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**A QUALITATIVE STUDY OF FACTORS THAT INFLUENCE  
THE DECISION NOT TO SMOKE AMONG MALE SENIOR  
HIGH SCHOOL STUDENTS IN TASIKMALAY-JAWA  
BARAT INDONESIA BASED ON THE THEORY OF  
PLANNED BEHAVIOR**

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**MSc Health, Communication, and Life Sciences**

**Specialization Health and Society**

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**Khairunnisa**

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## SUMMARY

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### **Aim of the research**

Cigarette smoking among young people can cause serious health effects which potentially lead to premature death. Despite this fact, the number of smoking students in Indonesia remains high, especially among male students. Accordingly, a lot of research has been conducted to investigate factors that influence the decision to smoke among Indonesian students. However, a little is known about factors that influence Indonesian students to persist to be non-smokers, while knowing this could be valuable in terms of giving insights for youth smoking prevention and control program. The purpose of this study was therefore to investigate factors that influence the decision not to smoke among Indonesian students. The study included two schools in Tasikmalaya, Jawa Barat and focused on non-smoking male students.

### **Theoretical framework**

To investigate factors that influence students' decision not to smoke, a widely used theory of health behavior, the theory of planned behavior, was employed in this study as a basis for the sub-questions of this research and as a framework for the data analysis.

### **Methodology**

This research was a qualitative study with an explorative approach. Face-to-face, in-depth, semi-structured interviews with twelve students in Tasikmalaya have been conducted. Students were recruited purposively; the interviews were recorded and transcribed. Coding was done in Microsoft Word with the use of categories of the theory of planned behavior.

### **Findings**

Beliefs about health and financial consequences of (non)-smoking were found to be the main determinants of positive attitudes that influence students' decision not to smoke. Social pressure to be non-smokers from parents, school and peers further reinforced the decision not to smoke. Moreover, students who perceived more ease and resources rather than obstacles to be non-smokers seemed to be more confident about their decision not to smoke in the future compared to students who perceived less ease and resources and showed vulnerability in tackling obstacles.

### **Conclusion**

The study resulted in an indication that positive attitudes towards non-smoking behavior, social pressure to be non-smokers, and high perceived behavioral control over non-smoking behavior positively influence students' decision not to smoke. Therefore, smoking prevention and control program among Indonesian students should target these factors.

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# 1. INTRODUCTION

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## 1.1 EFFECTS OF SMOKING AMONG YOUTH

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Cigarette smoking as the dominant form of tobacco use is one of the biggest public health threats around the world, remaining as one of the main causes of non-communicable diseases and preventable death worldwide (WHO, 2015; WHO, 2016). A wide range of adverse health effects, including cancers, cardiovascular disease, respiratory illness, and dental disease, are found to be highly associated with cigarette smoking (US Department of Health and Human Services, 2014).

Among young people, cigarette smoking can cause even more severe health effects which potentially leads to premature death (CDC, 2014.; Fagerström, 2002; WHO, n.d). Short-term consequences of youth smoking include early cardiovascular damage and lung function decline which are indicated by chronic coughing, phlegm production, shortness of breath, and wheezing (US Department of Health and Human Services, 2012; CDC, 2014). These consequences might result in a decreased physical fitness in terms of performance and endurance, leading to higher risk for low academic achievements (Arday et al., 1995).

Furthermore, the nicotine contained in cigarettes can cause addiction among the smoking youth which becomes the fundamental reason for them to persist in smoking behavior throughout their adulthood (CDC, 2014). Consequently, these youth will become more vulnerable to the long-term health effects of cigarette smoking such as heart disease, stroke and cancers (Benowitz, 2010). Not only that, but smoking is also considered to be associated with some behavioral problems at home or schools such as stealing and violence (Ellickson, Tucker, & Klein, 2001). Moreover, it is also strongly associated with other risky behaviors such as drug and alcohol use, crimes, and unprotected sex (De Leon et al., 2007; Diaz, 2007; Ellickson, Tucker, & Klein, 2001). All these consequences might adversely affect youth's health status in their adulthood (De Guzman & Bosch, 2007).

Despite the negative impact of smoking on health, the smoking prevalence among adults and youth around the world remains high (McDonald, Utomo, Reimondos, & Hull 2011). Globally, the total number of adults who smoke today has reached more than 1 billion, of whom 80% live in low- and middle- income countries (WHO, 2017). Paralleling this, approximately 20% of young school students worldwide are current tobacco users (Greenhalgh, Bayly, & Winstanley, 2015). The significant number of global smokers indicates that smoking, especially among students, is still a big issue around the world.

## 1.2 SMOKING IN INDONESIA

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Indonesia is one of the countries that has the highest level of smoking prevalence in the world (WHO, 2015). It also has become the world's fifth largest consumer of cigarettes (Tjandra, 2006) and has been known as a high-burden tobacco-use country worldwide with approximately 33.5% of its people being current cigarette smokers (WHO, 2017). In 2015, WHO estimated that about 75.2% of Indonesian men aged 15 years and above were current smokers, putting Indonesia as a country with the highest male smoking prevalence worldwide. Moreover, the smoking prevalence among people aged 15 years and above has remained relatively constant over the period of 2007-2013, even slightly increasing (Data & RI, 2013). These data indicate that Indonesia has a very serious smoking problem, especially among its male population.

The smoking problem in Indonesia is exacerbated by the fact that smoking is highly prevalent among its youth. Nowadays, Indonesia has the highest youth smoking rate among countries around the world, with 18.3% of all its students being current cigarette smokers. The problem is especially much more prevalent among male students compared to female students. Of all male students in Indonesia, 33.9% were reported being current cigarette smokers, while only 2.5% of female students are current cigarette smokers (Data & RI, 2013; WHO, 2015). Moreover, the problem of smoking among youth can also be seen from the age of smoking initiation. It was shown in the Indonesian Global Youth Tobacco Survey in 2014, that of all ever smoked students in Indonesia, 43.7% affirmed that they initiated smoking at a very young age which is around 12-13 years old. It is also shown in the survey above of WHO that of the current smokers recorded in the survey (75.2%), 80% indicated smoking initiation at an age below 19 years old, of which 55.4% initiated smoking at age 15-19 years (Data & RI, 2013). All these data imply that most smokers in Indonesia started to experiment with smoking when they were at the age of young students.

The current situation of smoking behavior among Indonesian students indicates that Indonesia will possibly face a tremendous burden of morbidity and mortality from smoking-related diseases in the future (Martini & Sulistyowati, 2005). Accordingly, smoking behavior among students has emerged as one of the major public health issues in Indonesia that need to be tackled through a national tobacco control program (Aditama et al., 2008). The MPOWER initiative, a tobacco-free initiative designed by WHO for country-level implementation, has been implemented in Indonesia. The MPOWER initiative includes the monitoring of tobacco users, protecting people from tobacco smoke, offering help to quit smoking, warning about dangers of tobacco, enforcing advertisement banning, and raising tobacco taxes (WHO, 2015). All these programs are aimed at reducing and preventing people from tobacco use. However, the fact that 18.3% of all students are smokers might indicate that the tobacco control

programs that are implemented in Indonesia, might have not yet reached their highest levels of achievement (WHO, 2015).

Due to the urgent need to prevent and reduce smoking among youth, many studies have tried to investigate factors that influence smoking behavior among young students in Indonesia to provide valuable information for youth tobacco control programs. From these studies, internal factors such as self-image, stress and perceived peer pressure, and external factors such as peer's attitude and behavior (Smet et al., 1999), parents and siblings influence (Wulan, 2012), accessibility and affordability of cigarettes (Martini & Sulistyowati, 2005), and cigarettes advertisement (Rachmat, Thaha, & Syafar, 2013) have been found to be associated with smoking behavior among smoking youth. Moreover, the social and personal reasons that influence the decision to smoke among youth have also been investigated. It was found that being accepted by the group, forced by friends, increasing self-confidence, and facilitating socialization were the predominant reasons for smoking (Martini & Sulistyowati, 2005). Results from these studies were used by the concerned researchers to give recommendations regarding smoking policies and interventions.

While smoking students have become the main subject of research in Indonesia, non-smoking students as the bigger population have received little attention either in research fields or in the endeavor of designing smoking prevention programs for youth (Kulbok et al., 2008). Research regarding non-smoking students in Indonesia has been only focusing on second-hand smokers, their general knowledge and perception about smoking and how they get exposed to cigarettes (Djutaharta & Surya, 2003). It is unknown about how the non-smoking youth preserve being non-smokers. Understanding this might help concerned stakeholders in developing strategies to design prevention programs for youth who have not initiated smoking yet, for example by promoting the factors that facilitate them to keep themselves away from smoking (Kulbok et al., 2008). Moreover, knowing the factors that positively influence the decision not to smoke can also support the current tobacco control program by promoting those factors among smoking youth so they can get motivated to quit smoking. Despite the high prevalence of smoking students in Indonesia, approximately 80% of the students are non-smokers and need to be reached so that they persist their non-smoking behavior (WHO, 2015; Kulbok et al., 2008). Therefore the focus of this research is to investigate factors that influence the decision not to smoke among non-smoking students in Indonesia.

