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An Overview of Smoking Cessation Intention in Adolescent in Sumberan Village, Sleman Regency, Yogyakarta

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ABSTRACT

Background: Smoking prevalence, morbidity, and mortality rates are increasing, particularly among adolescents in the Sumberan Region. This behavior can lead to health problems and negatively impact adolescents' quality of life. Achieving a good quality of life from a young age is crucial for avoiding long-term health issues. The Youth Organization survey in the Sumberan Sleman Region shows a common incidence of smoking among adolescents, raising concerns for researchers. This study aims to describe the intention to quit smoking among adolescents in Karang Taruna Sumberan Sleman.
Method: This quasi-experimental study was conducted in Karang Taruna Sumberan Village, Sleman, Yogyakarta, involving 30 adolescent boys who smoke. Application of inclusion criteria: age 12-25 years, smokers, and willing to be respondents. Exclusion criteria, namely: adolescents who are sick and not willing. Informants were health promotion officers and youth leaders. Data were collected using an intention questionnaire, which assesses willingness, readiness, and time to quit smoking. This study used a questionnaire to collect information on readiness and timing to quit smoking.
Results: Descriptive (43.3%) did not increase adolescents' intention to quit smoking, on average adolescents chose to prepare themselves in the process of quitting smoking (56.7%) rather than taking actions that are far from caring.
Conclusion: Health intervention is more effective in encouraging smoking cessation than increasing knowledge and attitudes of adolescents in Karang Taruna Desa Sumberan, Sleman, Yogyakarta

1. Introduction

The Centers for Disease Control and Prevention (CDC) states that measuring health outcomes can begin with assessing health by population, not only in terms of health but also improved quality of life. The prevalence of smoking in 133 member states is 19.33%, of which 23.29% are adolescent boys and 15.35% are adolescent girls who have ever smoked (1). The World Health Organisation (WHO) noted that in 2015, increased tobacco consumption (smoking and nonsmoking) caused about 6 million deaths; in 2018, 225,720 people died worldwide annually (2), mostly due to rapidly progressive diseases (3).

The Indonesian Family Life Survey 5 also showed that 46% of adolescents had started smoking, smoking an average of 12 cigarettes a day. Data from the Central Bureau of Statistics also revealed that the prevalence of smoking in D.I Yogyakarta Province continued to increase from 2021-2023. Secondary data also highlighted the relatively high prevalence of smoking in Sumberan Village in 2023, revealing that 103 adolescents had ever smoked. This is consistent with the observations and preliminary studies conducted. Adolescence is a transitional period from childhood to adulthood, although it undergoes a very rapid process of development and change, but this development and change is reflected in the process of children through a process of biological, psychological influences

and social changes (3). This is because these people are individuals who are transitioning into adult society, and children do not feel inferior to their parents, but rather feel that they are similar, or at least equal to their parents (4)(5).

Smoking behaviour among Indonesian adolescents is a priority public health problem that requires special attention as it is linked to persistent smoking habits and culture (6). Therefore, there is a need to provide health education and improve literacy skills to help young people develop attitudes and behaviours that can help them quit smoking. In addition, strong motivation, knowledge and attitudes play an important role in improving behaviour. Although smoking cessation is rare in the Transtheoretical Model (TTM) construct, interventions based on intention to quit are easier to implement and more proven (7). Although various theories on smoking cessation intentions are difficult to find, this is not a barrier, as behaviour is based on attitudes towards behaviour, subjective norms, and perceived control, which are solvable (8). From the problems found, this study aims to determine the picture of adolescents' willingness to quit smoking, to find out the picture of readiness in the process of quitting smoking, to find out the picture of the time needed to take a stand to quit smoking and to find out the most readiness and the time needed in the shortest time for the intention to quit smoking.

2. Method

Research Design:

Using a quasi-experimental research type with a one-group post-test design (9). Determination of Respondents:

Previously identified data through Pakem Community Health Centre, and Applied Smoke-Free and Stunting 2023 Research Study (10). In the implementation of the population in the study, the research subjects were teenagers from Karang Taruna Desa Sumberan. During the implementation process, the researcher did not give a special group to the participants, only the intervention group was used (11). Application of inclusion criteria: age 12-25 years, smokers, and willing to be respondents. Exclusion criteria: adolescents who are sick and not willing. In this application, a sample (n=30) of adolescents was included in the study, and was adequate for a quantitative outcome study (12).

