SMOKING BEHAVIOR AMONG SENIOR HIGH SCHOOL STUDENTS IN BANDA ACEH MUNICIPALITY, NANGGROE ACEH DARUSSALAM PROVINCE, INDONESIA

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ABSTRACT

This cross sectional study aimed to determined smoking behavior among senior high school students at the Sekolah Menegah Umum Negeri 6 in the Banda Aceh Municipality, Nanggroe Aceh Darussalam province, Indonesia. Data were collected from January 4 to 20, 2008 through self administered questionnaire among 270 male students. Chi-square test was employed for statistical analysis of the variables.

The results indicated 60% of the students were smokers and 39% were non smokers. The majority of smokers were (62.03%) 16 to 17 years old. This study showed statistically significant association between low attitude level and smoking behavior of the students. Regarding peer group pressure there was significant association between friends smoking and smoking behavior of the students and, regarding cigarette advertisements there was also significant association between advertisement factors and smoking behavior of the students (p-value < 0.05).

A qualitative study should be conducted on the smoking group to further explore reasons for being smokers, and how to quit from cigarette smoking. Secondary schools must increase a health education program about, the hazards of smoking behavior for children aged less than 10 years. The government must make regulations on selling tobacco to juveniles. Teachers should be more vigilant of the smoking status among students, exerting more severe disciplinary actions on students who are found breaching the school rules. Parents should attempt to refrain their children from of friends who smoke.

KEY WORDS: SMOKING BEHAVIOR / SENIOR HIGH SCHOOL STUDENTS

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LIST OF ABBREVIATIONS

NAD : Nanggroe Aceh Darussalam

ADB : Asian Development Bank

DHS : Decentralization of Health service

ASEAN : Association of South East Asia Nation

SMU : Sekolah Menengah Umum

GBHS : Global Health personnel Survey

CHAPTER 1
INTRODUCTION

1.1 Rationale and justification

Tobacco is the second major cause of death in the world. It is currently responsible for the death of one in the ten adults' worldwide (about 5 million deaths each year). If current smoking patterns continue, it will cause some 10 million deaths each year by 2020. Half the people that smokes today, that are about 650 million people, will eventually are killed by tobacco (1).

The number of children and young people starting to smoke has been increasing. In 1988 the proportion of regular smokers age 11 to 15 in England was reported to be 8% and by 1996 that figure had increased to 13% As 82% of smokers take up the habit during teenage years, the increasing rates of young smokers will eventually feed through into adult smoking rates. The cost of smoking is high in term of people's health, with smoking causing over 120.000 deaths in the UK at all ages in 1995. Forty-six thousand deaths were from cancer 40.000 from circulatory diseases and 34.000 from respiratory disease. Smoking also contributes to the gap in healthy life expectancy between groups of people's most advantaged Treating illness and disease caused by smoking is estimated to cost NHS up to 1.5 billion every year.

Reduction in the number of young people taking up smoking are important if a downward trend in the level of adult smoking is to be re-established in the future. Concern over the rise in the number of young people starting to smoke has been recognized in policy initiatives from the UK government. The recent white paper. Smoking kills'identified young people as a priority and set targets to reduce smoking among children in England from 13% to 9% or les by 2010, with a fall to 11% by 2005.

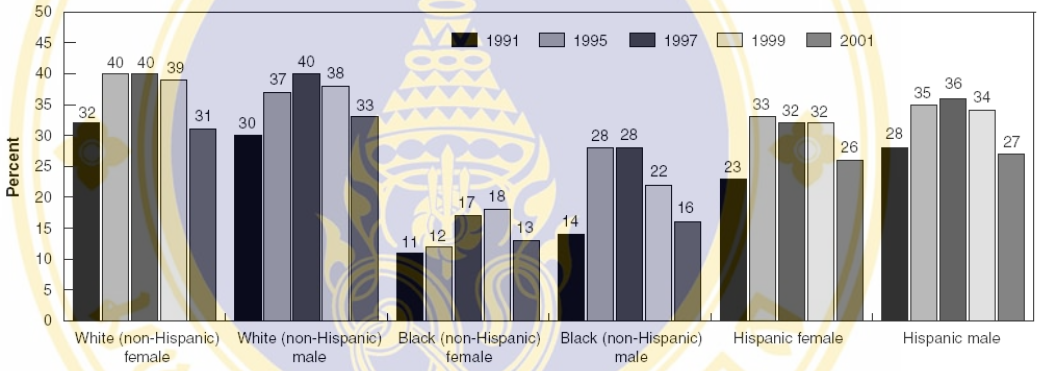
Smoking is considered the main cause of sickness, disability, and death. In 2004, the U.S. Surgeon General Richard H. Carmon released comprehensive report on smoking and health, revealing for the first time that smoking causes diseases in nearly every organ of the body. Published 40 year after the surgeon general's first report on smoking which concluded that smoking was a definite cause of three serious diseases. This news report found that cigarette smoking is conclusively liked to disease such as leukemia, cataract, pneumonia and cancer of the cervix, kidney, pancreas and stomach (2).

The World Health Organization (WHO) organized an international treaty on tobacco control binding all countries to implement various tobacco control policies and measure in an attempt to reduce global smoking. The proposed tobacco control measures include primary legislation to restrict/ban tobacco advertising/marketing activities and to impose heavy taxation on tobacco products. The World Health Organization (WHO), the US Center for Diseases Control and prevention (US-CDC) and the Canadian Public Health Association developed Global Health personnel Survey (GBHS) was implement in 40 countries and by the year of 2008 all of 192 WHO member states to participated in this GHPS.

Tobacco related diseases are responsible for as much as 90% of all cases of lung cancer, 75% of chronic bronchitis and emphysema and 25% of cases of ischemic heart diseases in men under 65 year, as well as for a number of other types of cancer. The recent study of WHO showed that the cigarettes consumption curve slowly bending downwards in the rich nations, while the habit has increasingly taken hold among populations of poorer nations (3).

Worldwide, cigarette consumption per adult has increased only very slightly, by 7.1% between 1970 and 1985. It fell in many industrial countries. Adult per capita cigarette consumption has increased markedly, e.g. by 42% in Africa, 24% in Latin America and 22% in Asia. In China, for example 61% of men and 7% of women smoke. In comparison, in the United States 26% of men and 24% of women are smoker. With decreased consumption in the developed world. Transitional tobacco

companies are seeking new markets especially in Asia. In many industrialized countries, the percentage of smokers has started to fall in recent years. For instance, in the United of Kingdom, the percentage of male smokers fell from 65% to 45% and that of female smokers from 45% to 34%. In the United stated, male smoking prevalence decreased from 54% to 29 % and female prevalence from 36% to 24%. In Norway, male smoking prevalence decreased from 53% to 42% in Australia from 72% to 33% and in Canada From 44% to 35%. On the contrary, in developing countries prevalence of smoking is frequently higher than in the affluent countries. In Tunisia, for instance, 60% of the men smoke (4).



Source: Youth Risk Behavior Surveillance System, 1991, 1995, 1997, 1999, 2001, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention.
Reprinted from *Cancer Prevention & Early Detection Facts and Figures, 2003*, American Cancer Society.

Figure 1 Prevalence of cigarette smoking in the last 30 days among high school students in the US, 1991-2001

The global prevalence of tobacco use is substantially higher in men (47%) than in women (12%), reflecting the traditionally low prevalence of occurred despite major increases in expenditures on tobacco promotion by the tobacco industry. Recent increases in female smoking prevalence have been reported from Cambodia and Malaysia and Bangladesh. Adult smoking prevalence is actually higher in women than men in five countries: the Cook Islands, Nauru, Norway, Papua New Guinea, and Sweden. In the 1999 ESPAD survey of 15-16 year old school children, girls were more likely than boys to report having smoked at least 40 times in their lifetime in eight countries (Bulgaria, Denmark, Ireland, Italy, Malta, Norway, Slovenia, and the United Kingdom) of the 23 participating. A more typical pattern among adults has

been the convergence of male and female smoking prevalence occurring in many countries in Europe and North America. A more typical pattern among adults has been the convergence of male and female smoking prevalence occurring in many countries in Europe and North America (5).

Environmental tobacco smoke is a major source of indoor air pollution. Some of the immediate effects of passive smoking include eye irritation, headache, cough, sore throat, dizziness and nausea (6). A global initiative to reduce tobacco use in low- and middle-income countries has been launched with interventions. The Initiative places a priority on countries with the greatest number of smokers. More than half of the world's smokers live in fifteen countries: China, India, Indonesia, Russia.

Data presented at the world no tobacco day 2006 showed that there are more than 1 billion smokers in the world, and there are 5 million deaths due to tobacco used habit in the world each year (7).

The situation consumption cigarette in the Asia region. It about 73 percent in Thailand, 70 percent in the Philippines, and 35percent in Nepal begin smoking by age 20. In all countries, smoking is much more prevalent among teens that have experienced some transitions to adulthood. In Indonesia and Nepal, teen smoking is more prevalent in less developed regions. Among Filipino girls, who residence in metro Manila is associated with high probability of smoking. In most countries, teens that have close relationships with parents are less likely to smoke.

Tobacco use is one of the greatest causes of preventable deaths and disease in human history. According to the World Bank, four-fifths of the world’s 1.1 billion smokers live in low-income or middle-income countries. In Indonesia, 59% of male, but only <5% of women, smoke. Notably, the rates of tobacco use, especially among adolescents and young adults in East Asia, continue to rise. Although reliable national data are unavailable for Indonesia, estimates in 2004 showed a high incidence rate of tobacco-attributable mortality and morbidity (8).

Sociocultural factors may influence smoking behavior among deaf adults who lost their hearing before the age of 3 years, before they acquired facility with language (prelingually deafened), are half as likely to smoke as hearing adults, even though they have less education and lower income, factors usually associated with smoking. However, adults who became deaf later in life (postlingually deafened) smoke at about the same rate as hearing adults, according to a study supported by the Agency for Health Care Policy and Research . Sociocultural factors may play a role in these differences; according to Steven Barnett, and Peter Franks, of the University of Rochester (9).

In Indonesia there are 215 billion cigarettes consumption every year in Indonesia, which put Indonesia as the 5th top rank cigarette consumption country in the world. Several nation-wide surveys found that about 60 per cent of Indonesia females are smokers. Altogether, about 30% Indonesia or 60 million Indonesia are smoker. Prevalence is high among boys but very low among girls. Nearly 2% Indonesia boy. In 2002, the International Agency of Research on Cancer Globe can estimated that the age-standardized mortality of respiratory tract cancer in Indonesia among men was 68.5 per 100 000 population, but that among women was only 21.5 per 100 000 population In Indonesia data reported from of tobacco control network, proportion of adolescents smoking increased the followed age 5– 9 years increased percentage from 0.4 in the 2001 to 1.8% in 2004 and 80% smoker in Indonesia on 2007 smokers' age under 19 years old (10).

Peer pressures, family influences, easy access, media glamorization, and natural curiosity make student experiment cigarettes smoking. Young people are the most at risk group to smoke. Knowing the smoking situation among youth may lead to recognition its seriousness and underlying factors. In Aceh province, Indonesia, some factors play a role on Juvenile smoking such as, sell and every one easy to by cigarette. There was no policy and regulation on selling cigarette to juvenile. According my observation, smoking prevalence on adolescent was increase rapidly. Weak of parental control in this case lead to increase the smoking problem among them. And the adolescents also did not care about effect of smoking.

