

Adolescent Need to Know About Cigarettes Content

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Abstract - Adolescents smokers are increase in prevalence. This is because the characteristics of adolescents tend to try new things which are popular among peer group without knowing the content of cigarettes and it's effects to their health. This study aimed to identify the knowledge possessed by adolescents related to cigarette content. The crossectional study design was used to see the description of adolescent knowledge in Palembang about cigarette content. The sample was 100 teenagers from 4 high schools in Palembang taken using the cluster random sampling method. One third of the total teenagers got information related to cigarette content from the internet and teachers at school and more than three-fifths of respondents had parents and friends who smoke. Most of adolescents didn't know that hydrogen cyanide, butane, nepheline, hygrazine and arsenic were ingredients contained in cigarettes. Meanwhile, 10% of respondents mentioned that ammonia was not included in the cigarette content. Adolescents need to get sufficient and accurate access of information about the content of cigarettes to prevent an increase in the number of adolescents smokers.

Keywords: *adolescent, cigarettes content, smoker*

I. INTRODUCTION

The identity crisis experienced by adolescents is characterized by a tendency for the appearance of deviant behavior without regard to the consequences caused for example smoking behavior[1]. According to the 2014 Global Youth Tobacco Survey result, the number of teenage smokers in Indonesia ranks third after China and India with the first age of smoking an average of 15-19 years (48%)[2][3]. In the regional region of Sumatra, South Sumatra Province ranks in the top three in terms of the number of teenage smokers following the Bengkulu and Lampung Provinces[4]. In 2017, South Sumatra Health District recorded 1067 students smoking cases in schools while in Palembang City there were 715 students[5].

Cigarettes contain thousands of hazardous chemicals and the more content in cigarette[6]. Tar, Nicotine and Carbon monoxide are the three most known components contained in cigarettes and have toxic effects if they enter the human body[7][8]. In addition, Nepheline[9], Hydrogen Cyanide and Cadmium[10] and Arsenic[11] are other dangerous ingredients in a cigarette.

Adolescent smoking behavior is largely influenced by extrinsic factors such as the influence of family, environment, peers, cigarette advertisements etc. Although intrinsic factors such as gender, work, beliefs, etc. also determine the formation of behavior. This indicates that smoking behavior is something that can be learned from external exposure especially the characteristics of adolescents tend to want to try new things. To overcome this problem, the Government has issued regulations regarding Non-Smoking Areas and Efforts to Stop Smoking (UBM-Upaya Berhenti Merokok) whose areas of

application are one of them in educational institutions [12][13].

Promotion through media such as counseling, animated videos, advertisements, posters, leaflets, booklets, etc. is expected to increase the knowledge of adolescents about various information including regarding the content of cigarettes. Massive information dissemination through the health education intervention program shows a positive relationship with increasing knowledge[14]. This study aims to describe adolescent knowledge about the content of cigarettes.

II. METHOD

This research is a quantitative research with cross sectional approach. The population in this study were teenagers at the Senior High School level. The sample in this study was taken by cluster random sampling method with a total of 100 teenage respondents with inclusion criteria were adolescents aged 15-19 years. Data collected included the characteristics of adolescents and adolescent knowledge about the ingredients contained in cigarettes. Data collection uses a self-assessment questionnaire that has been tested for validity and reliability. Then the data is processed with a data processing device and presented in the form of a univariate analysis picture.

III. RESULTS

Table I present the distribution of children aged 6-59 months by background characteristics.

TABLE I
Sociodemographic Variables Frequency Distribution

Variables	Total (n)	Percent
Sex		
Male	32	32
Female	68	68
Age		
10-14 years old	17	17
15-19 years old	83	83
Participation in the Dangers of Smoking Socialization		
Ever participated	15	15
Never participated	85	85
Residence		
With parents	36	36
Not with parents	64	64
Father's Education		
Never school/Not completing elemntary	2	2

school			
Completing elementary school	15	15	
Completing junior high school	12	12	
Completing senior high school	39	39	
Completing undergraduate	31	31	
Not know	1	1	
Mother's Education			
Never completing school/Not elementary	3	3	
Completing elementary school	19	19	
Completing junior high school	18	18	
Completing senior high school	26	26	
Completing undergraduate school/college	34	34	
Economic status			
Middle down	7	7	
Middle up	93	93	
Information about cigarette content			
Radio	7	7	
Television	22	22	
Newspaper	19	19	
Magazine	11	11	
Video or Film	16	16	
Street advertisement	8	8	
Internet	34	34	
Sport events	7	7	
Fair/Exhibition	6	6	
Conse	3	3	
Community event	15	15	
Peer group	11	11	
Teacher	36	36	
Parents	18	18	
Ownership of good with cigarette company logos			
Have	10	10	
Don't have	90	90	
Live with parents who smoke			
Yes	64	64	
No	36	36	
Having Friends Who Smoke			
Yes	73	73	
No	27	27	
Total	100	100	

Source: Primary Data, 2019

Based on Table 1, it was known that 68% of respondents were young women, more than 80% are aged between 15-19 years. 85% of them have never been exposed to information about the adverse effects of smoking and the majority of respondents did not live with family. 60-70% of respondents whose father dan mother

were highly educated. Based on the socioeconomic background, most respondents fall into the middle to upper category. Most respondents got information about the cigarette content from the internet and teachers at school. Most students did not have items with cigarette company logos and more than three-fifths of respondents had parents and friends who smoke.

