years old is 27.3%, and over 30 years is 5.2% of active smokers. The number of male smokers is higher (47.3%) than female smokers (1.2%) (Ariasti & Ningsih, 2020; Umari et al., 2020). According to the Central

Statistics Agency (BPS) in 2021, over 15 in East Java Province is 28.53% (BPS, 2021). Cases of active smokers in Indonesia have increased, so the government must take firm action. By 2025, it is estimated that active smoking cases in Indonesia will increase by around 90 million people (Ariasti & Ningsih, 2020). Based on data from the Jember Regency Health Office in 2022, the Kaliwates Health Center has the highest incidence rate of 12,840 people who smoke (Jember Regency Health Office Data, 2022).

Families in Indonesia who have been exposed to cigarette smoke amounted to 85% where the estimate is that eight smokers died from active smokers. In contrast, one person died due to exposure from other people, namely passive smokers. If this continues, nearly 650 million people will be slowly killed by smoking, half of whom are of productive age between 20 and 25 (Triyono et al., 2019). While the prevalence of active smokers in the age range of 15 years and over has touched 33.8% of the Indonesian population, this prevalence is increasing yearly. In this case, men dominate smokers by 62.9%, which indirectly can affect passive smokers. The increase in smokers at the age of 10-18 years has increased to 9.1%, originally only 7.2% (Ambarita et al, 2023).

Smoking is a habit that has become part of the lifestyle among people in Indonesia men and women (Rahmatia et al, 2020). In women, this habit will also increase the risk of infertility, hampers problems, perinatal death, and miscarriage. The emergence of smoking habits in the form of social pressure, peer influence, and smoking habits among the family so that tobacco is considered a form of destructive addiction after a while which becomes a time bomb that will explode (Gupta & Raj, 2023). Health problems in the family are mutually continuous and affect each other between family members. The family itself is a group that can create, prevent, ignore, or even improve health problems within its scope. The family functions as health care through Clean and Healthy Living Behavior (PHBS). One indicator is not smoking at home because it can cause disease for smokers but also for people around (Andriaty, 2022).

Various efforts or programs that have been echoed and implemented to overcome these problems include the Healthy Indonesia Program with a Family Approach (PIS-PK), the main program of health development whose achievements are carried out through the strategic plan of the Ministry of Health. PIS-PK is carried out with home visit activities to advance family access to health services (Suratri et al, 2019). This family will be the core of implementing the Healthy Indonesia program with a family approach. Non-smoking families are one of the indicators contained in the 12 PIS-PK indicators contained in Permenkes 39 of 2016 (Rahel et al, 2018). The success of PIS-PK depends on several factors including family income, trust, knowledge, and education, so researchers are important to research the high PIS-PK in Jember Regency (Rohimah & Sastraprawira, 2019). PISK-PK is Influenced by the population dynamics, which continues to increase and raises challenges including socio-economic problems, health problems, and the availability of land to meet their daily needs.

In research, Rifqi et al (2022) said that another way to overcome it is by providing education related to the dangers of smoking to the community, especially in families with a medical history of active and passive smoking. The Primary Health Center (Puskesmas) has carried out the activity. However, from these results, it was found that residents considered it only as a form of formality and tended to be less attractive. The prevalence of families who are not exposed to secondhand smoke is less than those who have been exposed to secondhand smoke. One of the factors is the

habit pattern which is very difficult to change quickly (Widiastuty & Ekasari, 2022). Several aspects can influence related to changes in individual behavior in this case, namely smoking behavior within the scope of family members both internally, and externally and self-awareness of the impact they have experienced in the theory of the Health Belief Model (HBM) which is one of the interpersonal approach techniques to make the individual able to apply preventive behavior to a health problem. There are 3 (three) important factors, namely the readiness of individuals to change behavior, the encouragement of the environment to change behavior, and the behavior itself (Kaniawati et al, 2021).

Based on the results of a preliminary study that has been conducted in the Kaliwates Health Center Working Area, Jember Regency, the results of the Healthy Family Index (IKS) were obtained in that a total of 35.07% of family members did not smoke, while from the results of the achievement of Household PHBS in 2020, it was found that in the Kaliwates area, a total of 40.32% of families did not smoke at home. From the results of preliminary studies and observations that have been carried out in the working area of the Kaliwates Jember Health Center, most families are still exposed to a history of smoking habits. From the explanation of the problems described above, as prospective nurses, researchers are interested in researching "The relationship between family medical history and smoking behavior of family members in the working area of the Kaliwates Health Center, Jember Regency".

