



## Research Article

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# Smoking Behavior and the Use of Cigarette Types Among University Student

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## Abstract

*The number of smokers is increasing every year in Indonesia. Cigarettes can cause several health problems and can even cause death. Aside from conventional cigarettes, e-cigarettes and shisha are starting to get the spotlight. The types of cigarettes include conventional cigarettes, electric cigarettes and shisha can cause health problems to both smokers and the people around them. The purpose of this study was to determine smoking behavior and the use of cigarette types in students. This research was quantitative descriptive. The population in this study were students who have smoked either the conventional, electric or shisha. The sampling technique used was accidental sampling with 384 students as the samples. The instrument in this study used a questionnaire that was independently developed by researchers with a total of 14 questions. The results of the data obtained were then analyzed using descriptive analysis presented in the form of a percentage. Based on the results of the study it was found that non-health students (90.6%) were more likely to smoke than health students (9.4%). In addition, the majority of students prefer to use conventional cigarettes (91.7%) compared to e-cigarettes (6.8%) or shisha cigarettes (1.5%). The university is expected to regulate deterrent strategies for smoker students.*

**Keywords:** smoking behavior, student, types of cigarettes

## 1. Introduction

Indonesia is a country with a high number of smokers, placing it the second place in the world after China and even first among ASEAN countries with a total of 65,188,338 smokers. It also has the highest number of male smokers in ASEAN which is 66% while female smokers, ranking third in ASEAN after Myanmar and Laos with 6.7% smokers (Southeast Asia Tobacco Control Alliance, 2018).

Adolescents are the transitional phase of development from childhood to adulthood. According to Badan Kependudukan dan Keluarga Berencana Nasional [BKKBN] (2011) the age restriction of teenagers is 10 to 24 years old and are not married. Students are those on the verge of adulthood who begin to concentrate on some behaviors related to maturity such as smoking behavior. Students consider that smoking behaviour will give a self-image as an adult (Bahtiar, Badriah, & Hidayat,

A.A.S., 2015).

In Indonesia, the number of smokers according to the Basic Health Research shows that adolescents aged >15 years increased from 34.7% in 2010 to 36.3% in 2013, then this number declined in the Survei of National Indicator Health 2016 of 32.8%. However, it went back up to 33.8% in 2018 (Kementerian Kesehatan Republik Indonesia, 2018).

A person's smoking behavior can be influenced by several factors, categorized as internal factors and external factors. The former comes from inside including personality type, gender, age, curiosity, knowledge and perception of cigarette dangers (Buczowski et al., 2017; Hossain et al., 2017; Rochayati & Hidayat, 2015; Strong, D. R., 2019; Waelveerakup, Jum'nain, & Suksapornlerte, 2018). On the other hand, the latter comes from outside the individual self including the status of smoking family members, peers, pocket money, advertising, socio-economic status, media and social networks and culture (Liem, 2014; Ma et al., 2013; Purnomo, Roesdiyanto, & Gayatri, 2018; Waelveerakup et al., 2018).

Although the Indonesian government has compiled many policies, the number of smokers in Indonesia continues to increase. Based on the provinces in Indonesia, the five provinces with the highest number of smokers are West Java, Gorontalo, Lampung, Bengkulu and Banten. West Java province is the first highest province in Indonesia with the number of smokers who have increased from year to year. In 2013 the prevalence of smoking population age >10 years in West Java which amounted to 27.1% then increased to 32.0% in 2018. The total prevalence of smokers in West Java is higher than the national prevalence of 28.8% (Kementerian Kesehatan Republik Indonesia, 2018).

Cigarettes themselves are one of the tobacco products that are burned and then smoked or inhaled by the smoker. Cylindrical cigarettes with a diameter of 10 mm and lengths between 70 to 120 mm containing tobacco leaves that have been chopped (Kementrian Kesehatan Republik Indonesia, 2015). Every single cigarette contains various kinds of dangerous chemicals. The chemicals in burnt tobacco contain 4000 types of chemicals and 200 of them are toxic (Canadian Centre for Occupational Health and Safety, 2011).

Smoking is an activity that burns tobacco leaves then the smoke is inhaled and exhaled again. The smoke resulting from the combustion of tobacco leaves can result in some health problems (Amalia, M. N., 2017). A person who does the activity of burning or inhaling smoke leaves the tobacco called smokers. Smokers consist of two kinds of active smokers and passive smokers. Active smoker that is a smoker who directly does activities to burn or smoke cigarettes through his mouth, while passive smoker is someone who does not have a habit of smoking but is forced or accidentally inhale cigarette smoke from Others (Janah, M., & Martini, 2017).

