# The Description Of Pre-Clinical Students' Knowledge And Attitudes About The Dangers Of Smoking Against Lung Cancer

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## ABSTRACT

*This study discusses the description of pre-clinical students' knowledge and attitudes about the dangers of smoking against lung cancer. It was done at Medical Faculty of Universitas Kristen Indonesia (UKI). It was a quantitative study with survey design. The respondents of this study were 83 students who were chosen using quota sampling. The instrument of this study were two sets of questionnaires with closed-ended questions. Based on the results of the study, it can be concluded that: a) of 83 respondents, 71 (85.5%) of respondents knew that smoking was harmful to health, the remaining 12 (14.5%) of respondents did not know that smoking was harmful to health. It can be concluded that most of the Pre-clinical Students Class 2016-2018 at the Medical Faculty of UKI have good knowledge about the dangers of smoking against lung cancer.*

*Keywords: Lung Cancer, Cigarettes, Knowledge, Attitude.*

## 1. INTRODUCTION

Lung cancer is a disease of uncontrolled tissue growth in lung tissue. The appearance of cancer is characterized by abnormal cell growth, unlimited, and damage to normal tissue cells. Until recently, lung cancer is the most common malignant disease found in the world and is one of the leading causes of cancer death. Lung cancer (small-cell and non-small cell) is the second most common cancer in both men and female (excluding skin cancer). In the male, prostate cancer is more common, while in female breast cancer is more common and about 13% of all cancers are lung cancer [1; 2; 3].

Several factors can cause lung cancer, but the main factor is smoking. Smoking is a habit that is common in everyday life [4; 5]. Everywhere, it is easy to find smoking people, male and female, children and the elderly. About 90% of male patients with lung cancer are smokers. At the time of smoking, a person inhales approximately 4000 chemicals that are harmful to health [7; 8]. Chemical substances such as nicotine, tar, carbon monoxide, and other chemicals are substances that can cause lung cancer. In the United States in 2010, the death toll from lung cancer was estimated at around 157,300 people. The new cases found by the American Cancer Society in 2019 in the USA were 228,150 people (116,440 male and 111,710 female). Then lung cancer deaths in the USA as many as 142,670 people. Meanwhile, in Indonesia in 2012, an estimated 226,160 new cases of lung cancer [9; 10].

Based on the above background, the authors are interested in researching the knowledge and attitudes of the 2016-2018 class of pre-clinical students about the dangers of smoking against lung cancer at the Medical Faculty of *Universitas Kristen Indonesia* (UKI). Based on the background description above, it can be formulated: a) what is the description of the level of

knowledge of the 2016-2018 pre-clinical students at the Medical Faculty of UKI against the dangers of smoking ?; b) What is the attitude of the 2016-2018 class of UKI's medical faculty to the dangers of smoking? With the research objectives, namely: a) to describe the knowledge and attitudes of pre-clinical students class 2016-2018 about the dangers of smoking against lung cancer in the medical faculty of UKI; b) to determine the attitude of pre-clinical students class 2016-2018 at UKI's medical faculty towards the dangers of smoking.

## 2. LITERATURE REVIEW

Knowledge is the result of the realm of knowledge, and this happens because after someone senses a particular object. Sensing occurs through the five human senses, namely sight, hearing, smell, touch and taste. Human knowledge is obtained through the eyes and ears through the process of sight and hearing and formal and informal experiences and learning processes [11; 12; 13; 14]. Based on the above understanding, knowledge is the result of sensing a problem that is obtained through a process of learning and experience. Knowledge is the scope in the cognitive domain. The level of knowledge has six (6) levels including a) knowledge about the dangers of smoking; b) comprehension about the dangers of smoking; c) application about the dangers of smoking; d) analysis about the dangers of smoking; e) synthesis about the dangers of smoking; f) evaluation of the dangers of smoking [15; 16; 17; 18]. Attitude - Attitudes can be defined as mental views or inclinations. Attitude is a tendency to react to a thing, person or object, not liking or indifferently. Generally, attitude is a belief which is translated into action on the desired object. Attitude is also defined as a positive or negative evaluation of reactions to objects, people, situations or other aspects [19; 20]. It allows us to predict and change people's behaviour in dividing the two models of attitude definitions, namely (1) Attitude is a combination of affective and cognitive, ( 2) attitude as a positive or negative assessment of a particular object which is expressed with a certain intensity. Attitude is a brief evaluation of everything based on cognitive, emotional and behavioural information [21]. Cigarettes - According to the Big Indonesian Dictionary, cigarettes are defined as a class of tobacco that is approximately the size of a human pinkie wrapped in palm leaves or paper. Tobacco leaves contain many alkaloid compounds, and nicotine is the largest content [22].