### **1.3 SMOKING PREVALENCE IN JAWA BARAT PROVINCE AND TASIKMALAYA**

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Jawa Barat is one of the provinces in Indonesia with the highest smoking prevalence (Data & RI, 2013). According to the Indonesian National Smoking Survey, the prevalence of smokers among

the population aged ten years and above in Jawa Barat was 32.7%, this prevalence was constant over a six-year period from 2007 to 2013. The national prevalence in Indonesia was only 23.7% in 2007 and 29.5% in 2013. This shows that the province has been one of the significant contributors to the national problem of smoking behavior (Kementerian Kesehatan, 2008; Kementerian Kesehatan, 2013). Generally speaking about the youth smoking problem in Jawa Barat, data has shown that most of the smokers reported in the survey, they initiated smoking at a very young age, ranging from 15 to 19 years old, which is when they were young students. For that reason, this study takes place in Jawa Barat province, specifically in Tasikmalaya as one of the cities that has the highest prevalence of smoking (33.7%) (Kementerian Kesehatan, 2008).

#### **1.4 PROBLEM STATEMENT AND AIM OF THIS RESEARCH**

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As previously explained, smoking behavior among students, especially among boys, remains a major problem in Indonesia. Accordingly, many research tried to investigate factors that influence students' decision to smoke in order to provide more knowledge for possible intervention programs. However, a little attention has been given to the larger proportion which is non-smoking youth. No research has been found trying to deeply investigate the possible circumstances that shape the decision of Indonesian students to be non-smokers. Knowing and understanding these factors might be an added value in the endeavor of designing or strengthening current smoking prevention programs for young people who have not yet initiated smoking. Moreover, findings of this study could also be useful in developing possible strategies for motivating smoking youth to stop smoking.

Accordingly, the purpose of this study is to investigate factors that influence the decision not to smoke among youth in Tasikmalaya, Jawa Barat province. The study focuses on male non-smoking students since the smoking problem is more prevalent among boys compared to girls. Moreover, since this study is one of the first attempts to deeply investigate non-smoking students' decision not to smoke, the study firstly focuses on individual's cognitive components that center on attitudes, beliefs and perception.

#### **1.5 SCIENTIFIC AND SOCIETAL RELEVANCE OF THIS RESEARCH**

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As explained earlier, in Indonesian literature a little is known about which determinants that influence students' decision not to smoke. Therefore this research aims at filling this knowledge gap. Moreover, this study is of societal relevance since smoking behavior among students is one of the major public health issues in Indonesia that needs to be alleviated by implementing effective intervention programs. Findings of this research could be used to give insights about what factors

could be targeted to prevent students from smoking initiation or to motivate smoking youth to stop smoking.

## 2. THEORETICAL FRAMEWORK

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### 2.1 THE THEORY OF PLANNED BEHAVIOR

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The theory of planned behavior is a widely known theory of human behaviors developed by Icek Ajzen in 1991. The theory is one of the most common approaches that is used to explain an individual behavior that has a relation to health and is very useful in identifying particular influences on behavior that could be targeted for change (Morris, Marzano, Dandy, & O'Brien, 2012). The theory suggests that an individual's behavior is best predicted by his or her intention to perform the behavior (Ajzen, 1991). The intention itself is an outcome of the combination between attitudes, subjective norms and perceived behavioral control. Together, these three components have high accuracy in predicting intentions. Moreover, the theory suggests that the perceived behavioral control, besides affecting intentions, can also directly affect behaviors (see figure 1).

Individual's intention is defined as a representation of motivational factors that influence behaviors (Ajzen, 1991). In other words, intention reflects the willingness to perform particular behaviors. The stronger the intention is, the more likely the individual will perform the behavior (Ajzen, 1991; Moan, 2005). However, according to the theory, intention influences behaviors that people can decide upon to perform or not to perform. It could not be applied to behaviors that have nothing to do with choices. Nevertheless, research has shown that the theory of planned behavior could provide useful predictions of intention (Godin, 1996; Moan, 2005)

Along with intention, confidence in the ability to perform behaviors is also considered to influence behaviors strongly. This is what the theory calls as perceived behavioral control. It refers to "people's perception of the ease or difficulty of performing the behavior of interest" (Ajzen, 1991, p. 183). The perceived behavioral control will increase when individuals perceive more resources and confidence in performing behaviors and vice versa (Ajzen, 1985; Hartwick & Barki, 1994; Lee & Kozar, 2005). As previously mentioned, this perceived behavioral control together with the intentions can be directly used to predict individuals' behavior.

Moreover, the intentions suggested in the theory of planned behavior, are highly determined by three aspects: the attitudes towards behaviors, subjective norms, and perceived behavioral control. Attitudes towards behavior are defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen, 1991, p. 188). Meanwhile, subjective norm refers to "the perceived social pressure to perform or not to perform the behavior" (Ajzen, 1991, p. 188). Lastly, perceived behavioral control is the extent to which behaviors are

perceived as easy or difficult. The general rule suggested in the theory concerning these three aspects, is that if an individual has a favorable attitude and subjective norm towards a behavior, and he/she has a higher perceived behavioral control, then he/she will ultimately have a stronger intention to perform the concerned behavior. However, it is also suggested that the importance of these three aspects might relatively vary across behaviors and situations (Ajzen, 1991).

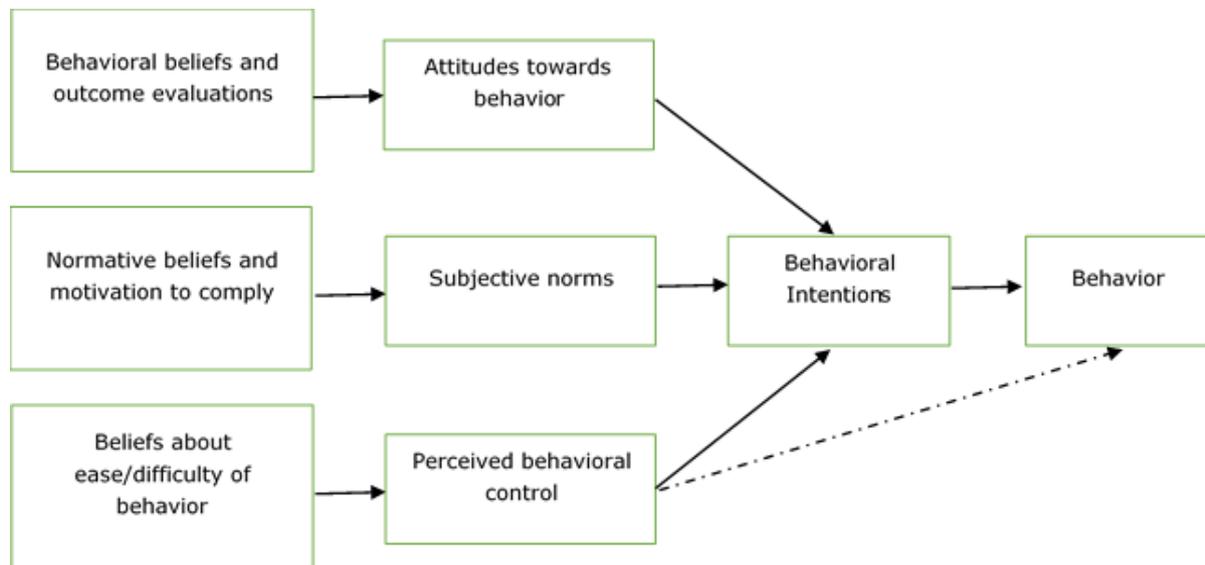


FIGURE 1. THE THEORY OF PLANNED BEHAVIOR (AJZEN, 1991)

### Attitudes towards behavior

According to the theory, attitudes towards behaviors develop from the beliefs that individuals hold about the behaviors and from the evaluation of specific outcomes or attributes linked to the behaviors. These related outcomes evaluation or beliefs will be valued either positively or negatively by the individuals, and from this, the individuals will automatically acquire their attitudes towards the behaviors. As an example, if an individual believes that a particular behavior has some positive consequences, this individual will simultaneously form a favorable attitude towards the behaviors and vice versa (Ajzen, 1991).

### Subjective norms

While attitudes develop from the behavioral beliefs and outcomes evaluation, subjective norms develop from normative beliefs towards the behavior. These normative beliefs refer to the perceived approval or disapproval of performing a given behavior from important individuals or

groups in someone's life. These important people may include parents, friends, boyfriend/girlfriend, siblings, or other relevant figures. Moreover, these normative beliefs can be positively influenced by the motivation to comply with these important people (Ajzen, 1991).

### **Perceived behavioral control**

Despite the direct influence to behaviors, perceived behavioral control is also considered as one of the determinants of intentions. It is believed to influence the intentions through what the theory calls as control beliefs. These control beliefs include perceived ease and difficulty to perform behaviors and beliefs of capability and control over those perceptions. In other words, control beliefs encompass the perception of the extent to which performing the behavior is easy or difficult. Control beliefs can increase or decrease along with the perception of resources and confidence. These control beliefs may be based on the past experience with the behavior or second-hand information about the behavior for example from friends or parents (Ajzen, 1991).

