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Determinants of smoking among governmental secondary school children in middle zone, Gaza

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Thesis Approval

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Dedication

I wish to dedicate the current research study to my father's soul who was always dreaming to see me in such position, and to my mother who continues to learn, grow and develop and who has been a source of encouragement and inspiration to me throughout my life.

Study is also dedicated to my wife for her continued support encouragement, who has been a great source of motivation, inspiration and understanding throughout the period of my study.

Also this study is dedicated to my brothers and sister, and my friends, who have supported me all the way since the beginning of my study.

I also will never forget to dedicate this study for my kids, for their cute support during my study.

Finally, this thesis is dedicated to all those who believe in the richness of learning, without them all, I wouldn't have made it.

Declaration

I certify that this thesis submitted for the degree of Master is the result of my own research, except where otherwise acknowledged, and that this thesis (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signed ……..

Hazem Abdel Hakim Abu Maloh

Date: March 2009

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Abstract

Smoking is widely associated with serious diseases such as cardiovascular and pulmonary diseases and frequently causes death in developed and developing countries. Universally, about 90% of smokers start smoking before they reach the age of 20 years. The purpose of this study was to estimate the prevalence and the key determinants of smoking among secondary school students in the Middle Governorate in Gaza.

Using descriptive analytic - based design, the study was carried out in randomly selected 4 secondary schools in the targeted governorate in the scholastic year 2008-2009. Four hundred students were randomly selected from the targeted schools. An anonymous self-administered questionnaire was completed by subjects.

The study revealed that 24.5% of the students surveyed are currently smoking. Among those who were smoking, 44% were smoking both cigarettes and Narjila, while 31% were smoking cigarettes only and 25.5% were smoking Narjila only. Moreover, the study revealed that 69.4% of the smoking students were studying at the Art's Department, while 30.6% of the smoking students were studying at the Science Department. Additionally, 65.3% of the smoking students were at grade 11 and 34.7% at grade 12. Currently, the mean number of cigarettes smoked per day is 7 cigarettes.

Subjects indicated that their parental smoking or being close to a smoker were the main drives for them to start smoking. Among smoking students, 38.2% indicated that they were affected by their parental smoking. Also, 39% of the subjects reported that being close to a smoker encourages and motivates to be a smoker or to initiate smoking. The study revealed that 62.2% of the smokers in this study tried to quit smoking during the last years. Of the total study population, 59.5% reported that cigarette advertisements do not affect them or encourage them to start smoking.

In contrary, 36.3% of the study populations don’t know if cigarettes advertisements influence the decision to smoke or not. Additionally, the study found that 67.3% of the study population did not receive awareness sessions about the damages caused by smoking. There were significant relationships between knowledge about smoking hazards and continuing

smoking among students (P value 0.051). Similarly, students' attitudes about smoking have significantly affected their tendency to smoke (P value 0.001).

The study recommended that measures are needed to carryout awareness sessions at schools about the hazards of smoking. Special smoking quitting programs are needed particularly programs targeting youth and students.

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List of abbreviations

ANOVA	Analysis of Variance
AIHW	Australian Institute of Health and Welfare,
CASA	Center on Addiction and Substance Abuse
CDC	Center of Disease Control and Prevention.
COPD	Chronic Obstructive pulmonary disease
CI	Confidence interval
ETS	Environmental tobacco smoke
EPI- info	Epidemiological information program
GYTS	Global Youth Tobacco Survey
MAO	Monoamineoxidase
MOH	Ministry of Health
MOE	Ministry of Education
NIDA	National Institute on Drug Abuse
PCBS	Palestinian Center Bureau of Statistics
PHC	Primary health Center
SAMHSA	Substance Abuse and Mental Health Services Administration
SHS	Secondhand smoke
SES	Socioeconomic status
SPSS	Statistical Package for Social Science.
UAE	United Arab Emirates.
UNICEF	United Nations International Children's Emergency Fund
USDHS	US Department of Health Service
WHO	World Health Organization

Chapter (1)

Introduction

Chapter One

Introduction

1.1. Background

Tobacco use is one of the major preventable causes of death in the world. Smoking already kills one in 10 adults worldwide. By 2030, the proportion may be one in six or 10 million deaths per year, more than any other single cause (World Bank1, 1999). About 1 billion tobacco-related deaths are projected for the 21st Century (WHO, 2000).

About 70 % of those deaths will occur in developing countries and countries in transition, most people begin using tobacco before the age of 18. Over 30% of children smoked their first whole cigarette before the age of 10. One-half of young people who continue to smoke will die from smoking-related causes (WHO, 2002).

Smoking is one the world's leading health problems these days, and may lead to a higher death rate than Aids. (Marry, et al, 1998).

Regular tobacco use is one form of drug dependence, pharmacological and behavioral effects of nicotine are similar to those determine addiction to other drugs, such as heroin and cocaine (Surgeon General, 1988.).

An overview of previous studies shows that most cigarette-smokers started smoking under the age of 18 and in the teenage period (CDC, 1999).

Royal College of Physicians of London reported that Tobacco is a gateway drug and a risk marker for other forms of drug use (RCP, 1992.). Smoking usually starts in childhood or adolescence and in high-income countries eight of ten smokers begin smoking in their teens (World Bank, 1999).

Young smokers are at risk of developing drug dependence to tobacco and other drugs as the inhalation of cigarette smoke by young people leads to early pharmacological dependence on cigarettes (CDC, 1994.). The most frequently reported reasons for starting to smoking by adolescents are curiosity, defiance of social norms, peer pressure and desire to imitate others (Sarason, 1992 and Wang, Yu, and Zhu, 1994). Smoking by a friend is a major factor for current smoking in youth, although addiction or habit is the

most frequently reported reason (Felimban, et al 1994). Smoking among other male family members is also significantly associated with current smoking among boys (Minagawa, et al, 1993).

The world Health Organization (WHO) reports that Tobacco is the second major cause of death in the world. It is currently responsible for the death of one in 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 smoke today -that is about 650 million people- will eventually be killed by tobacco (WHO, 2008).

World Bank reported that there is 1.1 billion smokers worldwide, 800 million smokers in developing countries. The same report clarified that by 2030, tobacco is expected to be the single biggest cause of death worldwide, accounting for about 10 million deaths per year, globally, 80,000 to 100,000 youths start smoking every day (World Bank, 2001).

Great efforts have been made to reduce the number of smokers in industrialized countries; for example the percentage of the population that smokes in England has been reduced to 9% and in United States to 25%. However, the number of smokers has been increasing in developing countries. The percentage of the population who are smokers is about 22% in the Asian countries and 42% in the African communities (Yemen Association for Cancer Control, 1995).

The latest WHO figures showed high number of smokers among Arab children in the age group 13 - 15 years, a percentage of smokers among children in this age group is about 22%, while the rate is rising to 30 % in Iraq and Palestine, as a result of the unstable political and economic in both countries (Dayoub, 2007).

In Egypt, Egyptians spend an average of 20% of their income on cigarettes. The number of Egyptian smokers is 17 million people growing by 9% annually.

Egyptians spend, according to 2004 statistics, the amount of 454 million dollars annually to the costs of treating diseases caused by smoking. In Saudi Arabia, Riyadh City residents spent only 200 million riyals a year, and there are 70% of smokers aged 20 to 30 years .In Tunisia, the number of smokers is 3.5 million people, while the population in

Tunisia does not exceed the 10 million, half of smokers aged between 15 and 24 years (Dayoub, 2007).

In Iraq 7.5 million persons are smokers, despite the poor economic conditions, In Lebanon, more than half the population ratio of (57%) smokers. Lebanese spend on consumption of cigarettes, 400 million dollars annually, and smoke kills 3,500 Lebanese annually. According to statistics took over Tunisia was ranked first in the number of smokers, followed by Arab men in Yemen and Oman who were less smoke (Dayoub, 2007).

Global Youth Tobacco Survey (GYTS) has reported that the prevalence of smoking among Gaza students in 2005 was 31% currently use any tobacco product, 21.9% currently smoke cigarettes and 17.8% currently use other tobacco products. (CDC, 2005).
The number of smokers in the governorates of the West Bank and Gaza (800 thousand smokers)

- Palestinians Smokers burn annually 450 million dollars
- Smokers burn Palestinians per month 37 million dollars
- Smokers Palestinians burn every hour 50 thousand U.S. dollars
- Smokers burn Palestinians outside Palestine 600 million dollars (Elaph, 2007).

1.2. Justification of the Study

There are no literature review done about secondary school students smoking, this is the first study being done in Gaza strip.
Most people begin using tobacco before the age of 18. Over 30% of children smoked their first whole cigarette before the age of 10. One-half of young people who continue to smoke will die from smoking-related causes (WHO, 2002).
Smoking is one the world's leading health problems these days, and may lead to a higher death rate than Aids.

An overview of previous studies shows that most cigarette-smokers started smoking before the age of 18 and in the teenage period (CDC, 1999).

The prevalence of smoking among students in Palestine comes as a result of the increasing cigarettes providers in Palestinian markets and even small shops, another

reason is the law price of many kinds of cigarettes, even some small shops sell the cigarettes as single ones to make it easier for the students who can not buy a box of cigarettes and to encourage them to buy. This study was set up to investigate the determinants of smoking among secondary students in the middle zone.

1.3. Overall aim

To understand the Determinants of smoking among Governmental Secondary School children in middle zone to form a basis for control and Prevention of smoking in the community.

1.4. Objectives

- To estimate the prevalence of cigarette smoking among secondary school students.
- To identify the effect of socio –demographic characteristics on cigarette smoking.
- To determine the knowledge and attitudes of secondary school students regarding tobacco.
- To estimate the effect of exposure to negative smoking on the susceptibility to become a smoker.

1.5. Research Questions

- What is the prevalence of cigarette smoking among secondary school students?
- Do socio-demographic determinants influence the cigarette smoking?
- What are knowledge and attitudes of secondary school students regarding tobacco?
- Does negative smoking affect the susceptibility to become a smoker?

1.6. Context of the study

1.6.1 Demographics Context:

The of Palestinian Territory covers around 10,435 square miles out of this territory there are 10,163 square miles of land area, the rest is water, half of the area of the Dead Sea **(Annex 1).**

1.6.2. Gaza Strip

Gaza was the first Palestinian City to enter the historical records. It was mentioned in the ancient Egyptian texts. The meaning of the name "Gaza" is multiple: some attribute it to the Canaanites and interpret it to mean "strength". Others say that the Persians called it "Hazatote", meaning "treasure" because they believed a treasure was buried there. The Arabs named it "Ghazzat Hashem" after the Prophet Muhammad's great grandfather, who is said to have died here during one of his trade trips.

Gaza City is the principal city and administrative center of the Gaza Strip, a rectangular coastal area, on the Mediterranean Sea adjoining Egypt and occupied Palestine. It is a densely populated and impoverished region inhabited primarily by Palestinian refugees; the majority live in large, overcrowded refugee camps. Population density in some areas of Gaza reaches more than 3,000 inhabitants per square mile (Wikipedia, 2007).

1.6.3. The Palestinian Population

According to statistical data of Palestinian Center Bureau of Statistics (PCBS), the Palestinian population in 1948 totaled 1.4 million compared to approximately 10.5 million in 2008. Hence, the number of Palestinians worldwide has multiplied 7.5 times since the Nakba in its 60th anniversary. The results of population, housing and establishment census 2007, showed that the number of the Palestinians in the Palestinian Territory was 3.770 millions as in, of which 2.345 millions in the West Bank and 1.42 millions in Gaza Strip (PCBS, 2007)

1.6.4. Population Context in Gaza

Gaza Strip is very crowded place with an area of 365 KM^2 which is considered to be one of the highest density worldwide (3,808 inhabitants / KM^2). Gaza is about 6.1% of Palestine; the population size in the Gaza Strip has been estimated to be 1.42 Million it distributed as follows: In Rafah 173,371 Person in Khanyounis 270,979 people in Mid Zone 205,534 Person in Gaza city 496,410 people and residence in the North of Gaza 270,245 Person (PCBS, 2007).

According to the United Nations Relief and work Agency (UNRWA), the total registered refugee's population in Gaza Strip was 986,034 in the year 2005 which constituted 68% of total Palestinian population (UNRWA, 2005).

