ORIGINAL ARTICLE

Smoking Behavior Among Women In Palu, Indonesia

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ABSTRACT

Introduction: The Basic Health Research show that the number of female smokers aged over 15 years has increased between 2007-2013. Similarly in 2018, the number of female smokers in Indonesia was 4.8%, and in Palu City, there were 583 female smokers. Women smoking are 25% more at risk of some health challenges than male smokers. Based on these data we consider that smoking behavior among woman needs attention. The purpose of this study was to determine the factors related to smoking behavior among women in Palu City, Indonesia. **Methods:** This is a quantitative research with a cross sectional design. The technique employed was simple random sampling in which a total of 80 female smokers were selected. The data analysis was carried out using the Chi-square test with a confidence level of 95%. **Results:** The results showed that knowledge of smoking, (p = 0.001), peer influence (p = 0.003), early age of smoking (p = 0.010), and work status (p = 0.013), were factors associated with smoking behavior among these women. **Conclusion:** The conclusion is that factors related to smoking behavior include knowledge of smoking, peer influence, early age of smoking and employment status. In recommendation, there is need for women smoking to seek information about the effects of smoking especially those directed at their gender. Furthermore, it is important that health workers increase the frequency of health education as well as health promotion about the dangers of smoking to the public.

Keywords: Women, Smoking, Behavior

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INTRODUCTION

Smoking behavior is the activity of burning tobacco rolls and smoking them, causing smoke that can be inhaled by the people around him. However, this act is not just common among men, there are active female smokers both in Indonesia and in the West(1). It is often practiced by women as part of effects of modern lifestyle especially in urban areas, although there are traditional cases of smokers(2,3).

Based on data from the World Health Organization (WHO) in 2001, around 250 million women in the world are smokers, recording a prevalence rate of around 22%. In developed countries, the prevalence of smoking among women is between 20-35%, however, it is estimated between 2-10% in developing countries. Also, WHO predicts this number will increase to 20% in 2025(4).

Similarly, the available data shows that the number of female smokers in Indonesia continues to increase yearly. The results of basic health research in 2013 showed that the number of female smokers was 2.1%, which increased to 4.8% in 2018 (5). Female daily smokers in Surabaya, Indonesia, smoked five to six more cigarettes per day than in past national surveys (6).

According to the data from Central Sulawesi Province People's Welfare Indicator in 2017, the percentage of female smokers was 1.7%. In the same year, the Palu City Health Office recorded 583 female smokers in the city. Based on preliminary studies that were carried out among smokers, it was reported that there are still many active women smokers in Kabonena village. For the surrounding community, smoking is part of traditional rituals. Some women in this village have been indulging in smoking habits since their adolescent years, hence, it is no longer a taboo as they grow up. This is evidenced by rate at which the act is carried out in public places, as some female smokers see it as a necessity. The purpose of this study was to determine the factors related to smoking behavior among women in Palu City, Indonesia

MATERIALS AND METHODS

Design

This is an observational research using a cross sectional study design, to find out the determinants of smoking

behavior. The study was conducted for 6 months from July to December 2019.

Population and study setting
This research was conducted among female smokers in Palu city. Population of women who smoke was obtained from data from public health centers. The sampling technique was simple random sample involving 80 female smokers.

Variables
The variables in this study are cigarette knowledge, peer influence, early age of smoking, and the work status of smokers. The four variables are independent variables that were measured based on a questionnaire. The dependent variable is smoking behavior in women in the city of Palu. The variables were selected based on initial data obtained and in-depth interviews with traditional leaders. The type of data used is quantitative data using a nominal data scale for each variable

Data collection
The data collection involved the use of questionnaires given by the research team to respondents.

Data Analysis
The data analysis involved the use of the Chi-square statistical test to explore the relationship between each variable with a p-value <0.05 at a 95% confidence level, considered as being significant.

Ethical Clearance
This study was approved by Research Ethics Committee, Faculty of Medicine Tadulako University no 4229/ UN.28.I.3/KL/2019.

RESULTS

The results of the research conducted on some female smokers in the city of Palu shows that there is a relationship between cigarette knowledge, peer influence, early age of smoking, and work status with smoking behavior (Table I). It can be concluded that cigarette knowledge, peer influence, early age of smoking and work status have significant relationships with the smoking behavior with values of p=0.001 p=0.003, p=0.010 and p = 0.013 respectively. Facts in the field show that there are still many women who smoke. On average, they know about smoking-related diseases through electronic media and warnings on cigarette packaging, but do not know how much impact the ingredients contained in cigarettes are. The data shows that as many as 43.76% of respondents are heavy smokers and have poor knowledge about smoking. 42.5% of respondents are heavy smokers and have peers who are also smokers. 30% of respondents are heavy smokers aged <18 years. And 37.5% of respondents who are heavy smokers have worked.

DISCUSSION

Smoking is an act which gives pleasurable effects considering the fact that cigarettes contain antidepressants. However, it is hazardous to the health based on the over 4000 poisons present in a cigarette (7).