In Aceh province, there were 12 lung cancer cases in 2006. The main cause was the smoking behavior which has impact on social and economic aspect. According to those problems I would like to study what are the smoking behaviors among senior high school students SMU Negeri 6 Banda Aceh Municipality, Nanggroe Aceh Darussalam province, Indonesia (11).

1.2 Research questions

The main objectives of this study are to answer the following questions:

1.2.1 What are the smoking behaviors among SMU Negeri 6 students in Banda Aceh

1.2.2 What are factors related to smoking behavior among SMU Negeri 6 students in Banda Aceh?

1.3 Research objectives

1.3.1 General objective

To assess the smoking behavior among male students at SMU Negeri 6 in Banda Aceh Municipality, NAD Province, Indonesia.

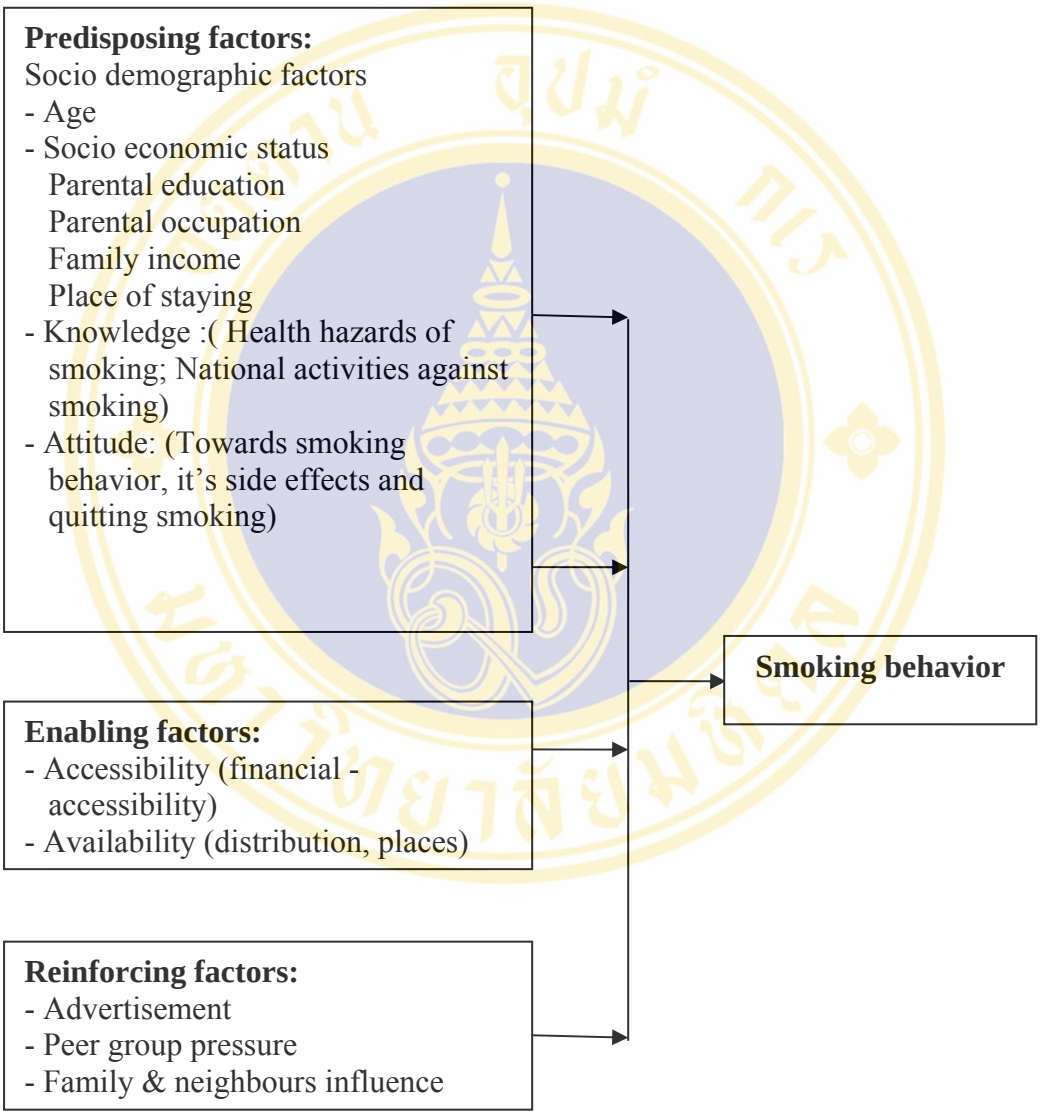
1.3.2 Specific objectives

1) To assess of smoking behavior among student Senior high school in Banda Aceh Municipality.

2) To determine the relationship between the predisposing factors, enabling factors, reinforcing factors and smoking behavior.

Conceptual framework of this study was based on Precedes – Proceed Model of Lawrence Green & Kreuter, 1999 which are predisposing factors, enabling factors and reinforcing factors in the conceptual frame, as the appropriate variable that will allow the researcher to illustrate and derive from the study finding, how smoking behavior among the target population can be changed to suit the national and international demands or goals on smoking prevention and reduction programs.

1.4 Conceptual framework



1.5 Operational Definition

1.5.1 Predisposing factors

Education of Parents is the educations level of fathers and mothers.

Occupation of Parents is the parents of the students working in the government and non government or dependent and non independent.

Family Income is the salary parent per month.

Place of staying Place of students living everyday with parents, peer, grandmother or grandfather, dormitory and rental house.

Smoking behavior of each respondents in this study refers to how students like to smoke; why and when they started to smoke the contributing factors to initiation of smoking, how they feel about smoking. These basically explore the smoking patterns of the each subject.

Knowledge in this study, knowledge refers to how much the subjects know about smoking behavior.

Attitude in this study attitude refers to how students order to significance of feel the negative and positive effects of cigarette smoking can be accomplished.

1.5.2 Enabling factors:

In this particular study, enabling factors refers to the following variable below:

Accessibility in this study refers to the question on; whether cigarettes are sold to under 18 year olds. How much did it cost to purchase of cigarette smoke?

Availability in this study refers to the following; what is the distribution of cigarette smoke like around the study population which means that is a cigarette smoke easily available in the schools premises.

1.5.3 Reinforcing factors:

The following study was focusing on reinforcing factors by restricting its meaning in this study to the following:

Effects of cigarette advertisements on the smoking. Implication of advertisements, famous figures and names attached to the cigarette advertisement, warning labels on a cigarette etc, affect to the smoking behavior of respondents.

Peer groups pressure in this study refers to the pressures of friends on the study subject who share common interest and who are likely to influence their peer groups.

Family and neighborhood influence in this study refer to how smoking in the family and neighbors may have impact on the smoking of individuals in the target population.

1.5.4 Dependent variable

Smoking behavior: refers to the characteristic of behavior of students related to smoking in terms of smoking status, it was classified into two groups: current smokers and non smokers (ex-smoking and never smoking).

1.6 Limitation of the study

This study was conducted in the school so that, the students might hesitate to answer the real information about their smoking behavior even though a self- administered questionnaire was used. They might be afraid that their teachers would know their answers.

CHAPTER 2
LITERATURE REVIEW

2.1 Theoretical models

This study has adopted the Precedes Model of predisposing factors, enabling factors and reinforcing factors in the conceptual frame. These there as the appropriate variables that will allow the researcher to illustrate and the deriver from the study findings on how smoking behavior in the target population can be changed through knowledge and healthy practices they directly related to the degree of active participation of the clients. Health education is considered to be the most effective intervention for properly diagnosed problems in a target population.

Currently, the best know and most widely use model for health promotion programming is the **PRECEDE-PROCEED** model. The words proceed is synonymously used in this study with the following approaches or is an acronym to Health Education and health promotion or is an acronym for: predisposing, reinforcing, and enabling constructs in education/ecological diagnosis and evaluation. The model was used by researches in the health profession and has been the basic for many professional projects. It has been received because it is theoretically grounded and comprehensive in nature. The predisposing factors include knowledge, attitude, and perception which facilitate or hinder a person's motivation to change and can be altered through direct communication. The enabling factors are the barriers or vehicles created mainly by the society or system which include availability and accessibility of resources, referrals to appropriate providers, enactment of roles and regulation, and the development of skills.

These factors make a change in the environment possible according to what that people want. (Green & Kreuter, 1999). Reinforcing factors comprise the different types of feedback and rewards that those in the target populations receive

after behavior change, which may either encourage or discourage the continuation of a certain behavior. Reinforcing factor included but not limited to, family, friends, peers, and teachers self and others control rewards. Social benefit – included recognition, physical benefits such as convenience, comfort, relief of discomfort, or pain; tangible rewards such as economical benefits or avoidance of cost, association with an admired person who demonstrates the behaviors, all reinforcing behavior (Green & Krueter, 1997) (12).

The World Health Organization (WHO) has reported that around 300 million people around the globe suffer from asthma, and this number is rising. Asthma is not just a public health problem for the industrialized countries, in developing countries; however, the incidence of the disease varies greatly. India has an estimated 15–20 million people who suffer from the condition; in the Western Pacific Region of WHO, the incidence varies from over 50% among children in the Caroline Islands to virtually 0% in Papua New Guinea. In Brazil, Costa Rica, Panama, Peru and Uruguay, prevalence of asthma symptoms in children varies from 20% to 30%.

However very little has been published about asthma status in the WHO Eastern Mediterranean Region, including the Islamic Republic of Iran. There are a few reports regarding Iranian Reported prevalence of asthma and asthma-like symptoms are higher in industrialized countries than in developing countries. According to a WHO fact sheet, about a third of the adult male global population smokes (7). Smoking-related diseases kill 1 in 10 adults globally, and cause 4 million deaths annually. By 2030, if current trends continue, smoking will kill 1 in 6 people. Smoking is on the rise in the developing courtiers in the world but falling in the more developed nations. Among Americans, smoking rates decreased by nearly half from the mid-1960s to the mid-90s, falling to 23% of adults by 1997. In developing countries, tobacco consumption is rising by 3.4% per year. In the Islamic Republic of Iran, self-reported prevalence of smoking is 18.7%–26.0% in men and 1.3%–3.6% in women (13)

Despite recent declines in overall smoking rates, smoking-related disease and mortality among women are increasing, especially among women who are socio economically disadvantaged. Women typically begin and continue smoking during their childbearing years, and this has a substantial effect on the health of their children. Studies have shown that many low-income women understand the negative consequences of their smoking for themselves and their children, and are interested in quitting.

Physicians who are caring for young patients have the opportunity during the visit to assist a child's parents in smoking cessation. A recent study found that significant numbers of pediatricians discuss with the parents of their patients the health issues related to secondhand smoke for the children and offer advice on how to stop smoking. Unfortunately, the survey also found that rates of providing any additional support for smoking cessation were low. Curry and associates evaluated a smoking cessation intervention for women who presented with their children to a pediatric clinic serving low-income families (14).

Social and environmental factors that include certain types of individual behavior (smoking overeating),failures of social organization (loneliness), economic factors(poverty), because health oriented behavior does not pertain just to those activities concerned with recovering from disease injury. Living a healthy lifestyle and maintaining one’s own health in the process has become an increasingly important component of life many people (15).

