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Health Problem related Smoking Behaviour among Adult in Indonesia

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Abstract

Smoking behaviour is a problem that is often found in Indonesian society. The number of active smokers in Indonesia is increasing from year to year. Smoking can cause losses both in terms of socio-economic and health and even death.

The aim this research is (1) to assess the prevalence of smoking cigarette among adult in Indonesia, and (2) to analizing relationship between health problem and smoking cigarette among adult in Indonesia. This is a cross-sectional study based on data extracted from the Indonesia Demographic and Health Survey, 2017. A household-based survey, implemented in a representative probability sample of more than 47963 households from urban and rural areas in Indonesia. This research was analytic correlational study with Cross sectional approach. The sample of reserach were 18023 adult aged between 15 and 44 years. Relationship between health problem and smoking cigarette among adult in Indonesia was assessed by bivariate methods. Based on the results of the study found that most smokers have ages, residing in rural areas, secondary level education background, have a very poor wealth index level. The research findings found there is a relationship between age (p=0,001), type of residence (p=0,005), type of education (p=0,000), type of wealth index (p=0,000), and health problem related smoking behavior. The findings indicate that there is a relationship between complaints of short / rapid breath (p=0,001), and dont have relationship with nasal disorders and the presence or absence of cough with smoking behavior.

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INTRODUCTION

Smoking is a problem that is often found in Indonesian society. The number of active smokers in Indonesia is increasing from year to year. Based on data from Riskesdas (2007), it is found that the prevalence of smoking in Indonesia continues to increase both in men and women. Smoking can cause losses both in terms of socio-economic and health and even death. The prevalence of smoking in women quadrupled from 1.3% in 2001 to 5.2% in 2007 (profil kesehatan indonesia, 2018). Based on WHO data (2013), the prevalence of adults who smoke every day in Indonesia is 29%, which ranks first in Southeast Asia. Smoking behavior is often the cause of death in the world and as many as 6 million people have died from smoking (Warner, 2015).

Data on active smokers from the 2017 Global Adult Tobacco Survey (GATS) found that as many as 67% of men smoke, 2.7% of women smoke, 80.4% of the population who smoke currently smoking only clove cigarettes. Data from adolescent passive smokers shows that the prevalence of smoking in 2007 was 3 times in boys and 5 times in girls compared to 1995 (Hossain et al., 2017).

Cigarettes made from tobacco contain 7000 chemicals that are harmful to health, 200 of which are toxic substances (Warner, 2015). The chemicals released consist of 85% gas components and particles. Among them nicotine, carbon monoxide, tar are some of the thousands of substances in cigarettes. Medically smoking can increase the overall risk of death by 70% compared to nonsmokers, and smokers die 5-8 years earlier than nonsmokers. Inhalation of cigarette smoke causes toxic effects on the upper respiratory tract and lungs.

Cigarettes also have a role in oxidative stress in the human body. Exposure to oxidant chemicals in smoke is associated with decreased levels of endogenous antioxidants in systemic compartments. Numerous studies have reported that smoking causes low concentrations of antioxidants in plasma. The 3rd National Health and Nutrition Examination Survey (NHANES) and other studies reported that smokers had lower levels of vitamin C, á-carotene, â-carotene, â-cryptoxanthin, melatonin, á-tocopherol, and lutein/zeaxanthin significant (Decani et al., 2019).

Seeing these conditions a survey is needed to identify health problems that arise because of smoking behavior. This becomes the basis of research to see whether there is a relationship of complaints felt by smokers with smoking behavior. The aim this research is (1) to assess the prevalence of smoking cigarette among adult in Indonesia, and (2) to analizing relationship between health problem and smoking cigarette among adult in Indonesia.

METHOD

This research was analytic correlational study with Cross sectional approach. Data for this study were obtained from Indonesia Demographic and Health Survey (IDHS) that was conducted in 2017. Survey implemented by National Population and Family Planning Board, Statistical Indonesia, Ministry of Health - Kemenkes, and ICF. The 2017 IDHS was a household-based survey. The Research's Sample have 18023 adult aged between 15 and 44. Survey was conducted in July 2017 - September 2017. The independent variable was Smoking Behaviour dan the dependent variable was age, type of residence, type of education, type of wealth index, and health problem related smoking behaviour. This research used bivariat statistical analytic with Chi square.