1.6.5 Economy Context

While Gaza used to be a Palestinian economic center, this changed significantly during the second Intifada when vast plots of Gazans citrus groves were bulldozed by the Israeli military. Many Gazans used to work in the Israeli industries when the border was open, but part of Israel's 2005 unilateral disengagement plan stipulated that Gazans will no longer be able to work in Israel and very few Gazans are presently allowed to enter Israel.

Gaza city contains some minor industries, including textiles and food processing. A variety of wares are sold in Gaza's street bazaars, including carpets, pottery, wicker furniture, and cotton clothing; commercial development in the city is minimal.

According to a recent report by OXFAM, Gaza industry has been reduced to a shambles because of the ongoing economic "closure" imposed by Israel. Because they are no longer able to import materials or export goods, 95% of Gaza factories closed since the imposition of closure policies following Israel's 2005 disengagement. (Sara Roy 1995). Gaza serves as a transportation hub for the Gaza Strip, and contains a small port that serves a local fishing fleet. Poverty, unemployment, and poor living conditions are widespread.

Gaza has serious deficiencies in housing, educational facilities, health facilities, infrastructure, and an inadequate sewage system, all of which have contributed to serious hygiene and public health problems.

Gaza's economic conditions have been stagnant in the long-term and most development indicators are in decline, a situation described by Harvard economist Sara Roy as a state of "economic de-development (OCHA, 2007). 75% of the population (1.1 million people) is now dependent on handouts from the World Food Program (WFP) simply to feed their families, the largest single dependent population in the world (OCHA, 2007).

According to World Bank, 67% of Palestinian households are living below the poverty line due to unstable political situation which negatively affected the socio economic status in Palestine (World Bank, 2007).

1.6.6. Health in Palestine

Health services provided through government, NGO, private and United Nations providers (UNRWA) are variable in geographic coverage and quality. The health infrastructure is in need of repair and upgrading, and there are shortages of some personnel. Considering the overall investment in the sector, services are generally poor. Primary health facilities are inadequate; services are not coordinated; and there is no adequate referral system. The recent unrest has left the population with unmet rehabilitation and mental health needs. Health sector data collection and training and institutional standards are uncoordinated. (World Bank, 2001).

MOH is the health authority responsible of supervision regulation licensure and control of all health services, and responsible of the Primary health Care (PHC) and secondary care and some tertiary care.

MOH operates 416 primary health care centers (PHC). (56 PHC Gaza Strip and 360 PHC in West Bank), and operates 22 hospitals, 10 in Gaza, 12 in West Bank (Palestine, MOH, October 2005).

1.6.7. The Palestinian Education System

The Palestinian Education System currently includes ten years of basic schooling (four years of lower elementary schooling and six years of upper elementary schools) and two years of secondary schooling divided into two departments (Arts and Science). In Palestine there are 2430 schools, 1809 schools in West Bank and 621 schools in Gaza.

Total Number of Governmental Schools are divided as follows: 1460 schools in West Bank and 373 schools in Gaza, total number of students of secondary schools are 140,126 in Palestinian Territories, among them there are 38,294 Males in West Bank and 27,396 males in Gaza Strip. (Palestine, MoE, October, 2008).

Chapter (2)

Literature Review

Chapter (2)

Literature Review

2.1. Conceptual Framework for determinants of smoking among secondary school students:

In this chapter the researcher described the most common factors that could be associated with student's smoking, and select some of risk factors for youth smoking (socioeconomic, environmental, behavioral, personal, and knowledge and attitudes factors) which have been extensively studied in industrialized nations (Minagawa , et al, 1993), and in some countries and community of this Region (Moody, et al, 1993).

2.1.1. Definition of variables:

- Theoretical definition: The direct inhalation of tobacco smoke, the basis of major health hazards.
- Operational definition: The smoking students in secondary school.

2.1.2. Socioeconomic factors:

The factors summarized included age; gender; ethnicity and acculturation; living arrangements, family size and structure; parental socioeconomic status (SES); spending money and employment status; and rural/urban residence. In some studies, it was difficult to separate these factors because there are collinear relationships between such variables as SES, family size, and educational level of parents. There was also considerable overlap between the studies in this section and others, because almost all of the studies in this review examined some sociodemographic variables. (Wang, Yu, and Zhu, 1994).

Higher levels of parental socioeconomic variables, such as education and social class, have often been found to be inversely related to smoking status in adolescents—for example, the effect of SES may explain some of the inconsistent results for maternal and paternal education. Several studies that have reported non-significant effects of parental education on adolescent smoking have examined maternal education only, or have found

paternal but not maternal education to be significant. Traditionally, however, paternal education has been a stronger determinant of household SES than maternal education, whereas maternal educational level has been associated with the health behaviors in a household. (Stanton and Silva, 1992) .

The personal income of adolescents has been associated with adolescent smoking: young people with more spending money showed higher levels of smoking presumably because money is needed for the purchase of cigarettes. (Millar, et al, 1990). Adequate income may supersede other protective factors; Blackford, Bailey, And Wakulczyk, (1994) found that subjects who were working and had their own personal income showed higher cigarette use even though they came from two-parent families.

2.1.3. Environmental factors

Factors in the environment that potentially influence initiation and maintenance of smoking by adolescents have been the focus of many investigations since early studies demonstrated the importance of peer and parental smoking as risk factors. (Creswell, et al, 1970).

The broad categories that have been studied are: smoking among parents, siblings and peers; attitudes and norms about smoking (including parental reactions to smoking by their children); family environment; and attachment to family and friends. Availability and ease of acquiring cigarettes are also environmental factors that can have an impact on smoking among adolescents. Interpretation of these studies was complicated by inconsistencies in the outcome variable (smoking status, intentions, initiation, and attitudes); the different combinations of predictor variables; the range of methods and populations; and the variety of analytical approaches that have been used.

The impact of parental smoking has been studied in a wide range of contexts in a large number of studies with a variety of outcomes. Approximately twice as many of the reviewed studies have found a significantly increased risk of adolescent smoking with parental smoking, than have noted a non-significant association

Studies examining the effect of paternal and maternal smoking separately have reported both to be significant, (Tuakli, Smith, and Heaton 1990), non-significant, or each one significant while the other was not. (Hover and Gaffney, 1988).

2.1.4. Behavioral factors

There were three major categories of behavioral variables. First were those factors related to school, primarily academic performance and aspirations? A second category contained risk-taking or deviant factors such as violence and gang membership. A final related grouping included lifestyle factors such as diet, exercise, sleep, and dental care. Behaviors related to sexual activity, seatbelt use, and alcohol and other drug use are indicators of lifestyle, but also can be described as risk-taking Personal factors:

Smoking status has been found to be consistently related to school performance, (Allison, 1992), and has also been associated with educational aspirations, and commitment to school. Those students who do well in school, have high academic aspirations and are committed to school are less likely to smoke than those who do not possess these characteristics.

The protective effect of academic performance, aspirations, and commitment on adolescent smoking may reflect beliefs necessary for academic success. A longitudinal study of American 12-14 year olds found that belief in conventional rules was associated with lower levels of smoking (Foshee and Bauman, 1992).

2.1.5 Personal factors

Research on psychosocial correlates of smoking and other drug use, specifically investigations of personality characteristics, motivational factors such as stress, and personal resources such as coping, has arisen from attempts to delineate the mechanisms explaining initiation to smoking among some population subgroups defined by their sociodemographic characteristics. (Chassin. et al, 2002) these studies are summarized in this section.

Research on smoking knowledge and attitudes, socialization because of their interrelationships and their functions as proximal determinants of smoking (Wills, and Shiffman, 1985).

In addition to the methodological and analytic issues raised earlier, the problems in interpretation of the factors in this section were compounded by the use of concepts that

were given the same name but measured different constructs (such as stress: acute or chronic) or that were given different names but measured similar constructs (for example, competence and locus of control).

In addition, the different combinations of variables included make it difficult to draw definitive conclusions about any single variable. Some overall statements, however, can be made about the influence of personal variables on adolescent smoking. (Wills, and Shiffman, 1985).

2.2. Knowledge and attitudes:

Some studies have shown that many early high school students and for most non-smokers, were having almost exclusively negative views of smoking.

They viewed smoking as a smelly, repulsive habit and tended to focus on its health effects. (Australian Government Department of Health and Aging Youth Tobacco Prevention 2005).

Adolescents who had tried smoking also expressed mostly negative views, but some also held some positive attitudes towards smoking.

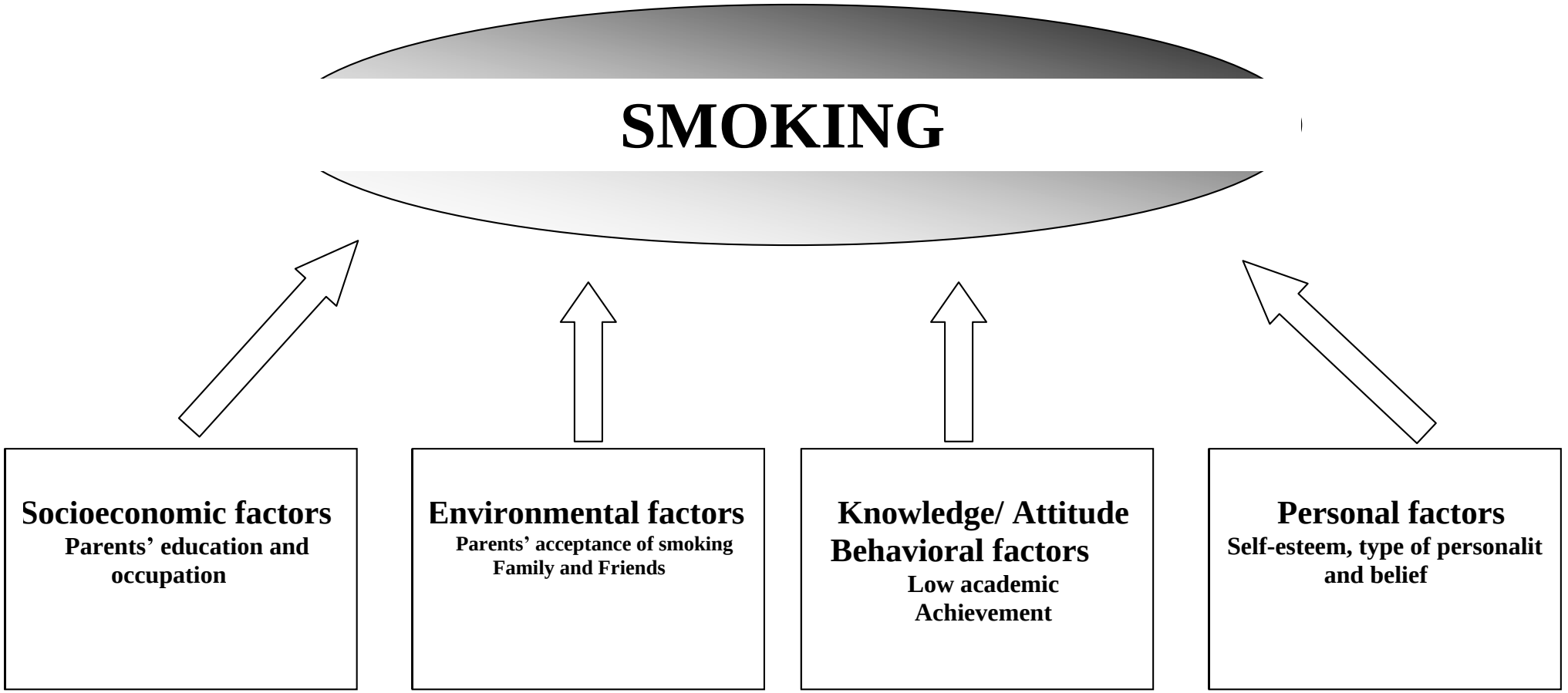
For older adolescents and young adults, smoking had several positive associations with socializing, consumption of alcohol and routines (like smoking after a meal). Even so, these participants also perceived negative aspects of smoking.

These findings were confirmed in the regression analysis, as the significant predictive factors for smoking were presence of more than 1 smoker among the family members, having a brother or sister that smokes and living with a single parent.