## **2.2 THE THEORY OF PLANNED BEHAVIOR APPLIED TO NON-SMOKING BEHAVIOR**

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The theory of planned behavior has been used many times to predict and understand smoking behavior and its determinants among youth. Research has shown that the theory could provide an empirically adequate explanation of cigarette smoking (Hanson, 1997). In the application of this theory to smoking or non-smoking among youth, it is suggested that the intention/decision to smoke or not to smoke is a function of youth's attitudes towards smoking and not smoking, their perception about significant others' opinion or approval/disapproval about their smoking and non-smoking, and their perception about self-control over their smoking and non-smoking behavior (Hanson, 1997). The application of the theory to non-smoking behavior is shown in figure 2. It is important to note that the terms intention and decision in this application, are used interchangeably. Moreover, the term (non)-smoking will often be used after this, which refers to both smoking and non-smoking behavior.

Youth's attitude towards (non)-smoking is determined by their beliefs regarding (non)-smoking consequences and the evaluation of these consequences. For example, youth who have intentions not to smoke in the future have probably thought about particular consequences of smoking and evaluated those in a way that influences them deciding not to be smokers. Meanwhile, the subjective norm is a function of what youth perceive about significant others' thoughts regarding (non)-smoking behavior, multiplied by the motivation to comply with those people. As an example, youth who think that smoking is considered socially undesirable by their peer groups might decide not to smoke when they expect that they won't be accepted by those peer groups. Here, the perception of peers about

smoking is a subjective norm. Lastly, the perceived behavioral control encompasses youth’s beliefs about ease, resources, and obstacles related to (non)-smoking, multiplied by the perceived influence of those things (Hanson, 1997).

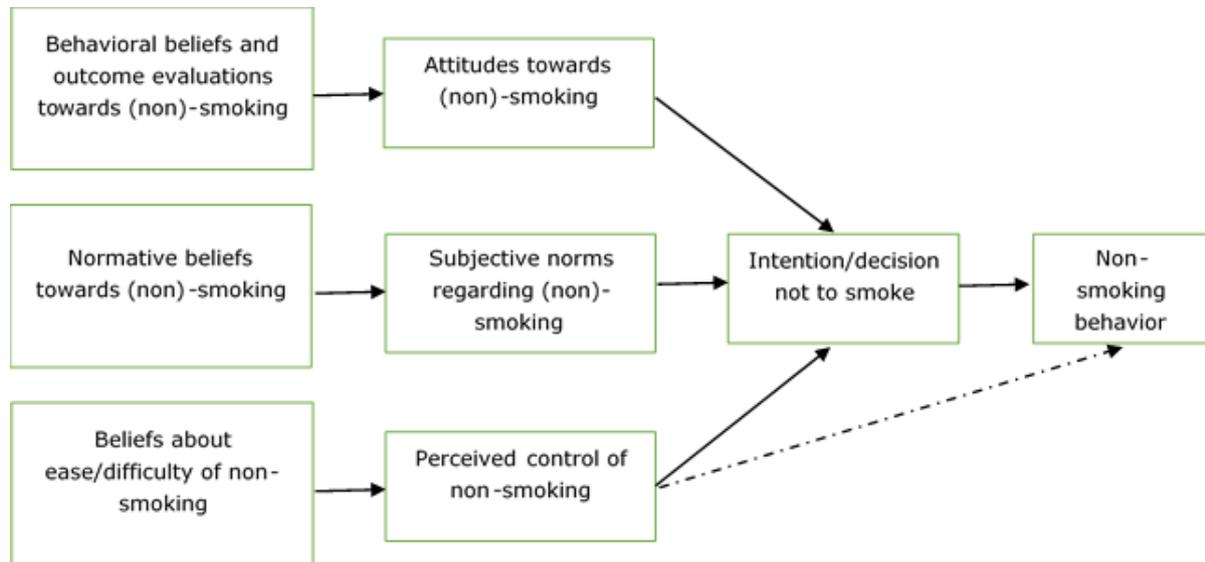


FIGURE 2. THE THEORY OF PLANNED BEHAVIOR APPLIED TO NON-SMOKING BEHAVIOR (ADAPTED FROM AJZEN, 1991)

## 2.3 RESEARCH QUESTIONS

The main question of this research is: “What are factors that influence the decision not to smoke among male students in Tasikmalaya, Jawa Barat?”

To answer this question, the theory of planned behavior will be employed as a basis for the sub-questions of this research. According to the theory, attitudes, subjective norms and perceived behavioral control towards non-smoking might shape the decision not to smoke. Therefore, these three components and their related factors as explained earlier will be investigated.

The research sub-questions of this study are, therefore:

1. What are the attitudes and related behavioral beliefs and outcome evaluation towards (non)-smoking behavior that influence students’ decision not to smoke?
2. What are the perceived subjective norms and related normative beliefs regarding (non)-smoking behavior that influence students’ decision not to smoke?

3. How do students perceive their behavioral control and related ease, resources and obstacles towards non-smoking behavior that influence their decision not to smoke?

### 3. METHODOLOGY

The focus of this research is to investigate students' attitudes, subjective norms and perceived behavioral control that influence their decision not to smoke. Therefore, a qualitative method was employed in this study. This is because a qualitative research method can provide the opportunity to investigate and understand people's experiences, meanings and perceptions in a specific context (Skovdal & Comish, 2015). Furthermore, since this study is one of the first attempts at investigating factors that might influence the decision not to smoke among Indonesian students, the study had an exploratory character.

#### 3.1 CONTEXT

Tasikmalaya-Jawa Barat was chosen as the context of this research since it is one of the cities-provinces in Indonesia with the highest prevalence of smoking. Jawa Barat is a province located on the west side of Java Island. It consists of 27 cities/regencies including Tasikmalaya. The city and regency of Tasikmalaya have a total area of 2880.38 km square with an estimation of the entire population of 2,685,050 people (jabarprov.go.id, 2017; tasikmalayakab.go.id, 2017). There is a total number of 251 high schools in the area (jabarprov.go.id, 2017), from which two schools were chosen for this study. One of the selected school was a boarding school located in the regency of Tasikmalaya and the other was a regular senior high school located in the main city of Tasikmalaya. Using participants from two different schools provides the ability to compare the school based on the results of the study.

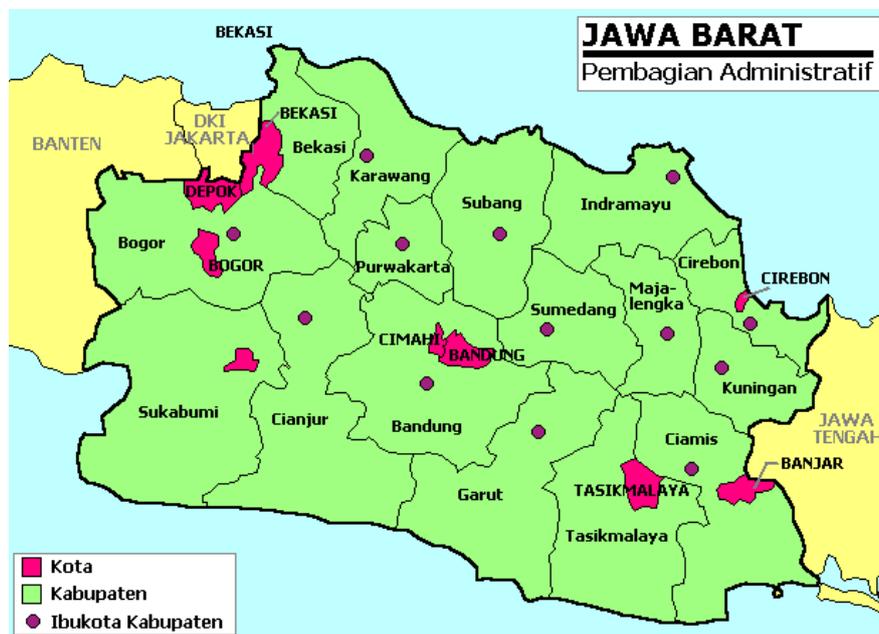


FIGURE 3. JAWA BARAT MAP

### Study population

The population of interest in this study was male senior high school students in Tasikmalaya-Jawa Barat since they are more vulnerable to smoke compared to female students. The inclusion criteria of the sample in this study were: 1) Male senior high school students that are registered in concerned schools 2) Age 15-19 years old 3) Self-reported never smoke or ones who ever tried smoking but currently no longer smoke and indicate themselves intending not to smoke in the future.

## **3.2 SAMPLING STRATEGY**

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The sampling method used in this study was purposive sampling method in which schools and student were deliberately chosen under the characteristics of interest (Bowling & Ebrahim, 2005, p.226). The selected schools in this study were two vocational high schools in Tasikmalaya. These schools were chosen because vocational schools have more male students compared to other schools. Therefore it raised the opportunity to find the required sample.

To select the participants, the researcher of this study conducted a small survey among the students in the concerned schools by going to some classes asking if any of them meet the inclusion criteria aforementioned. The researcher then asked to ones who meet the requirements whether they were willing to participate. Afterwards, the researcher made a list of whom would like to join and started to contact them to arrange interview appointments. The researcher began to interview the first respondent and kept continuing to the next participants. The process stopped following the subjective judgment that data saturation had been reached. In total, twelve students participated in this study.