In general, women have a greater health risk than men in relation to smoking behavior. In terms of culture, female smokers also get negative views from the community. However, smoking is a personal choice and women actively involved in it certainly have their reasons(8). Also, some of the negative effects of smoking in men also apply to women (9), however, the difference in body structure of women make them experience some special effects not found in men. These include low fertility, early menopause, faster facial wrinkles and graying(10,11). After menopause, bones are more fragile, therefore, they break easily. In addition, the use of birth control pills in these set of people makes them more susceptible to cardiovascular diseases (12).

This study shows that knowledge about smoking has a significant relationship with smoking behavior in women with a value of p = 0.001. Out of the 80 respondents, 35 were heavy smokers with poor cigarette knowledge. Knowledge is one of the predisposing factors for the

Table I: Analysis of determinants of smoking behavior in women in Palu City

Variable	Smoking Behavior				Total	*p*
	Light		Weight			
	N	%	N	%		
Cigarette knowledge						
Good	19	23.75	7	8.75	26	0.001
Poor	19	23.75	35	43.75	54	
Peer Influence						
Yes	19	23.75	34	42.5	53	0.003
No	19	23.75	8	10	27	
Early Age of Smoking						
≥18 years	18	22.5	20	25	38	0.010
<18 years	18	22.5	24	30	42	
Work						
Yes	17	21.25	30	37.5	47	0.013
No	21	26.25	12	15	33	

formation of new behaviors, and to obtain sufficient knowledge about the dangers of smoking, there is need for continuous information. Variable knowledge about the dangers of smoking on health and the substances contained in cigarettes are mainly responsible for the act in most people. The respondents basically know the dangers of smoking since it is boldly written on the pack, however, they indulge in it because it makes them feel calm and provides relief from the stress. Besides that, some want to prove that smoking is not only for men.

This is in line with a research conducted by Kurniafitri Devi et al (2015) that the study reported the negative impressions about the act among women. These smokers see it as a medicine at certain times and also considering the fact that women want equal right with men, they see nothing wrong with it. In addition, despite knowing the dangers of smoking in general and being aware of the restrictions and warnings from the surrounding environment, and the manufacturers through advertisements on various media, these smokers still consider the act as something reasonable due to their addiction (13).

Similarly, peer influence have a significant relationship with smoking behavior among women with a value of p = 0.003 and of the 80 respondents, the 34 classified as heavy smokers have peers who were also smokers. Smoking is a behavior that is learned and transmitted through peer activities. Motivation to smoke in early stages is driven by the desire to join and keep up with friends already smoking.

The biggest factor contributing to the act of smoking is the motivation factor from the environment(14). Also, an individual's character is largely shaped by the surrounding environments made up of family members, neighbors and peers (15,16). This is in line with the research conducted by Martini Sih (2014) which reported that most female smokers are influenced by their environment, such as family and peers. Having a smoker family member and a female friend engaging in it, is a driving force for the emergence of smoking cocks among teenage girls. This is because it is a behavior learned from the environment (8).

In addition, early age of smoking has a significant effect on smoking behavior with a value of p = 0.010 and of the 80 respondents, 24 were heavy smokers that started the act below the age of 18 years. Based on some research, the age of first time smoking generally ranges between 11-13 years and in general, smokers start before 18 years. In Indonesia, the average level of education for children aged 11-13 years is elementary school. Hence, most smokers start while in elementary school, then through the high school at the age of ± 18 years (17,18). According to Wulan Dwi Kencana (2012), based on the Household Health Survey in Indonesia, the smoking habit of most population started at adolescent age, where 53.2% started between 15-19 years. Also, 0.55% of the population have started smoking between the ages of 5-9 years, which is a very young age (19).

Finally, work status also has a significant effect on smoking behavior among women with a value of p = 0.013 and of the 80 respondents, 30 were heavy smokers actively working. The reasons young women choose to be active smokers, despite the high risk of smoking which includes damage to the reproductive system is as a result of relief from the stress brought about by the heavy workload and family problems. In addition, since these women earn income, they do not need to get money from their husbands or parents to buy cigarettes. This is in line with the research conducted by Alfira et al (2018) which states that the reason most women engage in smoking activities is due to the income receive from work and as a result of women's social factors (20). Smoking has far negative impacts on the health and economy of people and individuals (21,22). It is well understood that smoking is the leading cause of death, killing half the smoker's lifetime (23,24).

In an effort to stop smoking there needs to be support from a healthy environment, this support can come from outside, namely friends and from within, namely family (25,26). According to Atala (27), as well as Susanto et al. (28), in counselling patients will obtain information about the dangers of smoking, the benefits of quitting smoking, assistance in dealing with business obstacles to stop smoking and others. In addition smokers will also get motivational encouragement from counsellors so that counselling can run effectively (29,30).

CONCLUSION

Based on the results, it could be concluded that cigarette knowledge, peer influence, early age of smoking and work status are all determinants of smoking behavior among women in Palu city. It is recommended that the health workers increase the frequency of health education informing the public about the dangers in the act, especially in high schools and at work places.

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