Therefore, it can be concluded that family environment is an important factor influencing the smoking behaviors of adolescents.

Although the hazards of smoking are well known, the number of smokers among school students is still high. There are many factors influencing these students to start smoking; for example, socioeconomic status, parents, friends and siblings who smoke, and social environment. (Australian Government Department of Health and Aging Youth Tobacco Prevention, 2005).

2.3 Theoretical Diagram of Conceptual Framework



This chapter reviewed the literature conducted about smoking among secondary school students and the origin of tobacco, medical consequences, classification of smoking, and bad effect on both active and passive smokers. Also we will talk about the chemical side substances in tobacco and nicotine effect. In addition, this chapter will discuss the prevalence of smoking among students internationally and locally. At the end, the researcher will review some of the studies that were implemented globally and regionally in the same field of this study.

Tobacco use has been identified as a major preventable cause of premature death and illness, it is one of the chief preventable causes of death globally, the World Health Organization (WHO) attributes 4.9 million deaths a year to tobacco use, a figure expected to rise to more than 10 million deaths a year by 2030 .At the beginning of the 21st century nearly 20% of 13 to 15 year olds worldwide used some type of tobacco product (Peto, and Lopez, 2001).

Smoking initiation among young people is a common issue for most countries worldwide. However, there is great variation both between and within nations. The highest reported youth smoking rates can be found in Central and Eastern Europe, sections of India, and some of the Western Pacific Islands (Mackay and Eriksen, 2002).

Since the late 1990s the WHO, in association with the US Centers for Disease Control and Prevention (CDC), has promoted the adoption of the Global Youth Tobacco Survey (GYTS).

The longer the onset of smoking is delayed, the less likely a person is to become addicted (Surgeon General, 1994). Young people who smoke may acquire the habit and become addicted before reaching adulthood, making them less able to quit smoking and more likely to have a tobacco-related health problem. Tobacco use among adolescents is a critical indicator not only of the initiation of tobacco use, but of future trends in tobacco addiction and tobacco-related disease in adults. Smoking initiation usually occurs during pre-adolescence and those who become daily smokers usually do so before the end of adolescence (Surgeon General, 1994).

Smoking experimentation remains a consistent characteristic of adolescence and as a young person moves through this period the likelihood of smoking increases (McCool, et al, 2003).

To further reduce smoking prevalence, tobacco control efforts need to address smoking initiation. The transition from being a non-smoker to becoming an addicted smoker is viewed as a process rather than a singular event. This process is generally seen as occurring over five stages; preparatory, trying, experimental, regular, and finally addicted/dependent smoker phases. For those who become addicted smokers, progression through these stages is seen to occur over a two-to-three year period, regardless of age.

The first, preparatory, stage is where prospective smokers form attitudes and beliefs about the utility of smoking and advertising. The second, trying, stage is characterized by the person smoking a few cigarettes. The third stage is experimental where the person smokes repeatedly but irregularly. During the fourth, regular stage/the person moves into regular use of cigarettes, where they are smoking at least weekly, across a variety of situations and personal interactions. The final, addicted/dependents, stage is the move to become a dependent or addicted smoker; at this point the person has developed the physiological need for nicotine (Ling and Glantz, 2002).

2.1. Origin of Tobacco

The word "tobacco" is thought to derive from the Native American word "tabago," for a Y-shaped pipe used in sniffing tobacco powder. Tobacco is a tall, leafy plant, originally grown in South and Central America, but now cultivated throughout the world. There are many species of tobacco; Nicotiana tabacum. (Or common tobacco) is used to produce cigarettes **(**Murad, 2002).

2.1.1. Smoking Definition

Tobacco smoking is the inhalation of smoke from burned dried or cured leaves of the tobacco plant, most often in the form of a cigarette. People may smoke casually for pleasure, habitually to satisfy an addiction to the nicotine present in tobacco and to the act of smoking, or in response to social pressure. In some societies, people smoke for

ritualistic purposes. According to the WHO about one-third of the world's male population smokes tobacco (WHO, 2002).

2.1.2. Smoker Definition

The Smoker is the person, who habitually smokes tobacco (WHO 2004).

2.2. Medical consequences of smoking

Several studies have specifically implicated smoking as strongly associated with lung cancer, coronary heart disease, chronic obstructive pulmonary heart disease, stroke and polycythaemia.

The medical consequences of nicotine exposure result from effects of both the nicotine itself and how it is taken. The most deleterious effects of nicotine addiction are the result of tobacco use, which accounts for one-third of all cancers. Foremost among the cancers caused by tobacco is lung cancer-the number one cancer killer of both men and women. Cigarette smoking has been linked to about 90% of all lung cancer cases (CDC, 2002).

In addition to lung cancer, smoking also causes lung diseases such as chronic bronchitis and emphysema, and it has been found to exacerbate asthma symptoms in adults and children. Smoking is also associated with cancers of the mouth, pharynx, larynx, esophagus, stomach, pancreas, cervix, kidney, ureter, and bladder. The overall rates of death from cancer are twice as high among smokers as among nonsmokers, with heavy smokers having rates that are four times greater than those of nonsmokers. Cigarette smoking is the most important preventable cause of cancer in the United States (USDHS, 1989).

In addition to its ability to cause cancer, a relationship between cigarette smoking and coronary heart disease was first reported in the 1940. Since that time, it has been well documented that smoking substantially increases the risk of heart disease, including stroke, heart attack, vascular disease, and aneurysm. It is estimated that nearly one-fifth of deaths from heart disease are attributable to smoking (Office of Technology Assessment, 1993.).

2.2.1. Lung cancer

Cigarettes, is the main contributor to lung cancer. Across the developed world, almost 90% of lung cancer deaths are caused by smoking (Peto, et al, 2006). In the United States, smoking is estimated to account for 87% of lung cancer cases, 90% in men and 85% in women (Samet, et al, 1988).

Among male smokers, the lifetime risk of developing lung cancer is 17.2%. Among female smokers, the risk is 11.6%. This risk is significantly lower in non-smokers: 1.3% in men and 1.4% in women (Villeneuve, et al, 1994).

Cigarette smoke contains over 60 known carcinogens (CDC, 2002) including radioisotopes from the radon decay sequence, Nitrosamine, and Benzopyrene. Additionally, nicotine appears to depress the immune response to malignant growths in exposed tissue (Sopori, 2002).

The length of time a person smokes as well as the amount smoked increases the person's chance of developing lung cancer.

If a person stops smoking, this chance steadily decreases as damage to the lungs is repaired and contaminant particles are gradually removed (CDC, 1990). In addition, there is evidence that lung cancer in never-smokers has a better prognosis than in smokers, (Nordiques, et al, 2004) and that patients who smoke at the time of diagnosis have shorter survival than those who have quit (Tammemagi, et al, 2004).

2.2.2. Chronic Obstructive pulmonary disease (COPD)

As to the respiratory risks there is combined action of different compounds of smoke leading to acute as well as chronic inflammatory effects. The consequences are the damaging of the structure and function of the airways including central and peripheral bronchi, alveoli and capillaries. The results are loss of cilia, mucus gland hypertrophy, increased number of goblet cells and macrophages, increased permeability, parenchyma destruction (Holt, 1987).

The early changes in smokers are: bronchiolitis, mucus cell metaplasia , denudation of lining epithelium, mural edema, smooth muscle hypertrophy, peribronchiolar fibrosis

and excess of airways< 400 mm diameter. In the long-term, cigarette smoke reduces mucociliary function as well as provoking squamous metaplasia paving the way to carcinoma (Casio, Hale, and Niewoehner , 1980).

2.2.3. Coronary Heart disease

Smoking is a well known risk factor for all cause mortality and for deaths from coronary heart disease (Jacobs, Adachi, and Mulder 1999). Earlier studies have also shown that both total mortality and coronary heart disease mortality among former smokers have decreased after smoking cessation (Tverdal, Thelle and Stensvold, 1993). Also it has been suggested that the effect of smoking on coronary heart disease is probably mediated through the role of smoking in the formation of atherosclerotic lesions and in the development of thrombosis (Hamsten, 1993).

2.2.4. Cardiovascular disease:

Cardiovascular disease is the main cause of death due to smoking. Hardening of the arteries is a process that develops over years, when cholesterol and other fats deposit in the arteries, leaving them narrow, blocked or rigid. When the arteries narrow (atherosclerosis), blood clots are likely to form Smoking accelerates the hardening and narrowing process in your arteries: it starts earlier and blood clots are two to four times more likely (Gupta, and Subramoney, 2006).

Cardiovascular disease can take many forms depending on which blood vessels are involved, and all of them are more common in people who smoke.

The consequences of smoking may seem very far off, but long-term health problems aren't the only hazard of smoking. Nicotine and the other toxins in cigarettes, cigars, and pipes can affect a person's body quickly, which means that teen smokers experience many of these problems (Larissa, 2007). As: - Smoking

- Bad skin. Because smoking restricts blood vessels, it can prevent oxygen and nutrients from getting to the skin which is why smokers often appear pale and unhealthy. An Italian study also linked smoking to an increased risk of getting a type of skin rash called psoriasis.

- Bad breath. Cigarettes leave smokers with a condition called halitosis, or persistent bad breath.

- Bad-smelling clothes and hair. The smell of stale smoke tends to linger — not just on people's clothing, but on their hair, furniture, and cars. And it's often hard to get the smell of smoke out.

- Reduced athletic performance. People who smoke usually can't compete with nonsmoking peers because the physical effects of smoking (like rapid heartbeat, decreased circulation, and shortness of breath) impair sports performance.

- Greater risk of injury and slower healing time. Smoking affects the body's ability to produce collagen, so common sports injuries, such as damage to tendons and ligaments will heal more slowly in smokers than nonsmokers.

- Increased risk of illness. Studies show that smokers get more colds, flu, bronchitis, and pneumonia than nonsmokers, and people with certain health conditions, like asthma, become more sick if they smoke (and often if they're just around people who smoke). Because teens who smoke as a way to manage weight often light up instead of eating, their bodies lack the nutrients they need to grow, develop, and fight off illness properly (Izenberg, 2007).

2.2.5. The extent and impact of tobacco use:

The impact of nicotine addiction in terms of morbidity, mortality, and economic costs to society is staggering. Tobacco kills more than 430,000 U.S. citizens each year-more than alcohol, cocaine, heroin, homicide, suicide, car accidents, fire, and AIDS combined (NIDA, 2003).

Tobacco use is the leading preventable cause of death in the United States. Economically, smoking is attributable to an estimated $80 billion of total U.S. health care costs each year. However, this cost is well below the total cost to society because it does not include burn care from smoking-related fires, prenatal care for low-birth-weight infants of mothers who smoke, and medical care costs associated with disease

caused by second hand smoke. Taken together, the direct and indirect costs of smoking are estimated at $138 billion per year (NIDA, 2001).

2.3. Chemicals in tobacco smoke:

Every cigarette contains over 4000 types of chemicals, of which 400 are poisonous and 40 are cancer-causing, tobacco contains nicotine, as well as tar. Both substances get deposited in the bronchi and the lungs. The other chemicals found in tobacco are:

S.	Chemical	Found in:
1	Carbon monoxide	car exhaust
2	Nicotine	bug sprays
3	Tar	material to make roads
4	Arsenic	rat poison
5	ammonia	cleaning products
6	Hydrogen cyanide	gas chamber poison
7	Cyanide	deadly poison
8	Acetone	nail polish remover
9	Butane	cigarette lighter fluid
10	DDT	insecticides
11	Formaldehyde	to preserve dead bodies
12	Sulfuric acid	car batteries
13	Cadmium	used to recharge batteries
14	Freon	damages earth's ozone layer
15	Geranic acid	A fragrance
16	Methoprene	A pesticide
17	Maltitol	A sweetener not permitted to be used in foods in the U.S.

Three of the most widely known chemicals are nicotine, tar, and carbon monoxide. Nicotine is a strong poisonous drug. It is the main ingredient in insecticides or bug sprays. In its pure form, just one drop on a person's tongue would kill him/her.

Tar is the oily material which remains after tobacco passes through the filter. When a smoker inhales, a lot of the tar sticks to and blackens the lungs.