## **3.3 DATA COLLECTION**

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A face-to-face, in-depth semi-structured interview was used as the data collection method. The interviews were conducted from 10-10-2017 until 4-11-2017 and took place on the school site after the school time and lasted for about 25-45 minutes per participant. Most of the participants were interviewed either in the canteen of the schools or classes. Before the interview, the participants were informed about the study. Afterwards, they were asked to sign an informed consent form (see appendix 1). At the beginning of every interview, the researcher talked about general topics, to make the participants feel comfortable. Afterwards, a set of open and closed questions were asked. These questions aimed at finding more information about participants characteristics, intentions, attitudes, subjective norms and perceived behavioral control over non-smoking behavior. The questions were

formulated based on a similar study that was conducted by another researcher in a different country. The other researcher developed the questions in consultation with experts in qualitative methodology, tobacco use and prevention research and also youth non-smokers (Kulbok et al., 2008) (see appendix 2). These questions were thereby adapted and adjusted in accordance with the sub-research questions. Finally, the questions were asked in the language Bahasa Indonesia.

### 3.4 DATA ANALYSIS

The interviews were recorded and transcribed by the researcher. Afterwards, a thematic analysis was used as a tool for data analysis. Thematic analysis was used as an analysis method for identifying, analyzing, and reporting patterns (themes) within data. It helps to inform experiences, meanings and realities of participants about the topic addressed in research questions (Braun and Clarke, 2006). The analysis was conducted in six steps as shown in table 1.

TABLE 1. PHASE OF THEMATIC ANALYSIS (BRAUN AND CLARKE, 2006, P.35)

Phase	Description of activities
Familiarizing the data	Transcription of verbal data; Read and re-read the transcribed data; Taking notes about initial list of ideas and interesting finding; Making ideas for coding
Generating initial codes	Coding interesting features of the data; Collating data relevant to each code
Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme (see appendix 3 for coding tree)
Reviewing themes	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic map of the analysis.
Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells;

	generating clear definitions and names for each theme
Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

### 3.5 ETHICAL CONSIDERATIONS

---

Through all the research process in this study, some ethical principles have been used as guidance: *do no harm; keep the privacy, anonymity and confidentiality; informed consent*.

The *do no harm* principle has guided the researcher during the whole process of the study, especially during the interview session with participants. All participants were not involved in any situations that could harm them. They were interviewed on the school site and were under the supervision of the schools. Moreover, the privacy, anonymity and confidentiality of the data were ensured. Informed consents were collected from the schools, participants, and their parents. Furthermore, the participants could stop the interview or withdraw from the study at any time.

This study has been reviewed and approved by the Wageningen University's Social Sciences Ethical Committee (SEC). The ethical clearance was obtained on 02-10-2017 (see appendix 4).

## **4. RESULT**

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In this section, factors that influence students' decision not to smoke based on the theory of planned behavior will be described. First of all, a description of the study participants will be presented. Afterwards, the explanation of attitudes, subjective norms, and perceived behavioral control towards non-smoking behavior related to students' decision not to smoke will follow. It is important to note that these components are closely intertwined. Therefore some themes could appear in more than one components. Moreover, smoking behavior will often be mentioned since it is also intertwined with non-smoking behavior. Finally, some quotes and personal experiences will be presented, mainly based on the majority of participants' responses and based on the subjective judgment of the researcher about striking/interesting answers.

### **4.1 DESCRIPTION OF STUDY PARTICIPANTS**

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Interviews were conducted with twelve participants of which five from the boarding school and seven from the regular school. Their ages were between 16-19 years. Of these twelve participants, six indicated never smoking in the past while the other six indicated ever tried smoking. Generally speaking, most of the participants have good academic performances at school especially for those who never smoke in the past. Moreover, almost all participants (10 out of 12) have smoking parents, while only some of them (5 out of 12) have smoking siblings. However, all participants indicated that they have some friends who are now active smokers (see appendix 5).

### **4.2 ATTITUDES TOWARDS NON-SMOKING BEHAVIOR**

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Through the interviews, positive and negative attitudes towards non-smoking behavior and related behavioral beliefs and outcome evaluation that influence students' decision not to smoke were found among the study participants.

#### **4.2.1 POSITIVE ATTITUDES TOWARDS NON-SMOKING BEHAVIOR AND RELATED BEHAVIORAL BELIEFS AND OUTCOME EVALUATION**

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From the results, it was found that positive attitudes towards non-smoking were influenced by the positive behavioral beliefs and outcome evaluation regarding non-smoking. Moreover, it was influenced by the negative behavioral beliefs and outcome evaluation regarding smoking.

### **Positive behavioral beliefs and outcome evaluation regarding non-smoking**

When asked about the good things of being non-smokers that influence the participants' decision not to smoke, some positive beliefs and evaluation were mentioned. The most important themes that the majority of participants indicated were health and financial advantages. Besides, other things were also mentioned as the positive outcomes of non-smoking behavior such as a bright future career and having more friends. Moreover, most of them also perceived that being non-smokers could result in positive images of people who do not smoke.

#### Health

To describe health advantages of being a non-smoker, most of the participants used the comparison between non-smoking and smoking students. They mentioned that students who do not smoke would have better health compared to students who do smoke, as one of the never-smoking participants commented:

“(the advantages of being a non-smoker are) Regular breath. Healthy. Feels no shortness of breath. Not like smokers, (they have) short breath. Weak body. When doing sports, they (smokers) get tired very fast” (AN).

Differently from the never-smoking participant who narrated non-smoking advantages based on their knowledge, the ever tried smoking participants expressed positive health outcomes of being a non-smoker mostly based on their personal experiences.

“When I was still a smoker, every time I woke up from sleep, I felt a shortness of breath, but now my breath is so relieved” (IQ)

“Formerly (when still smoking), when I went for jogging, I could only make it to five rounds, the rest just walking. But now I feel free to run from home to Manonjaya (indicating a very long distance) and also walk there, and my body gets better, swimming also feels good now, nicer when holding breath (in water)” (YS)

#### Financial advantages

Moreover, the majority of participants also mentioned something about saving money or not wasting money. They perceived that being a non-smoker makes them could save more money or spend their money on right things.

"I've ever done an experiment that every time I wanted to smoke, I tried to hold myself and tried to put my money (that first aimed for buying cigarettes) to a sealed

money box, one thousand, two thousand, in a month I could get more than three hundred thousand. I tried that, and it is pretty good" (YS)

"For example, I have the same money that I actually could use for cigarettes, but I rather buy snacks or books, that is, of course, more advantageous" (HD)

### Friends

Furthermore, two participants believed that being a non-smoker provides an opportunity to make more friends. They further explained that non-smokers could get more opportunities to make friends with both smoking friends and non-smoking friends, considering that non-smoking teens, in their perception, mostly prefer to make friends only with non-smoking teens. These opportunities are things that they would rarely have if they are (still) smokers.

"Like what I said, that many teens are so picky in making friends. If I smoke, those teens will not pick me as their friends. But if I do not smoke, they must feel welcomed about me. So I will have a lot of friends because I could join all the circles of my peers (both non-smoking and smoking friends)" (GL)

### Career

Three ex-smokers also believed that being a non-smoker could help them to have a brighter future career. As one of them commented:

".... Now I think about the future. About getting a job. I am afraid it will be hard (if smoking). I have a dream to be a national army which requires a health test. I'm afraid about that (so I stopped smoking)" (YS)

### Image

Many positive images were also mentioned by most of the participants in response to the question of perceived images of non-smoking teens. Words such as "elegant," "cool," "great," "amazing," "big thumbs" are some of the examples of how they describe teenagers who do not smoke. These positive images were given mostly because the participants felt that smoking teens are rare. Non-smoking teens could be positively different from most people around them. As one of the participants stated:

"Amazing (for non-smoking teens). Because in the whole Indonesia, a lot of people smoke and only a few people who do not smoke, therefore these people are amazing" (AN)

## **Negative behavioral beliefs and outcome evaluation regarding smoking**

Besides positive beliefs and evaluation about non-smoking, negative consequences of smoking were also mentioned by all the participants as things that make them favor non-smoking behavior rather than smoking, which ultimately influence them to be non-smokers/to stop smoking. The most notable smoking consequences that the participants indicated included health problems, money wasting, and negative images.

### Health problems

All of the participants agreed that health problems would be the main disadvantages of smoking. “Cancers”, “addiction”, and other severe diseases were frequently mentioned. Even some ex-smokers mentioned experienced disadvantages caused by their past smoking such as “shortness of breath”, “a frequent cough”, and “low fitness and stamina”.

Interestingly, some of the participants who have never smoked expressed that they are aware of the health consequences of smoking from their observations, by witnessing the adverse health consequences that happened to their relatives and friends. One of the participants commented:

“I saw my smoking friends have a frequent cough.... I’ve ever witnessed my grandpa got sick and had a blood cough because of smoking..I got afraid of smoking because of these” (AL)

Another interesting story was also from AL, an ex-smoking participant who said that he started not to like smoking because his past smoking did not work well. He mentioned that he used to believe that smoking could help him to lose his overweight. This is because he perceived that smoking could result in loss of appetite. Moreover, he also used to perceive that smoking could give a nice feeling. Nevertheless, he never felt those perceived advantages. He felt that smoking did not work for him, it even caused some negative health effects. Eventually, he got tired of being a smoker and therefore he decided to stop.