Every year an estimated as much as 7.9% of deaths caused by the use of cigarettes occur in Indonesia. The use of cigarettes can increase the risk of death caused by diseases including cancer, ischemic heart disease, chronic obstructive pulmonary disease (COPD), and stroke. In addition to causing physical losses, smoking can also cause economic losses. A total of 48,400,332 people who are over the age of 10 years smoking daily, averaging 12 cigarettes smoked per day. If 1 packet costs for Rp. 12,500 then in a day smokers can spent as much as Rp 605,004,150 (Kementerian Kesehatan Republik Indonesia, 2014).

Another emerging trend of new cigarettes is called electric cigarette and shisha cigarette. The former is a cigarette created by a Chinese company in 2003 which then went worldwide with various names such as NJOY, e-puffer, blu e-cig, green smoke, vapor4life, and white cloud (Zhu, S. H. et al., 2014). According to (Riskesdas, 2013) of total Indonesian adolescents found as much as 2.1% of teenagers smoke electric cigarettes within the last 30 days (Riskesdas, 2013).

The use of e-cigarette was initially claimed as one of the attempts to quit smoking, and nowadays many people have used e-cigarettes as an alternative to quit smoking (Grana, Benowitz, & Glantz, 2014). The use of e-cigarettes is deemed safer than conventional ones. However, the US Food and Drug Association (FDA) in 2009 found that electric cigarettes contain Tobacco Specific Nitrosamines (TSNAs) and Diethylene Glycol (DEG) which are carcinogens or substances can trigger cancer. The US FDA then issued a warning to the dangers of toxic substances in electric cigarettes so

that there is restrictions on the sale of electric cigarettes in the America and some other countries (U.S. Food and Drug Administration (FDA), 2011).

In addition to conventional and electric cigarettes, there are also shisha cigarettes which are smoking trends using a tube that is large enough, contains water at the lower part, with the use of hot coal that is placed at the top of the shisha device to produce smoke which is then sucked using a long hose. Shisha cigarettes are cigarettes originating in the Middle East. Another term used for the designation of the shisha cigarettes are narghile, hookah, hubble-bubble or waterpipe-smoke (Sahin & Cinar, 2015). Based on the number of cigarette users in Indonesia, both conventional, electric and shisha types of cigarette, the cessation of smoking behavior is certainly not only the responsibility of the government, but also the entire community from various circles. One of the people who play an important role in delivering the message of quitting smoking in the community is the practitioners in the health sector. Health practitioners who provide information tend to be more effective in preventing or stopping deviating behavior than their own efforts to stop the behavior (Merrill, Madanat, Cox, & Merrill, 2009).

The health practitioners in question are not only individuals who are professional medical personnel, but also those who are involved in the world of health services such as health students, one of them is a nursing student. Regardless of the knowledge and understanding of health, health professionals are in an ideal position to promote smoking cessation messages due to the high level of trust obtained from the community (Rafinda, 2016). Based on research conducted by Jaén, C. R. et al., (2008) shows that health information that is most heard and received by the public is health information derived from health practitioners.

One of the perpetrators or health professionals who interact most with the community are nurses. The role of nurses themselves according to regulation Undang-Undang No. 38 of 2014 among them as caregivers, community leaders, educators, advocates and researchers. In addition nurses can also act as health facilitators, disease prevention, counseling, role models, collaborations, researchers, health observers and ethical decision makers (Hidayat, 2007). It is in line with the statement of Asmadi (2008) which mentions the role that a nurse has as a nursing services executives, educators, managers, and researchers.

In connection with the increasingly popular cigarette issues, nurses can perform roles as health observers where nurses can identify behaviors that deviate behaviors from society, or one of the more common smoking behaviors mushrooming. As educators, nurses can provide knowledge to the public and clients in the workplace, including providing the right information about the dangers of cigarettes for health. In addition, as a nurse researcher can identify problems that exist in society related to smoking behaviour. Data from the research conducted can be used as a guideline to develop a health program in which the study is as a preventive program for controlling the use of cigarettes. Nurses also serve as role models where nurses can be an example for both the client and the public. The public tends to follow what someone does as a role model. Health practitioners are the right role models for the community.

