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Research Article

## **Relationship Between Family Affective Function and Smoking Cessation in Adolescents**

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### **Abstract**

**Background:** Adolescents as individuals who are in transition from children to adult's experience bio-psycho-socio and spiritual changes. At this time, adolescents are very vulnerable to being affected by negative things from the surrounding environment, one of which is smoking. Besides being influenced by environmental factors and peers, the affective function of the family also affects smoking behavior in adolescents.

**Objectives:** The purpose of this study was to analyze the relationship between affective function and smoking cessation in adolescents in Srengseng Sawah Subdistrict.

**Methods:** This study uses quantitative research methods with cross sectional design. The number of samples is 296 adolescents with the inclusion criteria of adolescent smokers aged 10-24 years and not married and living with their families. Data was collected by filling out a questionnaire. Data were analyzed using chi-square statistical test.

**Results:** The results showed that there was a relationship between family affective function and smoking cessation in adolescents in Srengseng Sawah Subdistrict with a p-value of 0.000 ( $p < 0.05$ ).

**Conclusion:** The results of this study are expected to provide benefits for adolescents to grow determination and increase motivation to quit smoking by increasing positive interactions with parents and avoiding things that cause the urge to smoke.

**Keywords:** adolescents, family affective function, smoking cessation

### **Introduction**

Adolescence experiences changes in all aspects and is a transition period from childhood to adulthood. The World Health Organization (WHO) defines adolescents as individuals in the age group of 10 to 19 years. Meanwhile, young people are individuals who fall into the age category of 10-24 years.<sup>1</sup> During adolescence, developmental changes occur which include physical, sexual, psychological, and social development, these

changes occur simultaneously at different speeds, causing an imbalance between physical and emotional development. Individuals in their teens usually also have a high curiosity. This attitude makes adolescents often want to try activities or activities that are usually done by adults without thinking about their impact on health.<sup>2</sup> One of the trial and error activities carried out by teenagers is smoking without thinking about the impact and harmful content of cigarettes.

Cigarette smoke contains > 4,000 harmful chemicals and > 43 substances that cause cancer.<sup>3</sup> Cigarettes can cause an opiate effect for users, so they can cause health problems if done continuously.<sup>2</sup> Smoking can lead to cardiovascular disease, cancer, and COPD.<sup>4</sup> Diseases and deaths due to smoking will usually be felt at the productive age of around 25-35 years. The earlier a person starts smoking, the sooner that person will develop cardiovascular disease.<sup>5</sup> Smoking will also have an impact on a person's psychological condition. Heavy opiate effects on cigarettes can cause a person to become irritable, and sensitive, have difficulty concentrating, experience decreased cognitive function, and disturbed sleep patterns.<sup>6</sup> Adolescents reveal that smoking can provide psychological satisfaction and increase adolescent confidence in their social environment.<sup>2</sup> Adolescent smoking behavior is usually influenced by their social environment with peers. The more the number of smokers in the vicinity, the higher the number of teen smokers.<sup>7</sup> Peers will change adolescent behavior to conform to the norms of their social group.<sup>8</sup> Usually, the reasons why teenagers smoke for the first time include the influence of peer pressure, high curiosity, wanting to look stylish, and wanting to look cool and mature, regardless of the dangers posed by their actions.<sup>5</sup>

In the United States, there are approximately 4.7 million high school students who use tobacco products, and about 2,000 adolescents start their first cigarette at the age of fewer than 18 years.<sup>9</sup> The category of early adolescents aged 13 to 15 years who smoke in ASEAN is dominated by men. Indonesia has the highest percentage of adolescent male smokers in ASEAN, which is around 35.3%. The next largest percentage is in Malaysia at 26.1%, followed by the Philippines at 20.5%. Thailand is in the fourth position with a percentage of 17.2% and Myanmar is in the fifth position with a percentage of 17%.<sup>10</sup> The results of the Global Youth Tobacco Survey (GYTS) survey found that 36.2% of boys and 4.3% of girls in Indonesia used tobacco products. Overall, there are 35.6% of adolescents smoke one cigarette per day. Around 43.2% of them started smoking at the age of 12-13 years.<sup>11</sup> The results of the 2019 Susenas, in DKI Jakarta the number of smokers aged 15 years was 26%.<sup>12</sup> The percentage of women and men who started smoking before the age of 13 was more found in villages than in cities, this could be due to a lack of sources of information about the dangers of smoking.<sup>4</sup> The high percentage of smoking in Indonesia will have an impact on the high mortality rate. The death rate caused by smoking is estimated to reach 70% in 2030.<sup>3</sup>

