

## Conference Paper

# Relationship Follows Trends and Smoker's Families with Perceptions of Smoking in Primary School Age Children in Karawang, Indonesia

Desy Rizki Ariani<sup>1</sup>, Sigit Mulyono<sup>2</sup>, and Widyatuti<sup>2</sup><sup>1</sup>Institute of Health Science Kharisma Karawang<sup>2</sup>Universitas Indonesia

## Abstract

**Background:** Increased smoking habits in school-age children impact on perceptions about the dangers of smoking in school-age children. Perceptions in the form of school-age children are based on children's experiences of exposure to smokers and smokers' environments. Positive perceptions of the dangers of smoking school-age children who consider smoking habits to be a natural thing to do school-age children. **Objective:** The purpose of this study was to examine the relationship of factors following the trends and factors of family smokers with perceptions about smoking in school-age children in Karawang, Indonesia. **Methods:** Data was taken from the Karawang Community Health Center, where 67% of students found smoking behavior, 356 students were recruited in the district. t-tests and spearman ratings are used to analyze the relationship between smoking and factors following trends and family smoker factors. **Results:** The relationship between following trends with perceptions of smoking for school-age children ( $p$  value = 0.02,  $r$  = 0.122) and the relationship between family smokers and smoking perceptions of school-age children ( $p$  value = 0.002,  $r$  = 0.161). **Conclusion:** Boys, smoking status, getting information about smoking, children having parents who smoke, those who follow trends are a concern. It is recommended for health workers to provide innovative health information about the dangers of smoking in school-age children.

**Keywords:** Risk Factors For Smoking, Smoking Perception, School Age Children.

Corresponding Author:

Desy Rizki Ariani

desyrizkikharisma@gmail.com

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## 1. Introduction

Smoking is still a habit in the daily life of global and national society. The problem of smoking is a priority that has been agreed by the world considering that Southeast Asia has the largest tobacco-related mortality rate in the world at 1.3 million people [1]. WHO made policies in 2015-2030 Sustainable Development Goals (SDGs) with the aim of healthy living and supporting welfare for all ages [1].

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The Tobacco Atlas 3rd edition, shows that 57% of the world's population consumes tobacco in Asia and Australia [2]. Meanwhile ASEAN has 10% of smokers in the world, including Indonesia (46.16%) [2]. These conditions include contributing 20% of global causes of death due to tobacco [2].

Indonesia is the third developing country with the largest number of smoker deaths in the world after China and India. Based on data from the Basic Health Research [3] the prevalence of smoking in Indonesia has increased to 29.3%. In addition, Indonesian people who smoke every day in 2013 reached 24.3%, this has increased from 2007 which had a figure of 23.7%. The average number of cigarettes smoked per day by Indonesians is 12.3%, equivalent to one pack of cigarettes per day [3]. Indonesia itself is the age trend to start smoking among children, in the data obtained that the earliest age to smoke is at the age of 10-14 years by 18% [2]. More than 30% of Indonesian children start smoking before the age of 10 years and the number reaches 20 million children. West Java Province has a prevalence of smokers of 27.1% [3]. Karawang is one of the districts with the 4th highest prevalence of smoking in West Java.

Karawang District Health Office 2015, stated that the number of smokers in the Karawang regency was estimated at 34.7% of the current population of 2.2 million. In addition the data reported 30% of smokers among school-age children. Based on data from the Karawang District Health Office, it is known that the puskesmas area that has children with smoking behavior is the Karawang city puskesmas. From the results of a survey conducted by the City Karawang Community Health Center in 2017, 68% of school-aged children smoked both active and rare.

Children starting smoking depends on the risk factors that have a big influence on smoking behavior, risk factors become a bridge for children to imitate these behaviors. Risk factors are evidenced in research conducted by Ra & Jung [3] in Korean children smoking because of personal, family and related factors. This study reports the results that school-age children have an inseparable smoking initiation with these three factors greater initiation of smoking, where the child lives with his parents (95.2%), and is reported by the father to smoke (75.6%). Similar studies also report that children who have smoker's parents are 6.7 [3], [5]. Research also proves that school-age children have one smoker parent (22.5%), in addition to school-age children also reporting having both smokers' parents (10.4%), this initiates children in smoking behavior by looking at parents have smoking behavior [6]. Responding to the above, this study uses the Health Promotion Model (HPM) as a theoretical model that is used for research reference. In addition, HPM also emphasizes self-confidence and the benefits of a promotion and does not pose a threat. HPM explains seven factors of cognitive perception and five

modification factors [7]. Perception is the final process of observing the senses then becoming a process of receiving a stimulus and passing it on to the brain, and then the individual realizes about something called perception [8].