Cigarette Ingredients - The content of cigarette constituents that can affect the user is a class of alkaloids which are stimulants. Alkaloids found in tobacco leaves include nicotine, nicotine, anabasine, myosin, and others. Nicotine is the most common compound found in cigarettes, so all alkaloids are considered part of nicotine. Cigarette smoke contains three of the most dangerous chemicals substances; they are tar, nicotine and carbon monoxide [23; 24]. Tobacco tar or sap is a mixture of several hydrocarbons. Nicotine is the largest component in cigarette smoke and is an additive. Carbon monoxide is a poisonous gas that has a strong affinity for haemoglobin in red blood cells to form carboxyhemoglobin. In addition to these three compounds, cigarette smoke also contains pyridine, ammonia, carbon dioxide, ketones, aldehyde, cadmium, nickel, zinc, and nitrogen oxides. At different levels, all of these substances are irritating to the mucous membranes found in the mouth and respiratory tract [25]. Nicotine - Nicotine is a toxic alkaloid compound separated from tobacco and is a tertiary amine compound with the empirical formula $C_{10}H_{14}N_2$ and in organic chemistry as 1- methyl-2-pyrrolidine (3- pyridine). The substance most frequently discussed and researched on, poisons the nerves of the body, raises blood pressure, constricts peripheral blood vessels, and causes addiction and dependence on the wearer. 4-6 mg of nicotine that is inhaled by adults every day can make a person addicted. In the United States, white cigarettes on the market have levels of 8-10 mg of nicotine per stick, while in

Indonesia, nicotine levels are 17 mg per stick.

Lead (Pb) - The lead produced by a cigarette is 0.5 ug. A pack of cigarettes (contains 20 sticks) that is smoked in one day will produce 10 ug. Meanwhile, the danger threshold for the lead that enters the body is 20 ug per day. It can be imagined, if a heavy smoker smokes an average of 2 packs of cigarettes per day, how many of these harmful substances enter the body. Carbon monoxide (CO) gas - Carbon Monoxide has a strong tendency to bind to haemoglobin in red blood cells. Supposedly, this haemoglobin binds to oxygen which is very important for the respiration of the body's cells, but because CO gas is more substantial than oxygen, this CO gas takes its place "on the side" of haemoglobin. So, haemoglobin coupled with CO gas. The level of CO gas in the blood of nonsmokers is less than 1 per cent, while in the blood of smokers, it reaches 4 - 15 per cent [26; 27]. Tar - Tar is a collection of thousands of chemicals in the reliable components of cigarette smoke and is a carcinogen. When a cigarette is inhaled, tar enters the oral cavity as a solid vapour. When it cools, it becomes solid and forms brown deposits on the surface of the teeth, respiratory tract, and lungs. The precipitation varies between 3-40 mg per cigarette, while the tar content in cigarettes ranges from 24 to 45 mg [28; 28; 29; 30].

Anatomy of the Lung - The lung is located in the chest cavity, a cone whose apex is above the rib of the rib and its base is directly above the diaphragm. The lungs are divided into 2, namely, the right lung and the left lung. The right lung has three lobes, while the left lung has two lobes. The right lung and the left lung are separated by a space called the mediastinum [31]. The lungs are covered by a membrane called the pleura. The pleura is divided into 2, namely the visceral pleura and the parietal pleura. The pleura visceral is the membrane that attaches to the lung surface, while the pleura parietal is the membrane that attaches to the chest cavity. Between the two pleura, there is a space called the Cavum Pleura. The lungs have an alveolar surface area of approximately 40 mm2 for air exchange. Lung Cancer - Lung - Cancer became the leading cause of death in Indonesia in 2012, with a prevalence of ± 8.2 million deaths. Based on Riskesdas 2013 data, the prevalence of cancer in Indonesia reached 1.4% or around 347.0 wa [32].