Cigarette smoking for a large number of people over the world is an every day activity. However, the attitude towards smoking is changing over the time (Markle & Troyer, 1979). The change in attitudes is attributed to factors such as male's masculinity, and women's independence and liberation, gender differences, public awareness, and socialization, the use of tobacco at wars, advertisement, anti-smoking forces, and medical facts about smoking. Cigarette smoking can be seen as social problem which provides a potential area for research. Smoking is harmful for self and for others. Smokers have been labeled as polluters of food and air. Some places are

smoking free places (food factory, doctor) (Markle, Troyer, 1979). Cigarette smoking accounts for cancer deaths more than any other factor not only for smokers but also for passive smokers (Higgmson, Muir and Munoz, 1992) (16).

We also distinguish health education from other change strategies that may be excessively permissive, legal, or coercive. Behavioral changes resulting from education are by definition voluntary and freely adopted by people, with their knowledge of alternatives and probable consequences. Some behavior change strategies my have unethical components. Behavior modification techniques, qualify as health education only when people freely request them to achieve a specific behavior result, such as controlling eating or smoking habit, that they desire and four kinds of behavior or health-related habit that are or can be harmful: tobacco use, alcohol misuse, drug misuse, patter eating patterns, these patters of behavior are termed lifestyle. Life-style and habits smoking and heavy drinking both reduce life expectancy (17).

2.2 Literatures regarding the outcome variable

Many other patterns of behavior and lifestyle also contribute to population mortality and morbidity. More than 40.000 people are killed and approximately 2 million people are injured annually in vehicular accident in the United States and 450.000 deaths a year in the United States are caused by consumption of tobacco products. The long-term effects of tobacco consumption on a society’s mortality experience is a very complicated issue, it is illustrates the dramatic decline in cigarette smoking in the United States since 1965.

Although epidemiological evidence implicating tobacco products in various forms of cancer, coronary artery disease, cigarette consumption has declined as a result of heightened public awareness of health risk, increasing taxation, regulation, particularly of advertising (18). Swan and colleagues analyzed more than 20 studies of smoking behaviors in monozygotic and dizygotic twins. They found consistent evidence of genetic influences governing the developmental stages of smoking

(initiation, maintenance, cessation), smoking intensity (light to heavy), as well as for level alcohol consumption (19).

Health is not only a biomedical problem but one which influences the interaction of social, culture, psychological , economic and political factors whit the health behavior of people .The most common type of HBR in South East Asia are studies of the knowledge, attitude and practices of patients. Survey may be used to learn what people believe about hazards of tobacco use related to oral cancer. To ask the question what do people think?'' is certainly step one, but step two must be to ask'' why do people think that?'' further probing will help as to understand cause of behavioral changes. The prevalence of smoking, the age pattern of initiation of smoking, and factors associated with current smoking status among 15–19 year olds in five Asian societies, using data from large-scale youth surveys. The life-table method is used to examine the age pattern of initiation of smoking and logistic regression is used to examine factors associated with current smoking status (20).

However some studies indicate that concerns with the health consequences of smoking have not had a greater influence on women's smoking than on men's smoking. Also health related motivations have not made a substantial contribution to gender differences in smoking. One of specific is that increases in women's employment have contributed to increases in women's smoking, because employed women have been exposed more to world of men's and habits. Employed women have been less subject to conventional constraints on women's behavior, and have had more access to the money with which to buy cigarettes and many societies men have had greater power and freedom of behavior and social proscriptions against women's smoking appear to have been related to more general restrictions on women's behavior (21).

The onset of adolescents smoking has been studied in terms of recent smoking behavior. Adolescent smoking behavior is usually categorized into three categories: non smoker, experimenters, and regular smokers. However, nonsmoking adolescents can also be categorized into different groups, based on their cognitive characteristics.

In another studies three components of social influence and smoking behavior were assessed with regard to parental influence and peer influence: perceived social norm, perceived social pressure, and perceived smoking behavior (22).

The role of peer effects in teenagers' smoking behavior in the United States. Present a random utility model that incorporates complementarily between individual and peer smoking. A Markov process model of smoking interactions between individuals is presented. Estimate the structural parameters of the model using a steady state distribution that is determined by the Markov process. The empirical results strongly support the presence of positive peer effects. Interestingly, peer interactions are found to be stronger within the same gender than across genders. The same result is found for race. Moreover, a multiplier effect is found (23).

Independent factors generally associated with smoking behavior in include:

- Being a male
- Having sibling who smoke
- Having parent who smoke
- Living with a lone parent
- Being of lower family income
- Having less negative views about smoking
- Having intentions to smoke in the future
- Either leaving high school early or not intending to finish high school

According to the American cancer society, however the motivations of smokers can be grouped into six general categories:

- Stimulation
- Handing
- Pleasurable relaxation
- Reducing negative feeling
- Habit

The social learning theory of Bandura emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reaction of others. Boundary (1977) states: Learning would be exceedingly laborious, not to mention hazardous, if people had rely to solely on the effects of their own action to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behavior is performed, and on latter occasion this coded information serves as a guide for action. Social learning theory ax plains human behavior in term of continuous reciprocal interaction between cognitive, behaviors, environmental influences.

The component processes underlying observational learning are: 1 Attention, including modeled events (distinctiveness, affective valence, complicities, arousal level, perceptual set, past reinforcement), 2 Retention, including symbolic coding, cognitive organization, symbolic rehearsal, motor rehearsal), 3 Motor reproduction, including physical capability, self-observation of reproduction, accuracy of feedback, and 4 Motivation, including external, vicarious and self reinforcement.

Because it encompasses attention, memory and motivation, social learning theory spans both cognitive and behavior frameworks. Bandura theory improves upon the strictly behavior interpretation of modeling provided by miller & Dollard (1941). Bandar work is related to theories of Vygotsky and Lave which also emphasize the central role of social learning.

Social learning theory has been applied extensively for understanding of aggression (Bandura, 1973) and psychological disorders, particularly in the context of behavior mortification (Bandura, 1969). It is also the theoretical foundation for the technique of behavior modeling which is widely used in training programs. In recent years, Bandura has focused his work on the concept of self-efficacy in a variety of contexts (Bandura 1997- 30).

The principles of social learning theory were:

1. The highest level of observational learning is achieved by first organizing and rehearsing the modeled behavior symbolically and than enacting it overtly. Coding modeled behavior into words, labels or images result in better retention than simply observing.

2. Individuals are more likely to adopt a modeled behavior if it results in an outcome they value.

3. Individual are more likely to adopt a modeled behavior if the model is similar to the observer and has admired status and the behavior has functional value (24).

Adolescent is a period of exploration. It is natural for teenagers to experiment with smoking, just as they do it other adult behavior. They spent most of their time in the family and the school. Therefore, smoking patterns of family and peer members play a role in predisposing adolescent to use cigarettes.

Beyond family and peer factors, curiosity also plays an important role in experimental smoking, compensating for poor achievement, loneliness, broken home, or other unstable conditions in their lives also play another role in some children becoming regular smokers (25).

2.3 Literature regarding the independent variables

Deaths caused by smoking are not substantially reduced by adjustment for behavioral and demographic factors associated with smoking beyond the current adjustment for age and sex**.** Epidemiology and surveillance research, conducted by the ACS was designed to take into account such factors as education, occupation, race, alcohol consumption and various dietary factors, in addition to age and sex. They found these factors produced only minor changes in the number of deaths blamed on smoking (26).

Psychosocial factors are important predictors of adolescent smoking cessation and reduction, independent of the effects of participating in the intervention. Self-efficacy for quitting, social support, and perceived benefits of quitting was related to positive short-term changes in smoking behavior. Theorists have identified a number of psychosocial factors believed to play important roles in behavior change, including attitudes, intentions, skills, self-efficacy, social norms, and intrinsic and extrinsic motivation. Although some psychosocial factors, such as social support, appear to influence both adult and adolescent (27).

Adults who lose their hearing before the age of 3 years, before they acquired facility with language (prelingually deafened), are half as likely to smoke as hearing adults, even though they have less education and lower income, factors usually associated with smoking. However, adults who became deaf later in life (post lingual deafened) smoke at about the same rate as hearing adults, according to a study supported by the Agency for Health Care Policy and Research. Sociocultural factors may play a role in these differences (28).

The variables and constructs include residential mother-daughter connectedness, self-concept, residential mother's smoking behavior, and friends' smoking behavior. All variables and constructs identified are significantly associated with smoking in white adolescent girls. Residential mother-daughter connectedness and friends' smoking behavior are significantly associated with smoking in black adolescent girls (29).

The beginning of wisdom in motivating people is to recognize what motivation is and is not. We define motivation as a state of feeling or thingking in which one is energized or aroused to perform as task or engage in a particular behavior. This definition focuses on motivation as an emotional or cognitive state that is independent of action. This focus clearly distinguishes motivation from the performance of a task and its consequences. No ICC too that motivation can be a state of either feeling or thingking, or a combination of the two. For some individuals, motivation is more a matter of feeling than thinking while, for others, the reverse is

true. Yet some primitive human recognized a cause and effect relationship between doing certain things and alleviating symptoms of a disease or improving the condition of a wound. Since there was so much that primitive humans did not understand about the functioning of the body, magic become an integral component of the belief about the causes and cures of health disorders. In fact, an uncritical acceptance of magic and the supernatural pervaded practically every aspect of primitive life cancers about health in relation to living habits, lifestyles (30).

Previous studies by Van Tuna in 1997 (7), Boupha, K in 1999 9 (24) And Kailawadoko, S in 2003. (27) Concluded that low socio-demographic status of adolescent's student was significantly associated with higher smoking behavior among this age group. The former researcher also found out that there was more smoking prevalence among more than female student, 98.75%, to 1.25% respectively for those that ever smoked, with p-value = 0.02 (35). And also, that 2.5% of student started smoking at the of 13 to 14 whereas 66.5% began at the age of 14 to 19 (31).

The most impressive record, however, has been achieved with improvements in knowledge, attitudes, and skills assumed to be important in decision making and in the subsequent development of health behavior. In this hierarchy and temporal sequencing of effects lies an implicit model that could be imposed on school health education (32).

A study on smoking behavior among Thai youth that was conducted in Thailand in 1998, concluded that the more allowance of youth had the higher the rate of smoking occurrence. This implies that the growing economical status of youths in Thailand. Does contribute to the smoking behavior among this vulnerable group (33). This problem is part emblematic of the wider process of economic and social restructuring that has affected health-care organization international (34).

The study showed the people are very aware of the health-related risk they face, but that although aware of the effects of behavior factors, such smoking drinking, drugs and exercise on their health status (35).

Advertisement and accessibility to cigarettes Smoking is now a social issue a well as a health issue. It is also apolitical and economic issue. The U.S government funds anti research programs, the other hand is providing subsidies to tobacco grower's funds and permitting massive tobacco advertising and promotional campaign (36).

Reinforcing patterns begin with having friends who are smokers. Spending time with such friends provides ample opportunities to reinforce smoking behavior. Patterns develop to have a cigarette during breaks at work, with food and beverages, and during social events such as parties. Strong correlations exist between smoking and the consumption of caffeine, alcohol, and marijuana. These patterns move smokers away from healthy and productive lifestyles (37).

In the developing countries advertisement influence the young girls to smoke. They may have a little to no knowledge about harmful affects of smoking. At present tobacco advertising in the developing countries tend to be directed at the general public although are attempts to make women as special like in China, Sri Lanka and the Philippines (38). Among young teens (aged 13 to 15), about one in five smokes worldwide:

- Between 80,000 and 100,000 children worldwide start smoking every day - roughly half of whom live in Asia.

- Evidence shows that around 50% of those who start smoking in adolescent years go on to smoke for 15 to 20 years.

- Peer-reviewed studies show teenagers are heavily influenced by tobacco advertising.

