Smoking Behavior, Social Support, and Cessation Motivation in Smoking Among Health Sciences' Students

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ABSTRACT

Introduction: Many students have been accustomed to smoking, including those majoring in health sciences. Theoretically, they are supposed to be the ones who are actively aware of some possible health damages caused by smoking habits. Thus, people around them play an essential role in taking control of someone's pattern through social support, especially over those who are highly motivated to quit smoking. **Objective:** This study aimed to identify smoking behavior, social support, and cessation motivation in smoking among health sciences students. **Methods**: This research was categorized as observational-descriptive one, with the use of an accidental sampling technique to recruit as many as 63 students of faculty of health sciences who were defined as active smokers. The data, furthermore, were collected employing a questionnaire. A statistical-descriptive analysis was used to evaluate the data. **Result:** The result was that most of the involved respondents were shown to have a moderate trend of smoking (65%). On the other hand, the majority of the respondents had been supported through some types of social support with relatively high percentage, to name appraisal support (indicating 71%), tangible support (indicating 87%), self-esteem support (indicating 97%), and belonging support (indicating 92%). Moreover, most of the respondents were equipped with a high level of quittance motivation from smoking, signifying 71%. **Discussion**: This research had indicated that the level of smoking habit perceived by the respondents was moderate. In short, appraisal support was defined as high, tangible support low, self-esteem support high, and belonging support high. Besides, some of the respondents had demonstrated a high level of quittance motivation from smoking.

Keywords—Smoking Habit, Adolescent, Support, Motivation, Quittance from Smoking

INTRODUCTION

Smoking had been a phenomenal habit which we often find out as a shared custom so that many have been thinking that smoking is something healthy despite possible health threats – still, do they keep smoking (Mahendra, 2010). Cigarettes are specific products containing tobacco leaves that have been cut into pieces and chopped up (Waruwu et al., 2017). In real-life, cigarettes have been spread over the world. In the past, only Indian people used to consume cigarettes for ritual needs and fatigue removing. However, presently, they have been revolutionized as a part of the lifestyle. The smokers commonly argue that cigarettes can provide them with a state of calmness and release their stress level. This condition is because tobacco leaves contain nicotine and other addictive substances (Sukmana, 2009).

According to Rahmatullah (2007), as cited in Afnan (2016), in addition to hazardous contents, combustion in cigarettes can cause a severe threat over the health status of the active smokers and people around them. The smoke made from the burning

and inhaled by the passive smokers is found to contain higher chemical substances than the one inhaled by the active smokers themselves, as the cigarettes will result in much more chemical content when they are left combusted (without any sucking activity). Hence, cigarettes can be the source of humans' health problems. Out of several cases of health problems generated by cigarettes, many are suffering from a medical complication (Waruwu et al., 2017).

About 942 million males and 175 million females from all over the world, aging more than 15 years old were named as active smokers. In essence, 'active smoker' is attributed to those who consume at the very least seven or more cigarettes per week (De Bie et al., 2015). Since 2013, the smoking prevalence on adolescents (aging from 10-18 years old) had been elevating, starting from 7.2% (Basic Health Research, 2013), 8.8% (National Health Indicator Survey, 2016), and 9.1% (Basic Health Research, 2018). Alluding to the data from Basic Health Research (2018), the number of active smokers aging more than 15 years old indicated 33.8% – 62.9% of whom were males and 4.8% females. Further, the Global Youth Tobacco Survey (GYTS) also claimed that Indonesia was the country with the highest population of adolescent smokers in the world.

According to Steinberg in Amalia (2011), it was reported that many experts had seen that adolescence consisted of several phases with different characteristics. They subdivided the stages into the early-adolescent phase (10-13 years old), middle-adolescent phase (14-18 years old), and late-adolescent phase (19-22 years old). Besides, the adolescent is referred to a group of people who are still attending the late years of elementary school, junior high school, senior high school, and higher education levels. This state is in line with the theory of development from Steinberg, stating that higher education students belong to the late-adolescent phase group and must get ready for the early-adulthood phase.

Smoking habit is shown by most of the students, unexceptionally the health sciences' students who are supposed to know much more about the possible damages the addiction can trigger. This evident fact corresponds to an existing theory that highlights that smoking habit shown by the society is greatly influenced by some factors; one of which is an environment with the majority of active smokers in it so that many people around are getting interested at smoking, while some others become the passive smokers. Nonetheless, many of the students have shown a strong desire to quit smoking. Some factors influence the decision making for the quittance from smoking, such as self-encouragement, strong will and intention, and other forms of social support from the surroundings (Rahmasari, 2015).