Based on the observations that researchers make, many students of University smoke in the faculty environment. However, no health students are seen smoking around the faculty environment. Students from social law faculties more are seen smoking than students of science and technology. From the results of interviews with several students, researchers found that most of them began to smoke since before attending college even some who had since in elementary school had begun to smoke. By observation also, many students are seen smoking in some places such as eating places or hangout.

Around the campus there are also several places that can be visited by students to smoke and not only for conventional smoking, but also there are some counters or e-cigarette outlets and also a café which provides facilities for smoking shisha. There are several e-cigarette counters that provide a selection of e-cigarettes at different prices. More than 5 counters of electric cigarettes exist around the neighborhood of University. Whereas for the shisha cafes around University, including Checo Café Resto "Rumah Kedua", D'Kunst, and Ngopi Doeloe.

Based on the presence of smoking areas around the campus of University for the three types of cigarettes, researchers are interested in conducting research to find out what type of cigarette is the most frequently used by students at university.

## 2. Research Method

This study uses a quantitative descriptive method with variables such as smoking behavior and the use of cigarettes type in students at University. The population in this study was the students of a public university in West Java smoking either conventional cigarettes, electric or shisha. The sampling technique used was Lemeshow formula with accidental sampling technique resulting in 384 students as the final samples.

Data retrieval uses a questionnaire containing 14 question items and is performed during 2019. Data in the analysis using a descriptive statistical method of univariate is one variable data analysis independently, each variable is analyzed without being associated with another variable. The data that has been analyzed is then presented in the form of a frequency distribution table. In addition, the researcher analyzed the data using cross tabulation method (crosstab) to explain the tendency of link between variables, so in a cross tabulation analysis used the Chi-Square statistical analysis.

This research is conducted under the permission of the Ethics Committee with the registration number 019030503 and ethical number 429/UN6.KEP/EC/2019. Ethical research is very important done in research by holding firmly on the principle of integrity, honesty and fairness in seeking scientific data, by enforcing those principles this research can be said as a research moral and ethical manner.

## 3. Findings

### 3.1 Characteristics of respondents

The characteristics of respondents in this study include gender, age, faculty, pocket money and residence status. Below is the presentation of the frequency distribution table for each of the characteristics of respondents based on the results of the data that has been obtained as follows.

**Table 1:** Frequency distribution characteristics of research respondents (n = 384)

Characteristics	Amount (f)	Percentage (%)
Gender		
1. Male	342	89.1
2. Female	42	10.9
Age		
1. 18-20	156	40.6
2. 21-22	212	55.2
3. 23-24	16	4.2
Faculty		
1. Health	36	9.4
2. Non health	348	90.6
Pocket money		
1. < Rp 1.000.000	81	21.1
2. Rp 1.000.000 – Rp 2.000.000	213	55.5
3. > Rp 2.000.000	90	23.4
Residential status		
1. Dorm/rent house	289	75.3
2. Home	95	24.7

Table 1 shows the characteristics of research respondents based on five sociodemographic data. We can see that the majority of students who smoke are male students (89.1%) with an age range of 21-22

years old (55.2%) an age where they need to finish a mini thesis. Most of the students who smoke are non-health faculty students (90.6%) with pocket money as much as Rp 1,000,000 - Rp 2,000,000 (55.5%) which belongs to the upper middle economy category and most of the smoker students live in dorm or rent houses (75.3%).