Definition of Lung Cancer - Cancer can be defined as a disease that can attack all organs in the human body. Typically, cells divide and die programmatically as well as replacing and repairing damaged tissue in the body. In certain circumstances, something programmed can become out of control; one example is the cell, and it is called cancer. Cancer initially develops in one organ; it is called Primary Cancer. If cancer cells develop and grow to other organs, it is called Secondary Cancer or also called Metastasis. For example, lung cancer can spread to the bones, and it is called metastatic lung cancer. Lung cancer can be defined as abnormal cell growth in the lungs [33]. Classification of Lung Cancer - Lung cancer can be classified into two categories, namely small-cell lung cancer and non-small cell lung cancer. Small-Cell Lung Cancer - Microscopically the tumour cells are round, oval, small, 3-4x the size of lymphocytes with substantial growth may be a rosette or a pseudorosette, forming a tubular or duct structure in the presence of Azzopardi effect and necrosis. Broad Little cytoplasm, hyperchromatic nucleus, finely granulated chromatin, inconspicuous nucleus, mitosis is common [34; 35].

Non-Small Cell Lung Cancer (Large cell Carcinoma) - Large cell carcinoma is a tumour that is poorly differentiated. It is called large cell carcinoma after removing the components of squamous cell carcinoma, adenocarcinoma, or small cell carcinoma. Tumour cells are arranged to form sheets or nests of large polygonal cells, vesicular nuclei with prominent nuclei, and moderate cytoplasm. Large cell carcinoma has the following variants: large cell neuroendocrine carcinoma, basaloid carcinoma, lymphoepithelioma-like carcinoma, clear cell carcinoma, large cell carcinoma with rhabdoid phenotype [36; 37]. Aetiology of Lung Cancer - The cause of lung carcinoma can come from several factors, namely: cigarette smoke

(smoking), hazardous industrial materials (radiation, uranium, and asbestos), air pollution and genetic mutations. Specific chemicals from cigarette smoke include polycyclic aromatic hydrocarbons such as benzo (a) pyrene with phenol derivatives and N-nitrosamine 4 (Methylnitrosamino) -1- (3-pyridyl) -1 which is the most potential carcinogen.

Clinical Manifestations of Lung Cancer - Patients who are found to have lung cancer tend to have many complaints and complications due to their cancer. The disturbance of the cancer cells causes its complaint to the surrounding area, as well as the result of Metastasis cells to other parts of the body (65% of cases). Complaints found in lung cancer patients can include coughing, shortness of breath, chest pain, coughing up blood, nausea, pain, fatigue and several other complaints. Pain is the main complaint that is often complained about. Research comparing lung cancer and other chronic lung diseases, found that more pain was felt by patients with lung cancer (62%).

Pathogenesis - In lung carcinoma, there is a change or mutation of several genes that play a role, namely protooncogene, tumour suppressor gene, and gene encoding enzyme. Due to the accumulation of genetic disorders that transform benign bronchial epithelium into neoplasm tissue. Environmental factors that are known to be detrimental and influence genetic damage [38; 39]. The TP53 mutation is the most common gene mutation. The TP53 gene is a tumour suppressor gene encoding the p53 protein, which has an antiproliferative role, especially in response to genotoxic stress. TP53 mutations are detected in 50% of cases of NSCLC and more than 70% of cases of SCLC. The oncogenes that are often found in lung cancer are c-MYC, KRAS, EGFR, c-MET, and c-KIT. Generally, there is deletion or inactivation of tumour suppressor genes such as p53, RB1, p16 (INK4a) and multiple loci of chromosome 3p. Investigations - Investigations for lung cancer can be divided into two, namely, imaging examinations and special examinations. The examination will be discussed as follows.

Imaging Examinations - Imaging studies for lung cancer may be performed. AP/lateral chest X-ray is the initial examination to assess a patient with suspected lung cancer [40]. If a lesion is found on the chest X-ray that is suspected of being malignant, a follow-up examination is a chest CT scan to evaluate the lesion. The contrast-enhanced chest CT scan is a test performed to diagnose and precisely determine the lung segment involved. A chest CT scan can be extended to the adrenal glands to assess possible metastases. Apart from the adrenal glands, a CT scan of other organs such as the head can be performed if the patient has systemic pain.

Special Examination - Special examination for lung cancer, one of which is bronchoscopy to determine the location of the primary lesion, and obtaining specimens for cytology and biopsy purposes, so that the staging of cancer can be determined. Contraindications to this bronchoscopy procedure are severe pulmonary hypertension, cardiovascular instability and non-stop bleeding. Complications that can occur are pneumothorax and bleeding. Other biopsy procedures such as fine needle aspiration of the gland for patients who find enlarged glands [41].