Social support, in general, is subdivided into several forms, such as (1) advice related to problem-solving in abolishing stressor (*appraisal support*); (2) physical assistance to deal with a specific problem (*tangible support*); (3) support that promotes self-esteem and others' feelings (*self-esteem*); and (4) support expressing that one is accepted as a part of the community (*belonging support*). Moreover, social support refers to a specific action performed by someone to assist. Also, social support is defined as a mediator to resolve particular problems that occur in the surroundings, with particular plans to arrive at the goals (Robert & Greene, 2009). As a consequence, people around have taken out the most crucial role in controlling one's behavior, especially those who are strongly motivated to quit smoking.

According to Amirullah *et al.* (2002), in Pianda (2018), motivation is indicated as a particular condition to influence, to evoke, to direct, and to maintain a specific behavior upon the surroundings. Another source also comments that motivation refers to potential power equipping humans, which can be possibly enhanced by some exogenous strengths or surrounding support, which is principally allowed to influence one's thoughts. According to Winardi (2002), in Pianda (2018), motivation is also described as self-encouragement or external encouragement to achieve the set goals. Regarding the survey of GYTS about quittance intention from smoking on adolescents, it was shown that most of the adolescents confessed their desire to quit smoking at that time and admitted that they could quit smoking whenever they wanted to. In respect to the above elaboration, this current research was aimed at identifying smoking behavior, social support, and quittance motivation from smoking on health sciences students.

METHODS

The population of this research consisted of active smokers from the Faculty of Health Sciences. Further, the *accidental* sampling technique was employed to determine the sample out of the whole population, with specific characteristics and criteria, based on the stipulated quota (Setiawan & Prasetyo, 2015). In total, there were 63 samples of smoker students in the faculty of health sciences.

An instrument about quittance motivation from smoking was adopted by the *Richmond test* questionnaire, with four questions based on UNRICA (*University of Rodhe Island Change Assessment*) scale consisting of three major categories, namely low, medium, and high (Garcia-Portilla et al., 2013). The lowest score from the total accumulation signified 0 or 1, while the highest score did at 1 or 3. Further, the maximum rating would be ten and the minimum one 0. Individually, quittance motivation from smoking was considered low in level only if the score showed 0-4, 5-6 for medium, and 7-10 for high.

Moreover, the instrument regarding social support was adopted from Interpersonal Support Evaluation List (ISEL) questionnaire by Cohen & Hoberman Harry (1983), with four tables or segmented types of questions, including Appraisal Support, Tangible Support, Self-esteem Support, and belonging Support. This kind of instrument was assisted by a Likert scale, with three main criteria, which were high, medium, and low. The assessment system showed that the respondents would make four scores (from 1-4 interval). If they went for "*Always*" choice on the positive questions and "*Never*" one for the negative questions; '3' for "*Often"* on the positive questions and "*Sometimes"* on the negative questions; '2' for "*Sometimes*" on the positive questions and "*Often"* on the negative questions; and '4' again for "*Often*" on the positive questions and "*Always*" for the negative questions. The instrument about smoking behavior with the help of a Likert scale consisting of three main criteria, namely severe, moderate, and mild. Further, the assessment system employed a 3-1 score interval, stating that '1' for "*Often*" choice, '2' for "*Sometimes*," and '3' for "*Never*."

After receiving approval from the institution where the research was conducted, in march 2019, the researcher administered the questionnaire. First of all, the researchers confirmed that the respondent had filled out the *Informed consent* sheet. Secondly, the researchers illustrated the steps of questionnaire completion. Thirdly, sufficient time was given to the respondents for the questionnaire completion by providing them with

acceptable guidelines. Fourthly, after the respondents were done with the completion, questionnaire sheets were recollected to the researchers.

Finally, the researchers did appreciate all the respondents for the cooperativeness and time allocated to the questionnaire administration. After all, the data of the questionnaire were tabulated, analyzed, and sorted out based on the set criteria. Descriptive data analysis is referred to as a statistical method of analysis on one single variable, with frequency distribution analysis that demonstrates the distribution in the forms of table, diagram, and narration (Riwidikso, 2012).