TABLE II
Knowledge Regarding Cigarette Content

Substance Name	True		Flse		Not Know		Total
	n	(%)	n	(%)	n	(%)	
Nicotine	87	87	0	0	13	13	100
Tar	56	56	3	3	41	41	100
Ammonia	28	28	10	10	62	62	100
Cadmium	19	19	4	4	77	77	100
Nepheline	15	15	5	5	80	80	100
Butane	17	17	4	4	79	79	100
Hydrogen cyanide	23	23	3	3	74	74	100
Carbon monoxide	36	36	6	6	59	59	100
Hygrazine	17	17	2	2	81	81	100
Arsenic	16	16	3	3	81	81	100

Source: Primary Data, 2019

Based on Table 2 it is known that the substance which is most widely known to be contained in a cigarette is nicotine. Most of adolescents don't know that Hydrogen cyanide, Butane, nepheline, hygrazine and Arsenic are ingredients contained in cigarettes. Meanwhile, 10% of respondents mentioned that ammonia is not included in the cigarette content.

TABLE III
Categories of Knowledge Regarding Cigarette Content

Variable	Categorized	Number of Risk	% Knowledge
Knowledge	Know < 5 types of cigarette content	75	75
	Know ≥ 5 types of cigarette content	25	25
Total		100	100

Source: Primary Data, 2019

Based on Table 3. it is known that after being categorized only 25% of the total respondents were able to mention more than / equal to five types of substances as cigarette content.

IV. DISCUSSION

Currently, smoking behavior among adolescents group is increasing. 48% of adolescents in Indonesia start smoking at the age of 15-19 years [2][3]. Many things affect adolescent smoking behavior, one of which is adolescent exposure to information about the dangers of smoking. Researchers found that information obtained by adolescents related to the dangers and content of cigarettes was mostly accessed via the internet, television or obtained from teachers and it was very similar to previous studies [15].

Most of adolescent only know that smoking can make bad effects on health such as heart disease, peptic ulcer, and cerebral stroke, but only a small number understand that cigarette smoke is actually more dangerous for passive smokers[15][16]. In this study, it was seen that only 15 percent of students had participated in socialization by health workers or other government agencies. The implementation of integrated school-based health interventions in the educational curriculum has proven to be effective in increasing student knowledge and functioning as an appropriate measure to prevent smoking behavior[17].

Another study shows that the tendency for smoking behavior is closely related to personal choices of adolescents that are in accordance with their characteristics of "like to try new things" and peer pressure of smokers[16][18]. Cigarette consumption among adolescents is increasing, the form of cigarettes is growing from conventional to the electric ones such as vape and sisha[19]. Thin, filter-coated conventional cigarettes with attractive appearance are preferred by adolescent can be accepted by all people from across gender and socioeconomic backgrounds[20]. While, e-cigarettes are preferred because the smell of smoke produced feels more pleasant and considered to be less dangerous than conventional cigarettes.

Socioeconomic characteristics and relationships with family are also one predictor of behavior formation in adolescents. The results of this study show that more than 60 percent of adolescents are not under direct supervision by families because they live separately from parents. Parents who live at home with their children can freely provide education for the prevention of smoking behavior[19]. A low level of parental education will inhibit the communication about the dangers of smoking to adolescents[16]. Even so many teenagers who live with parents actually follow the bad habits (smoking) of their parents[21]. Smoking initiation increases with the frequency of adolescent exposure to parents who smoke.

Adolescent's access to information on the issue of smoking behavior greatly affects the level of knowledge of adolescents about the content of cigarettes and their health effects. Information obtained by adolescents through the media in the form of advertisements generated interest and curiosity and triggers high rates of early smokers[20]. Image of health hazards in cigarette advertisements was not effective enough to reduce the prevalence of adolescent smokers. This is caused by the lack of literacy about the content of cigarettes. Based on this study, known that the 2 types of cigarette content that most teenagers know are Tar and Nicotine. Studies show that both of these substances have toxic effects on the body if exposed for a long time[7][8]. But not many teenagers know that Nepheline [9], Hydrogen Cyanide and Cadmium[10] and Arsenic[11] are other dangerous ingredients in a cigarette. Therefore, adolescent knowledge about harmful content in cigarettes needs to be improved in order to prevent an increase in the prevalence of adolescent smokers.

V. CONCLUSION

More than 80 percent of students who participated in this study have never participated in a formal socialization related to cigarette content but one third of the total

respondents obtained this information via internet and from their teachers through teaching and learning process. More than 60 percent are exposed to smoking environments. Nicotine is the cigarette ingredient most widely known by students. In contrast, most respondents did not know that Nepheline, Butane, Arsenic and Hygrazine were also contained in cigarettes. So, further socialization is needed regarding cigarette ingredients that are harmful to the body.

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