- About a quarter of youth alive in the Western Pacific Region will die from smoking (39).

In Indonesia data reported from of tobacco control network, proportion of adolescents smoking increased the followed age 5– 9 years increased percentage from 0.4 in the 2001 to 1.8% in 2004 and 80% smoker in Indonesia on 2007 smokers' age under 19 years (40). In fact, at the time when across the world smokers are reviled

and hounded into stubbing out the butts in public places, Indonesian are happily bucking the trend, health concerns be damned. Beyond the usual health warnings and high taxes, there seems to be no serious government inclination to stop them doing so. Some 60 percent of adult males acknowledge smoking, according to Synovate Indonesia, a market research organization, although only 4 percent of females do. If Synovate's figures are right, at the time when smoking is decreasing across most of the world, it is increasing in Indonesia. Some 53 percent of Indonesian males smoked in 1986, according to the World Health Organization (WHO). Female smoking has remained steady at 4 percent, although some women do regard smoking as women's liberation (41).

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research design

This study was a cross-sectional study which was to describe the related factors on smoking behavior among senior high school students. The data were collected by a self administered questionnaire.

3.2 Study population

The study population being studies was male senior high school students at SMU Negeri 6 in the Banda Aceh Municipality, Nanggroe Aceh Darussalam Province, Indonesia.

3.3 Sample size and sampling technique

Sample size Calculation

$$n = \frac{Z^2\, p.q}{d^2}$$

Where:

n = Estimated sample size

d^2 = Absolute precision value of the study, it was set at 0.06(6%)

p = Anticipated proportion of individual in the population possessing the characteristic of interest P which was equal to 0.05 was used to gain maximum sample size.

q= 1- P

$$n = \frac{1.96^2 (0.5) (0.5)}{(0.06)^2}$$

n = 267

According to calculating above the sample size for this study is approximately 270 respondents (42)

The multi-stage cluster sampling was applied to choose the respondents, the first stage simple random sampling was used to chose sub district from 7 sub districts, the research was selected one sub district (meuraxa) which has four schools. And after using simple random sampling , SMU Negeri 6 Banda Aceh was selected from 4 schools. In this study, as mention above, the respondents were male students.

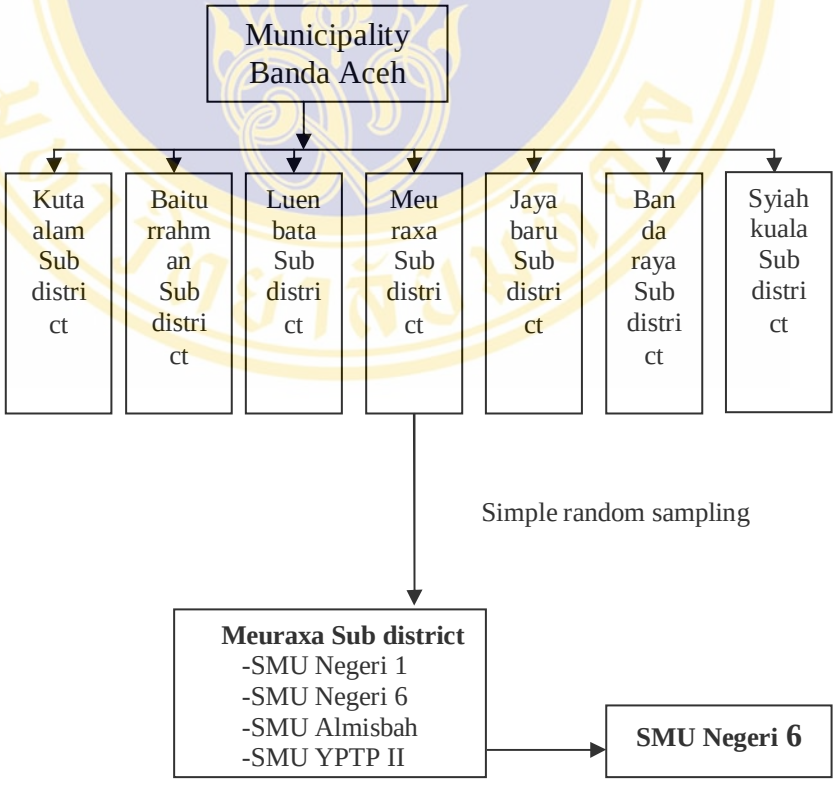


Figure area of collected data at Municipality Banda Aceh Nanggroe Aceh Darussalam province, Indonesia.

3.4 Research instrument

The Research instrument was structured questionnaires. It composes of three parts. The first part predisposing factors was asked about socio-demographic factors including age of students, parental' education and parental occupation of student's, family income, knowledge and attitude. The second part of the questionnaire was study on enabling factors related to factors availability and accessibility of cigarette. The third part of the questionnaire was reinforcement factors including family influence and neighborhood factors, advertisement factors and peer group pressure.

3.5 Data collecting procedures

Validity and reliability

The questionnaire was prepared with the consensus of AIHD thesis committee to ensure validity. It prepares in English and translates into Bahasa for the appropriate data collection. Pre-testing of the questionnaire was conducted among a sample of 30 to detect any unclear respondents statement in SMU Negeri 10 Banda Aceh. One question had been corrected in Indonesia bahasa, to make it clear to understand toward respondents. The reliability results of 10 questions for **attitude** toward smoking behavior was 0.73. I was tested by **Cronbach's Alpha test.** Regarding **to knowledge The Kuder-Richardson Formula 20** coefficient was 0.68 point.

3.6 Data analysis procedure and statistical used

After data collection, data were editted and coded before data processing using Chi-square test used to determine the relationship between student's smoking behavior and predisposing factors, enabling factors and reinforcing factors.

The Maximum question of knowledge was 8. 6 was positive question, 2 was negative questions

Knowledge

The total question of knowledge was 8 questions, which are two positive and six negative statements.

- Positive statements used in measure the items above and for interpretation was used rating scale:

Points used for correct answer was score of 1

Points used for incorrect answer was score of 0

- Negative statements used in measure the items above and for interpretation was used rating scale:

Points used for correct answer was score of 1

Points used for incorrect answer was score of 0

Scoring	Levels
< 60 %	Low
60% - 80%	Moderate
> 80 %	High

Total scores were 8 if all correction. Bloom criteria was used as a cut off point (43).

-Attitude:

The total question of attitude was 10 questions, which are two positive and eight negative statements.

-Positive statements used in measure the items above and for interpretation was used rating scale:

Agree about statements receives a score of 3

Not sure about statements receives a score of 2

Disagree about statements receives a score of 1

-Negative statement using in measure the items above and for interpretation was used rating scale:

Disagree about statements receives a score of 3

Not sure about statements receives a score of 2

Agree about statements receives a score of 1

Maximum score on attitude was from 10 to 30 points.

The resulting interpretation of knowledge and attitude among students senior high schools in Banda Aceh was classified in two levels of categories, e.g., high, moderate and low. The classification was done by using scoring below:

High	25 – 29
Moderate	16 – 24
Low	10 - 15

For scoring scale used by percentage (best criterion) (43).

CHAPTER 4
RESULTS

This study aimed to describe the patterns of cigarette smoking behavior and factors related to smoking behavior among senior high school students in SMU Negeri 6 in the Banda Aceh Municipality, Nanggroe Aceh Darussalam province, Indonesia.

A cross-sectional study was among senior high school students. A total of 270 male students responded to the questionnaire. Data were collected from January 4, 2008 to January 20, 2008 using self administered questionnaire. Chi-square test was employed for statistical analysis. Most of the results were summarized in frequencies and percentages.

4.1 Predisposing factors

Table 1 shows the socio-demographic characteristics of the students. More than one half (69.3%) of the respondents aged 16 to 17 years old and 30.7 % were 18 to 19 years old.

Regarding to father's education, the majority (58.15%) completed vocational level and only 0.37% completed diploma. The majority (73.33%) of the mother also completed vocational level and 1.11% completed diploma. Regarding to father's occupation, 32.59% was entrepreneurs and 30.37% was civil servants while the majority (75.56%) of the mothers were housewife. The majority (40.74%) earned family income per month less than Rp. 1,000,000. Around 15.19% earned more than Rp. 2,000,000 per month. Most of the students had allowance per day between Rp.8,001 to 13,000. Most of the students lived at home with their parent**s.**

Table 1 Number and percentage of the respondents by the socio-demographic factors

Socio-demographic factors	Frequency (n=270)	Percent (%)
Age group (year)		
16 – 17	187	69. 3
18 – 19	83	30. 7
Mean= 17.21 Median= 17 SD=0.76 Min=16 Max=19		
Education of Father		
No education	3	1. 11
Primary school	24	8. 89
Secondary school	19	7. 04
Vocational	157	58. 15
Diploma	1	0. 37
College	66	24. 44
Education of Mother		
No education	3	1. 11
Primary school	22	8. 15
Secondary school	27	10. 00
Vocational	198	73. 33
Diploma	3	1. 11
College	17	6. 30
Occupation of father		
Civil servant	82	30. 37
Private employee	50	18. 52
Entrepreneur	88	32. 59
Businessmen	24	8. 89
Laborer	8	2. 96
Agriculture	10,	3. 70
Others	8	2. 96

Table 1 Number and percentage of the respondents by the socio-demographic factors (cont.)

Socio-demographic variables	Frequency (n=270)	Percent (%)
Occupation of Mother		
Civil servant	30	11. 11
Private employee	7	2.59
Entrepreneur	10	3.70
Businessmen	16	8.89
Agriculture	3	1.11
Housewife	204	75.56
Average Family income per month		
≤ Rp.1, 000,000,	110	40. 74
Rp.1, 000,001 - 1, 500, 000	77	28. 52
Rp.1, 500, 001 - 2,000,000	42	15. 56
≥ Rp.2, 000,000	41	15. 19
Median=Rp.2,0000 Q.D.=Rp.1,0000 Max=Rp.4,000,0000 Min= Rp.1,000,000		
Average allowance per day		
Rp.3, 000 - 8,000	106	39. 26
Rp.8, 001 – 13,000	133	43. 26
Rp.13, 001 – 18,000	11	4. 07
Rp.18, 001 – 23,000	20	7. 41
Median = Rp.10, 000 Q.D. =Rp.25, 000 Max= Rp.20, 000 Min= Rp.3, 000		
Place of staying		
At home	231	85. 56
Rent house	30	11. 11
Others	9	3. 33
Whom students lived with		
Parents	230	85. 19
Relatives	40	14. 18
Source of student allowance		
Parents	237	87. 78
Working	33	12. 22

Knowledge of health effect of smoking

The knowledge part included eight questions which included two negative statements and six positive statements. Thus, total scores were 8 if the student could answer all correctly. The level of knowledge had been derived from the total score of each respondent according to how they could answer the question correctly. The student who obtained total score less than 60% were categorized into the low level, where as those with total score between 60% to 80% were classified into the moderate level, and more than 80% were classified into the high level.

According to each question, all respondents could answer correctly to the first question "smoking caused lung cancer". Around 96.30% of the students answered correctly to the second question "cigarette contains nicotine". Only 21.48% knew that nicotine is toxic. Only 11.48% knew that smoking does not caused brown teeth. Around 38.15% knew that smoking does not cause stomachache. Nearly all could answer that cigarettes caused bad breath. Around 89.63% knew that smoking addiction is linked to nicotine. Nearly all students knew that smoking causes heart attacks.

Table 2 Frequency distribution of knowledge level toward smoking behavior.