RESULTS AND DISCUSSION

According to Table 1, it is shown that all of the 63 respondents (100%) were male students. Most of the respondents who were involved in this current research were dominated by those who had spent the 3-year length of study (n=26, 41.3%). Besides, conventional cigarettes are shown the most-consumed type among the respondents, indicating 94%.

Table 1. The Respondent Characteristics (n = 63)

Characteristics	(N)	(%)	Mean	SD
Sex				
Male	63	100%	-	-
Length of Study				
1 year	2	3%	3.02	0.992
2 years	18	29%		
3 years	26	41%		
4 years	11	17%		
5 years	6	10%		
Types of Cigarettes				
Conventional	59	94%	-	-
Electrical	4	6%		

Following the Table 2, it is shown that the student's smoking habits were categorized into some criteria with the following distributions: moderate with 41 respondents (65%), mild with 14 respondents (22%), and severe with eight respondents (13%)

Table 2. The Observational Result on Student's Smoking Behavior (n = 63)

Smoking Behaviors	Frequency (n)	(%)
Mild	14	22
Moderate	41	65
Severe	8	13

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Table 3. The Observational Result on Social Support upon Quittance Motivation from Smoking Shown by Health Sciences' Students (n = 63)

Social Support	(N)	(%)
High	53	84
Low	10	16

Based on Table 3, it is identifiable that 53 respondents (84%) were highly supported to quit smoking, while 10 (16%) other respondents were gaining low social support.

Table 4. The Observational Result on Social Support upon Quittance Motivation from Smoking Shown by Health Sciences' Students (for each type).

Social Support	Frequency	Percentage
Appraisal Support	N	%
High	45	71
Low	18	29
Tangible Support		
High	8	13
Low	55	87
Self-esteem support		
High	61	97
Low	2	3
Belonging support		
High	58	92
Low	5	8

Concerning Table 4, it is illustrated that high appraisal support was given to 45 out of 63 respondents (71%). Counterproductively, low tangible support was meant to55 out of 63 respondents (87%). Nonetheless, as many as 61 out of 63 respondents (97%) were equipped with high self-esteem support. At last, there were 58 out of 63 respondents (92%) named to receive high belonging support.

Regarding Table 5, it is portrayed that 45 respondents (71%) had shown high quittance motivation, 13 respondents (21%) moderate, and only five respondents (8%) low.

Tabel 5. The Observational Result of Quittance Motivation from Smoking Shown by Health Sciences' Students

Quittance Motivation from Smoking	Frequency (n)	Percentage (%)
High	45	71
Moderate	13	21
Low	5	8

The result of this current research had indicated that most of the respondents showed moderate smoking behavior. Smoking behavior, in essence, is attributed to some indicators, namely smoking habit, preferability on smoking area, and the number of cigarettes consumed. Regarding theoretical review in this research, smoking behavior is affected by three significant factors, including predisposition (lack of information), eliciting (affordability and calmness gained), and contributing (smoker-dominated environment) factors.

Moreover, this research had illustrated that all of the respondents were male, which was in line with the survey brought up by Drope and Schuluger (2018) proclaiming that

no less than 942 million males and 175 females aging more than 15 years old were named as active smokers, which indicated that male smokers had outnumbered the female ones. According to Sulastri, Herman, & Darwin (2018), male students had shown a higher tendency of smoking than females. The researchers had found that only male respondents were smoking at the canteen and cafes around the campus area. However, they could not resist their desire to smoke when they were in other faculties' areas, canteen, parking slot, and boarding house as they were frequently in touch with and offered the cigarettes by their smoker companions. In nature, the environment is considered to play a significant role in behavioral change. This condition had been shown by the faculty that had regulated a prohibitional rule for smoking activity. As a consequence, those who were in such a regulated area had to strive not to smoke. On the other hand, some other faculties that had yet to stipulate a similar rule would be the best option for the smokers to keep consuming their cigarettes and share seductive influence to those who had actively been willing to quit smoking.

Moreover, this current result showed that the respondents were dominated by those who had been spending a 3-year length of study. This finding implied that the respondents had been aware enough of some possible health problems the cigarettes might cause, but never did they suffer from the health problems. It was supported by research from Sinaga (2016), claiming that the respondents' high acquaintance about the negative sides of the cigarettes shown through the research had contributed to less significant influence upon the smoking behavior despite the perceived relationship between a personal acquaintance and smoking risks. Besides, probably, it was because smoking threats occur in the very long term, and passive smokers still have a high tolerance rate upon the smoke.