Management - Management that can be done for people living with lung cancer is divided into three, namely surgery, radiotherapy and chemotherapy. It will be discussed as follows; a) Surgery - Surgery is the mainstay of therapy for most patients with a diagnosis of lung cancer, primarily stage I-IIIA. The types of surgery that can be performed are lobectomy, segmentectomy and sublobar resection [43]; b) Radiotherapy-Shooting precontrast can be used to aid accuracy. PET/CT scanning helps improve the accuracy of volume targeting. PET/CT should be done less than four weeks before radiation planning. The definition of radiation targets should be based on the terminology of the International Commission on Radiation Units and Measurements 50, 62, 83 (ICRU - 50, 62, 83). For an accurate diagnosis to be made, the results of physical examination, CT scan with contrast and PET/CT scan must be considered [43]; c) Chemotherapy - Chemotherapy can be given for medicinal purposes if the patient's general appearance is good, but the most significant use of chemotherapy is as

palliative therapy in patients with an advanced stage. Several types of chemotherapy can be given. First-line treatment is given to patients who have never received previous chemotherapy treatment. The primary choice of the first-line drug is cisplatin, followed by carboplatin. Meanwhile, second-line chemotherapy can be given to patients who have received first-line chemotherapy but did not respond after two cycles or cancer has become more progressive. The second-line chemotherapy drugs are doxaccele and petrexate [26].

## 3. METHOD

This research uses a descriptive analytic method on several variables. The research was conducted from July - October 2019 in the Medical Faculty, UKI, Cawang, East Jakarta. The research sample was students class 2016-2018 at the Medical Faculty, UKI regarding the Knowledge and Attitudes of the 2016-2018 Pre-clinical Students on the Dangers of Smoking on Lung Cancer and approved informed consent. Sample Size - The samples in this study were students of the Medical Faculty, UKI, batch 2016-2018. Sampling in this study using a quota sampling technique and the use of large samples using the Slovin formula. So the sample size that has been determined using the Slovin formula obtained as many as 83 respondents consisting of students of the Medical Faculty, UKI. The stages are coordinating with the Medical Faculty, UKI, introducing themselves, explaining the background and research objectives to students who meet the criteria. If students are willing to take part in the research, then fill out and sign the consent form before taking informed consent. After the agreement is obtained, the researcher provides a questionnaire sheet.

## 4. RESULT AND DISCUSSION

Validity test is a test to determine whether a questionnaire is valid or not used to conduct a study. It is said to be valid if the Corrected item-total Correlation value is> 0.306 and it is said to be invalid if the Corrected item-total Correlation value is <0.306

Table 1.
Knowledge Validity Test

| Corrected Item - Total Correlation | |
|---|---|
| P1 | .619 |
| P2 | .528 |
| P3 | .611 |
| P4 | .505 |
| P5 | .636 |
| P6 | .535 |
| P7 | .535 |
| P8 | .528 |
| P9 | .535 |
| P10 | .508 |

In the table above, it is explained in line P1 that the Corrected item-total Correlation value is 0.619 which means that in line P1 it is declared valid, then it can be seen in row P2 that the Corrected item-total Correlation value is 0.528 which means that on row P2 is declared Valid, as well as the next row. Based on the table data, the questionnaire used by the researcher was declared valid.

Table 2.
Attitude Validity Test

| Corrected Item-Total Correlation | |
|---|---|
| P1 | .649 |
| P2 | .550 |
| P3 | .752 |
| P4 | .503 |
| P5 | .732 |
| P6 | .612 |
| P7 | .626 |
| P8 | .551 |
| P9 | .566 |
| P10 | .638 |

In the table above, it is explained in line P1 that the Corrected item-total Correlation value is 0.649 which means that in line P1 it is declared valid, then it can be seen in row P2 that the Corrected Item-Total Correlation value is 0.550 which means that on row P2 is declared Valid, as well as the next row. Based on the table data, the questionnaire used by the researcher was declared valid.The reliability test is a test to show the accuracy, accuracy, and consistency of a questionnaire. This test can use the Alpha reliability correlation coefficient (Cronbach's Alpha). A good Alpha value is one that exceeds 0.5.