Human perception has a different perspective in translating it, the perception formed in school children is from the results he sees and the environment that plays a role in translating the perception [9]. The perception of smoking in the form of elementary school-age children should be negative so that what is translated is a dangerous thing that does not have a good impact and should not be copied or done [10]. Educational intervention research to change the perception of children about smoking by giving pictures of e-cigarette advertisements shows that children have the perception of feeling disadvantaged by smoking [11].

Research conducted by Owotomo, Maslowsky, & Loukas (2018) on adolescent perceptions related to smoking with smoking status by trying conventional cigarettes, electric cigarettes and both users, reported adolescent

## 2. Methods

### 2.1. Study Design

This study uses a cross sectional design with survey methods. There were 33 elementary schools visited in this study.

### 2.2. Sample

The sample in this study was 356 primary school-age children with inclusion criteria were children who were willing to be respondents and could read and write. The respondents were student in grades 4 and 5 using random sampling to get participants from each class.

### 2.3. Instrument

The questionnaire used in this study was a smoking perception questionnaire developed by Roditis, Delucchi, Cash, & Halpern-Felsher (2016) consisting of 17 questions include 6 short-term health risk questions, 3 short-term social risk questions, 3 short-term social benefit questions, and 5 long-term health risk questions. Inside scale This questionnaire uses a Likert scale ranging from 1 to 5, where (1) it is not dangerous up

to (5) it very dangerous. The lowest total score from the questionnaire is 17 and the highest is 85. The score results are then categorized into positive and negative. The instrument validity value ( $r$ ) is at a range of  $0.405 - 0.877 > 0.361$  so that 17 items are declared valid and the instrument reliability value is 0.86.

## 2.4. Data Collection Procedur

Before collecting data, researchers conducted research permits in the local government and then asked permission from schools to collect data, after asking to take samples, researchers took samples to select respondents according to criteria, then researchers took respondents by shaking stratified samples with the formula has been determined according to the number of students in the class, then the data were analyzed using a computer by checking the compatibility of the data so that the data can be analyzed with a statistical program on a computer and generate data from the analysis of univariate and bivariate analysis data using the t-test formula.

## 2.5. Data analysis

In this study, each problem is given a weighting which means the number of individuals in the population, each represented by each. This weight is used to produce an unbiased estimate of the prevalence of smoking in Indonesian elementary school students. T-test and Spearman Rank are used to convert the relationship between factors following trends and smoker's family factors with perceptions of smoking in school-age children. All statistical analysis performed using SPSS 21.

## 3. Results

The number of boys (67.7%) is more than that of girls. the number of children who have smoking status (45.2%), children who have health information about smoking (54.2%) (Table 1).

Based on (table 2), the variable follows the trend respondents answered the statements almost the same so that the distribution of respondents' answers was the same in the primary class (95% CI = 3.532-3.753). In addition, the parents variable, respondents answered almost the same statement so that the distribution of respondents' answers is the same as the SD value (95% CI = 2.221-2.413).

TABLE 1: Distribution of characteristics of primary school children by gender, smoking status and health information about smoking.

Characteristics	Frequency	Percent (%)
Gender		
Male	241	67.7
Female	115	32.3
Smoking status		
Smoking	161	45.2
No Smoking	195	54.8
Health information about smoking		
No Get	163	45.8
Get	193	54.2
Total	356	100.0

TABLE 2: Distribution of following trends, family smokers and perceptions of smoking in school-age children.

Faktor Risiko	Mean	Median	SD	Min-maks	95%CI
following trends		4.00	0.625	2.00-4.00	3.532 – 3.753
Family Smokers	3.039		0.708	2.00-4.00	2.914 – 3.164
perceptions of smoking	57.714		4.729	41.00 – 68.00	56.880–58.548

The smoker family variable has an average value of 3.039 where the respondent answers the same statement so that the distribution of respondents' answers is the same as the SD value (95% CI = 2,914-3,164). This shows that the average respondent has more smokers' families. Smokers' families initiate school-age children to smoke.

Smoking perception variables are presented in the form of mean, SD, minimum-maximum and 95% CI, because the data are normally distributed. As the SD value (95% CI = 56,880-58,548). This shows that respondents responded to the views of school-age children about the dangers of smoking, which is positive, which means that school-age children do not consider smoking dangerous.

TABLE 3: Relationship between risk factors following trends, family smokers with perceptions of smoking in elementary school.

Variabel	Perceptions of smoking	
	r	p value
following trends	0.122	0.021*
Family Smokers	0.161	0.002*

\* significant when p value < 0.05

To analyze risk factors smoking in elementary school students, we do t-test analysis and rank rank as the dependent variable. Factors from following trends (r = 0.122) and family factors of smokers (r = 0.161) significantly increase students smoking.