### 3.2 Smoking Behavior and The Use of Respondents Type of Cigarettes

**Table 2:** Frequency distribution of smoking behavior and the use of cigarette types (personal)

Statement	Frequency (f)	Percentage (%)
The reason for first smoking		
1. Curious or just trying	157	40.9
2. To look cool	18	4.7
3. Following friends who smoke	40	10.4
4. Reduces anxiety, restless or stress	169	44.0
First time smoking		
1. Elementary school	54	14.1
2. Middle School	93	24.2
3. High school	139	36.2
4. College	98	25.5
The length of smoking		
1. 1 years	55	14.3
2. 1-3 years	115	29.9
3. 3-5 years	98	25.5
4. > 5 years	116	30.2
The most frequent smoking places		
1. Home	14	3.6
2. Dorm/rent house	102	26.6
3. Campus environment	51	13.3
4. Hangout place	217	56.5
Types of cigarettes used		
1. Conventional	330	85.9
2. Electric	39	10.2
3. Shisha	15	3.9
Cigarette brands used		
1. Filter	316	82.3
2. Non filter	14	3.6
3. Vape	39	10.2
4. Shisha	15	3.9
Reasons for choosing the type and brand of cigarettes		
1. Product quality	272	70.8
2. Affordable prices	58	15.1
3. Easily acquired anywhere	54	14.1
The number of cigarettes used Conventional		
1. 1-10 sticks/day	243	63.3
2. 11-20 sticks/day	74	19.3
3. > 20 sticks/day	13	3.4
Electric		
1. 1 session/day	13	3.4
2. 1-3 sessions/day	9	2.3
3. > 3 sessions/day	17	4.4
Shisha		
1. 1 session/day	11	2.9
2. 1-3 sessions/day	2	0.5
3. > 3 sessions/day	2	0.5

Table 2 shows the reason the majority of first-time smoking students are to reduce anxiety, restlessness or stress (44.0%) where they have been smoking since high school (36.2%) with smoking period throughout their life for more than 1 year. The most commonly used place for smoking is hangout places (58.5%). Depending on the type of cigarette, they prefer using conventional cigarette (85.9%) with cigarette filter brands (82.3%) and the reason they choose the type and brand of cigarettes is based on the quality of products (70, 8%). Most of the students using conventional cigarettes spend as much as 1-10 sticks/day (63.3%) which belongs to the category of mild smokers. As for some students users of cigarette electric smoking as much as > 3 sessions/day (4.4%) and 1 session/day for the student user of shisha cigarettes (2.9%).

**Table 3:** Frequency distribution of smoking behavior and the use of cigarette types (environmental effects)

Statement	Frequency (f)	Percentage (%)
Friends status of smoking		
1. Yes	383	99.7
2. Nothing	1	0.3
Family status of smoking		
1. Yes	302	78.6
2. Nothing	82	21.4
Parents know students are smoke		
1. Yes	241	62.8
2. No	143	37.2
Parents rebuked / scolded when students smoke		
1. Yes	260	67.7
2. No	124	32.3
The first affects for smoking		
1. Parents	13	3.4
2. Brother / sister	6	1.6
3. Friends	219	57.0
4. Nothing	146	38.0

Table 3 shows that most students have friends who are also smoking (99.7%). Besides friends, students also have families who are smokers (78.6%). The majority of students stated that their parents actually knew that they were smoking (62.8%) and had been rebuke or scolded when they knew the student was smoking (67.7%). Of the few subjects or people in student life, the majority of students state that a friend is someone who first influenced them to smoke (57.0%).

### 3.3 Characteristics of Respondents on the Use of Cigarette Types

**Table 4:** Frequency distribution of characteristics of respondents to the use of cigarette types

Characteristics	Type of cigarette						Asymp. sig
	Conventional	(%)	Electric	(%)	Shisha	(%)	
Gender							
1. Male	298	87.1	33	9.6	11	3.2	
2. Female	32	76.2	6	14.3	4	9.5	0.077
Age							
1. 18-20	130	83.3	19	12.2	7	4.5	
2. 21-22	186	87.7	19	9.0	7	3.3	
3. 23-24	14	87.5	1	6.3	1	6.3	0.748
Faculty							
1. Health	29	80.6	3	8.3	4	11.1	
2. Non health	301	86.5	36	10.3	11	3.2	0.063

Characteristics	Type of cigarette						Asymp. sig
	Conventional	(%)	Electric	(%)	Shisha	(%)	
Pocket money							
1. < Rp 1000000	70	86.4	6	7.4	5	6.2	
2. Rp 1000000 – 2000000	179	84.0	27	12.7	7	3.3	
3. > Rp 2000000	81	90.0	6	6.7	3	3.3	0.328
Residential status							
1. Dorm/rent house	247	85.5	29	10.0	13	4.5	
2. Home	83	87.4	10	10.5	2	2.1	0.578

Table 4 explains the characteristics of respondents to the use of types of cigarettes. From the table shows that the asymptotic significance value of the five respondent's sociodemographic characteristics of the use of types of cigarettes is greater than 0.05, it can be said that the characteristics of respondents tend not to be related to the use of types of cigarettes on students of University.