2. METHODS

The design in this study used a correlational design. This study looked for a relationship between family medical history and the smoking behavior of family members in the working area of the Kaliwates Health Center, Jember Regency. This study uses a cross-sectional study approach, one type of research with measurements on variables carried out only once and at a one-time observation. Independent and dependent variables are determined simultaneously simultaneously, so there is no continuation.

The population that will participate in this study is family members who smoke in the working area of Kaliwates Health Center, Jember Regency totaling 12,840 people. The sample used in this study was families who smoked in the working area of Kaliwates Health Center, Jember Regency who fit the inclusion criteria. The sample size

researchers use is calculated based on a formula by the cross-sectional research design so that all respondents are 210. The sampling technique used in this study is multistage sampling, which is a step-by-step sampling technique from large to smaller coverage. The goal is to sort and select samples that are in several geographical areas, time and research costs more efficiently.

The data sources used were primary data obtained directly by giving research questionnaires to respondents regarding family medical history and smoking behavior. Secondary data on individuals who smoked were obtained from the Jember District Health Office, Kaliwates Health Center, and Posyandu Cadres. The data collection tools used were respondent characteristics, health history, and smoking behavior questionnaires. The instrument has been tested for validity and declared valid with a calculated r value > r table of 0.4227 (α= 0.05 with N = 20). Its reliability is declared reliable with an alpha Cronbach value of 0.836. The stages in data processing are editing, coding, value entry, and cleaning. The data analysis used is descriptive and aims to identify variables. Categorical data types are presented in the form of mean and standard deviation. While

numerical data and normal distribution are presented in the form of median and percentage, if numerical data with abnormal distribution then the normalization test is used the Kolmogorov-Smirnov. Furthermore, inference analysis can determine the relationship between family medical history and smoking behavior, so the bivariate analysis used is Chi-Square with a confidence level of 95%.

3. RESULTS

Overview of Research Location of Kaliwates Health Center Area

The working area of Kaliwates Health Center includes 3 villages: Kaliwates Village, Tegal Besar Village, and Kebon Agung Village. Based on the results of preliminary studies conducted previously, the working area of the Kaliwates Health Center has smoking data of 12,840 people in 2022. Data from PIS-PK obtained as much as 54.87%.

Characteristics of Respondents in the Working Area of Kaliwates Health Center

In this study, respondent characteristics data were obtained from questionnaires with the number of respondents obtained as many as 170 respondents. The characteristics of family members who were respondents in this

study were analyzed using descriptive analysis. The data on respondents' characteristics are gender, age, type of work, income, religion, family type, and type of cigarette (Table 1).

Table 1. Characteristics of Respondents in the Working Area of Kaliwates Health Center, Jember Regency (f=170)

Characteristics of Respondents	f (%)
Gender	
Woman	1(6)
Man	169(99,4)
Age	
23-35 years	48 (28,2)
36-48 years	76 (44,7)
49-60 years	46 (27,1)
Work	
Not Working	5 (2,9)
Farmer	12 (7,1)
Laborer	32 (18,8)
Self-employed	84 (49,4)
Private Employees	30 (17,6)
Civil servants	6 (3,5)
Income	
≤Minimum regional income Rp 2.555.662,91	17(10,0)
≥ Minimum regional income Rp 2.555.662,91	153(90,0)
Religion	
Islam	170(100)
Family Type	
Nuclear Family	160(94,1)
The Dyad Family	6(3,5)
The Extended Family	4(2,4)
Types of Cigarettes	
Non-Electric	165(97,1)
Electric	5(2,9)
Education	
Have not graduated from elementary school	6(3,5)
Graduated from elementary school	49(28,8)
Junior High School	40(23,5)
High School	61(35,9)
Bachelor	14(8,2)