Table 3
Reliability Test Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .885 | 10 |

In the table above, the Alpha value (Cronbach's Alpha) is 0.885 and is more significant than 0.5. It can be interpreted that the questionnaire used by the researcher was stated to be precise, accurate, and consistent.There are several questions which were questioned to see knowledge about the dangers of smoking. They were shown in each of the questions can be seen in the table below:

Table 4.
Frequency and percentage of respondents who know about the dangers of smoking

| No | Questions | Knowledge | | | |
|---|---|---|---|---|---|
| | | Yes | | No | |
| | | F | % | F | % |
| 1 | Cigarettes contain approximately 4000 chemicals. | 69 | 83,1 % | 14 | 16,9 % |
| 2 | The main chemicals contained in cigarettes such as Tar, Nicotine and Monoxide are poisonous. | 67 | 80,7 % | 16 | 19,3 % |
| 3 | Smoking is harmful to health. | 71 | 85,5 % | 12 | 14,5 % |
| 4 | There are 2 types of smokers, namely passive smokers and active smokers. | 68 | 81,9 % | 15 | 18,1 % |
| 5 | Do you think smoking only harms people who smoke? (active smoker ) | 23 | 27,7% | 60 | 72,3% |
| 6 | Do you think smoking can be harmful to everyone's health? (passive and active smokers) | 73 | 88,0 % | 10 | 12,0 % |

| | | | | | |
|---|---|---|---|---|---|
| 7 | One of the effects that can occur due to smoking is Lung Cancer. | 72 | 86,7% | 11 | 13,3% |
| 8 | Is smoking not the only risk factor for lung cancer? | 67 | 80,7% | 16 | 19,3% |
| 9 | Are women who smoke a higher risk than men? | 51 | 61,4% | 32 | 38,6% |
| 10 | Can quitting smoking reduce the risk of lung cancer? | 59 | 71,1% | 24 | 28,9% |
| Total | | 620 | 74,7% | 210 | 25,3% |

Based on the ten questions and statements above regarding knowledge about the dangers of smoking against lung cancer in preclinic students class 2016 - 2018, the Medical Faculty, UKI, the results showed that 69 people who knew cigarettes had approximately 4000 chemicals or with a percentage (83.1 %) answered YES, and 14 other people or a percentage (16.9%) answered NO. It can be concluded from the above statement that 83.1% of the respondents know that cigarettes contain 4000 chemicals. The results of the next statement, namely "Smoking is harmful to health", obtained 71 people or with a percentage (85.5%) who answered YES, and 12 other people or with a percentage (14.5%) answered NO. It can be concluded that the percentage of pre-clinical students who know that smoking is harmful to health is 85.5%. After that, with the question "Do you think cigarettes can be harmful to the health of everyone (passive and active smokers)" the results were 73 people or with a percentage (88.0%) answered YES. It can be concluded from the questions above that most respondents know that smoking can be harmful to everyone's health (including passive smoking).

Furthermore, for the question "Can smoking cessation reduce the risk of lung cancer" the results were 59 people or with a percentage (71.1%) who answered YES and 24 people (28.9%) answered NO. It can be concluded that 59 people already understand that quitting smoking can reduce the risk of lung cancer. From all the questions above, around 74.7% of respondents answered correctly about the knowledge of the dangers of smoking. It stated that the 2016-2018 class of pre-clinical students of the Medical Faculty, UKI were able to know and understand about the dangers of smoking against lung cancer.

$69 + 67 + 71 + 68 + 23 + 73 + 72 + 67 + 51 + 59 = 620$
The correct answers
$\frac{620}{nn} \times 100 = x\%$
N = 830 (83 respondents x 10 questions)
$\frac{620}{830} \times 100 = 74,7\%$

There are ten statements and questions in the attitude questionnaire about the dangers of smoking against lung cancer. From all these statements and questions, it can be concluded as follows:

Table 4.3
Frequency and percentage of respondents The hazardous attitude of smoking to lung cancer.

| No | Question | Knowledge | | | |
|---|---|---|---|---|---|
| | | Yes | | No | |
| | | F | % | F | % |
| 1 | Do you smoke? | 68 | 81,9% | 15 | 18,1% |
| 2 | Have you been smoking for more than 2 years? | 46 | 55,4% | 37 | 44,6% |
| 3 | Can you spend 1 pack of cigarettes in a day? | 41 | 49,4% | 42 | 50,6% |

| 4 | Can prolonged smoking lead to addiction? | 67 | 80,7% | 16 | 19,3% |
|---|---|---|---|---|---|
| 5 | Passive smokers have a greater risk of lung cancer than active smokers. | 63 | 75,9% | 20 | 24,1% |
| 6 | Smoking can cause lung cancer | 73 | 88,0% | 10 | 12,0% |
| 7 | Have you experienced coughing, shortness of breath and chest pain continuously for a long time? | 31 | 37,3% | 52 | 62,7% |
| 8 | Breathing smoke-free air is a human right | 58 | 69,9% | 25 | 30,1% |
| 9 | I know the dangers of smoking to the lungs but I still smoke | 73 | 88,0% | 10 | 12,0% |
| 10 | Quitting smoking is not easy, but not impossible | 73 | 88,0% | 10 | 12,0% |
| Total | | 593 | 71,4% | 237 | 28,5% |