### 3.4 Number of natural and social science students who smoke on the total number of students

**Table 5:** Percentage of students who smoke on the total number of students

Statement	Health		Non health		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
	(f)	(%)	(f)	(%)	(f)	(%)
Total student population	3540	12.9	23797	87.1	27337	100
Samples of student smokers	36	9.4	348	90.6	384	100

Table 5 shows that of the overall population the number of students at University is 27,337 students. The amount consists of 3,540 natural science students and 23,797 social students. From 384 samples of smoker students at University, it was found that 36 natural science students (9.4%) and 348 social science students (90.6%) used cigarettes.

## 4. Discussion

### 4.1 Smoking Behavior of Health and Non-Health Students

Table 1 shows that out of 384 smoker students 9.4% of whom are health students and the rest 90.6% are non-health students. This is in line with the results of the research by Patelarou et al., (2011) from Greece who found that 33% of nursing students are active smokers and and 74% reportedly trying to smoke.

One factor of a smoking health student is usually a health student has smoked long before entering the health profession (Rahayuwati & Castillo, 2020). This is in line with the results of this study in the appendix which shows from 36 health students who smoke, 28 students (77.8%) among them have had a habit of smoking since they have not entered the college which means that they have smoked before they enter the health profession. Research by Sarna et al., (2009) also states the same thing that nurses who have a smoking habit usually start smoking before they enter the nursing profession.

Health practitioners including students who participated in a smoker will result in the implementation of obligations related to the effort to stop the smoking behavior in the community becomes less effective. According to Jaén, C. R. et al., (2008) health practitioners actually realize the importance of their role in promoting a healthy lifestyle including a non-smoking lifestyle. Health practitioners also agree that smoking is a dangerous act that can be bad for their health.

The health practitioner's smoking behavior can affect clinical health practices. Although based

on the results of the study table 5, only a few small health students who smoke (1.01%) but it is expected that health workers have a strong intention to quit smoking as it will affect how clients perceive their credibility as officers and health drivers. Based on a survey in the UK, 37% participants do not receive health advice from health care professionals who have an unhealthy lifestyle (Department of Health Republic of Phillipines, 2009).

Table 1 shows that non health students are much more likely to smoke than health students (90.6%). The results of this study are in line with the research conducted by Al-Kubaisy et al. (2017) who found the same thing, where non-health students are more who smoke. This can happen as the science of non-health students do not talk a lot about the harms of cigarettes so they become ignorant of their health conditions.

In addition, environmental factors such as peers can also influence smoking behavior in non-health students. The results of the study in table 3 show that the greatest influence of 57.0% stating that they smoke due to influence of peers. Peers are friends who have the same relatively psychological qualities, both about attitudes, values and personality (Amira, Hendrawati, & Senjaya, 2019). This is in line with Molina (2017) peers are a factor that influence adolescents to smoke where it is strengthened if they are required to approve every opinion in the group so that their existence can be recognized.

Whereas for health students, they will hesitate to smoke in the faculty environment. Health students may also have an influence from their peers who are also smoking, but because of the reluctance to smoke in the faculty environment, the impact of peers may seem smaller than the influence of friends on non-health students. This is as stated by Wilkinson et al. (2014) where adolescents with no smoker friends are less likely to smoke compared to adolescents who have friends who also smoke.

Based on the results of the study in table 1, research found that respondents who smoked in this study were dominated by male students (89.1%) and only a few female students (10.9%) smoked. Male smokers are based on Kementerian Kesehatan Republik Indonesia (2018) is 47.3% much more than female smokers who are only 1.2%. Higher proportion of smokers in males can be caused by the perception of students who assume that adolescents, especially adolescent males, smoke is a symbol of manhood and also maturity. Adolescents don't want themselves to be called 'cowards' so they start trying to use cigarettes.

The high number of smokers in males compared to female relates to the personal characteristics of males themselves who tend to show more courage than females as stated by Rahal et al., (2017) where males tend to be more daring in making decisions and be more courageous in charge of the risks he has taken compared to females.

The results of the study in table 1 also found that students with groups aged 21-22 were more likely to use cigarettes (55.2%). Based on Kementerian Kesehatan Republik Indonesia (2018) the proportion of smoking in adolescents aged 20-24 years is 27.3% greater than that of adolescents aged 15-19 years with a percentage of 12.7%. Increasing age, the interaction between adolescents and their friends increases even greater than the interaction of adolescents with their parents so they make their friends more as a reference in behavior, including smoking. In addition, the age of 21-22 years is also identical to the age of the final year students who have the burden of the final assignment which can increase the risk of the student to carry out smoking habits.