Knowledge level	Frequency (n= 270)	Percent (%)
Smoking causes lung cancer		
True	270	100
False	0	0
Cigarette contain nicotine		
True	260	96.30
False	10	3.70

Table 2 Frequency distribution of knowledge level toward smoking behavior (cont.)

Knowledge level	Frequency (n= 270)	Percent (%)
Nicotine is toxic		
True	58	21.48
False	212	78.52
Smoking does not cause brown Colored teeth		
True	239	88.52
False	31	11.48
Smoking does not cause stomach disease		
True	167	61.85
False	103	38.15
Bad breath is a problem with smoking		
True	258	95.56
False	12	4.44
Addiction smoking is linked to nicotine		
True	242	9.63
False	28	10.37
Smoking is a cause of heart attacks		
True	260	96.30
False	10	3.70

Regarding to knowledge level of the students, Table 3 indicates most of the students had good knowledge.

Table 3 Frequency and percentage of knowledge level toward smoking behavior.

Knowledge level	Frequency (n= 270)	Percent (%)
High (score 5.3 – 8)	150	55.55
Moderate (score 2.6 – 5.2)	111	41.11
Low (score 0 – 2.5)	9	3.33

Attitude toward smoking behavior

Ten items pertaining to attitude toward smoking behavior were included in the study. The ten questions included two positive statements and eight negative statements.

Table 4 shows the majority (58%) of the respondents disagreed with statement "smoking feel like a man" while 33.7% of them agreed. Majority (73.33%) of the respondents disagreed with the statement "smoking make feel stronger" while only 10.74% of them agreed. Majority (51.11%) of students agreed with the statement "smoking always release your anxiety" and 33.33% disagreed. Surprisingly, 39.63% agreed with the statement "smoking makes more confidence" while 39.26% disagreed and 22.11% was not sure.

Around 39.26% of the respondents disagreed with the statement "smoking restores self confidence" while 24.81% agreed and 35.93% was not sure. Most (45.93%) of the respondents disagreed with the statement "stop smoking is difficult" while 30% agreed and 24.07% was not sure. The majority (44.44%) disagreed with the statement "weak law enforcement is good" while only 22.22% agreed and 22.22% was not sure. Surprisingly, most (66.30%) of the students agreed with the statement, "most teenagers smoke because they think they are grown up adults" while only 20.74% disagreed. The majority (69.63%) agreed to the statement "quit smoking required a lot of effort". More than half (57.78%) of the respondents disagreed with

the statement “more severe Penalty should be given to those who do not follow anti smoking laws” while 32.22 agreed (Table 4).

Table 4 Frequency distribution of attitude toward smoking behavior

Attitude	Frequency (n=270)	Percent (%)
Smoking feels a real man		
Agree	91	33.70
Not sure	22	8.15
Disagree	157	58.15
Smoking makes stronger feeling		
Agree	29	10.74
Not sure	43	15.93
Disagree	198	73.33
Smoking always release your anxiety		
Agree	138	51.11
Not sure	42	42.15
Disagree	90	33.33
Smoking makes more confidence		
Agree	107	39.63
Not sure	57	22.11
Disagree	106	39.26
Smoking restores self confidence		
Agree	67	24.81
Not sure	97	35.93
Disagree	106	39.26
Stop smoking is difficult		
Agree	81	30.00
Not sure	65	24.07
Disagree	124	45.93

Table 4 Frequency distribution of attitude toward smoking behavior (cont.)

Attitude	Frequency (n=270)	Percent (%)
Weak law enforcement is good		
Agree	60	22.22
Not sure	90	33.33
Disagree	120	44.44
Most teenagers smoke feeling more adults		
Agree	179	66.30
Not sure	35	12.96
Disagree	56	20.74
Quit smoking requires a lot of effort		
Agree	188	69.63
Not sure	50	18.52
Disagree	32	11.85
More severe Penalty should be given to those who do not follow anti smoking laws		
Agree	87	32.22
Not sure	27	10.00
Disagree	156	57.78

The level of attitude had been derived from the total score of each respondent according to how the respondent chose one of three choices: agree, not sure and disagree toward the question asked on attitude of smoking behavior. The total score was 30 if they could answer all the questions correctly. The score of 24-30 was considered as high level, the score of 17-23 was moderate level and the score of 10-16 was low level.

The attitude level toward smoking behavior in this study indicated the there was 11.85% of the respondent had good attitude while 52.59% had poor attitude and 35.55% had fair attitude (Table 5).

Table 5 Frequency distribution of attitude level toward smoking behavior

Attitude level	Frequency (n=270)	Percent (%)
Good (score 25 – 29)	32	11.85
Fair (score 16- 24)	96	35.55
Poor (score 10 – 15)	142	52.59

4.2 Enabling factors

According to the results, the availability and accessibility of cigarette in terms of source and distribution, Majority (88.55%) of the students replied that it was very easy to by cigarette because they could buy any where. There was 11.44 percent told that it was not easy to buy.

The respondents thought that they could buy cigarettes from local shop near home (30.12%), street vendor (35.54%) and other places (31.93%). Majority of the respondents got cigarettes from friends at school and near by home (86.75%).

Based on the study finding above, the researches classified the answer in to categories which are, the first cigarette was selling any were place, the second they was answer there money cigarettes provide, the third their were answer depends of money (table 6).

Table 6 Distribution of students smoking behavior by accessibility and availability to a cigarette smoke.

Availability and accessibility	Frequency (N=166)	Percent (%)
Buying cigarette is easy		
Yes	147	88.55
No	19	11.44
Always buy your cigarette		
At local shop near home	50	30.12
Around school	4	2.41
At street vendor	59	35.54
Others	53	31.93
How to get of cigarette		
-My friends at school	69	41.57
My friend near home	75	45.18
Older friends	22	13.25

4.3 Reinforcing factors

4.3.1 Advertisements factors

The results on the study revealed that 87.04% of the smokers mentioned that cigarette advertisement does have many effect on smoking behavior, more than half of the respondents (60.37%) indicated that cigarette advertisement should total banned. More than half (52.96%) of the smoker indicated if cigarette advertisement is banned, smoking behavior can be reduced. Three fourths of the smokers indicated smoking advertisement is bad for young children (Table 7).

Table 7 Distribution of students by cigarette advertisements

Cigarette advertisements	Frequency (n=270)	Percent (%)
Cigarette advertisements does have many effects on smoking behavior		
Yes	235	87.04
No	35	12.96
Smoking advertisements play an important role in smoking among students		
Yes	144	53.33
No	126	46.67
Smoking advertisement should be Totally banned		
Yes	163	60.37
No	107	39.63
If cigarette advertisements were banned, Smoking behavior will be reduced		
Yes	143	52.96
No	127	47.04
Smoking advertisements bad for young Children		
Yes	201	74.44
No	69	5.56

4.3.2 Peer groups pressure

Regarding to peer group pressure, the results of the study showed that the majority (87.41%) of the respondents mentioned they have friends who smoke. More than one fourths (39.18%) of the respondents indicated that the caused of smoking was peer group at home and 37.31% caused by peer group in school. Around 38.55% of the students stated that friends make them continued smoking and 20.48% of them caused by relative pressure at home. The minority (31.48%) of the

respondents stated that if they didn't smoke they were not get acceptance in their peer group (Table 8).

Table 8 Percentage and frequency of students by peer group pressure toward smoking behavior.

Peer group pressure	**Frequency (n=270**	**Percentage (%)**
Do you have friends who smoke		
Yes	236	87.41
No	34	12.59
What your reason caused for every body smoking		
Peer group in school	100	37.31
Peer group around home	105	39.18
Parents smoking	2	0.75
Adult smoking	59	22.01
Others	2	0.75
Why you have continued smoking		
Friend make me smoke	64	38.55
Parents smoking	2	1.2
Relieves pressure at home	33	20.48
I just like to smoke	12	7.22
Smoking makes me feel like an adult	44	26.50
Others	10	6.02
If you don't smoke, you will not get Acceptance in your peer group		
Yes	85	31.48
No	185	68.52

4.3.3 Family and neighbor influence factors

The results of the study showed 68.89% of the respondents indicated that there were fathers and cousins smoked. More than half (59.63%) of the respondents indicated that there were adults smoking at home. Around 31.48% of the people lived around their residence who smoked. Only 26.67% mentioned that their parents were the model of smoking behavior (Table 9).

Table 9 Frequency and percentage of family and neighbors influence toward smoking behavior

Family and Neighbors influence	Frequency (n=270)	Percentage (%)
Do you Father /Mother/Cousin Smoke		
Yes	186	68.89
No	84	31.11
Does any adult at home smoke		
Yes	161	59.63
No	109	40.37
Do people living around your home Except your Mother and Father smoke		
Yes	85	31.48
No	185	68.52
Your parents are the model of smoking		
Yes	72	26.67
No	198	73.33

4.4 Smoking behavior

Regarding to smoking behavior, the results showed that 17.41% of the respondents smoked everyday while 44.07% of them smoked sometime and 38.52% did not smoke. The reasons for not smoking were as follows: 1) smoking caused many diseases, 2) smoking caused economic disadvantage, 3) smoking caused brown

colored teeth and bad breath, and 4) smoking not useful for themselves. Table 10 shows around 45.78% of the respondents indicated that they liked to smoke when they were with their smoking friends and 43.98% of them liked to smoke after eating. Most of the respondents stated that they smoked 1 to 5 cigarettes per day.and 11 to 15 cigarettes was 5.56%. Around 59.04% of the smokers spent Rp.1000-5000 for cigarettes per day and 36.75% of them spent Rp.6.000-10,000. The majority (76.36%) of them first smoked cigarettes at the very young age (10-15 years).

Table 10 Frequency and percentage of the respondents toward of smoking behavior

Smoking behavior	**Frequency (n=270)**	**Percentage (%)**
Current smoking status		
Yes, but not every day	119	44. 07
Yes, every day	47	17.41
No	104	38.52
Time for smoking		
During the break	16	9.64
After eating	73	43.98
Wake up in the morning	1	0.60
With your smoking friend	76	45.78
Cigarette consumption a day		
1 – 5	87	52.41
6 – 10	43	25.90
11 – 15	15	9.04
16 – 20	21	7.78
Median= 5.0 Q1=3.0 Q3=10.0 Q.D.= 3.0 Max= 20 Min=1		

Table 10 Frequency and percentage of the respondents toward of smoking behavior (cont.)

Smoking behavior	Frequency (n=270)	Percentage (%)
Spend money for cigarette per day		
Rp.1000-5000	98	59.04
Rp.6000-10.000	61	36.75
Rp.11.000-15.000	7	4.22
Median=Rp.5,000 Q.D. =Rp.3,000 Max =Rp.15,000 Min= Rp.1,000		
Age at first smoking cigarette		
10 – 15	127	76.51
16 – 21	39	23.49
Median=15.0 Q1=14.0 Q3= 15.0 Q.D. =0.5 Max=18 Min=10		

4.5 Association between smoking behavior and predisposing factors

The results showed that the students aged 16-17 years smoked more than those aged 18-19 years. There was no statistically significant association between smoking behavior and age.

According to parent's education and occupation, the Chi-Square test failed to detect any significant association. The family income per month revealed that the smoking students earned more income than non-smokers. There was no significant association between income levels of parents and smoking behavior.

This study also indicated that the students who rent a house smoked more than those who lived at home. However, there was no statistically significant association between smoking behavior and living place of students. The students who lived with parents smoked less than those who lived with their relative. However this association was found to be not significant. According to the allowance of students per day, the

result showed there was no significant association between allowance per day and smoking behavior (Table 11).

