



Case Study of The Effect of Herbal Cigarette use on Reproductive Health

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Abstract

Researchers observe a phenomena in Magelang Regency, especially in Mertoyudan District. We are as Indonesian citizens and as health workers must be concerned about the health problems around us. So researchers want to see how much herbal smoking has influenced on reproductive health for humans. In general, smoking affects public health and Reproductive health greatly, however based on the developing issues herbal cigarettes are different from ordinary cigarettes that they can cure all diseases and improve reproductive health. Objective: To find out how much herbal cigarettes have influenced on reproductive health both women and men. Method: This type of quantitative research with correlational analysis that combines the two methods in research so the results are maximized. The approach used in this study is Cross Sectional in families who use or consume herbal cigarettes. The data used in this study are primary data and secondary data, population are families who use herbal cigarettes. Data collection is carried out by observation, questionnaires. Quantitative data processing is carried out by data analysis by editing, mater data. Clearing and data processing with Univariate and effect testing. Results: Characteristics of most respondents aged 46-55 years by 32%, high school education by 56%, most jobs are private employees by 54%, duration of using cigarettes 3-4 years by 40%, for male sex by 62%. 61.24% and women 68.42%.

Keywords

herbal smoking, health, reproduction

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Introduction

In 2018, there were herbal cigarettes circulating in rural communities where people thought these herbal cigarettes were a substitute for ordinary cigarettes or conventional cigarettes, so that by consuming these herbal cigarettes there would be no side effects on the users' bodies. According to Abdul Malik, an alternative medicine based on concern, he creates concoctions while creating jobs by making herbal concoctions containing 17 herbal ingredients which are made into herbal cigarettes and have been tested in the laboratory of Brawijaya University Malang. With results containing 5 milligrams and 0 nicotine, 05 milligrams lower than the content of ordinary cigarettes (Universitas Malang, 2020)

According to observations so far in Mertoyudan village, many heavy smokers have flocked to herbal cigarettes because there is a lot of news that herbal cigarettes are not harmful to health, that herbal cigarette users also do not look at age, gender, so it is very worrying for health, especially reproductive health.

According to Dr. Ernet Groman, he emphasized that herbal cigarettes also have the potential to damage health because herbal cigarettes also produce carbon monoxide in higher concentrations, which also have the potential to cause death.(Dr Ernest, 2018)

It is very difficult for an active smoker to leave his hobby or smoking habit because the nicotine content has a very addictive substance. Cigarettes can force smokers or addicts to become addicted, and if smoking is stopped the smoker will feel unhealthy or unwell which is called the withdrawal effect or withdrawal. (Hidayat et al., 2016)

The results of the study on Comparison of Exposure to Conventional Cigarette Smoke and Herbal Cigarettes in Mice (mus musculus) to a Comparison of Histology of the Lungs with the results of differences in lung damage in mice in the form of edema, inflammatory cell infiltration, alveolar sep-

tum destruction between exposure to conventional cigarette smoke and herbal cigarettes.(Nurul Hidayah1, 2020)

According to interviews with users of herbal cigarettes it is not addictive because the nicotine in herbal cigarettes is low, but according to the results of the study it was found that herbal cigarettes B and D have almost the same nicotine content as conventional cigarettes, namely 0.629 mg. While herbal cigarettes A, C, and E have a greater nicotine content compared to conventional cigarettes.(Hidayat et al., 2016)

Tobacco and all types of cigarettes including cigarettes including conventional cigarettes, electronic cigarettes, cigarettes with heating are very harmful to the body. These activities not only threaten your own health, but also the health of your family, friends and those around you. The habit of smoking is not only a problem in adults but is also rife among children and adolescents. This is evidenced by the increasing prevalence of smoking in the population aged 10-18 year. (Biro Komunikasi dan Pelayanan Masyarakat, 2021)

The purpose of this study was to look at the characteristics of the respondents, the level of knowledge of the respondents, the behavior of herbal smokers and the effect of herbal smoking on reproductive health.

Method

This type of research is quantitative research which is research based on numerical data obtained and then measurements are carried out with statistical tests related to the problem under study and then conclusions are drawn.(Sugiyono, 2018)

The research method used is cross-sectional, namely a study to study a correlation dynamics between risk factors and effects, and with an approach, observation or by collecting data at a certain time.(Notoatmodjo, 2002), in this study data collection both knowledge, behavior and influence of smoking are taken simultaneously.

The population in this study were members of the Mertoyudan sub-district community who had used herbal cigarettes for more than 3 months, approximately 75 people, and the ages of the respondents were between 14-70 years, both men and women.

The sample technique used in this study is purposive sampling, which is sampling using certain considerations according to the desired criteria to be able to determine the number of samples to be studied. (Sugiyono, 2018) In this study, sampling was taken by conducting home visits, where respondents that was studied then only conclusions were drawn.

Data processing methods with univariate and bivariate data processing to see the results of each research item and its relationship.