Carbon monoxide is a poisonous gas. A smoker inhales this gas which is also found in the exhaust of a car. This gas interferes with our respiratory (breathing) and circulatory (heart, arteries, and veins) systems. When we breathe in air through our nose and mouth, the air passes down the windpipe (trachea) and bronchial tubes into the lungs. The cilia which are made up of small hairs and mucous (a sticky fluid also found in the

nose) help to clean this air as it moves down and into the lungs. The cilia remove small pieces of dirt, dust, and germs (NIDA, 1998).

2.4. Nicotine Effect:

Nicotine can act as both a stimulant and a sedative. Immediately after exposure to nicotine, there is a “kick” caused in part by the drug’s stimulation of the adrenal glands and resulting discharge of epinephrine (adrenaline). The rush of adrenaline stimulates the body and causes a sudden release of glucose as well as an increase in blood pressure, respiration, and heart rate. (Zoe, 2005).

Nicotine also suppresses insulin output from the pancreas, which means that smokers are always slightly hyperglycemic. In addition, nicotine indirectly causes a release of dopamine in the brain regions that control pleasure and motivation. This reaction is similar to that seen with other drugs of abuse-such as cocaine and heroin- and it is thought to underlie the pleasurable sensations experienced by many smokers. In contrast, nicotine can also exert a sedative effect, depending on the level of the smoker’s nervous system arousal and the dose of nicotine taken (Zoe, 2005).

Nicotine is addictive. Most smokers use tobacco regularly because they are addicted to nicotine. Addiction is characterized by compulsive drug seeking and use, even in the face of negative health consequences, and tobacco use certainly fits the description.

It is well documented that most smokers identify tobacco as harmful and express a desire to reduce or stop using it, and nearly 35 million of them make a serious attempt to quit each year. Unfortunately, less than 7 percent of those who try to quit on their own achieve more than 1 year of abstinence; most relapse within a few days of attempting to quit (NIDA, 1998).

The National Institute of Drug Abuse (NIDA) Recent research has shown in fine detail how nicotine acts on the brain to produce a number of behavioral effects of primary importance to its addictive nature are findings that nicotine activates the brain circuitry that regulates feelings of pleasure, the so-called (NIDA, 2003).

A key brain chemical involved in mediating the desire to consume drugs is the neurotransmitter dopamine, and research has shown that nicotine increases the levels of dopamine in the reward circuits. Nicotine's pharmacokinetic properties have been found also to enhance its abuse potential. Cigarette smoking produces a rapid distribution of nicotine to the brain, with drug levels peaking within 10 seconds of inhalation (Benowitz, 1996).

The acute effects of nicotine dissipate in a few minutes, causing the smoker to continue dosing frequently throughout the day to maintain the drug's pleasurable effects and prevent withdrawal (Henningfield, 1995).

People frequently do not realize is that the cigarette is a very efficient and highly engineered drug-delivery system. By inhaling, the smoker can get nicotine to the brain very rapidly with every puff. A typical smoker will take 10 puffs on a cigarette over a period of 5 minutes that the cigarette is lit (Canadian Council for Tobacco, Control 2008)

Thus, a person who smokes about 1-1/2 packs (30 cigarettes) daily gets 300 "hits" of nicotine to the brain each day. These factors contribute considerably to nicotine's highly addictive nature. Scientific research is also beginning to show that nicotine may not be the only psychoactive ingredient in tobacco (Gupta and Subramoney, 2006).

Using advanced neuroimaging technology, scientists can see the dramatic effect of cigarette smoking on the brain and are finding a marked decrease in the levels of monoamineoxidase (MAO), an important enzyme that is responsible for breaking down dopamine (CDC, 1998).

The change in MAO must be caused by some tobacco smoke ingredient other than nicotine, since we know that nicotine itself does not dramatically alter MAO levels. The decrease in two forms of MAO, A and B, then results in higher dopamine levels and may be another reason that smokers continue to smoke - to sustain the high dopamine levels that result in the desire for repeated drug use. Personal and private nicotine/cotinine drug testing is an important part of helping an addict stops their substance abuse (CDC, 1998).

2.5. Effect of Smoking

2.5.1. Short-term effects of Smoking

The short-term effects of smoking were reasonably salient to young people, including coughing, reduced fitness and triggering asthma. Even so, it would not seem prudent to base a communications campaign on these short-term health effects. Among some female smokers in particular, there is a risk that the general loss of fitness may be interpreted positively as providing weight loss benefits.

The impact of smoking on one's appearance (e.g. bad skin, wrinkles and yellow teeth) was also salient, although young people often over-estimated the impact of smoking on one's physical appearance. In addition, the smell of smoking was both salient and off-putting for many. Overall, the results suggest that there is potential to leverage the desire to be sexually attractive and position smoking as the antithesis of this (Australian Institute of Health and Welfare, 2003).

2.5.2. Long-term effects of Smoking

A study conducted by Australian Governorate Department of Health and Aging ,(2005) tried to understand the level of awareness among high school students the study revealed that smoking has a negative impact upon health and were able to articulate a range of long-term health effects. There is no real denial of these risks for regular, heavy (addicted) smokers, although very few perceived themselves as such. Knowledge of these risks acts as a deterrent for some. However, most see these health risks as long-term and thus irrelevant. For most, it is a perceived low personal susceptibility (to becoming a long-term smoker) rather than a lack of knowledge, which makes health, risks an insufficient deterrent.

2.6. Understanding addiction

A key reason why most young smokers disassociate themselves from the long-term consequences of smoking is that they have a poor understanding of addiction. Participants showed limited knowledge about the signs that someone is becoming

addicted and typically underestimated their own level of dependence, with recognition occurring only in hindsight.

Furthermore, many young people (including some who are already addicted) believe they are unlikely to become addicted to smoking and, among teenagers who smoke; there is generally a belief that quitting would not be that difficult for them. Even among parents, knowledge about the process of addiction was limited. There is no recognition that addiction can be contextual and that addiction typically occurs situation by situation, rather than cigarette by cigarette (Australian Governorate Department of Health and Aging, 2005).

Interventions that seek to impart knowledge about the addictive process thus have some potential. A greater focus in early to mid high school on the addiction process might give them greater insight into their own behaviors and motivate cessation at an earlier stage of experimentation (Zoe, 2005).

2.7. Definitions of youth smoking

There is considerable definitional variation between studies on youth smoking. For instance, some studies consider a person who has experimented with smoking but never been a regular smoker as having ‘never smoked’, such as the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2003).
Conversely, other studies use the term ‘never smoked’ to refer- only to those who ‘have not even had a puff’ (White and Szabo, 2002).
Among who are defined as smokers, classification is often made according to the frequency of smoking (e.g. every day, week, month etc) (Von Bothmer,, Mattsson, and Fridlund, 2002 and White and Hayman, 2004). Amount of cigarettes smoked per day. Amount of cigarettes smoked throughout their lifetime (White and Szabo, 2002). And particularly for young smokers, developmental stages of smoking (e.g. initiation, experimentation etc.,) (Mayhew et al, 2000).These taxonomical differences are important and can have an impact on research outcomes. For example, the inclusion of all individuals who have ever smoked a cigarette would lead to overestimation of the addictiveness and adverse health effects of smoking.

Conversely, an ‘under-classification’, in which only regular smokers are assessed would ignore a significant cohort of young smokers, many of whom may progress to regular smoking at a later stage (Mayhew, et al, 2000; White and Hayman, 2004), and whose relatively low levels of smoking still carry significant risks.

In addition, there are differences in the age range of smokers assessed in the literature on youth smoking. While some studies and reviews assess smoking habits of a broad range of young people e.g. 12-24 year olds (AIHW, 2003). Others are narrower in scope. Some are defined based on school years and may include only secondary students (Lucas and Lloyd, 1998; White and Hayman, 2004). Whereas others focus on specific age-ranges (some including the younger end of the scale, such as 10-11 year olds (Rugkasa, et al, 2001). Clearly, prevalence rates and findings regarding the effects of youth smoking will vary according to these definitional differences in level of tobacco consumption and age of youth smokers. This in turn makes it more difficult to compare research findings based on different criteria.

According to the 1999 National Household Survey on Drug Abuse, an estimated 57.0 million Americans were current smokers and 7.6 million used smokeless tobacco, which means that nicotine is one of the most widely abused substances. In addition, in 1998 each day in the United States more than 2,000 people under the age of 18 began daily smoking. According to the Centers for Disease Control and Prevention , the prevalence of cigarette smoking among U.S. high school students increased from 27.5% in 1991 to 36.4% in 1997 before declining to 34.8% in 1999.

National Institute on Drug Abuse (NIDA) own Monitoring the Future Study, which annually surveys drug use and related attitudes of America’s adolescents, also found the prevalence rates for smoking among youth declined from 1999 to 2000. Since 1975, nicotine in the form of cigarettes has consistently been the substance the greatest number of high school students use daily (NIDA, 2003).

These definitional issues highlight the importance of identifying the range of different potential developmental trajectories of youth smoking. That is, the transition, or ‘path’ from initiation and experimentation with cigarettes to more frequent use, heavier use, dependence, or cessation. Rather than adhering to a specific, narrow definition of youth

smoking, all smoking behavior of young people (12-24 year olds) will be addressed in this review, with an emphasis on developmental trajectories (Kandel, et al, 1994).

Preventing young people from starting to smoke is critical for cancer control. The Theory of Triadic Influence posits that factors from three different levels of context can influence youth smoking onset: individual characteristics (e.g., age and gender), characteristics in the immediate social environment surrounding youth (e.g., friends and family members), and characteristics in the broader social environment surrounding youth (e.g., school community). Understanding how factors from these contexts influence smoking onset can guide the development and implementation of new prevention initiatives (Scott and Manske, 2005).

Much research has examined the influence of individual characteristics and characteristics in the immediate social environment. (Tyas and Pederson,1998). Few studies have examined how school characteristics are related to youth smoking behavior (Aveyard, Markham, and Cheng, 2004). Considering that smoking rates vary across schools and that the variation is not caused by differences in student characteristics, it is important to identify the influential school characteristics associated with that variability (Aveyard, Markham, and Cheng, 2004).

Recent research has identified two influential school characteristics related to youth smoking. The first is school-level social modeling characteristics (Leatherdale, et al, 2005). For instance, smoking initiation is more likely to occur in schools with higher smoking rates in the senior student population (Cameron, et al, 1999).

The second is school smoking restrictions. For instance, strong enforcement of school smoking restrictions is related to lower levels of student smoking (Leatherdale, et al, 2005).

The Ontario Tobacco Control Act (1994) banned smoking in school buildings and on school property in all publicly funded schools in Ontario, Canada however, wide variation in the enforcement of these restrictions exists (Ashley, Northrup, and Ferrence, 1998). As such, student perceptions of school smoking restrictions may have more influence on smoking behavior than the actual presence of a restriction. Furthermore, the number of smokers at a school may also influence student perceptions

of school smoking restrictions because awareness of restrictions would partially depend on the prevalence of smokers affected by the restrictions (Novak, et al, 2001).

2.8. School and smoking

2.8.1. Smoking among school students

Schools are in a uniquely powerful position to play a major role in reducing the serious problem of smoking and other tobacco use by kids, in fact much of the peer pressure kids feel regarding whether or not to smoke occurs in school (Jackson, 1981). Moreover, the vast majority of all smokers begin smoking before leaving high school (Substance Abuse and Mental Health Services Administration, 2006).

A national survey in 2007 found that 7.1 % of eighth graders, 14 % of tenth graders, and 21.6 percent of twelfth graders had smoked in the past month (Johnston , 2002). Unfortunately, this problem begins long before high school, or even junior high. Very little data about smoking is regularly collected for kids under 12, but the peak years for first trying to smoke appear to be in the sixth and seventh grades, or between the ages of 11 and 12, with a considerable number starting even earlier. For example, in a nationwide Monitoring the Future survey, thirteen percent of eighth grade students reported having first smoked by the fifth grade (ages 10 and 11), and 28 percent have tried smoking by the eighth grade (Johnston, 2002). If these trends are not changed, more than five million kids under age 18 alive today will ultimately die prematurely from smoking (CDC, 1999).