Table 11 Association of smoking behavior and predisposing factors.

Predisposing Factors	Smoking behavior				Chi-square test	p-value
	Smokers		Non-smokers			
	n=166	%	n=104	%		
Age group (yrs)						
16- 17	116	62.03	71	37.97	0.078	0.780
18 – 19	50	60.24	33	39.76		
Education of Father						
University/college	40	61.61	26	39.39	1.319	0.517
Secondary school, Vocational&, Diploma	112	63.28	65	36.72		
No education, primary School	14	51.85	13	48.15		
Education of Mother						
University/college	40	61.61	26	39.39	1.319	0.517
Secondary school, Vocational&, Diploma	112	63.28	65	36.72		
No education, primary School	14	51.85	13	48.15		
Occupation of Father						
Civil servant	52	63.41	30	36.59	3.090	0.543
Private employee	32	64.00	18	36.00		
Entrepreneur	50	56.82	38	43.18		
Businessmen	13	54.17	11	45.83		
Laborer, agree culture, other	19	73.08	7	26.92		

Table 11 Association of smoking behavior and predisposing factors (cont.)

Predisposing Factors	Smoking behavior				Chi-square test	p-value
	Smokers		Non-smokers			
	n=166	%	n=104	%		
Occupation of Mother						
Civil servant	16	53.33	14	46.67	2.844	0.416
Private employee	13	76.47	4	23.53		
Business, entrepreneur	11	68.75	5	31.25		
Agriculture/laborer	126	60.87	81	39.13		
House wife/others						
Family income per month						
< Rp.1, 000,000,	66	60.00	44	40.00	0.194	0.979
Rp.1, 000,000 –1, 500, 000	48	62.34	29	37.66		
Rp.1, 600, 000 - 2,000,000	26	61.90	16	38.10		
>Rp.2, 000,000	26	63.41	15	36.59		
Place of staying						
At home	140	60.61	91	39.39	1.127	0.569
Rent house	19	63.33	11	36.67		
Others	7	77.78	2	22.22		
Whom students live with						
Parents	138	60.00	92	40.00	1.439	0.230
Relative	28	70.00	12	30.00		
Who paid for allowance						
Parents	144	60.76	93	39.24	0.427	0.514
Self working	22	66.67	11	33.33		
Average allowance per day						
Rp.3, 000-8,000	70	66.04	36	33.96	7.123	0.068
Rp.8, 001- 13,000	83	62.41	50	37.59		
Rp.13, 001- 18,000	6	54.55	5	45.45		
Rp.18.001- 23,000	7	35.00	13	65.00		

The results of this study indicated that the students who had low knowledge about health effect of smoking smoked more than those who had high knowledge. The percentage distribution indicated knowledge plays an important role toward smoking behavior **(**Table 12**)**. However, the results of statistical test showed there was no significant association between knowledge level and smoking behaviors.

Table 12 Association between smoking behavior and predisposing factors among total number of respondents. (n=270**)**

Knowledge	**Smoking behavior**				**Chi-square test**	**p-value**
	Smokers		**Non- smokers**			
	n=166	**%**	**n=104**	**%**		
High (5.3 – 8)	95	63.33	55	36.67	4.118	0.128
Moderate (2.6 – 5.2)	63	56.76	48	43.24		
Low (0 – 2.5)	8	88.89	1	11.11		

Table 13 shows the students who had poor attitude smoked more than those who had good attitude. The results showed a significant association between attitude and smoking behavior (p-value=0.009).

Table 13 Association of smoking behavior and attitude among total number of respondents.

Attitude	**Smoking behavior**				**Chi-square test**	**p-value**
	Smokers		**Non- Smoker**			
	n=166	**(%)**	**n=104**	**%**		
Good (25 – 29)	13	38.24	21	61.76	9.375	0.009
Fair (16 – 24)	59	62.11	36	37.89		
Poor (10 – 15)	94	66.67	47	33.33		

4.6 Association between reinforcing factors and smoking behavior

The results showed the students who exposed to lots of cigarette advertisement smoked more than those who exposed less. However, the results showed significant association between cigarette advertisement and smoking behavior (p-value= 0.012) (Table 14).

Table 14 Association of smoking behavior and advertisements factors among total number of respondents. (n=270)

Advertisements	Smoking behavior				Chi-square test	p-value
	Smokers		Non- Smokers			
	n	%	n	%		
High	44	78.57	12	21.43	8.858	0.012
Moderate	86	60.56	56	39.44		
Low	55	76.39	17	23.61		

The results of the study showed that the students who had smoking friends smoked more than those who did not have. The results indicated that there was significant relationship between having smoking friends and smoking behavior of students (p-value =0.001).

Regarding to the reason of smoking, the students who had peer group pressure on smoking smoked less than those who had other reasons. However, the results showed there were significant association between the reason of smoking and smoking behavior of the students (p-value=0.001).

Table 15 shows 67.35% of the students who smoked mentioned “if they don’t smoke they won’t get acceptance by peer group” while 54.47% who did not care about this issue smoked. There was significant association between peer acceptance and smoking behavior of the students (p-value=0.030).

Table 15 Association of smoking behavior and peer group pressure factors among Total number of students

Peer group pressure	Smoking behavior				Chi-square test	p-value
	Smokers n=166	(%)	Non-Smokers n=104	(%)		
Friend Smoke						
Yes	164	69.49	72	30.51	50.775	0.001
No	2	5.88	32	94.12		
The reason of smoking						
Peer group	103	50.7	100	49.3	39.86	0.001
Others	63	94.0	4	6.0		
Peer acceptance						
Yes	99	67.35	30	35.29	4.688	0.030
No	67	54.47	56	45.53		

The results showed that the students who had smoking fathers/adults smoked more than those who did not have. However the Chi-square test showed no significant relationship between smoking fathers/adults and smoking behavior of the students.

Higher percentage of the smokers found among the students who had smoking people living around them. However, the association was not significant. Surprisingly, the students who did not have the parents as a model of smoking smoked more than those who had. However, the association found to be not significant (Table 16).

Table 16 Association of smoking behavior and family influence, neighbors factors among total number of respondents. (n=270)

Family influence and Neighbor	Smoking behavior				Chi-square test	p-value
	Smokers		Non-smokers			
	n	%	n	%		
Smoking father						
Yes	117	62.90	69	37.10	0.510	0.475
No	49	58.33	35	41.67		
Smoking adults						
Yes	58	68.24	27	31.76	2.389	0.122
No	108	58.38	77	41.62		
People living around smoke						
Yes, a lot	58	68.24	27	31.76	2.389	0.122
No	108	58.38	77	41.62		
Parent's model of smoking						
Yes	40	55.56	32	44.44	1.456	0.228
No	126	63.64	72	36.36		

In summary, the following factors significantly related to smoking behavior in the study: attitude, advertisement, smoking friends, smoking peer group and acceptance from peer (Table 17).

Table 17 Significant association between smoking behavior and independent variables.

Factors	Chi-square test	P-value
Attitude toward smoking behavior	9.375	0.009
Advertisement toward smoking behavior	8.858	0.012
Smoking friends	50.775	0.001
Smoking peer group	45.408	0.001
Acceptance	4.688	0.030

CHAPTER 5
DISCUSSION

A cross sectional study was conducted among 270 male students to identify relationship between smoking behavior and the study factors among students senior high school of SMU Negeri 6, at Banda Aceh. Smoking can cause lung cancer and health problems.

The factors included in this study many were students studying at senior high school SMU Negeri 6, at Banda Aceh. Predisposing factors included age, parental education, and parental occupation, and family income, place of staying, knowledge and attitude.

5.1 Association between predisposing factors and smoking behavior.

In this study a slightly over two-third (68.89%) of the smokers was 16 – 17 year of age. It was higher than the students who were non smoker. The results showed a non significant association between the age of smokers and smoking behavior. The reason can be the range of the age was very close and the percentage was not too much difference much different.

Majority of parents' education have completed their vocational school. The parent's level of educational was inversely proportional with the smoking behavior. However, there was no significant relationship between the two groups.

There was a contrary to different culture, socio-demographic and life style, with other previous studies in these, there was a significant association between smoking status among age group, and it was found that the highest number of physicians was between the age group from 22-35 were 49.7% but smoking

prevalence was found in this group which was 3.8% while compared to 24.5% and 39.3% of age group 36-45 and more than 46 years representatively.

Regarding to parents education there was no significant relationship between smoking behavior of the students and parents education (p-value=0.517). There have another factors influence for the students smoking, for example friends smoking, life style and environment. Previous study showed that, there was no statistical significant different between the relationship of student's smoking behavior and parents education. This finding was consistence with family life and smoking in adolescent by Anthony Gledinning et all in 1997(44).

The result in this study indicated the is no significant association between family income and smoking behavior of students (p=0.979). A previous study results showed that family income could not predict the smoking behavior of the students. This does not comply with the research assumption. One reason for the occurrence is the skew ness of the information. When calculating the Pearson Product Moment Correlations Coefficient the data should have normal distribution. This maybe cause there was no correlation between family income and smoking behavior. But, this study found that the average income per month among the smokers was higher than non smokers.

As study result show that 11.5 percent of the smokers worked after school for extra income. This extra money can offer them to buy cigarettes. This is consistent with the study of Khunarsa (1998) that the students who earned income more than Rp.3, 000 baths per month showed smoking behavior than other who gained less income. More money made them be capable to buy more cigarettes. That can say income of students is a factors having more influence on the smoking behavior of the students than family income (45).

From the previous study results showed, contradicted less education and lower income, factors usually associated with smoking. However, adults who became deaf later in life smoke at about the same rate as hearing adults, according to a study

supported by the Agency for Health Care Policy and Research. Steven Barnett, M.D., and Peter Franks, M.D., of the University of Rochester **(**4**6).**

Knowledge level on smoking behavior indicated did not have a significant association between smoking behavior and level of knowledge among total number of students in this study (p=0.183). A previous study found there was no statistical significant difference between the levels of knowledge toward smoking behavior. B.M.C. Dassanayake reported on significant association could be found between the knowledge levels and students smoking status, although the percentage of ex-smoking and current smokers were low among those with high level knowledge **(**47).

This finding was consistent with findings of previous. It has been noticed that health knowledge had less effect on habitual smoking behavior. Concerning the findings of this study about knowledge on smoking behavior in the target population, we can conclude that health education on anti-smoking programs should be intensified in schools in order to successfully accomplish better results (48**).**

The results showed that attitude toward cigarette smoking behavior through smoking intention had a significant and positive directly influence on the smoking behavior among students senior high school (p=0.009). The previous study investigated on-going changes in the attitudes towards cigarette smoking. It examined changes in the attitudes of both students and employees for tow periods of time 1991 and 1995. It consisted of 417 males (54.58%) and 347 females (45%). A total of 35% of the sample were smokers. It was made up of more than half males (59%) and (9%) of them females. Findings show a significant increase in opposing cigarette smoking for males and female in 1995 compared to 1991(49).

A previous study found that attitude toward cigarette smoking through smoking intention had a significant and influence on smoking intention for three models, including the overall model for males and the model for females. This means that adolescent with more positive attitudes toward cigarette smoking behavior had

higher levels of intention to smoke. Adolescent who view smoking cigarettes as a positive behavior may have more opportunity to smoke cigarettes. These findings were consistent with those of Meier (1991), Spear and Akers (1988) in Piko (2001), O'Callaghan, Callan, and Baglioni (1999), Hanson (1997), and Sroytong (1999), which found that a more positive attitude toward smoking was related to an increased intention to smoke cigarettes. Thus, an attitude was consistently positively related to smoking intention. These results as similar for male and female adolescents for the following reasons.