Result and Discussion

Mertoyudan sub-district is a sub-district in Magelang district with an area of 45.35m², which consists of 13 villages namely Banjarnegoro, Banyurojo, Bondowoso, Bulurejo, Danurejo, Deyangan, Donorejo, Jogonegoro, Jogoegoro, Kalinegoro, Mertoyudan, Pasuruhan, Sukorejo, Sumberrejo. Mertoyudan sub-district is bounded by the north, which is bordered by Magelang sub-district, south of Magelang city, to the east by Mungkid sub-district, to the south by Borobudur sub-district, to the west by Tempuran sub-district. (Wikipedia bahasa Indonesia, 2018)

Description of Respondent Characteristics

Respondents in this study were people in the Mertoyudan sub-district, Magelang Regency, who had been using herbal cigarettes for more than 3 months and were still using herbal cigarettes at the time of the study. The characteristics of the respondents can be seen in table 1

The characteristics of the respondents can be seen in table 1. It shows that the results of the research on the age of most

were 46-55 years by 32%, but there were still those who were less than 20 years old by 20%. The results of this study were also supported by the theory of age classification from the Ministry of Health, namely toddlers 0 -5 years, children 5-11 years, early adults 26-35 years, late adults 36-45 years early elderly 46-55 years, late elderly 56-65 years seniors 65 and over. (RI Ministry of Health, 2018), with Thus, the age of the respondents who used herbal cigarettes was included in the early elderly. According to WHO, children aged 0-17 years, youth 18-65 years, middle age 66-79 years, parents 80-99 years.

The level of education shows that the education level of the majority of high schools is 56%, this research is supported by the theory of education namely early, elementary, middle and high education, the results of secondary research have the ability to establish reciprocal relationships with the socio-cultural environment and the natural surroundings and can develop abilities further in the world of work or higher education. (Nur Anisa Noviana, 2014)

Most of the respondents' jobs are private employees by 54%. Although there are still civil servants at 6%. This research is also supported by research results which say that most employees are non-standard workers who have low work skills, have no career path and can endanger the development of human resources for both the company and clients. On the other hand, having a temporary job as either a standard worker or non-standard worker is better than not having a job. Thus the unemployment rate can be reduced and can significantly increase the country's economic growth. (Devi Melisa Damiri, 2017)

The longest use of herbal cigarettes is 7 years by 14%, but the longest is 3-4 years of cigarette use by 40%. The use of the word duration has been widely used in our daily lives, where this word is not a foreign term for most of the general public. ((KBBI, 2021), This research is also supported by research results that there is a significant relationship between years of service ($p= 0.049$), length

Table 1. Distribution of respondents characteristics

No	Characteritics	N	%
1. Age			
a.	< 20 years	2	4
b.	21 – 35 years	10	20
c.	36 – 45 years	12	24
d.	46 - 55 years	16	32
e.	56 years	10	20
Sum		50	100
2. Education			
a.	Primary School	2	4
b.	Secondary School	28	56
c.	High School	20	40
Jumlah		50	100
3. Occupation			
a.	IRT	9	18
b.	Labor	2	4
c.	Civil Servants	3	6
d.	Retired	2	4
e.	Entrepreneur	3	6
f.	Private	27	54
g.	Students	4	8
Sum		50	100
4. Duration of consumption			
a.	1 – 2 years	10	20
b.	3 – 4 years	20	40
c.	5 - 6 years	13	26
d.	7 years	7	14
Sum		50	100
5. Gender			
a.	Male	31	62
b.	Female	19	38
Sum		50	100

Primary Data computed in 2022

of work ($p=0.044$), number of types of pesticides ($p=0.000$), use of PPE ($p=0.000$) and management of pesticides ($p=0.000$) with poisoning in farmers in Brebes Regency. (Istianah, 2017)

According to gender, 61% of men in this study and 38% of women, according to observations, there were more male cigarette users than women. Gender is an in-

ternal factor of a person's nutritional needs. (Khomsan, 2008)

Description of knowledge, behavior of respondents in herbal smoking Knowledge

Based on table 2, it shows the level of knowledge of the respondents, it was found that the level of knowledge in the good category was 66%. This research is also based

Table 2. Distribution of frequency

Cognitive	N	%
Baik Bood (score 75-100 %)	33	66
Good enough (score 60 – 74%)	13	26
Sometimes (Score <60%)	4	8
Sum	50	100

Primary Data computed in 2022

Table 3. Frequency Distribution of Respondents Behavior Variable

Behavior	n	%
Good (score 75-100 %)	40	80
Good enough (score 60 – 74%)	7	14
Not so good (score < 60%)	3	6
Sum	50	100

Primary Data computed in 2022

Table 4. Frequency Distribution of the effect of herbal cigarettes on reproductive health

Knowledge	n	%
High (score 80-100 %)	15	30
Middle (score 60 – 79%)	30	60
Light (score 30-59%)	5	10
No(score 0 -29%)	0	0
Sum	50	100