2.8.2. Student's attitudes towards smoking

Early high school students and non-smoking students often held negative attitudes towards smoking. As development progresses and young people start to experiment with smoking, they begin to develop positive associations, despite their acknowledgment of the numerous negative aspects of smoking (Haddad and Hamadeh, 1997).

2.8.3. Starting to smoke

There are a number of reasons why people begin to smoke. What keeps tobacco companies in business is the fact that new people mostly young people start smoking every day. The older a person is before trying cigarettes the less likely they are to take it up. Most smokers begin while they are in their teens. Some might take it up when they start working, or go on to further education (Hill, et al. 1987).

The behavior of their peer group and role models can affect the behavior of a young person. Having enough spare cash to afford to buy cigarettes is also a factor in whether or not people smoke.

Some young people think that smoking will calm their nerves and give them confidence. Others might feel that smoking makes them look and feel grown up. Some young people smoke because they think it helps them cope with stress, boredom, unhappiness, fear, anxiety and other problems. Young women who are unhappy about their appearance often take up smoking because they believe it makes them more attractive. Others use smoking as a tool to control weight (Hill , Wilcox, Gardner and Houston. 1987).

Young people may think that smoking only causes problems for old people. This is not true. And the bad news is that if you start smoking young, you are more likely to smoke heavily and less likely to quit. This means that you are more likely to develop serious health problems from smoking (US Department of Health and Human Services, 1982).

2.8.4. The role of parents

Most parents neither wanted nor expected their children to become long- term smokers. However, they generally felt that there was little they could do to prevent this and that they were already doing all that they reasonably could. Most agreed that not smoking themselves is the most influential thing they could do to reduce the likelihood of their children becoming smokers.

Most non-smoking parents also reported subtly communicating anti-smoking messages to their children from early childhood. Parental disapproval of smoking is cited by

young people as a barrier to uptake, although parents often feel that they lack influence and that their opinions count for little (Darling and Cumsille, 2003).

However, young people also perceive parental disapproval as a barrier to talking to their parents about smoking. Both parents and young people suggested television commercials can act as useful conversation starters for sensitive topics (Foraker, et al, 2005).

Some parents mentioned they would like to know more about what their children learn in school about smoking, enabling them to reinforce these messages at home (Foraker, et al, 2005)

2.9. Facts about youth and smoking

- Most people start using tobacco before they finish high school. This means that if you stay smoke free in school, you will probably never smoke.
- Most teens who smoke are addicted to nicotine. They want to quit smoking, but they can't.
- Tobacco is often the first drug used by kids who use alcohol and illegal drugs like marijuana.
- Youth who start smoking are more likely to get lower grades in school.
- Cigarette advertisements mislead kids and increase their risk of smoking (CDC,2005).

2.10. Factors influencing students smoking

There is a large body of literature concerned with identifying factors that predict adolescent smoking and non-smoking, and numerous variables have been associated with the adolescent smoking trajectory. The US Surgeon General's 1994 report on youth smoking (US Department of Health and Human Services, 1994). Identified four categories of risk and Protective factors:

- Socio-demographic factors.
- Environmental factors.
- Behavioral factors.
- Personal factors.

Findings from the literature associated with variables in each of these categories are discussed under the following headings (US Department of Health and Human Services, 1994).

2.10.1. Socio-demographic factors

The likelihood of a young person smoking increases with age 16, 17, 18 (White and Hayman, 2004; Zapata et al, 2004). In 2002, 25% of Australian 12 year olds had tried smoking, with this proportion increasing to 66% among 17 year olds.

The younger an adolescent begins smoking, the more likely he or she is to become a regular smoker and less likely to quit smoking, compared to an adolescent who begins smoking later in life (Chassin, at al, 2002). Parental age has been found to be unrelated to adolescent smoking

2.10.2. Environmental factors

Parental smoking provides a means by which adolescents may perceive smoking in a positive context: the modeling of an acceptable and beneficial behavior (US Department of Health and Human Services, 1994). Exposure to positive smoking models may increase the likelihood that an adolescent accepts a cigarette when one is offered (Darling and Cumsille, 2003).

2. 10.2.1. Parental Smoking:

This seems a highly plausible relationship. However, a variety of outcomes have been reported by the large number of studies investigating the relationship between parental smoking and adolescent smoking. In a summary of 27 prospective studies, found that, of the 15 that included parental smoking as a variable, parental smoking was predictive of adolescent smoking in seven, predictive only for females in two and a poor predictor of adolescent smoking in the six remaining studies (Conrad Flay, and Hill, 1992).

More recently, (Tyas and Pederson, 1998) noted that twice as many studies reviewed demonstrated a relationship between parental smoking and adolescent smoking than found no significant effect. Some cross-sectional studies have found this relationship to be particularly strong (Buller, et al, 2003).

In a study of seven European countries, it has been found that smoking rates in four countries were more than double in young people who had at least one smoking parent. (Griesbach, Amos and Currie. 2003).

Similarly (Kodl and Mermelstein,2004) found that children with at least 1% as a smoker were two times more likely to have experimented with smoking and two and a half times more likely to go beyond initial experimentation.

The eighth National Center on Addiction and Substance Abuse (CASA, 2003) also found that teens with at least one smoking parent are at greater risk of smoking that teens whose parents had never smoked or had quit smoking.

Even those whose parents did not currently smoke, but had in the past, were found to have an elevated risk of smoking. However, in a longitudinal study across six European countries, the study found that only 2% of the variance in smoking uptake from Ti to T2 was predicted by parental or peer smoking (Tyas and Pederson, 1998).

2.10.2.2. Sibling smoking

Smoking by an older sibling has repeatedly been shown to be predictive of adolescent smoking (Tyas & Pederson, 1998).

Conrad, Flay, B. and Hill, 1992 reported that four out of the five reviewed studies that investigated this factor supported a relationship between sibling smoking and smoking onset. This is supported by research by Chassin et al, 2000, that found sibling smoking to be more influential in the early stages of smoking uptake than in later stages.

However, Tyas and Pederson 1998 report that, in some studies demonstrating a significant relationship between sibling smoking and adolescent smoking, this relationship was not significant after other variables were controlled for in multivariable analyses. The influence of family smoking on smoking uptake has been reported by smokers themselves. cite findings from three studies where many adolescents attribute their own initiation into smoking to the smoking of family members.

Having an older sibling who smokes has also been found to be a predictor of increased intensity of experimentation with cigarettes (Miller and Volk, 2002), and a strong

predictor of heavy smoking among girls in the 12th grade, from variables measured in the 7th grade (Griffin, et al., 1999).

There is also evidence to suggest that sibling smoking may exert a greater influence on adolescents than parental smoking and demonstrated that the effect of a sibling's smoking is greater for same sex siblings than opposite sex siblings. They found that odds ratios for becoming a regular smoker were consistently higher for smoking by a same sex sibling than as compared with a sibling of the opposite sex. (Sarason, 1992).

Adolescent smokers and non-smokers whose siblings smoke have been found to have fewer negative attitudes towards smoking did not find this relationship to be replicated for parental smoking. (Tyas and Pederson, 1998).

2.10.3. Behavioral factors

Smoking initiation has been repeatedly shown to be associated with poor academic achievement (Tyas & Pederson, 1998).

Conrad, Flay, and Hill, (1992) found that 80% of the studies they reviewed investigating smoking onset demonstrated a relationship between smoking and low academic achievement, consistent with this the CASA study (2003) finding that students who average higher grades are less likely to be smokers and Scal et al's (2003) finding that higher Grade Point Average in American students is highly protective for all students.

Other variables related to academic achievement, such as educational and career aspirations and commitment to school have also been associated with smoking levels.

Simons and Morton (2004) found that 'academic engagement' (comprised of measures of paying attention in class, taking school seriously, wanting to do well at school) to be negatively associated with smoking initiation.

Scal et al (2003) found that wanting to go to college was a significant protective factor for younger teenage girls and older teenage boys in a longitudinal study.

Newcomb, et al, (1989), found that what they termed 'academic lifestyle orientation' (measured by school grades, educational aspirations, personal and professional plans,

and expectations) played a central influential role in adolescent smoking behavior, even when taking other related variables into consideration.

Adolescent smoking has been shown to be part of a larger suite of ‘problem-prone’ behaviors that tend to be highly correlated. These behaviors encompass involvement p-violent and delinquent behavior, a history of trouble with the police. (Tyas and Pederson, 1998).

2.10.3.1. Poor conduct at school

As stated earlier, Lewinsohn et al, (2000) found that, out of six factors predicting smoking persistence from one time point to the next, 72% of smokers were classified by four variables: drug abuse, parental conflict, problematic academic behavior and having most friends smoke, of seven variables predicting smoking frequency, 62% of smokers were classified by three variables: drug abuse, impulsiveness and having most friends smoke. Point out that it is impossible to conclude whether.

Smoking leads to behavioral problems or behavioral problems lead to smoking. It is possible that another factor (for example, problems at home), leads to both.

Unsurprisingly, prior tobacco use is commonly found to be one of the best predictors of current smoking (Derzon and Lipsey, 1999).

There is some evidence to suggest that participation in sports and other physical activity is protective (Melnick et al, 2001). Sasco and Kleihues (1999) found participation in sports to be a protective factor for boys, and other study found that both male and female high school athletes were less likely to have ever smoked regularly than non-athletes, the effect being stronger for more highly involved athletes of both genders (Melnick et al, 2001).

However, another study found that greater involvement in sports (organized or individual) led to an increased risk of smoking and the US Department of Health and Human Services (1994) review reports a variety of findings (significant, non-significant or significant for one gender only) on this variable. (Zapata et al , 2004).

2.10.4. Personal factors

Tyas and Pederson (1998) note the difficulty in drawing conclusions across the research on personal factors due to the tendency of researchers to give differing constructs the same name (e.g. acute and chronic forms of stress both termed ‘stress’), or measuring the same construct under different names.

Research exploring genetic influences on adolescent smoking is limited. Studies suggest that genetic factors or prenatal exposure to tobacco may work to influence child ‘sensation seeking’ or decrease impulse control, which may in turn increase the likelihood of children being exposed to triggering events and/or developing dependence (Darling and Cumsille, 2003).

2.10.4.1. Genetic factors

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Kandel and Davies (1994) found that girls whose mothers smoked while they were carrying them in pregnancy were more likely to be smokers in adolescence.

2.11. First experience of smoking

There is evidence to suggest that certain characteristics of the first smoking experience itself influence whether young smokers subsequently continue smoking. Eissenberg and Balster, (2000) found that persistent experimentation with smoking was associated with more reports of adolescents’ “feeling high” and fewer reports of their “feeling sick” after their first cigarette. 80% of child and adolescent non-smokers recalled moderate or extreme physical discomfort during their first experience, only 10% of child and adolescent smokers did. While some proportion of the smoker’s recall may be inaccurate, it seems likely that there is some real difference in the initial smoking experiences of those who go on to become regular smokers.

Having more positive attitudes towards smoking and towards smokers has been repeatedly related to an increased risk of smoking (Buller et al. 2003; Conrad, Flay, and Hill , 1992 and Derzon and Lipsey, 1999and Tyas and Pederson, 1998; Us Department of Health and Human Services, 1994; Zapata et al., 2004).

The adolescents who had ever smoked or who current smokers were held more positive attitudes toward the mental effects, appearance features and safety of smoking and were less concerned about negative physical and social consequences. (BulIer, et al, 2003)

They also found current smokers to be more likely than past smokers to believe that smoking helps them meet people. Zapata, et al, (2004) report that the more strongly adolescents believed smoking provided emotional benefits such as relaxation, and assistance in dealing with boredom and problems, the more likely they were to have smoked.

The lower scores on an outcome expectancy scale measuring beliefs about the negative health effects of smoking significantly predicted experimental and regular use of cigarettes. (Flay, Hu , and Richardson, 1998).

Despite this evidence, attitudes may not be as important as other factors in influencing adolescent smoking. One study found that favorable beliefs and opinions about smoking did not predict smoking uptake in the presence of socio-demographic, behavioral and environmental factors Another study found no relationship with positive attitudes when controlling for friends' smoking (Stanton and Silva, 1992).