The results of the study based on table 1 found that most of the students, as many as 55.5% of students had pocket money of Rp 1,000,000 - Rp. 2,000,000 which belonged to the status of a middle to upper economy that made it possible for parents to give bigger allowances. The provision of a big pocket money will eventually trigger students to start activities that do not need to be done, one of them is smoking behavior. Student background is one of the factors that can determine the occurrence of smoking habits in students.

The results of this study are in line with the research conducted by Purnomo et al., (2018) who found a positive correlation between pocket money owned by smoking behavior, where respondents with high pocket money were more risky of smoking compared to respondents who had lower



allowances. This is in line with the research of Ramantika (2014) who found an association between pocket money and smoking behavior.

Ma et al. (2013) also found pocket money to be a potential increase in the proportion of student smokers in Shanghai, China. The study also added that about half of the current number of adolescent smokers can be prevented from increasing the number of smokers if their pocket money is limited to <200 RMB / month or around Rp 414,604/month. Other studies also emphasize the need for interventions that focus on reducing the allowance given to students (Pradhan, Niraula, Ghimire, Singh, & Pokharel, 2013).

The results of the study in table 1 found that students living in boarding houses or rented houses (75.3%) were more likely to smoke than students living in their own homes. The results of this study are in line with the research of Al-Kubaisy et al. (2017) which states that students who live far from their families are about twice as risky to smoke. This is because students who live at home with their families get behavioral control or supervision from parents in their families.

Family is also responsible for teaching values and shaping the behavior of the children. Parents should provide appropriate information and direction so that adolescents are able to make the right decisions and avoid smoking whatsoever (King, Alam, Promoff, Arrazola, & Dube, 2013).

Based on table 3 this study found that most students have friends and family who also smoke. According to Irlas et al. (2013) the smoking experience of adolescents when they first try smoking occurs because of the dominant role of social agents, namely family and friends. Other studies also found that families, in this case parents and friends, also significantly influence adolescent smoking behavior, but the influence of friends is greater than that of parents (Joung, Han, Park, & Ryu, 2016). Liem research on (2014) also states things that are in line where parents and peers can influence individuals to smoke.

The age of adolescence is identical to the period of association, during this period teenagers usually begin not to depend on their families. Students spend more time with peers than their parents or family, which is why the role of peers during their time is very significant in their behavior, including smoking. Peer behavior towards the use of substances, one of which is nicotine, can affect students to use these substances (Rahayu & Purwanti, 2017).

The above statement is in line with Kelly et al. (2011) who found the same thing, where parents, siblings, and peers have an influence on smoking behavior, and the influence of parents is smaller than the influence of friends or relatives. However, this is different from the results of research by Villanti, A. et al. (2011) which states that parents and peers have the same influence on the smoking behavior of adolescents.

Students in daily activities can not be separated from peer influence. Peers become the most dominant figure in the continuity of daily interactions. Students have a lot of daily activities together including learning, playing, or just taking care of being done with friends. In the pattern of association there is the term group or gang, where the choice of group members is based on similarities both hobbies, interests, status and attitudes. Students also often make their friends as idols and even figures that can be imitated.

The first reason is the most expressed one by students which is to reduce anxiety, anxiety or stress (44.0%). This is consistent with Mason et al. (2011) research who found that teenagers usually smoke in an effort to reduce the pressure they experience. Research conducted by Ukwayi et al. (2012) at the University of Calabar, Nigeria by distributing questionnaires in all faculties, found that as many as 29% of students smoke due to stress factors. This is in line with the research conducted by Redhwan Ahmed & SaghriR (2011) who found that about 20% of students smoked were caused by stress with the highest prevalence in male students in the final semester. The final level students have a heavier burden because of the demand to make the final project in the form of a thesis that increasingly increases the pressure that natural adolescents make so that they become smokers.

Research Noviana et al. (2016) 35.8% of teenagers felt calm after smoking, their thoughts and feelings calmed down, 26.3% felt satisfied and 19.3% felt happy. This can occur due to the presence of substances contained in cigarettes that can make users become more relaxed and feel comfortable.

One of the stressful factors for students can come from the campus environment. For some students, the campus environment with all its elements can actually be something scary. These elements include a fairly heavy curriculum, how to teach lecturers who are not in accordance with their wishes, unhealthy urban environment, and a lot of workload with relatively fast collection time.