Primary Data computed in 2022

on a theory which says that knowledge is the sum total of thoughts, ideas, ideas, concepts and understanding that humans have about the world and its contents including humans and life.(Notoatmodjo, 2010), This research is also supported by research with the result that knowledge is the only variable that has a significant relationship with smoking behavior. Meanwhile, other variables do not have a major effect on smoking behavior at home. (Meirina Anwar et al., 2021)

Behavior

Based on the results of the research results of the behavior of respondents smoking with the results of the behavior of the majority good category of 80%. Based on the theory of behavior is all the individual biological manifestations within interact with the environment, starting from the beha-

avior that is most visible to that which is not visible, from what is felt to what is not felt. (Notoatmodjo, 2010). Research is supported by research results. There is a negative relationship between health locus of control and smoking behavior in adolescents. This shows that the higher the health locus of control will lead to lower smoking behavior in adolescents.(Naila Iffah, 2018)

Description of the Effect of Herbal Cigarettes on reproductive health

Based on table 4, the results of the research on the influence of herbal cigarettes that the majority of respondents felt were in the category of moderate influence of 60% had exceeded 50%, but also respondents who felt a heavy influence of 30%, this research was also based on the theory of influence is the power that causes something

to happen, something that can form or change something else, submit or follow because of the power or strength of others. (Badudu & Zain., 2001)

Multivariate analysis

Adjusted R2 is 0.161, this means that 1.61% of the influence variable can be explained by 6 independent variables namely age, education, occupation, knowledge, length and behavior. It greatly influences the use of herbal cigarettes. The results of this study are based on the theory of influence is a powerful force. arises from an object or person and also internal symptoms that can provide changes that can form beliefs or changes. (Surakhmad, 2012), this research is also supported by research results which say that students have great knowledge about the dangers of smoking to their health. Most

of them have known about the effects of smoking on their health, such as effects on their fitness, short-term effects, and long-term effects. Therefore, all of the above efforts can actually lead students in positive activities and guide students to become independent individuals and aware of body and soul health (Elham Agus Yulianto, 2015).

Based on the results of the statistical ANOVA test or F test, it was found that the calculated F value was 1,603 with a probability of 0.017, because the probability is much smaller than 0.05, the regression model can be used to predict the effect obtained that behavior, age, education, knowledge, length of time and work together have an effect on the use of herbal cigarettes. This research is supported by the results of research on Smoking peer group, stipend, access to cigarettes increases the probability of smoking.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403a	.162	.161	.585

Table 6

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.291	6	.548	1.603	.017 ^b
	Residual	14.709	43	.342		
	Total	18.000	49			

a. Dependent Variable: Pengaruh

b. Predictors: (Constant), Perilaku, Umur, Pendidikan, Pengetahuan, Lama, Pekerjaan

Table 7

Coefficients^a

Model	B	Unstandardized Coefficients		Standardized	t	Sig.
		Std. Error	Beta	Coefficients		
1	(Constant)	2.329	.784		2.972	.005
	Umur	-.008	.007	-.172	-1.079	.087
	Pendidikan	-.021	.165	-.019	-.125	.901
	Lama	.097	.048	.310	2.024	.049
	Pekerjaan	-.006	.085	-.011	-.065	.948
	Pengetahuan	-.191	.135	-.203	-1.414	.064
	Perilaku	-.165	.159	-.156	-1.036	.006

a. Dependent Variable: Pengaruh

Knowledge about tobacco smoking and non-smoking families decreases the probability of smoking. (Soesyasmoro, 2016)

Based on the results of the study it was found that of the 6 independent variables included in the regression model the variables age, knowledge, education, work were not significant. This can be seen from the probability significance of age.0.087, education of 0.901. work is 0.948, knowledge is 0.064, these four variables are far above 0.05. As for the variable duration of using herbal cigarettes, it is 0.049, and behavior is 0.006 with a significance at 0.05. From these results it can be concluded that the influence variable is influenced by time and behavior with a mathematical equation. Influence = 2.329 -0.008 age -0.021 education +0.097 length -0.006 occupation -0.191 knowledge -0.165 behavior. A constant of 2.329 states that if the independent variables are considered constant, then the average effect is 2.329. The old regression coefficient is 0.097 indicating that each added the longer you use cigarettes, the more influential it is by 0.97. This research is supported by the results of this study. (Hasyim1, 2022)

Conclusion

The research was conducted in 2022 with the final results of the study as follows: For characteristics, it was found that the age of the respondents was mostly between 46-55 years by 32%, the most education was secondary education by 56%, the employment status was mostly private employees by 54%, the length of time they had used smoking between 3-4 years is 40%, for male sex is 62%. The effect of smoking on reproductive health affects both men and women equally in the moderate category, for the effect on men is 61.24 % moderate, for women 68.4%

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