The first reason is the because most of adolescent influence of environment, they possibly had the same perspective about smoking cigarettes due to their common lifestyle everyday. The media such as the television, the radio, and the internet seem to function effectively. The information of cigarette was provided to this target population by several media.

The second reason is that age range of both genders was similar, 14-20 years. Therefore, during this period, male and female adolescents may similar attitudes toward intention to smoke. In this period, adolescent more are interested in peer relationships, and even to the opposite sex in a convenient situation. And the opposite sex. Furthermore, they are often concerned with schools, grades, and future career plans as the transition into young adulthood. This causes them to because more independent in their decision-making and lifestyle behavior.

The third reason is the adolescent, smoking intentions can often be predicted from their beliefs about the consequences of smoking and their values on attaining these consequences (Bauman, Fisher, Bryan, & Chenoweth, 1984; Chassin, Presson, Sherman, Corty, & Olshavsky, 1984 in Chassin, Presson, Rose, & Sherman, 2001). The finding elicits that adolescent did not identify that smoking cigarettes was a cause of illness. There was some difference finding from hansom's study. First of all, adolescent in Hanson' study identified that beside lung cancer and lung disease, many illnesses such as heart disease and oral cancer etc, resulted from smoking.

In 2001, Piko identified through factors analysis five dimensions of attitudes toward smoking among adolescent in Canada: antismoking attitude, liking attitude, worrying attitude, disliking attitude. Of all these attitudes, antismoking attitude proved to be the most important factor influencing cigarette smoking in girl compared to boy. The differing results of the attitude dimension from Piko's study and the current one may be caused by two reasons. First, there are culture differences between Thailand and Canada; especially see their own culture as the standard and evaluated other cultures according to their similarity to their own culture (triandis, 1997, P154). Piko.B. Smoking in adolescent do attitude matter addictive Behavior (50).

The current study focused on Bangkoki adolescent Metropolitan high schools, which were the same ages between 14-20 years. Attitude toward cigarette smoking behavior wy not be the same between males and females, and the measure of intention acted as a cognitive mediator with males adolescents. Differences based on personality characteristics and socioenvironmental factors my provide important information in evaluating the prevalence of smoking. However, the TPB theory did not account personality factors in the model. This might be a limitation of this theory. The socioenvironmental factors were assumed to be a function of normative belief which constitutes the underlying determinants of subjective norm (51).

5.2 Association between reinforcinng factors and smoking behavior

Regarding this study showed that there was no significant relationship between smoking behavior and family or neighbor who was smokers. However in the case of smoking behavior family as important role toward children. Previous study showed there was not significant different between feeling of respondent on relationships with family member's among no-smokers and smokers in urban school. However, in rural school, the proportion of non-smokers who had strongly perceived about relationship among family members was higher than those of smokers (52).

The results of this study indicated there is significant association between peer groups pressure factors toward smoking behavior among students senior high school

(p=0.000). This study showed that friends were important toward influence to smoking of the respondent (30.12%). Previous study showed that friends' smoking had a positive correlation with smoking behavior of the students with statistical significance. In other words friends' smoking is related to smoking behavior, and friends' smoking can predict the smoking behavior of the students. Smoking friends can increase smoking behavior (36.6%).

The relative influence of adolescents closest friends and their friendship group on their cigarette smoking and alcohol use was investigated in a short-term, longitudinal study of 1,028 students in the 6th, 8th, and 10th grades in 2 school systems. The amount of influence over the school year was modest in magnitude and came from the closest friend for initiation of cigarette and alcohol use. Only the friendship group use predicted transition into current cigarette use, friends independently contributed to the prediction of adolescents' cigarette smoking (53).

This finding supports the research assumption and it could explain the student in early adolescent was very important. They concerned about missing out on fun or have problems with friends and losing friends and attempted to imitate the behavior of the group for the acceptance become one of the groups, friends could influence or be challenge or support them at this period. A previous study indicated that the friends had a clear influence to smoking of the respondent and (38.2%) of the respondents admitted that self initiation was the cause of their smoking habit. And only (2.9%) of them mentioned that it was due family members. Majority of the respondents having of model smoking from their friends (54).

Another study results indicated that the statistical Chi-square test found a significant difference on friends who smoke and the smoking status among students. This indicated that smoking status of students according to this study does have a significant relationship with peer friends who smoke. When students were about whether they had many friends who smoked, almost one third of smokers mentioned that they also had friends who smoked (32.0%). And more than three fourth students who where no-smokers indicated that they had no friends that smoked (85.2**%) (**55**).**

Bagozzi (1986) makes a similar point in his analysis of the facilitating role of advertising on the smoking behavior of adolescent. Also, new smokers are a small proportion of total smokers. We know that incremental changes in advertising expenditures are unlikely to alter the amount smoked for existing smokers; someone smoking a pack per day is not likely to move to one and a half packs per day. So, even substantial effects on smoking initiation would be swamped by the absence of effects on the larger group of existing smokers.

This could lead such statistical analyses to conclude that advertising effects in expanding the market for cigarettes were weak. Unless tobacco companies were willing to provide data which allowed statisticians to isolate the effects of advertising and promotion on first- time smokers and particular population subgroups (e.g., adolescents), most econometric studies will be insensitive to the otherwise masked effects on smoking initiation. Advertising plays an important role in attracting new replacement customers (56).

CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 Conclusion

A cross-sectional study describing the related predisposing factors included socio-demographic; knowledge, attitude, enabling factors and reinforcement factors and the association between these variables. Socio-demographic factors includes age, fathers education, mothers education, father occupation, mother occupation, family income, place stay of students and The enabling factors includes availability and access ability. The reinforcement factor includes advertisement, family influence and neighbor and peer pressure group between smoking behaviors. The sample size is 270 of respondents. The study was chose only male respondents. The targets of population on this study were senior high school students SMU Negeri 6 in Banda Aceh NAD Province, Indonesia in the 2008.

The Research instrument used was structured questionnaires. The instrument used for data collection was self administrated questionnaires which were consisted It composes of three parts. The first part for predisposing factors, the second part for enabling factors and the third part of the questionnaire is reinforcement factors and smoking behavior. The reliability knowledge factors were 68 and attitude 73 point. Self administered questionnaire was distributed during January 4 – 20, 2008.

Statistical analysis of the data showed frequencies, percentages, mean and standard deviation. Chi-quire analysis was applied to measure the association between respondents' smoking behaviors (as dependent variable) and predisposing factors, enabling factors and reinforcement factors as independent variable. Based discussed on the results of the study and interpretation, the conclusion concerning these factors are discuses below.

Predisposing factors

The results of the study showed the attitude high level of students smokers is 38.24% compared by non-smokers students 61.76%, the attitude moderate level of students smokers 62.11%, compared by non-smokers 37.87%, the attitude low level students smokers is 66.67% compared by non-smokers 33.33%. From of this study can see low the attitude level very influence or caused toward of students smoking. The statistical test showed there have association relationship attitude between smoking behavior p-(value=0.009).

Reinforcing factors

The results of the study showed high advertisement influence, but the students smoking is 78.57% compared by students non-smoking 21.43%, moderated level advertisement, but the students smoking is 60.56% compared by students non-smoking 39.44% and low level advertisement, but the students smoking is 76.39% compared by the students non-smoking 23.61%. However statistical test showed significant relationship association between advertisement smoking behavior of students (p-value= 0.012).

The results of the study showed that the percentage of friends' smokers 69.49% compared by the students' non-smokers 30.51% and 5.88 percent of smokers, his do not smoke and 94.12 percent smoke. So there was significant relationship influence friends smoking between smoking behavior of students (p-value =0.001).

Their peer groups are smoking and they was smokers is 50.7% compared by the students non-smokers 49.3%, Others smoking and the students smokers is 94.0% compared by non-smokers of students 6.0%. However the statistical test there have significant association relationship adults smoking between smoking behavior of the students (p-value=0.001).The students mention that they will not be accept if don't smoke 67.35% there were smoking compare by non-smokers 35.29%, the students mentions if they do not smoke they were acceptance by peer groups but there were smokers is 54.47% compared by non-smoker 45.53%. There have significant

association and relationship acceptance peer groups between smoking behavior of the students (p-value=0.030).

6.2 Recommendations

From the results of this research, the author offers the following recommendation:

Parents

- Parents should attempt to refrain their children from the of friends who smoke.
- Parents & Teachers should from a forum that meet on a set interval of three month, to discus and evaluated issues relating to topics like how to prevent smoking among students
- Parents should be conform to the children lifestyle
- Health education toward parent's hazard smoking behavior.
- Program health promotion hazard smoking behavior in the community.

School

- The school Management team should strictly consider reviewing current school regulations on cigarette smoking among students.
- Teachers should be more vigilant of the smoking status among students, exerting more severe disciplinary actions on students who are found breaching the school rules.
- Teacher should announce severe penalty to the smoker in school.
- Parents should restrict their children from being exposed to cigarette advertisement.

Recommendation for further study

- A qualitative study should be conducted on the smokers group to further explore reasons for being smokers, and how to quit from cigarette accomplished.
- On the secondary school must have health education program about hazard smoking behavior for the children under 10 years of age.
- The government must be make regulation on selling tobacco to juvenile.

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APPENDIX

APPENDIX A

ID……

Instruction: The purpose of this questionnaire is to collect information that will be later analysis and I as you to give your best answers freely and correctly in the spaces or boxes provided. All the information obtained in this questionnaire will be kept confidential and each subject was be treat anonymously.

PART I PREDISPOSING FACTORS

(i) Personal profile – (age)

1. How old are you? _____ years

Parent information (education, occupation).

2. What is your father level of education?

☐ 1. No Education
☐ 2. Primary School
☐ 3. Secondary School
☐ 4.Vocational school/Senior high schools
☐ 5.Diploma
☐ 6.College/ University

3. What is your mother level of education?

☐ 1. No Education
☐ 2. Primary School
☐ 3. Secondary School
☐ 4.Vocational school/ Senior high schools
☐ 5. Diploma
☐ 6.College/University

4. What is your father occupation?

☐ 1. Civil servant ☐ 2. Private employee.

☐ 3. Entrepreneur ☐ 4. Businessmen

☐ 5. Laborer ☐ 6. Agriculture

☐ 7. Others (Specify)……..

5. What is your mother occupation?

☐ 1. Civil servant ☐ 2. Private employee

☐ 3. Entrepreneur ☐ 4.Businessmen

☐ 5. Laborer ☐ 6. Agriculture

☐ 7. House wife ☐ 8. Others (Specify)……

6. How much does your family earn from all sources per month?Rp.....

☐ 1. < Rp.1.000.000,- ☐ 2 Rp.1.000.000,- Rp.1.500.000,-

☐ 3.Rp.1.600.000,- Rp.2.000.000,- ☐ 3. > Rp.2.000.000,-

7. How much average allowance do you have per day?.....RP

8. From where do you get most of your allowance?

☐ 1. Parents ☐ 2.My work

☐ 3. Friends ☐ 4.Others (specify)……

9. Where do you stay during study?

☐ 1. At Home ☐ 2 Rent house

☐ 3. Others (specifiy)……

10. Whom do you live with?

☐ 1. Parents ☐ 3. Friend

☐ 2. Relative (Aunt, Anty, Uncle Etc) ☐ 4. Others (Specify)……

Knowledge

Give your answers true of false for each statement in the table

	Statement	True	false
11	Smoking causes lung cancer		
12	Cigarettes the contain nicotine		
13	Nicotine is toxic		
14	Smoking does not cause brown colored teeth		
15	Smoking does not cause stomach disease		
16	Bad breath is a problem with smoking		
17	Addiction to cigarette smoking is linked to nicotine which is an addictive stimulant		
18	Smoking is a cause of heart attacks		

Attitude

Please tick your best answer about following statements.