RESULT

Table 1 Participant Characteristics (Sosio economic and demographic)

Variable	Smoking (Yes)	Smoking (No)	P-value
Age			
15-19	14	572	0,001
20-24	90	3311	21,8761
25-29		121	4980
30-34		95	4298
35-39		73	2930
40-44		39	1253
Residence			
Rural	274	9572	0,005
Urban	174	7993	7,8328
Education Level			
No education	93	491	0,000
Primary	153	5395	473,6021
Secondary	179	9306	
Higher	23	2373	
Wealth index			
Poorest	217	5259	0,000
Poorer	79	3510	77,1395
Middle	65	3181	
Richer	54	2956	
Richest	33	2659	
n= 18013			

Table 2 Health problem related smoking behaviour

Health problem related smoking behavior	Smoking (Yes)	Smoking (No)	P-value
Short and Rapid Breath			
No	74	3920	0,001
Yes	64	1877	13.0252
Don't answer question	1	15	
Problem in Chest/ Nose			
Chest	23	638	0,484
Nose	27	879	3,4593
Both	10	304	
Other	3	32	
Don't answer question	1	24	
Had cough in last 2 week			
No	266	11022	0,040
Yes	139	5818	6,4225
Don't	6	89	

Based on demographic and socio-economic is found that as many as 121 respondents aged 25-29 years have smoking habits. Based on the domicile of respondents the number of smokers is more in rural areas than urban as many as 274 respondents live in rural areas. Based on the level of education obtained the majority of respondents who smoke have a secondary level of education qualification. About the majority of smokers have a wealth index in the poorest category.

Based on the research, the majority of respondents in this study had the age of 25-29 years and did not smoke. From the results of statistical tests show the relationship between age and smoking behavior (p = 0.001). Based on the type of residence found that the majority of respondents came from rural areas and did not smoke. The test results found no relationship between type of residence and smoking behavior (p = 0.005). Based on level of education, it was found that the majority of non-smokers have secondary level education and there was a relationship between smoking behavior and level of education (p = 0,000). Wealth index of respondents has a middle category and has non-smoking behavior and has a relationship between wealth index and smoking behavior (p = 0,000).

Based on the results of the study found that there was a relationship between smoking behavior with complaints of fast and short breath (p = 0.001). While the respondents' complaints, the majority felt complaints in respondents who smoke and there was no relationship between complaints on the nose and chest (p = 0.484). Based on the results of the study found that the majority did not have symptoms of coughing 2 weeks in respondents with smoking behaviour. From the results of the study found that there was no relationship between smoking behavior with complaints of cough 2 weeks.

DISCUSSION

Relationship Age with Smoking behaviour

Based on the results of the study found that the majority of respondents who smoke are aged 25 to 29 years. The results of data analysis have a relationship between the age of smoking and the age of smoking. The age of smoking is not the only factor influencing smoking behavior. Smoking behavior is influenced by internal factors (personal characteristics) and external factors (environment). This research is similar with Ciftci's research (2018) which states that there is a relationship between smoking behavior and age (Ciftci, 2018).

Relationship Type of residence with Smoking behaviour

Based on the survey, the majority of smokers live in rural areas. The number of smokers in urban areas is less than in rural areas. The test results found no relationship between type of residence and smoking behaviour. The results of this study are the same as Doogan's research (2017) which stated that based on demographic surveys, smoking behavior is found in rural areas more than in urban areas. This is due to many factors consisting of environmental factors, family support and enjoyment

of each individual, causing smoking addiction. In addition, the importance of treating rural populations as vulnerable populations that need attention about regulations and policies about effective tobbaco health control (Doogan, NJ et all, 2017).

Relationship Educational background with smoking behaviour

When viewed from an educational background, the majority of smokers take secondary level education. Level of education related with knowledge. Knowledge related with attitude and behaviour (Prayogi, 2017).

Relationship Wealth index with smoking behaviour

Most respondents have a very poor index. The correlation between smoking and poverty is a public health problem in several countries. Studies have shown an association between living in a poor environment and smoking (Wattel, PP, 2009)

Nicotine addiction can cause additional financial pressure on low-income households (Widome, R et all, 2015).

Relationship smoking behaviour with complaints of fast and short breath

Smoking behavior in a person causes several symptoms that can interfere with health. As many as 64 people who smoke experience complaints of shortness of breath and fast. Ability to smoke will accelerate the decline in lung function. From the data of the decline in the volume of forced expiration of the first second (VEP1) per year in notsmokers by 28.7 ml, former smokers by 38.4 ml, and active smokers amounted to 41.7 ml. Other studies reported by Sherman C.B show that the decrease in VEP1 per year for those who don't smoke ranges between 20-30 ml, in the former smoker 25-50 ml, and in smokers 25-80 ml per year. Cigarettes also contain oxidant toxins that can increase mucosal viscosity in the respiratory tract, there by increasing the risk of pneumonia.

Relationship smoking behaviour with complaints on the nose and chest

Based on research respondents' complaints, the majority felt complaints in respondents who smoke and there was no relationship between complaints on the nose and chest ($p = 0.484$). Cigarette have 200 of which are toxic substances for our health (Warner, 2015). That smoking is associated with epithelium cillia which becomes shorter so that it becomes a trigger factor for lung disease (Leopold et al., 2009). As many as 27 respondents who smoke have complaints on the nose, while as many as 23 respondents have complaints on the chest. Complaints in the chest can be indicated as possible disorders of the lungs or heart.