### Money wasting

Other important responses were money wasting and negative images labeled to smokers. One of the participants commented:

“If you smoke, it will be money wasted. When I did my internship, my money was mostly spent on cigarettes. I thought that cigarette was really bad for my money” (IH)

### Negative image

They also described some negative images that they perceived about smoking-teens: “bad boy”, “such a pity”, “badly behaved”, “poor academic achievement” or even “disgusting”.

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## **4.2.2 NEGATIVE ATTITUDES TOWARDS NON-SMOKING BEHAVIOR AND RELATED BEHAVIORAL BELIEFS AND OUTCOME EVALUATION**

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Surprisingly, some negative attitudes towards non-smoking behavior were also identified among the participants. These negative attitudes not only included the negative beliefs and evaluation regarding non-smoking behavior but also included the perceived advantages of smoking.

### **Negative behavioral beliefs and outcome evaluation regarding non-smoking**

#### Less confidence

The most prominent theme that emerged regarding negative belief and evaluation of non-smoking was a feeling of less confidence to socialize with peers (especially with smoking friends). According to some of the participants, being a non-smoker makes them hard to mingle with smoking friends, as one of the participants commented:

"To make friends with smoking friends would be easier if you also smoke. I am not a smoker, so it is harder for me to find friends. As an example, smoking friends tend to get around often. They could be very close one to another. Meanwhile, I cannot be. I even meet them only on school time in class" (AD)

#### Stigma

Interestingly, most of the participants also referred to negative normative beliefs among peers about non-smoking behavior (e.g., a negative stigma for non-smoking teens from smoking friends) to answer the question what are not such good things about being non-smokers. This indicates that the subjective norm of smokers influences their attitude towards non-smokers.

### **Positive behavioral beliefs and outcome evaluation regarding smoking**

When asked about the good things about smoking, most of the participants did acknowledge that smoking has some advantages. This was specially stated by those who ever tried smoking.

The most frequent advantages mentioned were related to the positive feelings that smoking could create, such as "relaxation", "happiness", and "pleasure". Moreover, some of them also said that the only thing that could be an advantage of smoking is "prestige among peers". One of the participants commented:

“Just for fashion. Because of the feeling of shame (if not smoke) seeing other people smoke. Prestige among peers I would say” (AZ)

Despite this, some of the participants still did not mention anything as an advantage of smoking. They even strongly emphasized that only disadvantages that they could get from smoking.

### 4.3 SUBJECTIVE NORMS REGARDING (NON)-SMOKING BEHAVIOR

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When asked about the approval or disapproval towards (non)-smoking behavior from the important people that influence the participants' decision not to smoke, it was found that parents, school, and peers played the most prominent role in influencing their decision.

#### **Social pressure to be non-smokers**

##### Parents

Some of the participants indicated that their parents showed some types of disapproval of smoking that somehow reinforced their decision not to smoke, like giving them information about the negative consequences of smoking, simply persuading them not to smoke, or strictly restricting them to smoke. Some of the participants even said that their parents gave them threats if they become smokers:

“My father said, ‘if you start smoking, don't ask anything from me anymore. Never ask this or that again to me, earn your own money. That is if you want to smoke’ “ (AD)

Interestingly, some of the parents who showed disapproval of smoking are also smokers. But despite this fact, they still try to encourage their children not to be smokers in many ways, which for some of the participants, it did work in influencing their decision not to smoke.

However, while some of the participants avoided smoking due to fear of their parents, there was one respondent that revealed that he could resist smoking because of a life value that has been firmly embedded by his mother. This value, he said, was something that he always holds onto in his life.

“Although people say that we usually get affected by our close friends, almost all my friends are smokers, they always smoke every time we hang out together, but me? I never smoke.

Not because I did not get affected by them, but because from I was a child, I was embedded (a value), that I am allowed to socialize with anyone, but I need to keep myself behaving good (not follow the negative things that his friends do)” (GL)

### School

Interestingly, all of the participants from the boarding school mentioned that their school had been their reference to be a non-smoker, while none of the participants from the regular school mentioned something about school. This seemed to be the case because, for the participants from the boarding school, they spend most of their days in school instead of home. Moreover, they indicated that the school has a very strict rule in prohibiting all students to smoke on the school sites. Students who are found smoking will be punished by the teachers with cleaning rooms, for example, as the punishment. The school has also arranged good schedules for all students, so they keep being involved in positive activities in which smoking does not fit such as sports, gardening or religious activities. One of the boarding school's student said:

“Just like any other schools, no one is allowed to smoke at school. If someone smokes (here), he probably goes to somewhere outside after the school time. But probably would not possible, because there is no time. This school is a religious school. So a lot of activities such as Pengajian (reading/discussing Al-Quran)..... So we finish our school at 3 pm, then we are free to take a rest.... (what I usually do is) Gardening. Then we have Pengajian at 5 pm, then do Maghrib prayer. Afterwards, we have dinner together and then do Isya prayer and Pengajian again. At 9 pm we have sports activities until ten then we could go to sleep. A full day, right?” (RN)

### Doctor

Another story was from AZ. He shared that the recommendation from his doctor was the main reference for him to stop smoking.

"I used to smoke, but I got an accident recently. I had surgery. My bone was broken. Then my doctor gave me a verdict, that I am not allowed to smoke and not allowed to even breath smoke. That's (the turning point)! Since then I stopped smoking" (AZ)

### Friends

Other sources of approval for non-smoking that were mentioned by the participants were non-smoking friends and girlfriend. One of the participants commented:

“Here (at school), I get good support from all my friends to stop smoking..” (RN)

### None but selves

Interestingly, two participants were stating that no one has been their source of support/approval for not smoking except themselves. They said that they did get the support to be a non-smoker from their parents, yet it was not something that affects their decision not to smoke. They thought that only them that played a role as the biggest support for themselves, as one of them commented:

"No one. Well, my family, my mother prohibited me to smoke, but it has never been my reference (to not smoke). And nothing else has been. It is enough from my own self" (HD)

### **Social pressure to be smokers**

#### Peer Pressure

The majority of the participants indicated that there were some stigmas or labels given to non-smoking students among their peers like "out of date", "less social", "sissy boy" and "not masculine". These stigmas, according to their perception, were the most important social pressure that hinder their decision not to smoke and become the obstacles that could undermine their confidence to keep being non-smokers.

## **4.4 PERCEIVED BEHAVIORAL CONTROL OVER NON-SMOKING BEHAVIOR**

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From the interviews, how the participants perceived their behavioral control over non-smoking could be identified. It was found that most of the participants were relatively confident to persist being non-smokers. These participants perceived more ease and resources (e.g., beliefs, faith, confidence) to be non-smokers and perceived that they could use their resources to tackle their perceived obstacles. Meanwhile, some of the participants still showed low perceived behavioral control over non-smoking due to the feeling of low confidence in dealing with their perceived obstacles.

### **4.4.1 PERCEIVED CONTROL OVER OBSTACLES RELATED TO NON-SMOKING BEHAVIOR**

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When asked about the major obstacles that the participants experienced in being a non-smoker, most of the answers were related to the normative belief. They perceived that peer pressure, such as negative stigmas about students who do not smoke or friends who possibly force them to smoke, is an obstacle that they potentially face as non-smokers. Besides, the remaining curiosity of smoking pleasure was also mentioned as the difficulty that one of the participants met as a non-smoker.

### **Low perceived control**

Surprisingly, when further asked about their confidence in tackling the obstacles, four participants still showed hesitance. Their narration indicated that somehow they are still afraid that they could not make it tackle the perceived obstacles. As some of these participants commented:

“Well, what I want now for my future is not to smoke, yet I do not know how strong the peer pressure is later. So I’m still a bit not sure..” (AD)

“Hmm.. 90% (confident)..... (the 10%) is I am still afraid. I am afraid I will get tempted again haha... It is actually about the (remaining) curiosity, how the pleasure of smoking feels like. I’m still very curious” (AL)

Interestingly, one of these vulnerable non-smokers also indicated that even if someday he could not tackle the peer pressure, he will only smoke when he is with his smoking friends as to respect them and not to intend to be a ‘real active smoker’.

### **High perceived control**

Despite the vulnerable participants, the other eight participants in this study still showed high confidence in explaining how they are going to deal with the perceived difficulties and persist to be non-smokers in the future. Some of them even indicated that the obstacles they mentioned were less meaningful compared to the disadvantages of smoking and therefore they would just ignore them. Two of these participants commented:

"Whatever the obstacle is, I would never get tempted by cigarette because the consequences are for my self and not others" (AK)

“Insya Allah (expression of promise) I will do my best not to smoke. Because what is the advantage of smoking? Smoking just kills you and you get nothing from it... And what is sure is, I do not like them (smokers), especially those who smoke close to kids” (DN)

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#### **4.4.2 PERCEIVED EASE AND RESOURCES TO BE NON-SMOKERS**

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Interestingly, when asked about what makes it easy to be non-smokers, most of the participants referred to the behavioral beliefs and outcome evaluation regarding (non)-smoking such as beliefs about the positive outcomes of being non-smokers and the negative

outcomes of being smokers. They also referred to the people that they perceived as their reference for non-smoking approval. Moreover, they also mentioned other internal factors such as confidence and faith as the resources to keep their non-smoking behavior. One of the participants commented:

"(to keep the stance not to smoke) Back to God and parents. Yes, back to God and Al-Qurán (the holy book) because harming yourself is prohibited" (AK)

Moreover, keep doing positive activities was also mentioned as something that helped the participants to be non-smokers and was also considered very important to keep them being non-smokers in the future. As one of the participants commented:

"For me (to maintain non-smoking behavior), having a positive activity. So I won't feel bored and not taking a bad decision (smoking)... Like here at school, you could see over there (pointing a garden), it is our school garden. It is my work. Because I want to fill my free time with (positive activity)" (RN)

## 5. DISCUSSION

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The aim of this research was to investigate factors that influence students' decision not to smoke, with the ultimate goal to provide more elaborate knowledge for smoking prevention and control programs among youth in Indonesia. To do this, twelve non-smoking students in Tasikmalaya were interviewed about their attitudes, subjective norms, perceived behavioral control towards non-smoking behavior and related beliefs that influence their decision not to smoke. From these interviews, different categories of factors that influence their decision not to smoke could be identified. In this chapter, these results will be compared with the theoretical perspectives and with the existing literature on non-smoking behavior. However, since this is the first study that qualitatively explores decision not to smoke among youth in Indonesia using the theory of planned behavior, the ability to compare the findings of this study to other Indonesian context are limited. Therefore, some factors might be considered as new in regard to the specific context of this study.