Family Medical History in Kaliwates Health Center Working Area

In the study, family medical history data was obtained from a family medical history questionnaire with one question item consisting of existing answer options and no family medical history in the respondent's neighborhood.
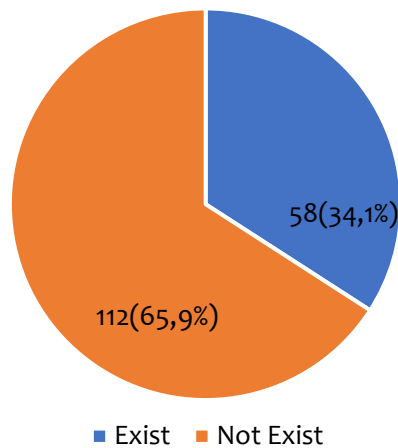
Figure 1. Family medical history in the working area of Kaliwates Health Center

Figure 1. shows that most respondents had no family medical history, which was as many as (65.9%).

Smoking Behavior of Family Members

In this study, smoking behavior data was based on the results of filling out the Glover Nilsson Smoking Behavioral Questionnaire (GN-SBQ) questionnaire consisting of 11 question items. The following is an analysis of the results of filling out the questionnaire presented in Figure 2.
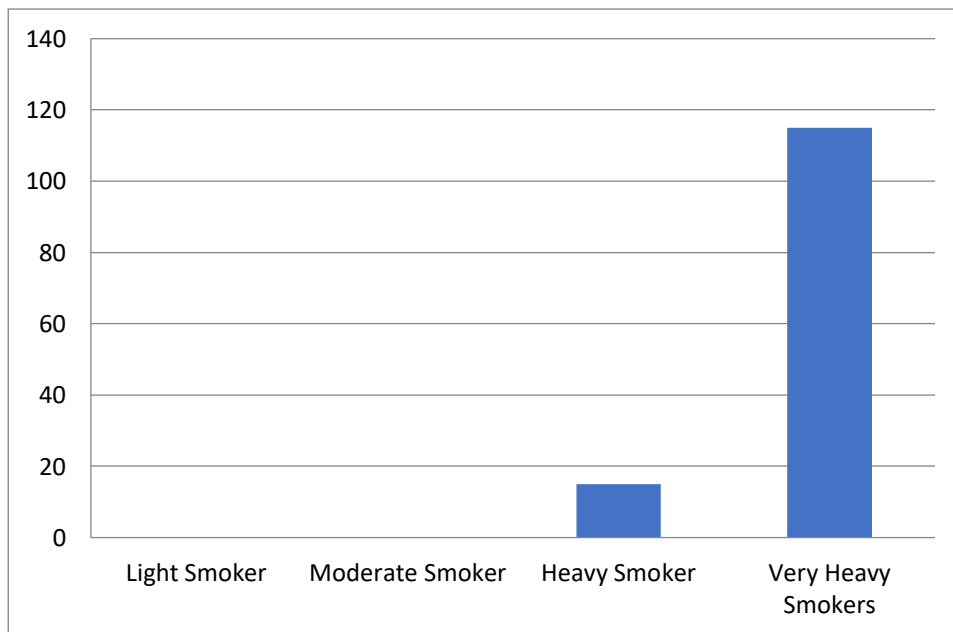
Figure 2. Category of Smoking Behavior in Family Members

Table 2. Distribution of smoking behavior among family members

Smoking Behavior Questionnaire Items	Md (P$_{25}$-P$_{75}$)	Z	p-value
Smoking habits are very important to me	4,00 (4,00-4,00)	0,519	<001
I handle and manipulate my cigarettes as part of smoking	3,00 (3,00-3,00)	0,540	<001
Putting or chewing something in your mouth to distract yourself from smoking	4,00 (4,00-4,00)	0,535	<001
Smoking after finishing something or work	4,00 (4,00-4,00)	0,539	<001
If you don't smoke, will it be difficult to do something	3,00 (3,00-3,00)	0,502	<001
Smoking is not allowed in certain places and will play packs of cigarettes or cigarettes	3,00 (3,00-3,00)	0,530	<001
In certain places or certain things that can trigger smoking, for example seats, sofas, rooms, or during work	4,00 (4,00-4,00)	-	<001
Light cigarettes regularly (without desire)	4,00 (4,00-4,00)	-	<001
Finding yourself putting things like cigarettes and other objects (stationery, toothpicks, chewing gum) into your mouth and smoking them to relieve stress, tension, anxiety	4,00 (4,00-4,00)	-	<001
The part that you enjoy the most when smoking and when lighting	1,00 (1,00-1,00)	0,536	<001
When alone in restaurants, bus terminals, etc. you will feel comfortable or confident if you hold a cigarette	2,00 (2,00-2,00)	0,501	<001

Note: MD = median, P = percentiles, Z = value of Kolmogorov Smirnov test coefficient,
p-value = significance value of Onse sample Kolmogorov-Smirnov Test

Table 2 shows a significant difference (p-value <0.05) from all smoking behavior questionnaire items.