Furthermore, the research also showed that the majority of the respondents were equipped with high social support (indicating 84%). In line with the theory said in the theoretical review, three main factors influence social support, namely social interaction, self-esteem in receiving others' help, and skill under the broader scope of society. Also, social support could be generated from family, companions, colleagues, neighbors, and surrounding people. In line with the research of Herawati's (2017), there was a positive correlation between familial support and quittance intention from smoking. This finding means that the higher familial support was given, the higher quittance intention perceived from smoking would be.

As shown by the data, five respondents were named as heavy smokers but received high social support. Besides, only three respondents had low social support but categorized as moderate smokers. This condition might be due to familial and collegial supports – when the family gave the total support for the smokers to quit, their close friends seduced them to keep smoking. This postulation was supported by research brought up by Suri (2018), commenting that ex-smoker respondents revealed the most-faced obstacle to committing the quittance from smoking was from their companions. In general, companions or friends are supposed to give the best support for their relatives to do positive things.

Nonetheless, practically, it was shown that friends were the real obstacle to quit smoking, for example, a seduction that raised when seeing other friends smoking, offering cigarettes, and mockery on the quittance decision as explained by Frohlich et al. (2002) that people have various ways to interact and interpret social structures.

Consuming cigarettes every day is one of the usual ways for smokers to strengthen social ties (Paul et al., 2010), given that students do not feel that there are many possible social interactions (Andersen et al., 2016). However, it does not rule out the possibility that friends can also provide high motivation in stopping smoking. The results of research by (Heffner et al., 2016) showed that both smokers with moderate to severe smoking could be helped the same as ordinary smokers because of the level of consistency in the study and motivation to stop smoking, besides that it is essential considering the benefits of helping these smokers quit before they switch to a pattern of use that is more rooted.

Another factor that influences smoking behavior is social media. Research explains that expressing and receiving pro-smoking messages had significant associations with smoking attitudes and intentions. However, the expression and reception of antismoking messages exhibited no significant relationships with the same outcomes.

These results are in concert with previous research suggesting that pro-smoking messages are more influential than antismoking messages in predicting college students' smoking behaviors. Antismoking messages have only a limited effect on changing intentions and behaviors in smoking prevention and cessation (Murphy-Hoefer et al., 2010) (Yoo et al., 2016). Moreover, the age of the respondents involved in this research ranged between 19-22 years old (late-adolescent phase). The age factor did not significantly influence the quittance motivation from smoking, as supported by research from Suri (2018), which stated that the ages of the respondents in the quittance motivation varied from 19 to 65 years old.

The majority of the respondents in this current study received high *appraisal support*, which was indicated by advice or suggestion given to quit smoking. In other words, this sort of support could be defined as advisory assistance for quittance motivation from smoking. This research, further, was similar to that of Sulastri et al. (2018), showing that 150 (90.36%) out of 166 students of vocational high school were found as smokers said that they had received or were receiving advisory assistance from particular programs or professionals to quit smoking, which had got them motivated to quit smoking.

Moreover, in terms of *tangible support*, most of the respondents (87%) had received low exposure to this sort of help. Actional and material rescues indicated support. In other words, *tangible support* was seen as actional and material assistance to quit smoking. The current research showed that the respondents were lack of support for quittance from smoking, especially to move to any objects to consume other than the cigarettes. Conversely, eight respondents (13%) had been shown to gain tremendous *tangible support* by having alternative objects of consumption other than the cigarettes. The revealing finding was similar to that of Suri's (2018), in which the ex-smokers had uttered that those who would strongly like to quit smoking needed other alternative objects to consume, such as sweets or other sorts of snacks.

As a consequence, the quitters' mind was controlled to focus more on chewing something than sucking the cigarettes. Also, Suri's research (2018) also inspired this current study in terms of coping mechanism use. Adaptive and maladaptive coping mechanisms were used to support this study. The former was reflected through performing particular activities and self-withdrawal from the smokers, while the latter was shown through purchasing cigarettes, chewing sweets, consuming snacks, and re-smoking.