The non-smoking students in this study seemed to make a conscious decision not to be smokers in the current time and in the future. Despite the fact that some of them had tried smoking and some of them were still vulnerable to the smoking possibility in the future, they seemed to have critically thought about their decision not to smoke, by considering the positive and negative sides of smoking and not smoking. Kulbok et al. (2008) and Edvardsson et al. (2014) also found the similar results in their studies suggesting that most of the youth were able to think critically about (non)-smoking decisions. However, the good ability of critical thinking among the participants can also be explained by the fact that all the students involved in this study are ones with relatively good academic performances.

In this study, the primary three components that influence intention (decision in this case) and their related factors based on the Theory of Planned behavior have been explored (see figure 4). From the results, it was found that attitudes, subjective norms and perceived behavioral control and their related factors can either positively or negatively influence the decision not to smoke. This is consistent with what had been found by Smith et al. (2007) that those three determinants help account for non-smoking adolescent's intention to (not) smoke.

According to LaMorte (2016), attitudes, subjective norms, and perceived behavioral control, besides influencing intentions, could also influence each other. This is also what is found in this study that attitudes, subjective norms, and perceived behavioral control were linked to each other and had been closely intertwined in influencing the decision not to smoke among students.

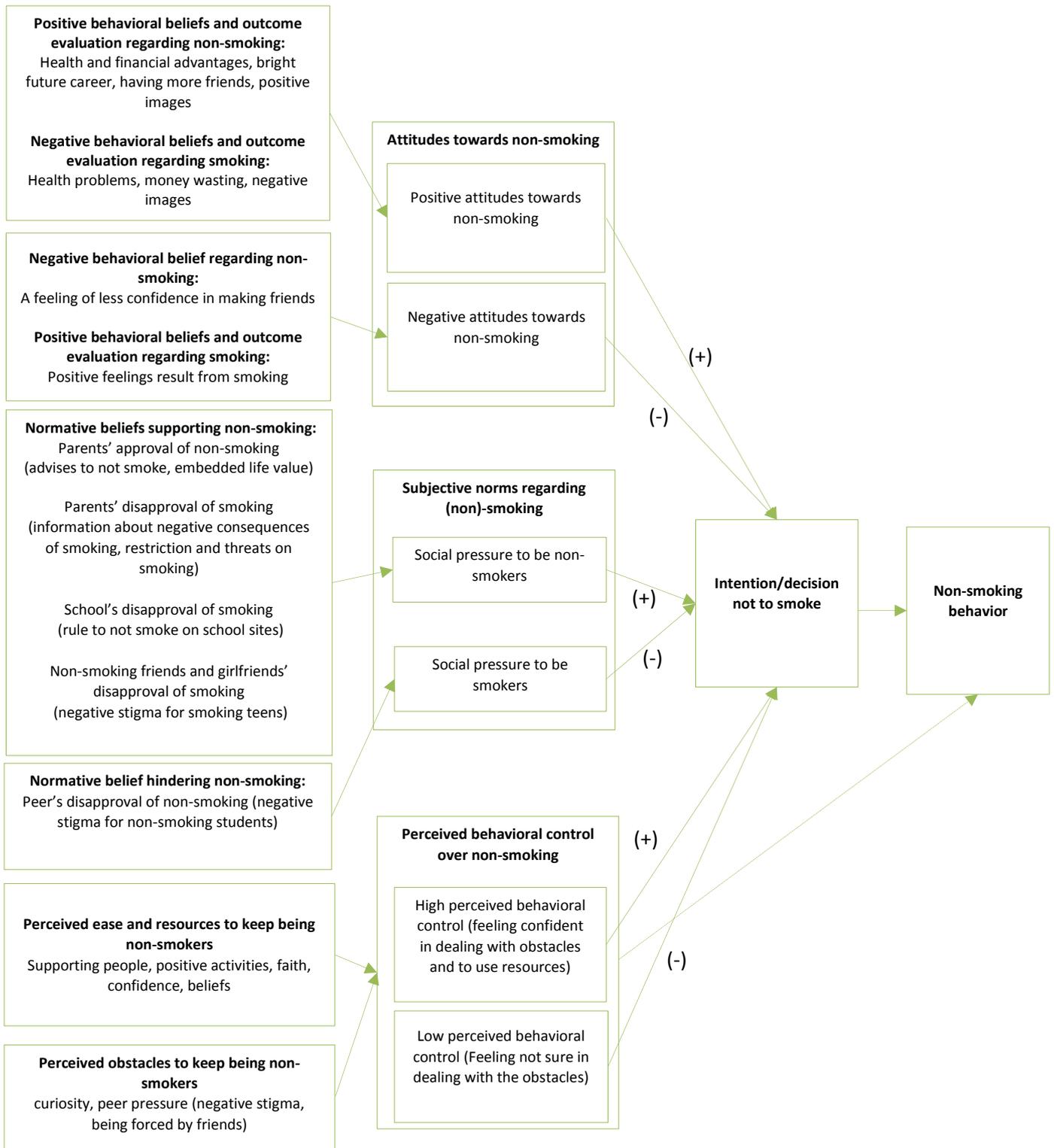


FIGURE 4. STUDENTS' ATTITUDES, SUBJECTIVE NORMS AND PERCEIVED BEHAVIORAL CONTROL TOWARDS NON-SMOKING

## 5.1 SUB-RESEARCH QUESTION 1: STUDENTS' ATTITUDES AND RELATED BEHAVIORAL BELIEFS AND OUTCOME EVALUATION TOWARDS NON-SMOKING

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Through this study, it was found that non-smoking students could hold positive or/and negative attitudes towards non-smoking. The positive attitudes are found to influence the students' decision not to smoke in a positive way, while the negative attitudes seem to influence it negatively. These results are relevant with what was found by Rosdiana et al. (2011) in her study that the intentions to (not) smoke among youth in Indonesia were greatly influenced by their attitudes towards (non)-smoking behavior.

From the results, it could also be concluded that most of the students in this study decided to become non-smokers because they hold more positive attitudes towards non-smoking rather than smoking. This is supported by the fact that the students indicated more advantages of being a non-smoker rather than advantages of being a smoker. Although they mentioned some disadvantages of being a non-smoker, they still believed that those things are less meaningful compared to the negative consequences that smoking may bring. These findings are consistent with what Rosenthal, et al., (2013) and Kulbok et al. (2003) found that non-smoking youth tend to show more positive attitudes towards non-smoking by perceiving many advantages of being smoke-free and comparing them with disadvantages of smoking. Moreover, the findings are also relevant with the study from Robbins and Kline (1991) that a decision to smoke or not to smoke is determined by cognitively appraising knowledge of the attributes of smoking and its outcomes or consequences.

Beliefs about health consequences and financial consequences are found to be the main determinants of the attitudes towards non-smoking. Moreover, positive evaluation of non-smoking behavior such as it could lead to a brighter future career, having more friends, and having a positive image, positively influence the attitude of the participants and thereby the decision not to smoke. Some of these factors are relevant to what Edvardsson et al. (2014) found in their study that concern about health and images became the reasons why youth decided to be smoke-free. Meanwhile, the other factors are considered as new in regard to the specific context of this study since no research is found discussing those factors among non-smoking youth.

Moreover, the results show that the students' attitudes could also be influenced by subjective norms. For example, some of the students believed that being a non-smoker makes them feel less confident in making friends (negative attitudes towards non-smoking). The reason for this is because those students perceived that non-smoking behavior would not be approved by their smoking peers

(normative belief). This is consistent with what Alanazi et al. (2017) found, that subjective norm has a statistically significant indirect effect on intentions through attitude.

## **5.2 SUB-RESEARCH QUESTION 2: STUDENTS' SUBJECTIVE NORMS REGARDING NON-SMOKING AND RELATED NORMATIVE BELIEFS**

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By what non-smoking students described as their subjective norms towards (non)-smoking behavior, two types of social pressure were identified: social pressure to be non-smokers and social pressure to be smokers. These two types of social pressure were found either positively or negatively influencing the students' decision not to smoke.