People with smoking behavior is one of the risks that cause death due to heart problems. Smoking causes 25% of deaths from coronary heart disease, 80% of cases of chronic respiratory disease, 90% of deaths from lung cancer, and contributes to the development of cancer of the larynx, mouth and pancreas, and cancer lung in passive smokers. smoking only increases the risk of complaints in the nose and chest caused by other factors including inflammation and infection. People with smoking behaviour had lower levels of vitamin C, á-carotene, â-carotene, â-cryptoxanthin, melatonin, á-tocopherol, and lutein / zeaxanthin significant (Decani et al., 2019).

Relationship smoking behaviour with complaints of cough 2 weeks

From the results of the study found that there was no relationship between smoking behavior with complaints of cough 2 weeks. Cough results from the stimulation of sensory receptors within the respiratory tract, the afferent impulses of which activate the brainstem and higher cortical ce**nt**ers for cough (Kanezaki, M et all, 2012). Cough complaints for 2 weeks have no relationship with smoking behavior. Cough complaints can be caused by other factors such as respiratory infections, influenza and tuberculosis. Smoking behaviour is well known to be a risk factor for chronic cough and chronic obstructive pulmonary disease, which are associated with the symptom of cough (Rosen, 2006).

CONCLUSION

The research findings found there is a relationship between age, type of residence, educational background and wealth index with smoking behavior in Indonesia. Health problems related to smoking behavior that most smokers do not experience complaints of short and rapid breath, have disturbances in the nasal area such as discomfort and for 2 weeks did not experience

coughing. From the results of the study also found that there is a relationship between complaints of short / rapid breath, nasal disorders and the presence or absence of cough with smoking behavior.

RECOMMENDATION

Our role as nurses needs to educate the public about the consequences of smoking behavior and take preventive actions through socialization to stop smoking behaviour. Smoking has several negative effects for health.

REFERENCES

Ciftci, F., Ayoz,S., Baygul, D,. Pýnar, Z.,&Elif Sen, O. (2018). Smoking behaviour and age. European Respiratory Journal 2018 52: PA4539; DOI: 10.1183/13993003.congress-2018.PA4539

Decani, S., Baruzzi, E., Pradal, G., Villani, G., Venini, R., & Sardella, A. (2019). Smoking and health. *Dental Cadmos*, *87*(1), 1–17. https://doi.org/10.19256/d.cadmos.01.2019.11

Doogans, NJ., Roberts,M.E. Wewers, ME, Stanton,. Keith, D.R,. Gaalema D.E., Kurti, A.N. et all. (2017). A growing geographic disparity: Rural and urban cigarette smoking trends in the United States. Prev Med. 2017 Nov; 104: 79–85. doi: 10.1016/j.ypmed.2017.03.011

Hossain, S., Hossain, S., Ahmed, F., Islam, R., Sikder, T., & Rahman, A. (2017). Prevalence Tobacco Smoking and Factors Associated with the Initiation of Smoking among University Students in Dhaka, Bangladesh. *Central Asian Journal of Global Health*, *6*(1). https://doi.org/10.5195/cajgh.2017.244

Kanezaki.,M., Ebihara, S., Gui, P., Ebihara, T & Kohzuki, M,. (2012). Effect of cigarette smoking on cough reflex induced by TRPV1 and TRPA1 stimulations. Respiratory Medicine. https://doi.org/10.1016/j.rmed.2011.12.007

Leopold, P. L., Mahony, M. J. O., Lian, X. J., Tilley, A. E., Harvey, B., & Crystal, R. G. (2009). Smoking Is Associated with Shortened Airway Cilia, *4*(12). https://doi.org/10.1371/journal.pone.0008157

Prayogi, Bisepta. (2017). The Correlation Of Knowledge And Self-Effication In Preventing The Spread Of Pulmonary Tuberculosis. Jurnal Ners Dan Kebidanan. STIKES Patria Husada Blitar http://jnk.phb.ac.id/index.php/jnk/article/view/233/pdf

Profil kesehatan indonesia. (2018). *Provil Kesehatan Indonesia 2018*. https://doi.org/10.1002/qj

Rosen. (2006). Chronic cough due to chronic bronchitis: ACCP evidence-based clinical practice guidelines. Chest Journal. Volume 129, Issue 1, Supplement, Pages 122S–131S.DOI:https://doi.org/10.1378/chest.129.1_suppl.122S

Statistics Indonesia, Badan Pusat Statistik, BPS et al., Indonesia Demographic andHealth Survey 2017, (2017). BPS, BKKBN, Kemenkes, and ICF International, Jakarta, Indonesia

Warner, K. E. (2015). Smoking and Health. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (pp. 125–131). https://doi.org/10.1016/B978-0-08-097086-8.14049-8

Wattel, PP. (2009). Poverty as a smoking trap. International Journal of Drug Policy, Volume 20, Issue 3, May 2009, Pages 230-236.https://doi.org/10.1016/j.drugpo.2008.10.001

Widome, R,. Joseph, AN, Hammet, P,.Ryn, VM. (2015). Associations between smoking behaviors and financial stress among low-income smokers. Prev Med Rep. 2015; 2: 911–915. doi: 10.1016/j.pmedr.2015.10.011