Further, it was also shown that the majority of the respondents (97%) gained high *self-esteem support*. This sort of support was indicated by self-respect support and behavioral control over quittance from smoking, which means that this support came from other people concerning self-esteem and quittance from smoking. This result was in line with Suri's research (2018), in which the quitters argued that smoking used to be the best option to take in the event of problems or chaotic situations as they believed that solution would come along with their smoking. In other words, only if they got help from others for their problems, certainly would they quit smoking. Besides, people could give never-ending support to find the best way to solve the smokers' problems to encourage them not to smoke any longer for the search for a solution. Research brought up by Anbarlouei et al. (2018) had shown that self-esteem had a significant correlation upon the smoking phase, which means that every improvement on the self-esteem value would degrade the probability value of higher growth on smoking behavior (5%). Another result of previous research also reinforced the correlation between self-esteem and smoking, especially in adolescent scope. For that reason, it is suggested that preventive programs on smoking behavior be consistently developed by attaching comprehensive health education or promoting health programs of self-esteem enhancement training.

In terms of *belonging support*, most of the respondents were shown to receive this sort of support. The support was indicated by collegial and familial supports, which means that *belonging support* manifested social acceptance and a sense of belonging upon the particular person. Similar to the research from Herawati (2017), there was a positive correlation between familial support and quittance intention from smoking. In other words, the higher familial support was shown, the higher quittance intention would be generated, and in reverse. Alluding to the result of Nurjanah's research (2017), it was found that *convincing others* could relate to *the self-efficacy* of the quittance from smoking shown by health sciences students. This finding indicates that *other factors*, such as familial and collegial support, was of significance in defining how the students would quit smoking.

Moreover, this research showed that most of the respondents were equipped with high quittance motivation from smoking, in addition to having a strong desire and interest at smoking following the research indicators, including desire, interest, and attempt. Referring to the theoretical review, quittance motivation from smoking constitutes internal and external encouragement to solidify the quittance motivation from smoking. Further, motivation is undoubtedly influenced by two significant factors, internal and external. The internal comes from a personal view to show act without any external prevention, while the latter is derived from the exogenous aspects one cannot control over. The external factors that can be influenced by a lower socioeconomic status. Factors often hamper cessation of smoking in these groups in the social environment; for example, unfavorable norms for smoking cessation and more smoking in their environment. Also, they are often not quite sure of the benefits of quitting and often experience low self-efficacy (Gallo and Matthews, 2003, Chandola et al., 2004) in (Stanczyk et al., 2016). Both of the factors, also, are shown through passion and interest, encouragement and need, hope and expectation, appreciation and respect, friendly environment, and excitement.

This finding is in line with the research of Suri's (2018), commenting that motivation is divided into two, internal and external. In the smoking case, the former was

influenced by their self-awareness of quitting smoking due to health problems that occurred upon the smoker respondents. As a consequence, the respondents showed a strong desire to quit smoking. Besides, the latter evoked occurred due to familial, health, and economic influences. Other research explains that there is a significant relationship between ambition and motivation, this means that with high expectations to achieve something, the motivation to achieve it will also be high (Anugrahwati & Hartati, 2017). Studies by (Sumiatin et al., 2017) have shown that there is an effect of perception on teen intention/intention in behavior.

Perception will form adolescent opinions about something that is believed and then with the support of intentions or intentions will be realized in real action. The family members had to be worried about the health damages caused by smoking behavior upon the smokers and the people around them, especially children. In addition to smoke exposure or pollution, the behavior might be a poor example the children could imitate in the future. For that reason, all the family members and close friends who are cons upon the smoke could be the triggering factor that strengthens the quittance motivation from smoking. The social support that is in it is also a family social assistance that is very important for behavior change (Indrianingsih et al., 2018). The respondents also uttered that quitting smoking could help them save money and keep their economic stability secure. Alawiyah (2017), in research, had described the perception upon the prices of electrical cigarettes in which most of the respondents had shown negative perception with 54.8%, meaning that the respondents considered that e-cigarettes were pricier than conventional ones. In line with the research, conventional cigarettes were named more consumed than e-cigarettes.

CONCLUSIONS
The students of the Faculty of Health Sciences were drawn to show a moderate level of smoking behavior mostly. Some of the students had received relatively high social support to quit smoking. Further, appraisal support was said as the most-given type of social support among all the types defined previously. At last, most of the students were shown highly motivated to quit smoking.

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