From the results, it can be seen that the most notable 'important people' that created the social pressure for students to be non-smokers are parents, school, and friends (non-smoking friends and girlfriends), while for the social pressure to be smokers, it is only from smoking friends.

According to Sulastri (2011), support from parents was significantly associated with the decision to smoke among male students in Indonesia. This is consistent with the results of this study showing that almost all students indicated that their decision not to smoke was somehow reinforced by the fact that their parents disapproved them to smoke, even if some of the parents are smokers. Some of the family used smoking restrictions or threats to show their disapproval. There was also a parent who embedded a positive value to her son which after that was perceived as the most powerful resource that influenced him not to smoke.

Moreover, the main difference between students from the boarding high school and students from the regular high school could be concerning the role of the school. While all students from boarding school mentioned that their school had facilitated them to be non-smokers with strict regulations, none of the students from the regular school said any role of their school in their decision not to smoke. A study about smoking behavior of students in an Indonesian boarding school by Indartik (2013) found that students' smoking behavior in boarding school was enabled by the loose regulation of the school. In this study, the boarding school has a strict regulation about smoking on the school site. No student is allowed to smoke in school. Moreover, the school also provides well-organized schedule and many opportunities for activities in which smoking will not fit (sports, gardening, religious activities). These were mentioned as factors that create a social pressure for the students to be non-smokers in school.

A lot of studies have shown that influence of peers could strongly affect the decision to or not to smoke among Indonesian youth (Fatmawati, 2014; Hasanah, 2011; Indartik, 2013; Sulastri, 2017;

Wulan, 2012). In this study, some of the students also mentioned that their non-smoking friends or girlfriend had been their reference to not smoking. However, more students mentioned that friends are instead the ones who created a social pressure for them to be smokers, due to the negative stigma that they give to non-smoking students. A study about Indonesian teenage boys' view about smoking has revealed that smoking is mostly perceived as a symbol of masculinity among Indonesian teens. Not only that, but it is also considered as a social necessity for men (Ng, Weinehall, & Ohman, 2006). This is relevant with what most of the participants said about their smoking friends, that they often label them as "sissy boy" or "not masculine" due to their non-smoking behavior, which turns out to undermine their confidence of being non-smokers.

Interestingly, some students also believed that no one had been their reference in deciding not to smoke except their own beliefs. These students thought that the only one who influences if they do not smoke were themselves. The result is consistent with what Kulbok et al. (2008) found in their study that some youth only use their beliefs as their reference to be non-smokers. This might imply that for some youth, the strongest influence for non-smoking comes from within.

### **5.3 SUB-RESEARCH QUESTION 3: HOW STUDENTS PERCEIVE THEIR BEHAVIORAL CONTROL AND RELATED EASE, RESOURCES AND OBSTACLES TOWARDS NON-SMOKING**

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The majority of the students in this study were having a relatively high perceived behavioral control towards non-smoking behavior. Nevertheless, four students still showed a low perceived behavioral control over non-smoking behavior.

Factors that were found to influence the perceived behavioral control among the students were perceived obstacles, ease, and resources to keep being non-smokers. The most notable obstacles that most of the students endorsed were curiosity and peer pressure. These factors negatively influence the perceived behavioral control of the students. Interestingly, these factors were also found in smoking-related research to be the main factors that influence youth to smoke in Indonesia (Martini & Sulistyowati, 2005).

Meanwhile, some perceived ease and resources were found to influence the perceived behavioral control positively. The perceived ease and resources include supporting people, positive activities, faith, confidence, and beliefs. Interestingly, from this, it can be seen that the factors that influence the perceived behavioral control were all related to attitudes and normative beliefs.

The students with high perceived behavioral control, tended to show more confidence in dealing with what they perceived as obstacles, they could perceived more ease and resources to help them being non-smokers. In contrast to those students, the students with low perceived behavioral control still expressed some vulnerabilities in tackling the perceived obstacles. They also perceived less resources to help them to maintain their non-smoking behavior compared to the other group. This resulted in some possibilities for them to change their decision in the future. These findings are relevant with the concept of confident and vulnerable non-smokers by Johnson, et al (2003). According to him, the narratives of vulnerable non-smokers focus on susceptibility to smoking although they were no longer smokers. These youth expressed some degrees of vulnerability to trying smoking (again) in the future. Meanwhile for confident non-smokers, their narratives focus on providing convincing descriptions of how they can keep themselves away from smoking. The aforementioned findings are also in line with what the theory of planned behavior suggested, that the lower control belief someone has, the weaker the intention is predicted to be (Ajzen, 1991).

## **5.4 LIMITATIONS AND STRENGTHS OF THIS RESEARCH**

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### **5.4.1 LIMITATIONS OF THE RESEARCH**

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There are some limitations of this research that need to be stressed. First of all, the schools in this study were not recruited randomly, yet based on a personal network of the researcher. This is a limitation regarding the generalizability of this study. Therefore, it should not be assumed that similar research in other schools or other areas would produce similar findings. However, the findings may still be applicable to condition with a similar context in other population (Shenton, 2004). There is also a possibility of a volunteer bias to occur in this study since all of the participants are volunteers. This is because people who would like to participate may have different characteristics from the people who do not like to participate. Therefore the sample in this study may not be representative of the general population. Moreover, this study only focused on variables in accordance with the theory of planned behavior and therefore it may have limited more grounded interpretation of the results.

### **5.4.2 STRENGTHS OF THE RESEARCH**

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This study also has some strengths that need to be noted. As aforementioned, this study differs from existing Indonesian literature because of its focus on qualitatively exploring the experiences of non-smoking students. Focusing on non-smoking students could enrich the information regarding how these students could persist in their stance to be non-smokers besides their

susceptibility to smoking. Moreover, a qualitative method had enabled the researcher to specifically understand the objects of the study (Flick, 2014). The results of this study therefore allow concerned stakeholders to specifically identify which factors that need to be facilitated or reinforced and which factors need to be tackled in supporting youth not to smoke or stop smoking. Despite the limitation of sample number in this study, data saturation had been reached with an interview data-set of 10 participants, yet the researcher did two more interviews so this study could provide stronger results.

## 6. CONCLUSION

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The main research question of this study is *What are factors that influence students' decision not to smoke*. In order to answer this question, a qualitative exploration based on the Theory of Planned Behavior was conducted. This resulted in an indication that positive attitudes towards non-smoking behavior, social pressure to be non-smokers, and high perceived behavioral control over non-smoking behavior positively influence students' decision not to smoke.

Beliefs and evaluation about health and financial consequences of (non)-smoking are found to be the main determinants of positive attitudes that influence students' decision not to smoke. Students who had more positive beliefs and evaluation about non-smoking behavior seemed more confident about their decision not to smoke compared to students who still had some negative beliefs and evaluation towards non-smoking.

There are two types of social pressures experienced by students that influence their decisions' not to smoke: social pressure to be smokers and social pressure to be non-smokers. Parents, school, and peers were perceived as the most important people that create those pressures through education, restrictions, life value or stigma towards (non)-smoking. Interestingly, while parents and school were mostly perceived as their sources of disapproval of smoking/approval of non-smoking (social pressure to be non-smokers), peers mainly were perceived as sources of social pressure to be smokers.

Most of the students in this study had a relatively high perceived behavioral control. They could confidently indicate their persistence to be non-smokers in the future. These students perceived many ease and substantial resources that could keep them being non-smokers such as beliefs, supporting people, and positive activities. Meanwhile, some students still had a lower perceived behavioral control over non-smoking compared to the confident non-smoking students. These students still showed some vulnerabilities to keep themselves being non-smokers and to tackle perceived obstacles of being non-smokers.

## 7. RECOMMENDATIONS

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### 7.1 FUTURE RESEARCH

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Since this study is one of the first attempts that tried to qualitatively explore the non-smoking students' decision not to smoke, more similar studies in other schools or areas are necessary in order to provide more information about possible different factors in different contexts in Indonesia. The use of other behavioral theories (e.g., health belief model, socio-ecological model) is also essential so more insights could be gained to explain the decision not to smoke among Indonesian youth thoroughly.

Secondly, a similar study with a quantitative approach may be needed to see which factors that have a strong correlation to the students' decision not to smoke. This is of importance for further specific intervention among non-smoking youth.

Thirdly, this study focuses only on individual and interpersonal factors that influence students' decision not to smoke. To have a more comprehensive understanding, it may be important to also address other levels of influences on non-smoking behavior such as neighborhood or community influence, social media influence, (non)-smoking advertisement influence or public policy influence.

Finally, this study has explored many factors that influence students' decision not to smoke. This could be used as a foundation for future research to design and test smoking prevention or control programs targeting those factors among students in Indonesia.

### 7.2 PRACTICAL IMPLICATIONS

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For practical use, the results from this study can be used as a foundation to design or evaluate smoking prevention or control programs among youth in Indonesia. From the findings, various stakeholders such as schools, parents, policymakers, or public health practitioners could gain insights on how to take their roles in supporting young students not to smoke or to motivate smoking students to quit smoking.