Statement		**Agree**	**Not Sure**	**Disagree**
19	You think that a smoker feel like a real man when he smokes a cigarette			
20	Smoking makes you feel stronger			
21	Smoking always release your anxiety			
22	In-confidence feeling often lead you to smoke			
23	Smoking restores your self confidence			
24	To stop smoking is not difficult at all for you			
25	Weak law enforcement on smoking is good			
26	Most teenagers smoke because they think they are grown up adults			

27	To quit smoking requires a lot of effort			
28	More severe penalty should be given to those who do not follow anti-smoking laws			

PART II REINFORCEMENT FACTOR

Advertisements

Give your best answer to the following statements with a tick.

Statement		**Yes**	**No**
29	**C**igarette advertisements does have many effects on smoking behavior		
30	Smoking advertisement does not play an important role in smoking among students		
31	Smoking advertisement should be totally banned		
32	If cigarette advertisements were banned, smoking behavior will be reduced		
33	Smoking advertisement is bad for young children		

Peer group pressure

34. Do you have any friends who smoke?

☐ 1. Yes ☐ 2.No

35. What is your reason caused every body smoking ?

☐ 1. Peer groups in school ☐ 2.peer groups around home

☐ 3. Parents smoking ☐ 4.Adult smoking

☐ 5. Others (specify):……..

36. If still smoke, can you give the most important reason why you have continued smoking?

☐ 1. Friend makes me smoke ☐ 2.Parent smoking

☐ 3. Relieves pressure at home ☐ 4.I just like to smoke

☐ 5. Smoking makes me feel like an adult

☐ 6. Others (Specify)……

37. If you don't smoke, you will not get acceptance in your peer group?

☐ 1. Yes ☐ 2. No

Family and neighbors influence

38. Do your Father/Mother/Cousins smoke?

☐ 1.Yes ☐ 2. No,

39. Does any other adults at home smoke?

☐ Yes, ☐ 2.No

40. Do people living around your home, except your mother and father, smoke?

☐ 1. Yes, a lot ☐ 2.No, they do not

☐ 3. Yes, a few

41. Your parents are the model of smoking?

☐ 1.Yes ☐ 2.No

PART III ENABLING FACTORS

Accessibility and Availability of Cigarette

42. Do you think that buying a cigarette is easy?

☐ 1. Yes (give your reason)……..

……..……..

☐ 2. No (give your reason)**……**

……...

43. Where do you think your can buy cigarettes?

☐ 1. Local shops near home ☐ 2.Local shops around school

☐ 3. Street Vendors ☐ 4. Others (specify)……..……

……...……..

44. If you don't buy your cigarette, how to get them?

☐ 1. My parent's ☐ 2.My friend at school

☐ 3. My friend near home ☐ 4.Older friends

☐ 5. Never want to get them

☐ 6. Others (specify):……..……..

SMOKING BEHAVIOR

45. Do you smoke?

☐ 1. No, I have never smoked, why have you never smoked?.....

……..……

……..……..……..……Stop here

…….. The end, please don't answer, the next questions.

☐ 2. Yes, smoker before, but now not any more, why did you quit smoking?.....

….……...

..……..……Stop here

The end, please don't answer, the next questions.

☐ 3. Yes, but not everyday (occasional)

☐ 4. Yes, I smoke every day (regular)

46. When do you like to smoke most?

☐ 1. During the break

☐ 2. After eating

☐ 3. When you wake up in the morning

☐ 4. When you are with your smoking friends

☐ 5. Others (specify):……..……...……

47. How many cigarettes do you smoke in a day?.....Cigarette / Day

48. How much did you spend money for cigarette (average)?. RP.....

49. At what age do you first smoke cigarette?.....year

ANGKET

Tujuan penyebaran angket ini adalah untuk mengumpulkan informasi tentang perilaku merokok dikalangan siswa SMU Negeri 6 Banda Aceh Propinsi Nanggroe Aceh Darussalam. Oleh sebab itu peneliti meminta anda dengan senang hati untuk memberikan jawaban yang menurut anda tepat .Untuk kerahasiaan informasi yang anda berikan, anda tidak dibenarkan untuk mencantumkan nama pada kolom yang telah disediakan. Segala informasi yang anda berikan tidak memberikan pengaruh apapun terhadap status anda pelajar SMU. Atas informasi dan kerjasama yang baik kami ucapkan terimakasih.

Bagian I Faktor yang mempengaruhi

(i) Riwayat anda

1. Berapa umur anda sekarang……tahun

(ii) Informasi tentang tingkat pendidikan dan pekerjaan orang tua anda

2. Tingkat pendidikan orang tua anda (bapak) ?

1.Sarjana	2.Diploma	3.SMU
4.SMP	5.SD	6.Tidak Sekolah

3. Tingkat pendidikan orant tua anda (ibu)?

1.Sarjana	2.Diploma	3.SMU
4.SMP	5.SD	6.Tidak Sekolah

4. Pekerjaan orang tua anda (bapak)?

1.Pegawai Negeri sipil	2.Pegawai swasta	3.Buruh
4.Pedagang	5.Wiraswasta	6.Petani
7. Lain-lain		

5. Pekerjaan orang tua anda (ibu) ?

1.Pegawai Negeri sipil 2.Pegawai swasta 3.Buruh

4.Pedagang 5.Wiraswasta 6.Petani

7. Haouse wife 8. Lain-lain

6. Berapa penghasilan orang tua anda per bulan?

1. < Rp.1,000,000,- 2. Rp.1.000.000,- Rp.1.500.000,-

3. Rp.1.600.000,- Rp.2.000.000,- 4. Rp.> Rp.2.000.000,-

7. Berapa uang jajan anda per hari ? Rp……

8. Dariman anda memperoleh uang jajan?

1.Orang tua 2. kerja sendiri 3.Saudara

4. Lain-lain:……

9. Dimana anda tinggal sekarang ?

1. Dirumah orang tua 2.Di asrama

3. Tempat lain…….

10. Dengan siapa anda tinggal selama ini ?

1.Orang tua 2.Kawan 3.Saudara

4. Lain-lain:……

Pengetahuan tentang morokok

Jawablah pernyataan yang ada didalam kolom berikut ini benar atau salah menurut anda masing – masing:

	Pernyataan	Benar	salah
11	Merokok dapat menyebabkan penyakit kanker		
12	Nicotine suatu zat yang terkandung didalam rokok		
13	Didalam rokok mengandung racun		
14	Merokok dapat menyebabkan gigi kuning		
15	Merokok dapat menyebabkan penyakit lambung		
16	Merokok dapat menganggu pernafasan		
17	Ketagihan merokok berhubungan dengan kadar nicotine yang ada didalam nya.		
18	Merokok dapat menyebabkan penyakit jantung		

Sikap terhadap merokok

Jawablah pertayaan yang tersedia didalam kolom berikut ini menurut anda benar:

	Pernyataan	Setuju	Ragu-ragu	Tidak setuju
19	Dengan merokok kita lebih merasa sebagai seorang lelaki			
20	Merokok dapat menambah tenaga lebih kuat			
21	Merokok dapat menghilang kegelisahan			
22	Merokok dapat menambah rasa percaya diri			
23	Merokok dapat memperbaiki lebih percaya diri			
24	Untuk berhenti merokok sangat mudah			
25	Longgarnya pelaksanaan peraturan merokok sangat baik			
26	Kebanyakan remaja merokok karena mereka merasa sudah dewasa			
27	Untuk berhenti merokok membutuhkan usaha keras			
28	Hukuman yang lebih berat harus diberikan untuk mereka yang tidak mengikuti larangan merokok			

Factor pendukung

No	Pernyataan	**Yes**	**No**
29	Iklan rokok mempunyai pengaruh besar terhadap orang merokok		
30	Iklan rokok tidak berperan penting terhadap pelajar untuk merokok		
31	Iklan rokok seharusnya dilarang total		
32	Jika iklan merokok dilarang, akankah menurun angka perokok		
33	Iklan merokok sangat berbahaya terhadap remaja		

Factor keluarga dan tetangga

34. Orang tua anda merokok (bapak) ?

1.Ya 2. Tidak

35. Selain orang tua, ada orang lain yang merokok dirumah ?

1. Ada 2. Tidak

36. Ada tetangga disekitar rumah anda yang merokok?

1. Sedikit 2. Banyak

3. Tidak ada

37. Apakah orang tua anda sebagai contoh merokok?

1. Ya 2. Tidak

Factor pengguat

38. Membeli rokok suatu hal mudah?

1. Ya. Berikan alasannya?.....

……..

2.Tidak.Berikan?.....

…….

39.Dimana anda biasanya dapat membeli rokok?

1. Toko dekat rumah 2. Toko dekat sekolah

3. Dikios yang ada dipinggir jalan 4. Kios dekat rumah

5. Lain-lain…….

40. Biasanya selain beli dari mana saja kamu peroleh rokok ?

1.Orang tua 2. Teman sekolah

3. Teman di luar rumah 4. Teman yang lebih tua dari kamu

5.lain-lain…….

41. Berapa biasanya pengeluaran uang rata-rata untuk beli rokok perhari? Rp…….

Tekanan kelompok teman sebaya

42. Anda punya teman yang merokok?

1. Ya 2. Tidak

43. Penyebab pertama kali anda merokok ?

1. Teman sebaya di sekolah 2. Teman sebaya di sekitar rumah

3. Orang tua merokok 4. Merasa sudah dewasaan

5. lain-lain……

……

44. Jika anda tidak merokok, apa anda tidak diterima dalam kelompok teman sebaya anda?

1. Ya 2. Tidak

45. Jika anda masih merokok, memberikan alasan mengapa anda masih merokok?

1. Teman membuat saya untuk merokok 2. Orang tua merokok

3. Merokok membuat saya merasa lebih dewasa

4. Menghilangkan beban dirumah

5. Saya baru suka merokok

6. Lain-lain……..

46. Apakah anda merokok?

1.Tidak, apa alasannya …….

……..……tidak perlu dilanjutkan ke pertayaan seberikutnya

2. Ya, sebelumnya, sekarang tidak lagi, apa alasannya anda berhenti merokok?.....

……..… tidak perlu dilanjutkan ke pertayaan seberikutnya.

3. Ya tapi tidak tiap hari

4. Ya tiap hari

47. Kapan biasanya anda suka merokok

1. Pada jam istirahat 2. Setelah makan

3.Ketika bangun tidur 4.Ketika anda berkumpul dengan kawan

5. Lain-lain…….

48. Berapa banyak anda merokok dalam satu hari? Rp.....

49. Berapa umur anda pertama merokok?.....Tahun

BIOGRAPHY

NAMA	Mr. Nurdin
DATE OF BIRTH	March 20, 1974
PLACE OF BIRTH	Sigli
INSTITUTION ATTENDED	University of Muhammadiyah Aceh, Indonesia Bachelor of Public Health, 1994 - 1999 Mahidol University, Thailand ASEAN Institute for Health Development Master of Primary Health Care Management 2007 – 2008
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