In addition to the demands of the academic life mentioned above, socializing and adjusting to peers with different characteristics and backgrounds, developing soft skills through non-academic activities even work to increase pocket money. These conditions can also be a stressor for students. This complex lifestyle is often an additional burden in addition to the tiring college load. Some students consider smoking as a balance tool, so students start smoking with reasons to relieve stress.

When first smoked according to the results of the study in table 2, as many as 36.2% of students smoked for the first time when they sat on the bench of high school, where their age at that time was 15-17 years. This is in line with the Kementerian Kesehatan Republik Indonesia (2018) data, where adolescents aged 20-24 years first smoke when they are 15-19 (68.7%). This age of 15-19 years is synonymous with school age, which at this age they are in high school.

Places that are often used as a place for students to smoke are in hangouts (56.5%), in addition students also often smoke on campus (13.3%). The reason students smoke on campus is that they appear free and mature as they adjust to their peers who also smoke. It can be said that cigarettes are used as students as a means of seeking pleasure and associating with their friends.

Based on some regulation concerning technical guidelines for the campus environment, security and safety which contained a smoking ban in it, government university has actually implemented a non-smoking regional regulation in each faculty. However, there are still many students who smoke in the campus environment. In addition to students, other academic community members such as employees also smoke. This shows that the regulation has not been effective in controlling smoking behavior in the campus environment.

The researcher did not find any students who smoked in the health faculty. While students from non-health faculties based on researchers' observations there are still many who are seen smoking in the faculty environment even though there are regulations that prohibit students from smoking in the faculty environment, but still many students still do it, for example in the social science faculty.

The number of students who still smoke on campus can be caused by the lack of clarity regarding sanctions for students or academic communities who still violate these regulations. It is expected that University can renew smoking ban regulations by attaching strict sanctions that can be in the form of oral or written sanctions where students or academic community who are still seen smoking in the faculty environment, can be reported to a special team that handles smoking-related problems. So that the report can affect the academic assessment of students or work evaluation of the academic community in each faculty.

In the implementation of non-smoking areas, University has not yet formed special teams that focus on controlling cigarette problems in each faculty. A special team for controlling smoking behavior can be tasked with providing penalties or reprimands for students and other academics who violate smoking ban regulations. In addition, it is expected that the university can provide written signposts without smoking areas with clear writing and strategic placement and can form a smoking cessation clinic that focuses on counseling services.

The main function of the smoking cessation clinic is to provide counseling services for smokers to grow and increase motivation to quit smoking. Efforts to maximize the main function of the smoking cessation clinic are very necessary in the process of successful implementation of non-smoking areas on campus. Rahayu and Purwanti (2017) research states that quitting smoking by consulting using the 5As method (Ask, Advice, Asses, Assist, Arrange) can be very effective in increasing motivation to quit smoking. The 5As counseling method itself is an extension method by assisting smoking cessation programs consisting of 5 stages, namely Ask, Advice, Asses, Assist, and Arrange.

Other possible strategies can be applied to provide a deterrent effect on smokers, namely the

imposition of financial penalties for violators of the regulations. Strict sanctions are very useful to limit the movement of active smokers. This is as expressed by (Notoatmodjo, S., 2012), one of the strategies to change behavior is to use force or power, for example with rules and sanctions that have been agreed upon.

Another thing that needs to be considered by University is that it starts implementing regulations prohibiting campus activities to cooperate with certain cigarette products. Socialization of regional regulations without smoking can also be given to new students at the time of admission or orientation period. And also the University can compile a learning curriculum that includes courses on the importance of maintaining health and avoiding smoking behavior for new students at University.

#### 4.2 Use of Conventional Cigarette Types for Students

Table 2 shows students use more types of conventional cigarettes (85.9%) and only a few use electric cigarettes (10.2%) or shisha (3.9%). This is because conventional cigarettes are far earlier known by Indonesians. According to Poetra (2012) conventional smoking habits in Indonesia are estimated to exist since the 19th century in the city of Kudus, Central Java. Electric cigarettes only appeared in 2003 which was first produced by Hon Lik. Although electric cigarettes have actually been around since 1963 but were only known by the Indonesian people in the 2000s (Caponnetto, Campagna, Papale, Russo, & Polosa, 2012; Henningfield & Zaatari, 2010). Likewise with shisha cigarettes which began to spread in Southeast Asia in 2000 (Ramachandra & Yaldrum, 2015).