Of course, this does not mean that addressing attitudes may not be an effective intervention to prevent smoking or to encourage cessation. Researchers conclude that susceptibility may be a variable that potentially mediates the relationship between beliefs about smoking, and the initiation of smoking.

In a similar vein, those with stronger refusal skills have also been found to be less likely to start smoking (Conrad, Flay, and Hill, 1992).

2.12. Stress

Stress is a biological term which refers to the consequences of the failure of a human or animal body to respond appropriately to emotional or physical threats to the organism, whether actual or imagined. (Selye, 1956)

Adolescents reporting high levels of stress are more likely to smoke (CASA, 2003) and stress has been implicated as a factor in smoking initiation and maintenance, Poor coping skills have been associated with a higher risk of smoking. Problem solving is found to be higher in those young people who have never smoked, whereas drug use and ventilation of feelings are more likely to be used as coping strategies in those young people who have ever smoked (Pederson, et al, 1997). Smoking is found to be consistently reported as a coping mechanism

2.13. Tobacco industry advertising

Internationally, where universal advertising bans have not been implemented by governments, the role of tobacco industry advertising and marketing on adolescent smoking remains a major consideration. There has been a long debate on the impact of the advertising of tobacco products (Crawford, 2008)

Tobacco advertising, at around six percent of sales revenues, is about 50 percent higher than the average industry. Studies that have sought to measure the relationship between advertising and sales have tended to conclude either that advertising has no positive effect on consumption or that it shows only a very modest positive effect.

However, it has been noted that these studies generally rely on highly aggregated data for relatively long time periods for all advertisers, in all media, and often over large populations. This is more likely to give a misleading impression as any major changes that could arise from an advertising campaign in any given area for any population groups are minimized in the overall results (Crawford, 2008).

Studies using less aggregated data are expensive and time-consuming and have, therefore, been done less often. Where they have been done, however, researchers have

found more evidence of a positive effect of advertising on consumption. In addition, researches among young population groups have 29 concluded that advertising and promotion do indeed affect demand for cigarettes and attract new For young people, this effect on demand may often occur in a subtle way, making it hard to isolate and quantify effect recruits (World Bank, 1999).

In New Zealand, most forms of tobacco industry advertising and sponsorship have been banned under the Smoke-free Environments Act 1990. This ban has been progressive, being implemented in stages between 1990 and 2003. For New Zealand adolescents, however, industry advertising can still be accessed through a most important media — international magazines International studies have considered the nature and impact of tobacco advertising in the print media especially magazines. (Pucci and Siegel, 1999)

A United States study has investigated the relationship between adolescents' exposure to cigarette advertising in magazines and youth smoking behavior. Researchers examined brand-specific magazine advertising exposure among youth. The longitudinal survey was conducted in 1993 and 1997 among a sample of 1,069 Massachusetts youth aged between 12 and 15 years when the study began.

For those surveyed, five brands accounted for 81.8 percent of the recalled recollections of magazine advertising. These same brands accounted for 88.4 percent of the brand market share among 12 to 15 year old smokers nationally in 1993 (Pucci and Siegel, 1999).

Aside from advertising in magazines, another potential area of promotion for the tobacco industry is the use of product placement as a marketing tool in films. In the next section, the increased depiction of tobacco use in films and the impact on youth smoking initiation is described (Sargent, et al, 2001).

It is noted that tobacco use imagery in the cinema is on the increase. A study published in 2001, examined the appearance of cigarette brands in 250 top United States box-office films for the decade 1988 to 1997. The researchers found that more than 85 percent of the films contained tobacco use and that tobacco brands appeared in 70 (28 %) films.

It was also found that brand appearances were as common in films suitable for adolescent audiences as they were in films for adult audiences, featuring in approximately a third of films for both age groupings. In addition, brand appearances were also present in 20 percent of those films rated for children. Prevalence of brand appearance did not change overall in relation to the brand. Four United States cigarette brands accounted for 80 percent of brand appearances (Sargent, et al, 2001).

The connection between the tobacco and entertainment industries has been examined. A recently published United States study described the development of the relationship between the tobacco industry and the entertainment industry and recorded the past role of product placement. This study showed that during 14 Note, however, that international magazines with the principal purpose of promoting smoking, or that are primarily targeted at a New Zealand audience are subject to the comprehensive tobacco advertising ban in the Smoke-free Environments Act 1990.

The 1980s four United States tobacco companies developed clear campaigns to place their products in movies and on television. While tobacco companies at the time denied any attempt at product placement, secret company documentation released into the public domain since that time has shown that a clear policy existed. Although, since 1998 in the United States there has been an agreement to end product placement, with the rise of tobacco use being depicted in movies as discussed below, doubt has been raised as to whether this agreement is being fully honored. As a result, product placement remains an important public health problem (Mekemson and Glantz, 2002).

2.13.1. Tobacco imagery in film and television

Aside from advertising and marketing that can be directly attributed to the tobacco industry, there are a number of other media that present positive images to youth of tobacco use. Research has considered how this imagery impacts on children and adolescents and how important a risk factor it is for smoking initiation (Mekemson, and Glantz, 2002).

The importance of such imagery is the potential association with normative beliefs about smoking, self-identification processes and learned expectations. Exposure to smoking behavior in movies and television provides the social context to shape these

processes. Research consistently shows that such imagery of tobacco use is highly pervasive and typically glamorized. There are concerns that these images may motivate adolescents to smoke (Reinberg, 2006).

2.13.2. Film

Despite the agreement in the United States to end product placement, tobacco use is appearing in American movies at record levels. A recent study of 776 United States movies released between 1999 and 2003 indicated that 80 percent of movies included smoking. Within age -restricted categories (Polanski and Glantz, 2004).

Research documents a strong relationship between viewing tobacco use in movies and more positive attitudes toward smoking among never-smokers (Sargent, et al, 2001).

A cross-sectional survey of 3,766 10 to 13 year old students was undertaken to examine the association between viewing tobacco use in movies and attitudes toward smoking among children who had never smoked a cigarette.

Researchers identified an association between watching movies depicting tobacco use and susceptibility to smoking, noting that the susceptibility increased with higher levels of exposure to these types of movies. In addition, higher exposure to tobacco use in movies significantly increased the number of positive expectations endorsed by the adolescent and the perception that most adults smoke (Sargent, et al, 2002).

A further test of whether the portrayal of smoking in movies encourages adolescents to start smoking was conducted by assessing whether adolescents who had initiated smoking preferred movie stars that smoked as part of their screen characters. As part of the 1996 California Tobacco Survey, 6,252 adolescents were questioned about their favorite stars. (Distefan, et al, 1999).

It was found that there were significant differences between the favorite movie stars of those adolescents who had ever smoked and those who had never smoked, with a majority of favorite stars of smokers having been depicted as using tobacco both on and off screen. In multivariate analyses and after adjusting for other 32 known predictors of adolescent smoking, the association made with favorite movie stars who smoked was

found to be only slightly weaker than the impact of peers and family who smoked (Distefan, et al, 1999).

A similar study has assessed the relationship between adolescents' favorite movie stars, the portrayal of tobacco use by those stars in contemporary motion pictures and adolescent smoking. A smaller sample of 632 students aged between 10 and 19 years of age was surveyed. It was found that adolescents who choose movie stars who use tobacco on-screen are significantly more likely to have an advanced smoking status and more favorable attitudes toward smoking than adolescents who choose nonsmoking stars. Within these cohort different groups were shown different numbers of films depicting tobacco (Tickle, et al, 2001).

To test the hypothesis that greater exposure to smoking in films is associated with smoking among adolescents, a cross-sectional survey was made of 4,919 United States school children aged between nine and 15 years who were shown films that depicted tobacco use. The results of the research showed that increased levels of exposure to smoking in movies was associated with increased rates of smoking experimentation even after controlling for the effects of other social influences, parenting and personality characteristics of the child. The magnitude of the association was such that it suggested that the influence of film was as strong as other kinds of social influences such as smoking by a parent or sibling (Sargent, et al, 2001).

As a result of limitations arising from the cross-sectional design of the study, the research could not demonstrate that exposure to movie tobacco use precedes smoking initiation. Further United States research, published in 2003, undertook a prospective study to ascertain whether exposure to smoking in movies predicts smoking initiation, with a cohort of 3,547 adolescents aged 10 to 14 years who self-reported that they had never tried smoking.

A follow-up survey was done of smoking behavior. After controlling for baseline characteristics, adolescents in the highest quartile of exposure to movie smoking were 2.71 times more likely to initiate smoking compared with those in the lowest quartile. In this cohort, 52.2 percent of smoking initiation can be attributed to exposure to smoking in movies. It was also found that the effect of exposure to movie smoking was stronger in adolescents with non-smoking parents than in those whose parent smoked.

Researchers postulated that this was linked to children with smoking parents having a more realistic view of tobacco use or that they already have a high risk and other influences had less effect (Dalton, et al, 2003).

2.13.3. Television

The association between television viewing and initiation of smoking among young people has been tested in a United States study. It was found that those who watched television for five or more hours per day were 5.99 times more likely to initiate smoking than those who watched less than two hours per day (Gidwani, et al, 2002).

Among a sample of 421 secondary school smokers, it was found that television viewing was a significant predictor of smoking volume. Those who watched five or more hours a day smoked between 60 and 147 cigarettes more per week than those who watched one hour or less (Gutschoven and Buick,2004).

2.13.4. The internet

Recently, the potential of the internet as a medium for encouraging youth smoking has been noted. The internet has the potential to influence youth tobacco use not only because it provides possible access to tobacco products, but also because it creates a venue that may stimulate demand through advertising and promotional messages.

2.14. Passive smoking

Passive smoking is the involuntary inhalation of smoke from tobacco products. It occurs when tobacco smoke permeates any environment, causing its inhalation by all people within that environment. Such smoke is called secondhand smoke (SHS) or environmental tobacco smoke (ETS). Scientific evidence shows that exposure to secondhand tobacco smoke causes disease, disability, and death (WHO, 2002)

The risks associated with passive smoking are one of the main reasons for smoking bans in workplaces and indoor public places, including restaurants, bars and night clubs(U.S. Department of Health and Human Services, 2006).

Parental smoking during childhood and adolescent peer pressure are commonly cited as predictors of teenage smoking (Pierce, et al, 1996).

Data confirms that parental smoking is the most important source of passive exposure to smoke in young children and show a clear dose response with number of cigarettes smoked a day (Cook, et al, 1994).

2.14.1. Short-term effects of Passive smoking

There is some evidence that reducing exposure to tobacco smoke cuts the risk of heart attack. When Helena, Montana implemented a 100% smoke free law, heart attack admissions in the local hospital dropped by 40%, and rebounded when a court suspended the law. (Sargent, Shepard and Glantz, 2004). Heart attack admissions have been shown by meta-analysis to drop by an average 27% (Dinno and Glantz, 2007).

After the implementation of smoke-free laws. Adults or children with asthma can experience attacks brought on by passive smoking (Jang, et al, 2004). And there has been one case study report of a death due to an asthma attack associated with passive smoking (Stanbury, et al, 2008).

Since the 1980s there has been substantial evidence that there is a relationship between parents smoking in the house and children developing asthma and other related illnesses (Cook and Strachan, 1996).

There have also been studies that investigated the exposure to tobacco smoke with the age of the child. Research has shown that the younger the child-as young as a fetus even- the more susceptible and harmful the effects of second hand smoking can be (Gilmour, 2005).

These children of smokers tend to have a lung capacity that is less than children of the same height, weight, age, and sex of those children who are not exposed to constant second hand smoke (Lynn, 1990).

Children who are exposed to cigarette smoke in their home day after day are more likely to cough, wheeze, get sore throats, and respiratory problems than children who live in homes with non-smokers, Although it is not indefinite that the increased amount

of asthma amongst children is primarily due to environmental tobacco smoke, there is substantial evidence that leads to the conclusion that it has a tremendous impact on it (Lynn, 1990).

Tobacco smoke is an irritant, and allergy sufferers can experience stuffy or runny noses, watery or burning eyes, sneezing, coughing, wheezing, and a feeling of suffocation, and other typical allergy symptoms within minutes of exposure. Many former smokers, and those who are trying to quit prefer to not be around smoke as it can cause them to have cravings (Jang, et al, 2004).