The price and easy access to cigarettes make families have to be extra in monitoring the activities and behavior of teenagers. Families, especially parents, are the first educators for children who teach about life. One of the functions of the family is the affective function, namely the family functions to provide psychological needs for children such as love, security, interaction, and identification of children's identity.<sup>13</sup> A good family affective function can prevent children from engaging in behaviors that risk causing health problems such as smoking. The effective function of the family is proven to be very important for the growth and development of adolescents. This is evidenced by the research conducted by Angraini Y (2017)<sup>14</sup> which showed that there were 60 respondents out of 115 total respondents who had an inadequate family affective function which showed 59 people (95.2%) misbehaving teenagers.<sup>14</sup> Quitting smoking at any age will have a good impact on the body. The sooner adolescents stop smoking, the more lung function will improve again.<sup>6</sup> Many teens may also not realize the benefits of quitting smoking. In addition to improving lung function, the heart will also be healthier when a person quits smoking. In addition, quitting smoking can also make teeth whiter, skin free from premature aging,

avoid bad breath, and will save a lot of money.<sup>15</sup> Support from parents is needed to strengthen the determination of children who try to quit smoking.

Based on the description and phenomenon above, the affective function of the family is so important for adolescent development. The increasing number of smokers among teenagers is certainly a concern for all of us. So researchers are interested in conducting research related to family affective function with smoking cessation in adolescents. This study aims to determine whether there is a relationship between family affective function and smoking cessation among adolescents.

### Methods

The design of this research is quantitative research with a cross-sectional approach. Researchers will measure the independent variables and dependent variables, then the data collected by researchers and will be analyzed to study the relationship between a family affective function with smoking cessation in adolescents in Srengseng Sawah Subdistrict who were observed at one time. The population of this study was male and female adolescents aged 10-24 years with unmarried status. The number of samples was 296 respondents, with inclusion criteria: adolescents smokers, aged 10-24 years, and living with their parents. The sampling technique used in this study is non-probability sampling with purposive sampling. Researchers take care of research permits and apply for ethical clearance. This research has received ethical approval from the Ethics Committee of the Universitas Pembangunan Nasional “Veteran” Jakarta (Ethical Approval Nomor: 2502/VI/2020/KEPK). After getting permission, the researchers distributed questionnaires via a google form. the questionnaire consisted of general data, the APGAR (Adaptation, Partnership, Growth, Affection, and Resolve) Family questionnaire which consisted of 5 questions regarding the affective function of the family, and the Richmond Smoking Test questionnaire which consisted of 4 questions regarding smoking cessation for adolescents. Processing and analysis of data using univariate and bivariate analysis with Chi-Square analysis.

### Results

**Table 1.** Characteristic of respondents (n=296)

Characteristic of Respondents	Frequency	Percent (%)
<b>Age</b>	21	7,1
Early adolescent (10-14 years)	87	29,4
Middle adolescent (15-19 years)	188	63,5
Late adolescent (20-24 years)		
<b>Gender</b>		
Male	221	74,5
Female	75	25,3

The result showed that the majority of respondents were late adolescents (63,5%) and were male (74,5%).

**Table 2.** Frequency Distribution of Family Affective Function

Family Affective Function	Frequency	Percent (%)
Poor	235	79,4
Good	61	20,6
Total	296	100,0

Table 2 shows that of the 196 respondents, most of the respondents were in the category of poor family function as many as 235 respondents (79,4%) while respondents were in the good family function category were 61 respondents (20,6%).

**Table 3.** Frequency Distribution of Smoking Cessation

Motivation	Frequency	Percent (%)
Low	202	68,2
High	94	31,8
Total	296	100,0

Table 3 shows that of the 296 respondents, most of the respondents had low motivation to quit smoking 68,2%, while the respondents who had high motivation to quit smoking were 31,8%.

**Table 4.** The Relationship Between Family Affective Function and Smoking Cessation in Adolescents

Family Affective Function	Smoking Cessation				Total		P Value	OR (CI 95%)
	Low Motivation		High Motivation		n	%		
	n	%	n	%				
Poor	181	77,0	54	23,0	235	100	0,000	6,384 (3,471 – 11,743)
Good	21	34,4	40	65,6	61	100		

Based on the results of the study, adolescents who have poor family affective functions have low motivation to stop smoking as many as 181 respondents (77,0%) compared to adolescents who have high motivation there are 54 respondents (23,0%). The results of the Chi-Square statistical test obtained a p-value of 0.000 ( $p < 0.05$ ), which means that there is a relationship between affective function and smoking cessation in adolescents. The results of the study also obtained an OR = 6.384 (OR > 1), meaning that adolescents who have poor affective function have a 6,384-fold risk of having a low motivation to quit smoking.