Based on table 4.3, it can be seen that from 83 respondents 68 people or a percentage (81.9%) smoked (active) and the rest, 15 people with a percentage (18.1%) did not smoke actively. From the results of respondents who smoked, it was found that 31 people or a percentage (37.3%) had experienced symptoms of coughing, shortness of breath and prolonged chest pain. Then 73 people or a percentage (88.0%) knew the dangers of smoking but still smoked. The last statement, 73 people or a percentage (88.0%) agreed that quitting smoking is not easy but not impossible.

$68 + 46 + 41 + 67 + 63 + 73 + 31 + 58 + 73 + 73 = \mathbf{593}$

The correct answers

$$\frac{593}{nn} \; x \; 100 = x\%$$

N = 830 (83 respondents x 10 questions)

$$\frac{593}{830} \; x \; 100 = 71,44\%$$

Science is an empirical fact or rational idea built by individuals through experiments and proven experience.1 In this study, the level of knowledge influenced respondents' attitudes about the dangers of smoking against lung cancer were measured using a questionnaire. Based on table 4.2, 83 respondents from pre-clinical students Class 2016-2018 at the Medical Faculty, UKI, knew that the three main chemicals in cigarettes were poison or about 80.7%. As many as 16 other respondents or with a percentage of 19.3% did not know about it. Then 67 people or a percentage (80.7%) knew that smoking was not the only cause of lung cancer, while 16 other people did not know this. It is not following previous research by Purni Rahayu (2017) that 31 out of 56 respondents (55.4%) have insufficient knowledge of the dangers of smoking. Meanwhile, 25 out of 56 respondents (44.6%) had a high knowledge of the dangers of smoking. It is concluded from these results that students who have good knowledge will still form a smoking attitude, this can be caused by many factors, one of which is the environment.

Humans get information from the senses and reason, so that tool is considered the source of knowledge. Knowledge is formed by the structure of a person's conception when he interacts with his environment.1 In this study it was found that most respondents had good knowledge about the dangers of smoking, so it can be concluded that the sources of information were based on what they saw and heard from pre-clinical students Class 2016-2018 in Medical Faculty, UKI, regarding the dangers of smoking against lung cancer is good.

The smoking attitude is an attitude that is chosen by the individual himself. Smoking attitudes can endanger oneself and even endanger other individuals around who smoke. From the data

obtained, it was concluded that Pre-Clinical Students Class 2016 - 2018 at the Medical Faculty, UKI had good knowledge of the dangers of smoking, but their attitude was still smoking due to extrinsic factors from the surrounding environment, with the results obtained that 68 (81, 9%) of 83 respondents smoked and the rest did not smoke, namely about 15 respondents (18.1%). The results are in line with previous research conducted by Devita Rosalin Maseda with the title "The Relationship between Knowledge and Attitudes about the Dangers of Smoking and Smoking Behavior of Youth at State Senior High School Tompasobaru" (2013). It was found that respondents who smoked more than respondents who did not smoke with a comparison of 30: 7 data with a total of 37 respondents (30 people smoke and 7 people do not smoke). It can be concluded that there are still many students who smoke even though they already know about the dangers of smoking against lung cancer.

## 5. CONCLUSION

Based on the results of the study, it can be concluded that: a) of 83 respondents, 71 (85.5%) of respondents knew that smoking was harmful to health, the remaining 12 (14.5%) of respondents did not know that smoking was harmful to health. It can be concluded that most of the Pre-clinical Students Class 2016-2018 at the Medical Faculty of UKI have good knowledge about the dangers of smoking against lung cancer. It was shown that of 83 respondents, the majority of respondents as many as 68 respondents (81.9%) smoked and the rest, 15 respondents (18.1%) did not smoke, it can be concluded that the 2016-2018 Pre-clinical Students at the Medical Faculty, UKI, good knowledge but still forms a smoking attitude, this can be caused by many factors, such as social factors and the environment.

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