2.14.2. Long-term effects of Passive smoking

Research has generated scientific evidence that secondhand smoke (in the case of cigarettes, a mixture of smoke released from the smoldering end of the cigarette and smoke exhaled by the smoker) causes the same problems as direct smoking, including heart disease, (The Journal of the American Medical Association, 1992) cardiovascular disease, lung cancer, and lung ailments such as COPD, bronchitis and asthma Specifically, meta-analyses have shown lifelong non-smokers with partners who smoke in the home have a 20–30% greater risk of lung cancer, and those exposed to cigarette smoke in the workplace have an increased risk of 16–19%. (Sasco, et al, 2004)

A wide array of negative effects are attributed, in whole or in part, to frequent, long term exposure to second hand smoke(Taylor, et al 2001). Some of these effects include: Cancer, Lung cancer, Breast cancer, etc.

Overall increased risk of death in both adults, where it is estimated to kill 53,000 nonsmokers per year, making it the 3rd leading cause of preventable death in the U.S (Glantz and Parmley, 1991).

A study issued in 2002 by the International Agency for Research on Cancer of the World Health Organization concluded that nonsmokers are exposed to the same carcinogens as active smokers (WHO, 2002a).

Side stream smoke contains more than 4000 chemicals, including 69 known carcinogens such as formaldehyde, lead, arsenic, benzene, and radioactive polonium 210,(WHO 2002a) and several well-established carcinogens have been shown by the

tobacco companies' own research to be present at higher concentrations in side stream smoke than in mainstream smoke. (Schick S, 2005).

Tobacco smoke exposure has immediate and substantial effects on blood and blood vessels in a way that increases the risk of a heart attack, particularly in people already at risk (Barnoya, Stanton A.and Glantz, 2005). Exposure to tobacco smokes for 30 minutes significantly reduces coronary flow velocity reserve in healthy nonsmokers. (Otsuka, et al , 2001).

Animal experiments have directly shown a wide variety of adverse effects from tobacco smoke exposure including induced pulmonary emphysema (WHO 2002) and degranulation of mast cells contributing to lung damage (U.S. Department of Health and Human Services, 2006).

2.15. Smoking in the some Arab Muslims Countries

Smoking prevalence is generally high among Muslims. An awareness of their religious beliefs and rulings might increase the effectiveness of antismoking campaigns (Ghouri, Atcha and Sheikh. 2006).

2.15.1. Smoking in UAE

Tobacco is not cultivated but extensively traded in the United Arab Emirates. UAE used to be ranked in seventh place on the worldwide tobacco trade map; however, more than 80% of the tobacco imports are re-exported to neighboring countries. The number of cigarette factories has increased tremendously in the last ten years (CDC, 2002). The family health survey conducted in 1995 that covered 45830 UAE citizens revealed that 18.3% of adult males and 0.4% of adult females were current smokers.

A second study conducted by the UAE University at Al Ain on 1500 male students aged 16-19 years in three governmental secondary schools in 1997 revealed an ever increasing prevalence among young adults accounting for 28.2%. The highest prevalence was seen among the 17 years old (43%) (CDC, 2005).

2.15.2. Smoking in Bahrain

A survey conducted in Bahrain showed that the prevalence of smoking in Bahrain was 26.6%, 25.5% and 25.4% among first-year, second-year and third-year students respectively. Cigarettes (21.0%), water-pipes (13.0%) and cigars (1.6%) were popular. Smokers and non-smokers had similar socioeconomic profiles, but differed in degree of disapproval of smoking shown by close contacts and whether close contacts were smokers.

The prevalence of smoking among male secondary-school students in Bahrain did not decline despite intense anti-smoking efforts in the last decade, perhaps indicating the effectiveness of tobacco advertising and promotions that target youth. (Haddad and Hamadeh, 1997).

2.15.3. Smoking in Lebanon

Lebanon is the fourth largest consumer of American cigarettes. Overall tobacco advertising spending is about US$ 18 to US$ 20 million a year. Uncontrolled, untaxed, illegal cigarette importations are common. According to a study by the American University of Beirut in conjunction with UNICEF, WHO, and the Ministries of Public Health and Education, of students aged 15–18 years, the median age of starting smoking is 14 years, with 40% of these adolescents having tried at least one cigarette (WHO, 2005).

According to another study, 53.6% of adults are smokers with the proportion of smokers among males at 60% and that among females at 47% (WHO, 2005). Smoking in the workplace is very common with more than 80% of smokers reporting that they smoke regularly while at work. The Global Youth Tobacco Survey has shown a smoking prevalence of 13% among students 9 National review of the non communicable diseases risk factors, and the Three Step Approach study estimated the smoking prevalence in Lebanon to be around 45% (Joint Tobacco Survey, 1997).

2.15.4. Smoking in Jordan

Tobacco use is a growing problem in Jordan, a developing country with a population of 5.3 million. Smoking is highly prevalent among adolescents. Jordan’s GYTS conducted

in 1999 showed that 19.3 % of students between the ages of 13 and 15 (25% of male students and 14.5 % of female students) are smokers.

This is primarily due to their imitating adults, peer pressure and easy access to cigarettes. This is a high percentage in a country where half of the population is under the age of 18 (Jordan Department of Statistics, 2002).

Another study on morbidity, conducted in 1996, revealed that the prevalence of smoking among Jordanian adults over 25 years was 26.9% (Morbidity Study, Johns Hopkins University,1996) Almost 48% of males and 10.2% of females smoked daily . However, only 9.7% of the adult population was able to quit. National figures reveal that smokers in the Kingdom spend an estimated JD 250 million annually on tobacco products, or some 4% of the country's national gross domestic product. (WHO, 2002b).

2.15.5. Smoking in the Palestine

Data revealed that 18.3% of individuals aged 10 years and over are smokers in the Palestinian Territory; 487,976 in the year 2006, Distributed 20.9% in the West Bank and 13.7% in the Gaza Strip, and 34.7% for males and 2.1% for females.

Data showed for that prevalence of smoking increases by age; 0.9% for those aged 10-15, followed by 9.0% for 16-19 years and reaching the highest 31.3% for 40-49 years then decline to 15.5% for those aged 60 years and over. Data revealed that smoking among rural areas is higher than those in urban and camps at 19.1% and 18.3% and 16.8% respectively.
Qalqiliya governorate registered the highest smoking percentage at 23.1% among other West Bank governorates, while Gaza governorate was the highest at 15.0% among other Gaza Strip governorate (PCBS, 2007)

2.15.1. Smoking among young people 15-29 years

Data revealed that young Palestinian 15-29 smoke daily more than 30 thousand cigarette packets at average cost of US$ 78 thousand. Data showed that the mean age of start smoking among young aged 15-29 years was 16 years and 26.1% of them started

smoking at age 10-14 years, while 61.2% started smoking between 15-19 years, and 1.5% of these young people started before the age of ten.

About the reasons that led to such a practice, the data showed that about 44.0% of the young people who smoke was result of peers and friends pressure, and quite the same percentage refer that to liking the trials of explore practicing smoking, in Gaza Strip 13.2% refer that to psychological and family problems compared with 7.0% in the West Bank (PCBS, 2007)

2.15.2. Smoking among older persons 60 years and over

Data revealed that 15.5% of the elderly aged 60 years and over are smoking, of which 16.4% in the West Bank and 13.4% in Gaza Strip. The data indicated that about 65.0% of elderly smoker's practice this habit for more than 20 years, and the total years of smoking was 1,541,711 years. Data showed that 22.0% ever smoked elderly stopped smoking (PCBS, 2007).

Summary

This chapter talked about the some risk factors, the literature reviewed has discussed the students smoking from different sides to provide knowledge and information about the source, causes and its effects on the human health to be more aware about this problem and change our behavior toward students smoking.

The reviewed literature studies described strongly the current status of smoking among secondary school students through the world, regional and in Palestine (the west bank and the Gaza strip).

On the other hand, the literature reviewed has shown the seriousness of the smoking problem and the knowledge and attitude among students through different ways by providing socioeconomic factors, environmental factors, behavioral factors and personal factors, and the motivators to smoking such as mass media and other environmental activities.

This chapter also, focuses on the danger of the smoking during the early youth years and the danger of passive smoking. And the bad effect of smoking and passive smoking on health. Different studies across countries resulted that smoking is a leading reason to death, the results of the studies conducted to measure the level of KAP among different students.

This chapter also discussed the role of media and advertisements and its effect on youth smoking, and how can media influence students to be smokers or not.

Chapter (3)

Methodology

Chapter Three

Methodology

This chapter presents the study Methodology. The researcher starts with the selected study design, study population, setting of the study, how sample is calculated and selected, and eligibility criteria.

3.1. Study design

The type of the study was Descriptive analytic. It has been chosen for research that collects data on relevant variables one time only, from a variety of people, subjects, or phenomena. The data are collected all at the same time (or within a short time frame).

3.2. Study population

The target population of this study were males secondary school students in mid- zone at 11 to 12 grade, in both departments arts and since during the academic year 2008-2009.

3.3. Setting of the study

The study was conducted at the governmental secondary school in Mid-Zone. The total number of the secondary school students in Middle Zone who are in grade 11,12 in the two departments are 3825 students distributed at 105 classes in six schools over the Mid Zone. At the beginning the researcher decided to conduct the study in both Gaza Strip and West Bank but unfortunately it was very difficult to select the sample from West Bank due to political situation.

3.4. Sample size

The sample size was 400 students determined by using epidemiological information program (EPI info). Cluster sample was used to select the students. The researcher selected 4 schools out of 6 randomly and the students selected randomly from the classes of the four schools. The main reason of selected this type of sample is to enhance representativeness and generalize the results of the study.

3.5. Research instrument

In this study researcher used self report structure interview to collect data from the secondary school students during the academic year 2008-2009. The Questionnaire was prepared in Arabic to be understood by the students. The researcher had trained 2 qualified persons to assist him in collecting data The Questionnaire contained the following data:

- Personal and socio demographic and educational data
- Use of tobacco
- Knowledge and attitudes toward tobacco
- Passive smoking
- Attitude toward stopping smoking
- Knowledge of media about smoking

3.6. Validity of instrument

The questionnaire has been taken from GYTS with modifications to be suitable for our country, culture and community. To enhance the validity of the study, the instrument was submitted to a panel of experts' to evaluate it for face and content validity. To enhance the reliability of the instrument, Pilot study was done before starting the data collection to check applicability, length, ambiguity and any defect in the questionnaire. The pilot study was conducted by using non random way of 30 students from secondary school children. Modifications of the questionnaires have been done and Participants were excluded from the study to prevent pre and post test effect.

3.7. Ethical considerations and procedures

1- Ethical approval from Helsinki committee was obtained (annex 3)

2- Approval letter from the Ministry of Education and Higher Education was obtained to allow the researcher to carry out the study in secondary school students (annex 4)

3- The researcher gave full explanation about the purpose of study to all participants.

4- Informed consent which required the signature of the participant prior to data collection process was obtained.

5- The researcher insured confidentially and the right to stop or withdraw from the study any time.

3.8. Data entry and statistical analysis

The researcher used Statistical package for Social science (SPSS) version 15 for analysis, review the coding, filled of the questionnaire, appropriate entry model, coding variables, data cleaning and cross tabulation of the results. Appropriate statistical tests were used as required and smoking was assessed using Chi-square with confidence interval (CI) of 95% and P value equal or less than 0.05 was considered statistically significant.

3.9. Inclusions and exclusion

A-Inclusions criteria

Governmental secondary school for boys in mid –Zone area

B-Exclusion criteria

Private school

3.10. Limitation of study

- Political Situation in side Gaza Strip
- Teacher's strike in the last years

Chapter (4)

Result and Discussion

Chapter (4)

Result and Discussion

In this chapter researcher reviewed the results of statistical analysis and the discussion of the data, descriptive analysis presented the sociodemographic characteristics, and the determinants of smoking among secondary school students in the Mid- Zone governorate in Gaza Strip. The findings based on 400 questionnaires with response rate of 100% out of the total sample.