The relationship between family medical history and smoking behavior of family members

Table 3. The relationship between family medical history and smoking behavior of family members

Family Medical History	Smoking Behavior				X^2	P-value
	Heavy		Very Heavy			
	f	%	f	%		
Exist	6	3,5	52	30,6	0,253	0,615
Not	9	5,3	103	60,6		

Note = f = number of respondents, % percentage of number of respondents, X2 = Chi-Square test value,
p-value = Chi-Square test significance value

Table 3 shows the results of the chi-square statistical test obtained a P-value of 0.615 (<0.05) showing that Ha was rejected or there was no significant relationship between family medical history and smoking behavior in the Kaliwates Health Center work area.

4. DISCUSSION

Family health history

From the results of the data analysis, it is known that in the working area of Kaliwates Health Center, more respondents do not have a family medical history. This is because the family's function toward family health is optimal. The family functions as an exchange of information among family members and the role of each family member functions well. Family functions can be optimal if the implementation of family functions is well-established between family members (Isnaini et al, 2020). Family Health History in the Kaliwates Health Center Working Area, Jember Regency. The results of this study showed that the majority had no family medical history. This is because family medical history records health information about a person and his close relatives. The record can be said to be complete if it includes information from three generations of relatives. Detailed family medical history is used as a measurement tool for assessing the risk of chronic disease.

Smoking Behavior of Family Members

The data analysis results show that smoking behavior in the Kaliwates Health Center Working Area is categorized as severe and very heavy. This is due to the environmental factors of the respondent. Therefore, it is very important to provide socialization to family members with heavy smoking categories. Smoking behavior seen from various points of view is very detrimental to oneself and others around him. The threat to health posed by smoking behavior is very dangerous if not stopped. The factors causing smoking are closely related to a person's smoking behavior and need to be educated about the behavior of robotics in family members (Juliansyah & Rizal, 2018). The results of this study showed that most of the working areas of Kaliwates Health Center were in the very heavy category (60.6%).

The relationship between family medical history and smoking behavior of family members

Based on research using the Chi-Square test, it was found that there was no

relationship between family medical history and smoking behavior in the Kaliwates Health Center Work Area. This is likely because family medical history variables do not significantly correlate with factors influencing smoking behavior. These results do not align with previous research by Rahmaniar (2020) that there is a relationship between family history and smoking history. However, Aprilman's research (2020) shows no relationship between family medical history and smoking incidence because of other factors such as habit and environmental factors. From this description, it can be concluded that family medical history is not related to smoking behavior.

Implications of Nursing

The study showed that a family medical history of the behavior was not significantly associated. This research shows that nurses have an important role, namely as educators, nurses provide knowledge about the importance of maintaining health and stopping smoking behavior. The results of the Chi-Square statistical test obtained a P-value of 0.615 (<0.05) showing that Ha was rejected or there was no significant relationship between family medical history

and smoking behavior in the work area of the Kaliwates Health Center.

5. CONCLUSION

The conclusions of the results of the study and discussion of the relationship between family medical history and smoking behavior in the Working Area of the Kaliwates Health Center, Jember Regency are as follows:

There was a significant difference in the smoking behavior score of family members in the Kaliwates Health Center Working Area (p-value <0.05). In most smoking behavior the category is very heavy.

There was no significant relationship between family medical history and smoking behavior in the Working Area of Kaliwates Health Center, Jember Regency (p-value 0.615 >0.05).

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AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, analysis, and

writing: Okky Oktaviyana Putri, Tantut Susanto, Latifa Aini Susumaningrum. Manuscript revisions: Okky Oktaviyana Putri.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

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