The results of this study indicate that school-age children in Karawang Regency have positive perceptions of smoking, which means that school-age children do not yet know the dangers of smoking directly or indirectly caused by smoking, as school-age children should have negative perceptions of smoking as in previous studies. However, if seen from the child's smoking status, 45.2% of children smoke it can lead to more positive perceptions because almost all of the respondents have smoked.

Human perception has a different perspective in translating it, perceptions formed in school children come from the results they see and the environment that plays a role in translating perceptions [9]. The perception of smoking in the form of elementary school age children must be negative so that what is translated is a dangerous thing that does not have a good impact and should not be copied or done [10]. Research conducted by Owotomo, Maslowsky, & Loukas (2018) about adolescent perceptions related to smoking with smoking status by trying conventional cigarettes, electric cigarettes and both users, reported that these teens had the highest perception that teens showed addiction to conventional cigarettes (36.9%), The losses also felt by conventional cigarette users were higher by non-users (35.1%), as well as losses felt by adolescents to electronic cigarettes by non-users (23.7%). The pander health promotion model (2015) explains that perception is the formation of previous behavior indirectly, in this case health promotion of health information related to the dangers of smoking. respondents in this study had obtained 54.8% of health information while 46.2% had not obtained information. Respondents who have not received health information can form positive perceptions about smoking apart from smoking status itself. In addition, respondents who have obtained information are suspected of not knowing the direct and indirect dangers of smoking itself. Based on the findings of researchers that the perception of elementary school-age children in the Karawang regency has a positive perception about smoking, because most school-age children have not received health information about the dangers of smoking itself. Then other conditions related to the perception itself such as other risk factors can affect the child's perception of the child. The results of other studies show that adolescents who have positive perceptions of smoking do not pay attention to the dangers posed, but these adolescents feel the benefits of smoking as a result of social benefits such as sociability. So that teens assess teenagers who smoke can be friends with the group of friends they want in the form of social media [12]. Human perception has a different perspective in translating it, perceptions formed in school children come from the results they see and the environment that plays a role in translating perceptions ([9]).

The results found that the risk variable follows the trend with the perception of smoking obtained  $p$  value  $0.021 < 0.05$ , there is a relationship between following the trend and want to be cool with the perception of smoking. The relationship shows a weak and positive meaning that the more does not follow the trend and wants to be cool, the more negative the perception of smoking in elementary school age children. The results of this study are in line with research by Roditis et al. (2016) which states there is a strong relationship between perception and the desire to be cold ( $p = 0.001$ ). Teenagers feel the benefits of the short-term social benefits felt by adolescents, including wanting to "look cool" by smoking Teenagers look cool in the short-term social, besides that teens also feel that the perceived benefits are seen by adults smoking. adolescents also assume that the cigarettes used are the type of cigarettes that are suitable for hanging out and feeling the benefits. Furthermore, family variables with smoking perceptions obtained  $p$  value  $0.002 < 0.05$ , it can be concluded from these results there is a relationship between smokers' families and smoking perceptions. The results of this study are in line with the results of the research. The results found that the risk variable follows the trend with the perception of smoking obtained  $p$  value  $0.021 < 0.05$ , there is a relationship between following the trend and want to be cool with the perception of smoking. The results of this study are in line with research by Roditis et al. (2016) which states there is a strong relationship between perception and desire to be cold ( $p = 0.001$ ). Teenagers feel the benefits of the short-term social benefits felt by adolescents, including wanting to "look cool" by smoking Teenagers look cool in the short-term social, besides that teens also feel that the perceived benefits are seen by adults smoking. adolescents also assume that the cigarettes used are the type of cigarettes that are suitable for hanging out and feeling the benefits. Furthermore, family variables with smoking perception were obtained  $p$  value  $0.002 < 0.05$ . The results of this study are in line with the results of research conducted by Wagener, Busch, Dunsiger, Chiang, & Borrelli (2014) explaining that there is a relationship between smokers' families and children's perceptions about smoking ( $p = 0.001$ ). Children assume that families who smoke cause a child's health decline and discomfort when breathing, with the child's family habits making this activity normal and children try to feel comfortable in environmental conditions exposed to smoking. Smoker's families motivate children to behave more highly than smokers [13].

#### 4. Conclusion

It can be concluded that the family is an initiation of school-age children in smoking behavior. The family as part of a small environment for school-age children in passing the

stage of development aside from the parents, namely the father and mother. The family has an important role in children's behavior, especially smoking. School-age children who have smokers' families will have a positive perception of school-age children about smoking.

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## Conflict of Interest

The authors have no conflict of interest to declare.

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