Measurement:

Adolescent smoking cessation intention was identified, which consisted of the first item ‘Do you have an intention to quit smoking?’ respondents were on 2 scales 1=Yes, and 2=No. The TTM construct was applied in this study (13). The TTM construct was applied in this smoking cessation process (13). If the adolescent was on scale 1, the second item was continued, and if on scale 2, the study was terminated. ‘If Yes, What will you prepare to quit smoking?’, “In the near future, when will you start to quit smoking?”.

Data Analysis:

The data were analysed quantitative descriptive to determine the frequency distributions in the levels of intention to quit smoking ‘No intention’ and ‘Intention’. Furthermore, descriptive analysis was conducted to describe the intention based on willingness and based on when to quit smoking in adolescents.

Research Ethics:

In this case the researcher obtained ethical approval No. 012406137 by the Research Ethics Committee of Universitas Ahmad Dahlan Yogyakarta (KEP UAD) involving humans as research subjects.

Research Limitations:

The research method did not provide a control group; the respondents did not participate full participation; limited duration of treatment.

3. Result

In the research that has been carried out, out of 30 adolescents, 17 respondents were found to come from youth Karang Taruna Sumberan Village, Sleman, Yogyakarta, who have stated the availability

of smoking cessation to become research participants and filled out Informed Consent in research permit **No. 070/379/VII/2024**. Specific characteristics can be seen in **Table 1**.

Table 1. Frequency Distribution of Respondents' Characteristics Based on Gender, Age, Education Status, Employment Status, and Residential Status (n=30)

Characteristics	Item	Frequency *(n)*	Persentation *(%)*
Gender	Male	30	100,0
Age (years)	10-15 years	7	23,3
	16-20 years	8	26,7
	21-25 years	15	50,0
Education Status	SMP	8	26,7
	SMA	15	50,0
	Collage	2	6,7
	Not attending school	5	16,7
Employment Status	Working	12	40,0
	Not working	18	60,0
Status of Residence	Living with parents	30	100,0

Based on **Table 1**, there were 30 respondents from youth organisations in Sumberan Village, Sleman, Yogyakarta. The average teenager is male (100%), with an age range of 21-25 years (50%), and most of them have a high school education (50%). Respondents (60%) did not work, on average living with parents (100%).

Table 2. Measurement of Respondents' Smoking Cessation Intention

Smoking Cessation Intention Level	Frequency-Distribution	
	(f)	*(%)*
Having no intention	13	43,3
Have the intention	17	56,7

Table 2 provides results from the measurement of smoking cessation intentions as many as 17 (56.7%) who have intentions and as many as 13 (43.3%) who do not have intentions. This can then be applied in further identifying the intention stage in smoking cessation.

Table 3. Overview of Smoking Cessation Intention Based on Willingness, Preparation and Time Required in Quitting Smoking Actions

No	Respon-dents	Do you have the intention to quit smoking?	If yes, what will you do to quit smoking?					In the near future, when will you start to quit smoking?
		Have the intention	*Not setting up a cigarette spending fund*	*No cigarette ashtrays provided*	*Avoiding friends who smoke*	*Doing sports/physical activity*	*Channelling talents/hobbies*	Immediately in a matter of days
1	EFS	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	180 days
2	NAP	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	180 days
3	FM	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
4	MR	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
5	ITW	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
6	DPP	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	180 days
7	RFR	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	180 days
8	KAS	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
9	RKS	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	30 days
10	ARR	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	180 days
11	AS	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	180 days
12	BA	Willing/Unwilling to	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days

No	Respon-dents	Do you have the intention to quit smoking?	If yes, what will you do to quit smoking?					In the near future, when will you start to quit smoking?
		Have the intention	*Not setting up a cigarette spending fund*	*No cigarette ashtrays provided*	*Avoiding friends who smoke*	*Doing sports/physical activity*	*Channelling talents/hobbies*	Immediately in a matter of days
13	VS	quit smoking Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
14	CAA	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
15	AFS	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
16	Ver	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	5 days
17	Bay	Willing/Unwilling to quit smoking	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	7 days
	N *(f)*	17	4	3	3	3	4	17