The cigarette brand used by students is based on the results of research in table 2, namely 82.3% of students choose filtered cigarette brands. Every brand of cigarette contains different tar and nicotine levels. However, cigarette brands with filters contain less tar and nicotine than non-filter cigarettes as there are corks on the tip of a cigarette serving as a filter for harmful substances containing cigarettes. While non-filter cigarettes are that which has no corks. The cigarette filter itself is made of synthetic fiber foam, useful for filtering tar, nicotine and other harmful substances inside (Setyanda, Sulastri, & Lestari, 2015).

However, it does not mean that filter cigarettes cannot cause health problems for users because smoking is the cause of almost 90% of lung cancers, 75% of chronic obstructive pulmonary disease (COPD) and 25% of heart attacks. In addition, cigarettes can cause hair loss, cataracts, wrinkled skin, osteoporosis, hearing loss, stomach ulcers, uterine cancer, skin cancer, radius and caries dislocation and reduce sperm quality in men (Barus, Henni., 2012).

For active smokers, the dangers of cigarettes can threaten all organs of the body ranging from bodily dysfunction to the onset of cancer, heart and blood vessel disease (coronary heart disease and stroke), respiratory tract disorders (COPD, asthma, and lung cancer), digestive tract disorders (mouth, tongue and nasopharyngeal cancer) and reproductive system disorders and pregnancy (disability, fetal miscarriage and cervical cancer). The danger can also threaten passive smokers who are also exposed to smoke (Kementrian Kesehatan Republik Indonesia, 2015).

Inhaling side smoke of cigarettes turns out to be 3 times more dangerous than the smoke inhaled by active smokers (Amalia, 2017). So that students are expected to realize that even though they smoke using filter cigarettes, it does not make themselves safer than non-filter cigarette users, because cigarettes can still cause health problems for both users and those around smokers commonly referred to as passive smoking. . So that it is expected that health workers, especially nurses, can provide education related to the effects of cigarette filters and non-filters on student health.

Based on the results of the study the reasons for the selection of cigarette brands based on the research in table 2, as many as 70.8% chose because the quality of the products included the taste and aroma presented by cigarette products when smoked. The second reason is product prices, prices are one of the factors that are also a consideration for smokers in choosing cigarettes. Usually, smokers tend to change brands if the price of cigarettes they use is usually up in rupiah, so smokers will prefer

cheaper cigarettes with almost the same quality products. Last is the ease of getting these cigarettes, cigarettes that are easily found everywhere tend to be used more often. This is in line with the statement stated by Pasa and Setiawan (2019) where product quality is the first priority in choosing the type of cigarette to be consumed.

The results of the study in Table 2 find that the number of stems spent per day by 63.3% of the students of University is 1-10 sticks, which is in line with data from Riskesdas (2018) which shows the consumption of cigarettes based on 15-19 years as many as 9.26 stems while the age of 20-24 years is 11.93 stems. Most of University students spend as much as 1-10 cigarettes / day, which is included in the group of light smokers. Based on the statement Bustan in Setyanda et al. (2015) smokers can be classified into 3 groups of smokers seen from the number of cigarettes spent per day. The group, namely light smokers, are smokers who spend 1-10 cigarettes / day, moderate smokers, namely smokers who spend 11-20 cigarettes / day and heavy smokers, namely smokers who spend more than 20 cigarettes a day.

Even though the results of the study show that the majority of them are light smokers who spend as much as 1-10 cigarettes / day, the role of health workers is still needed to control smoking behavior. Health workers are one of them nurses related to smoking problems nurses can carry out their role as educators (Asmadi, 2008), where nurses can provide information and knowledge about the dangers of smoking for students. Education on the dangers of smoking is expected to make students more aware of the adverse effects of smoking on their health.

Based on the results of the study, it can be concluded that: The type of cigarettes most used by students is conventional cigarettes (85.9%) compared to two other types of cigarettes namely electric cigarettes (10.2%) and shisha cigarettes (3.9%). The number of cigarettes spent in a day for conventional cigarette type as much as 1-10 sticks/day (63.3%) which belongs to the category of mild smokers, while the electric cigarette as much as >3 sessions/day (4.4%) and shisha cigarettes as much as 1 session/day (2.9%).

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