## Discussion

### Overview of Respondent Characteristics

Table 1 shows that the majority of the respondents' characteristics are late teens. The more teenagers get older, the more teenagers interact with their peers compared to the interactions between teenagers and their families. Adolescence is an age that is very vulnerable to outside influences, especially the influence given by those closest to them. Interaction with friends who smoke can influence teenagers to become smokers too.<sup>16</sup> Based on the results of the SDKI survey (2017), 57% of boys and 56% of girls started smoking before the age of 15.<sup>4</sup> At the age of late adolescence, usually individuals can determine the pattern of life that they have outlined themselves.<sup>17</sup> So that the high number of smokers in the late teen category can be caused by smoking habits that started when they were in their early teens and teenagers decide to continue smoking until their current age.

### Overview of Family Affective Function

The family's affective function (table 2) shows that the majority of respondents are in the poor category. Inadequate family affective function so that adolescents tend to behave as they wish and violate applicable norms such as stealing, smoking, alcohol consumption,

and others.<sup>18</sup> This can be caused by the family has not been able to implement and fulfill the rights of family members, especially in this case the rights of their teenagers. Adolescence is a period where individuals are uncertain of identity, adolescents assume that they are adults but in terms of behavior they still reflect the nature of children. Families are expected to respond well to adolescent emotions and provide attention and support for their teenagers by expressing affection, sharing time, and creating a sense of comfort in adolescents.<sup>19</sup> Adolescents who enter late adolescence tend to have a mature stance on decisions in their lives so if the family cannot implement affective functions in the family from an early age, adolescents are likely to carry risk behaviors that they usually do into adulthood.

### **Overview of Smoking Cessation**

Table 3 shows that the majority of respondents have low motivation to quit smoking. The low motivation of adolescents to stop smoking in this study could be caused by the high level of adolescent dependence on cigarettes. Adolescents who have long-standing smoking habits will find it difficult to avoid the effects of dependence resulting from nicotine consumption. Physical, psychological, hormonal, and neurodevelopmental changes during puberty have a significant impact on the emotional, sensation-seeking, and orientation of adolescents, thus making adolescents vulnerable to risky behaviors including smoking. Peers have a great influence on the initiation and cessation of smoking in adolescents. Meanwhile, adolescents who have smoking parents are estimated to have a greater likelihood of smoking.<sup>20</sup>

Attempts to stop smoking in adolescents are quite common and begin after adolescents begin to feel addicted. However, adolescents often experience challenges. When trying to quit, they may find themselves in an uncomfortable position, where they need resources in terms of motivation and self-control. Adolescents may also be reluctant to seek help from smoking cessation counseling services.

### **The Relationship Between Family Affective Function and Smoking Cessation in Adolescents**

Adolescents who have low motivation are in the category of poor family function, which can be caused by the lack of parental roles and support in educating children to form positive behavior so that adolescents' awareness of the adverse effects of smoking is still low which causes adolescents to be reluctant to quit smoking. While adolescents have high motivation with poor family function, adolescents may have other factors in themselves that affect their interest in quitting smoking, such as the level of knowledge of adolescents about the impact of smoking on health. The higher the knowledge of adolescents about the dangers of smoking, the higher the awareness of adolescents to maintain health and avoid smoking which affects their motivation of adolescents to stop smoking.

The effective function in the family is the embodiment of mutual care and mutual care in the family, which is reflected in the existence of mutual respect, creating an atmosphere of affection and ties in the family.<sup>21</sup> Family is the main source providing social, moral, and emotional support. The family is also the first source of education for family members, especially in this case the danger of smoking. A good family affective function can form positive interpersonal relationships between parents and adolescents so that harmony in the family can be one of the supporting factors for adolescents who want to quit smoking.<sup>22</sup> Quitting smoking requires a strong desire and determination from individuals to consciously stop smoking activities that they usually do every day. This determination can be carried out if the family is willing to contribute to support by carrying out a good affective function in the family.<sup>22</sup>

The high family affective function will create good relationships between family members. Families that give each other affection, respect, and care for each other will have a good and positive impact on family members, especially teenagers. Good family

communication can influence the self-concept of adolescents in the family so that adolescents avoid smoking behavior and receive support from their families to quit smoking.

### **Conclusion**

Based on the results of the study showed that there was a relationship between family affective function and smoking cessation in adolescents. Adolescents whose affective function in their families is not good to have low motivation to quit smoking. The effective function of the family is very influential on the motivation of adolescents, so it is hoped that the family can carry out a good affective function for adolescents and can be a role model for adolescents.

### **Conflict of Interest Declaration**

There is no conflict of interest in this research.

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