Table 3 shows the results of the intention to quit smoking, which was then verified by 17 positive respondents leading to the stage of change to quit smoking. Those who stated that they wanted or were ready to quit smoking prepared themselves and took action. 4 out of 17 stated 'Not preparing cigarette expenditure funds', then 4 out of 17 stated choosing 'Channelling talents/hobbies'. In addition, 3 out of 17 emphasised that they 'Do not provide cigarette ashtrays' in preparation, then 'Avoid friends who smoke' and prefer to 'Do sports / physical activities'.

Then in **Table 3** also expressed willingness to quit smoking in the near future, including 9 out of 17 respondents stated that they were ready to quit smoking in the next '5 days', then 9 out of 17 respondents chose to quit smoking in the long term '180 days' to come. In addition, 1 out of 17 chose '7 days' and '30 days' to start quitting smoking. The findings in this study also emphasise that the time needed affects the respondents' readiness to take a stance to quit smoking, hence the closer the time needed, the faster the process of change. On average, those who chose the next 5 days were more likely to prepare themselves by channelling their talents/hobbies rather than choosing not to provide ashtrays and exercising. And most of those who choose to quit smoking in the long term 6 months more prepare themselves by not providing cigarette ashtrays rather than not preparing cigarette shopping funds.

4. Discussion

This variable of intention to quit smoking cannot be confirmed that they are still at the contemplation stage (and start to undo their intention to quit in the future) after the health education is implemented. Because, to reach this stage, a person can maintain the process until refusing to stop smoking, but due to the greater effects of nicotine addiction, adolescents have a low intention to quit smoking (6). Thus,

the learning construct of (stage of change) can be applied even though some adolescents have not entered the (action) stage. The Transtheoretical model has shown the desire to configure the stages (pre-contemplation, contemplation, and preparation). Thus, the Transtheoretical model allows the use of interventions to assess each stage (14)(15) and interventions in the Transtheoretical model are essential for smoking cessation (16).

This smoking cessation behaviour is a phenomenon among adolescents (17), especially in the health education environment where the sample was found. They are more likely to engage in passive smoking activities. This is in line with the finding that smoking behaviour does not fully influence smoking cessation perceptions (18). This is because for them, adolescence is an impetus to develop smoking cessation behaviour, and they will become aware of this activity in adulthood (19).

There are many factors that can lead to negative behaviours in adolescents (20) and provide opportunities for them to continue smoking. Our findings showed that almost 30 adolescents smoked, and most of them had started smoking by the time they entered adolescence. Of course, this finding is very interesting because it is in line with the definition that adolescents are trying to be themselves, and the role of parents is not seen in the early stages of smoking. Therefore, the role of the family especially parents in preventing such deviant behaviour is very important (21)(22).

However, realising what is going on plays an important role in action. As intention to quit was limited at this stage of the study, knowledge of quit attempts based on the TTM construct was limited to the implementation of quit preparation, which increases intention to quit. Quitting smoking and preparing for the process (withholding funds to buy cigarettes, cigarette ashtrays, etc. until the period of time required for adolescents to completely quit smoking (5, 7, 30, 180 days) avoiding friends who smoke, participating in sports/physical activities, communicating talents/hobbies). So in terms of action and maintenance it is still limited to statements only. However, with various methods, including increasing parental awareness (23), improving health literacy, community roles to reduce smoking prevalence, and behaviour change to improve public health, this cannot be left there.

5. Conclusion

Based on the descriptive results, the stages of behaviour change in the TTM construct on average enter the era of pre-contemplation, contemplation and lead to preparation before going to action, but this is limited to maintenance. In addition, there is an increase in intention to quit smoking through availability, readiness and time needed to quit smoking.

a. Based on willingness as many as 17 respondents who stated they were ready to quit smoking;
b. Based on readiness, 4 respondents stated that they were preparing themselves to quit smoking by channelling their talents/hobbies and not providing funds for cigarette expenditure; and
c. Based on the time required, 9 respondents chose to stop smoking within the next 5 days
d.

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