Specific practical things that could be recommended for the stakeholders mentioned above based on the findings of this study are listed below:

- To create a smoking prevention and control program at school that incorporate the following points

- To educate students about the negative consequences of smoking and the advantages of being a non-smoker
- To embed a value in which smoking is perceived as an undesirable behavior for example through social media, posters, or mass campaign
- To build students' self-confidence in countering bad influences by providing a lecture about how to deal with peer influence and social pressure
- To motivate students to dream big for their future career and give emphasis that smoking does not have a place in those dreams
- To encourage students to engage in positive activities in which smoking does not fit
- To build a norm that supports non-smoking behavior and stands against smoking behavior
- To distort the existing norm suggesting that smoking is cool into a new norm that smoking is not cool, for example, through youth-related activities (e.g. sports events, campaigns)
- To educate parents to support their children to be non-smokers

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## APPENDIX 1. INFORMED CONSENT FOR STUDENTS

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### Informed Consent Form for students

This informed consent form is for students in Tasikmalaya that I am inviting to participate in research about non-smoking behavior, titled ***Factors influencing youth decision not to smoke: A qualitative study among senior high school students in Tasikmalaya-Jawa Barat, Indonesia***

**Name of Researcher** : Khairunnisa

**Name of Organization** : Wageningen University, the Netherlands

**Type of project** : Master thesis

**This Informed Consent Form has two parts:**

- **Information Sheet (to share information about the study with you)**
- **Certificate of Consent (for signatures if you choose to participate)**

**You will be given a copy of the full Informed Consent Form**

### **Part I: Information Sheet**

My name is Khairunnisa and I am a student of Health and Society specialization master's program in Wageningen University, the Netherlands. I am now working on my master thesis about non-smoking behavior among students in Tasikmalaya-Jawa Barat, Indonesia that aims at investigating factors that might influence the decision not to smoke among non-smoking students. The ultimate goal of this study is to provide insights in designing smoking prevention programs for young people who have not yet initiated smoking.

I am inviting you to take part in this research project by sharing your experiences regarding your non-smoking behavior. We feel that your experiences can contribute much to our understanding and knowledge of non-smoking behavior.

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. You may also change your mind later and stop participating even if you agreed earlier. If you accept this invitation, I will conduct a one hour interview with you. I will ask several questions about your experiences being a non-smoking student.

The interview will take place on the school site after the school time. If it is better for you, the interview can also take place in your home or a friend's home. The entire interview will be tape-recorded, but no-one will be identified by name on the tape. The information recorded is confidential.

If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there.

There will be no direct benefit to you, but your participation is likely to help me find out more about how to prevent smoking among young people who have not yet initiated smoking.

You will not be provided any incentive to take part in the research. However, we will give you Rp 50.000 for your time, and travel expense.

If you have any questions, you can ask me now or later. If you wish to ask questions later, you may contact me through WhatsApp number: +31626936144 or email: achakhairunnisa@gmail.com

This proposal has been reviewed and approved by research advisors from Health and Society chair group.

**Part II: Certificate of Consent**

**I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study**

**Print Name of Participant** \_\_\_\_\_

**Signature of Participant** \_\_\_\_\_

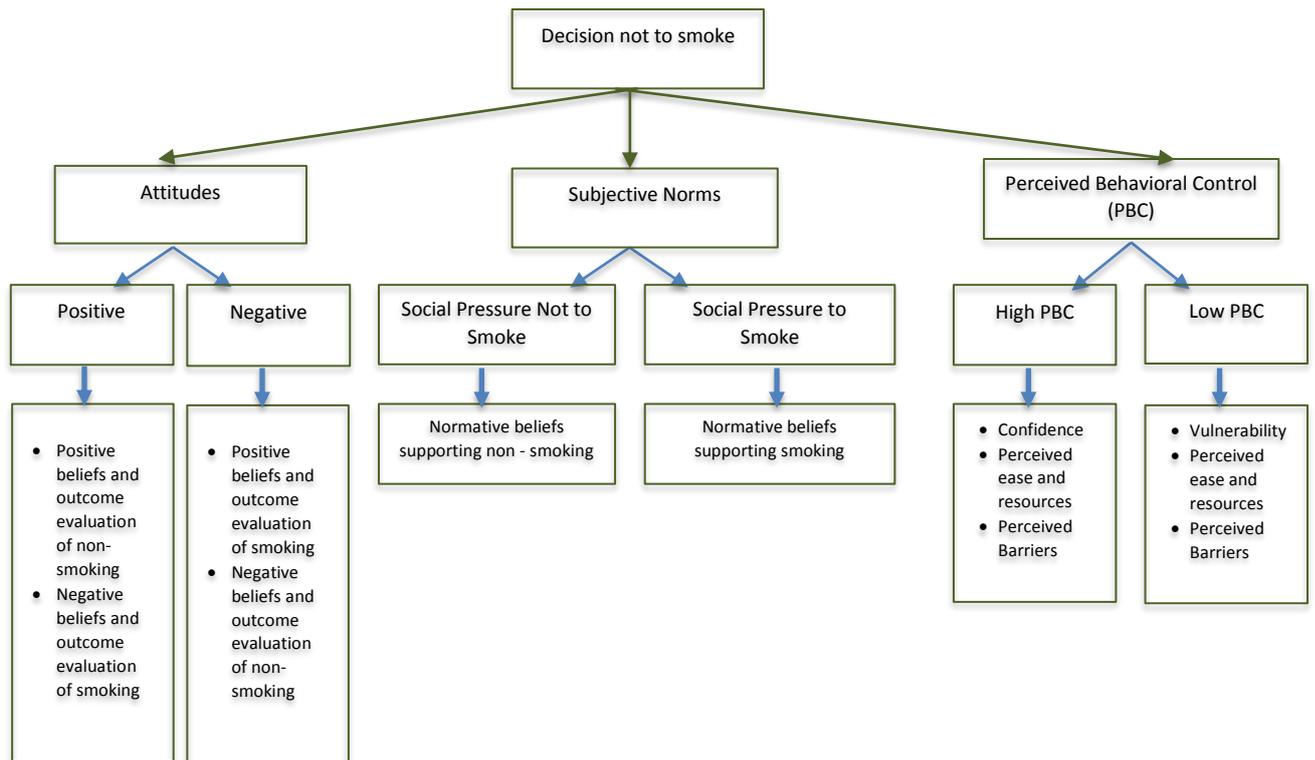
**Date** \_\_\_\_\_

**Day/month/year**

## APPENDIX 2. INTERVIEW QUESTIONS ADAPTED FROM KULBOK, ET.AL.(2008)

<p><b>Characteristic of participant</b></p> <p>Name:</p> <p>Age:</p> <p>Academic achievement:</p> <p>Smoking status:</p> <p>Parental smoking status:</p> <p>Sibling smoking status:</p> <p>Friends smoking status:</p>
<p>1a. What makes it easy or possible for you to be a non-smoker?</p> <p>1b. How are you going to maintain those points?</p>
<p>2a. What makes it hard for you to be a non-smoker?</p> <p>2b. How are you going to tackle those obstacles?</p>
<p>3. What are some good things/advantages about being a nonsmoker?</p>
<p>4. What are some not so good or bad things about being a non-smoker?</p>
<p>5. How would you describe a teenage boy who always does not smoke?</p>
<p>6. Who are the people who would support or approve of your always not smoking?</p>
<p>7. How confident are you that you could persist in smoking behavior as you intend to now?</p>

## APPENDIX 3. CODING TREE



## APPENDIX 4. ETHICAL CLEARANCE



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To whom it may concern

The following project proposal has been reviewed by the Social Sciences Ethics Committee (SEC):

Applicants: Khairunnisa  
Title: Factors influencing youth decision not to smoke: a qualitative study among senior high school students in Tasikmalaya-Jawa Barat, Indonesia  
Location: Tasikmalaya, Jawa Barat province, Indonesia  
Funding: LPDP Scholarship  
Period: July - December 2017

The Committee has concluded that the proposal deals with ethical issues in a satisfactory way and that it complies with the Netherlands Code of Conduct for Scientific Practice.

With kind regards,

Professor Dr Marcel Verweij  
Chair SEC

DATE  
02-10-2017

SUBJECT  
Ethical approval of research project

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Wageningen University & Research is specialised in the domain of healthy food and living environment.

## APPENDIX 5. PARTICIPANTS CHARACTERISTICS

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Initial	School	Age	Smoking status	Academic achievement	Parents who smoke	Sibling(s) who smoke	Friends who smoke
GL	regular school	18	Never	Top 3 Ranking	Yes	No	Yes
YS	regular school	18	Ever tried	No ranking	Yes	No	Yes
IH	regular school	17	Ever tried	Top 3 ranking	Yes	Yes	Yes
AZ	regular school	18	Ever tried	Top 10 ranking	No	Yes	Yes
HD	regular school	17	Never	Top 3 ranking	Yes	No	Yes
AL	regular school	18	Ever tried	No ranking	No	No	Yes
IQ	regular school	18	Ever tried	No ranking	Yes	No	Yes
AD	Boarding school	16	Never	No ranking	Yes	Yes	Yes
DN	Boarding school	16	Never	Top 10 ranking	Yes	No	Yes
RN	Boarding school	16	Ever tried	Top 10 ranking	Yes	Yes	Yes
AN	Boarding school	17	Never	Top 5 ranking	Yes	No	Yes
AK	Boarding school	19	Never	Top 3 ranking	Yes	Yes	Yes

## APPENDIX 6. PICTURES FROM THE FIELD

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