4.1 Descriptive statistics:

4.1.1 Socio-demographic characteristics of study population:

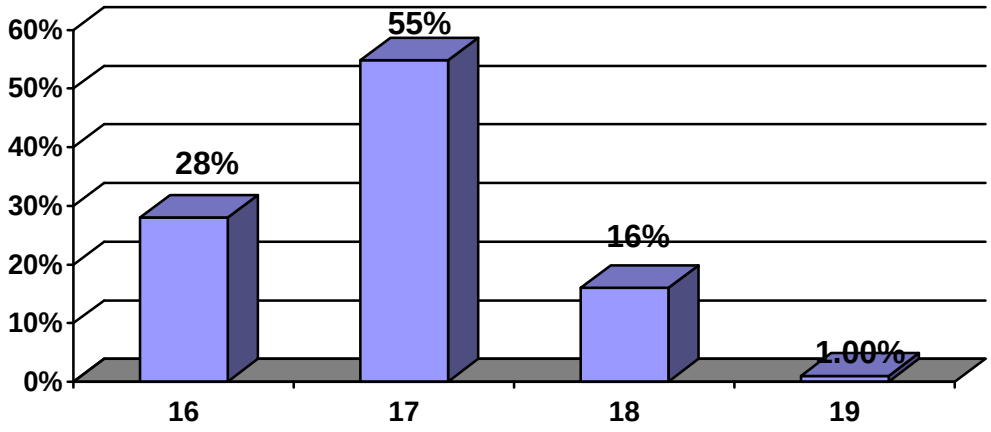

Figure 4. 1: Distribution of study population by age

Figure 4.1 shows that about more than half (55%) of our sample were 17 years old followed by 16 years old (28%), 18 years old (16%) while 19 years old represented the least scores (1 %). Mainly the age of secondary school students are ranging between 16-18 years old which explained the least scores of 19 years old.

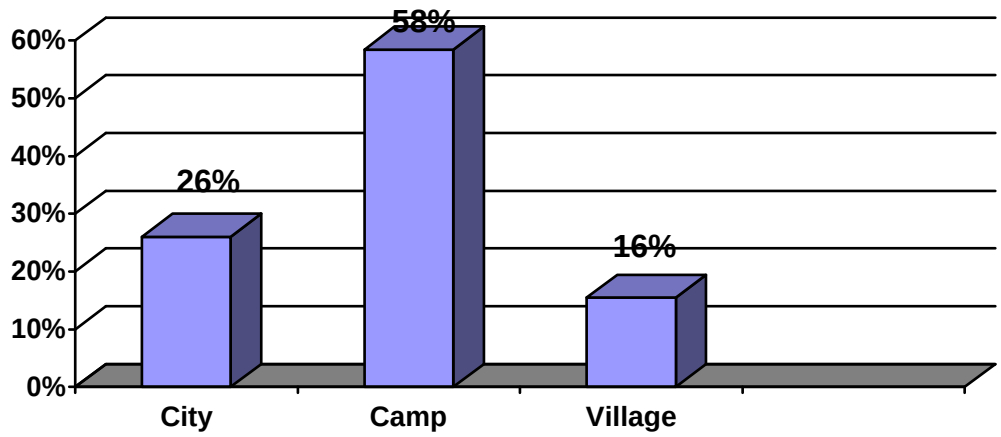

Figure 4. 2: Distribution of study population by residency place

In figure 4.2 the result reported that the majority of study population was living in refugee camps (58 %), while (26%) of the population study was residents in Cities, and the rest of the population study (16 %) was living in villages. This result was expected because the study has been conducted in the middle zone which has 4 camps, two cities and 5 villages with population of (205,534 citizens (PCBS 2007). The Study showed that the majority of students were living in camps.

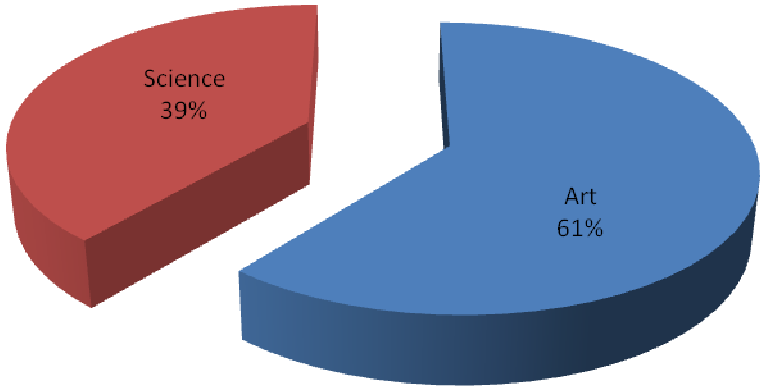

Figure 4. 3: Distribution of study population by department

Figure 4.3 showed that (61%) of the students were from art department while the other (39%) from science department. We notice that students in the science department are less than the students in Arts department.

Table 4. 1: Smoking students by department

Department	Frequency	Percent
Science	30	30.6
Arts	68	69.4
Total	**98**	**100.0%**

Table 4.1 showed that 69.4% of the smoking students were studying at the Art's department, while 30.6% of the smoking students were at the science department.

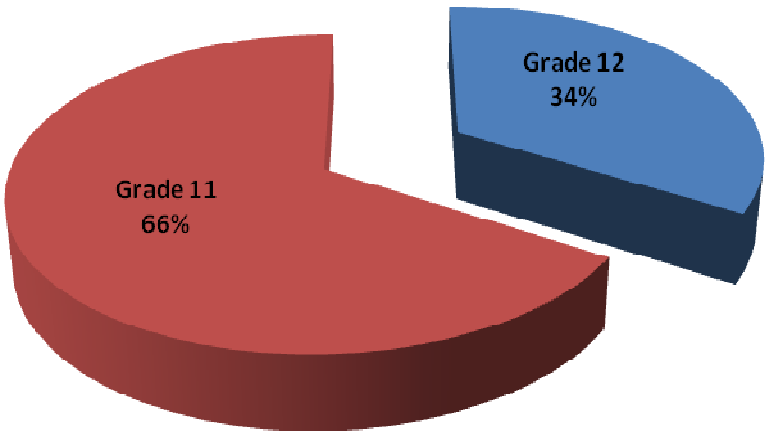

Figure 4. 4: Distribution of study population by grade

Concerning distribution of the study population by department, Figure 4.4 showed that the highest percentage of the population study was in grade 11 (66.3%), and (34 %) of grade 12.

Table 4. 2: Smoking students by grade

Grade	Frequency	Percent
Grade11	64	65.3%
Grade12	34	34.7%
Total	98	100.0

Table 4.2 showed that 65.3% of the smoking students were at grade 11 which considered to be a transition point in the students life because he moves from the preparatory school to the secondary, which he feels that he becomes a man who tries to imitates others especially by smoking. While 34.7% of the smoking students were at Grade 12.

Table 4. 3: Relationship between smoking student's and achievements

Achievement	Smokers		Tried Smoking		Chi-square	p-value
	Freq.	%	Freq.	%		
Excellent	36	36.7	16	12.9	19.618	0.000
Very good	32	32.7	50	40.3		
Good	27	27.6	45	36.3		
Poor	3	3.1	13	10.5		
Total	**98**	**100.0**	**124**	**100.0**		

Our study revealed that the 36.7% of smoking students out of the study population were excellent, while 32.7% of the smokers were having very good level and 27.6% were good followed by poor students who were 3.1% of the smoking students.

This reflects that there was high significant statistical association between smoking and Excellent students, (chi square 19.618, p-v 0.000) this result is inconsistent with the above mentioned studies prepared by Conrad, Flay, and Hill (1992), CASA and Scal, et al, (2003) which showed found that 80% of the studies they reviewed investigating smoking onset demonstrated a relationship between smoking and low academic achievement.

Table 4. 4: Summary of education achievements

Education Achievement	Frequency	Percent
Excellent	75	18.8
Very good	137	34.3
Good	148	37.0
Poor	40	10.0
Total	**400**	**100.0**

Regarding educational achievement level, the study showed that the very good level was (34.3%), good (37%), excellent (18%) and about (10%) of the students were having poor achievement. CASA study (2003) which showed that students who average higher grades are less likely to be smokers and Scal et al's (2003) finding that higher grade point average in American students is highly protective for all students.

Table 4. 5: Summary of student's family members

Family Members	Frequency	Percent
4 persons or less	23	5.75
5-7 persons	125	31.3
8-10 persons	186	46.5
More than 10 person	66	16.5
Total	**400**	**100.0**

As shown in the table 4.5 around half of the families (46.5%) had eight to ten members, (31.3%) five to seven persons and only (16.5%) of family had four persons and less.
Where is your comment, This result is consistent with our Palestinian community because mainly Palestinian community and especially in camps has extended family and culturally a family up to 4 children is considered a small one.

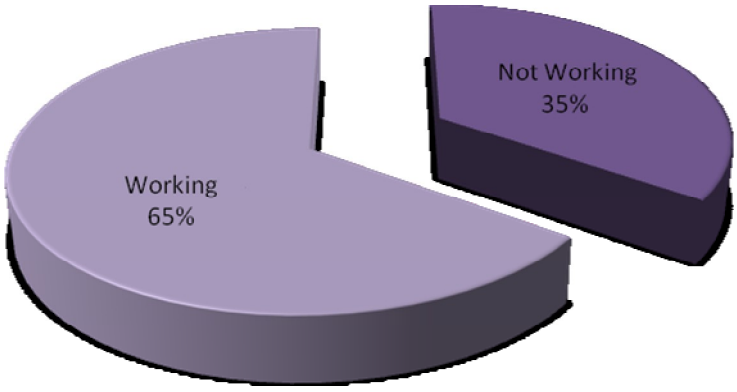

Figure 4. 5: Distribution of study population by father occupation

In figure 4.5 The researcher divided study population of father occupation into two categories, Working and not working, The study showed that 261 (65 %) of fathers of the students were working in different fields such as governmental sectors, UNRWA, While 139 of the students' father (35 %) unemployment.

This result is consistent with the Institute of development studies (IDS) in 2007 which reported that the percentage of unemployment among males was 45% and will increase if the siege continued.

Table 4. 6: Father's employment of Smoking students.

Father	Frequency	Percentage
Work	63	64.2%
Not work	35	35.8%
Total	98	100.0

Table 4.6 showed that 64.2% of the smoking students were having a working father, while 35.8% of the population study were having unemployed father. This showed that the father employment encouraging in students smoking.

Table 4. 7: Father and Mother educational level:

Item	Father Education		Mother education	
	No.	%	No.	%
Illiterate	14	3.5	15	3.8
Literate	32	8.0	34	8.5
Primary school	41	10.3	42	10.5
Secondary school	136	34.0	167	41.8
University or college	156	39.0	142	35.5
Dead	21	5.3	0	0
Total	400	100.0	400	100.0

Table 4.7 showed that the rates between the fathers and mothers regarding educational level were almost the same and close to each other except in the secondary school and university degree which showed that (34%) of fathers completed secondary schools in comparison with mothers (41.8%). Fathers who graduated from university were (39%) in comparison with mothers (35%). Also the result showed that the total number of dead father was 21 (5.3%) in comparisons with mother (0%).

Table 4. 8: Family income:

Family Income	Frequency	Percent
No income	98	24.5
1000 NIS and less	121	30.3
From 1001 to 2000 NIS	72	18.0
From 2001 to 3000 NIS	55	13.8
More than 3000 NIS	54	13.5
Total	**400**	**100.0**
Mean = 1948.0 , MD=1900 , Std=12.1)		

The researcher classified the monthly income into five categories, result revealed that (30.3%) had income of less than 1000 NIS, (24.5%) had no income, (18%) had income between 1001 to 2000 NIS, (13.8%) between 2001 to 3000 and (13.5%) had income more than 3000 NIS.

Table 4. 9: Relationship between family income and smoking students

Income	Smokers		Tried Smoking		Chi-square	p-value
	Freq.	%	Freq.	%		
No income	18	18.4	31	25	6.92	0.140
1000 NIS and less	35	35.7	25	20.2		
From 1001 to 2000 NIS	17	17.3	27	21.8		
From 2001 to 3000 NIS	13	13.3	18	14.5		
More than 3000 NIS	15	15.3	23	18.5		
Total	**98**	**100.0**	**124**	**100.0**		

The relation ship between smoking and family income is not statistical significant (chi – square 6.92, p-v 0.140).

The present study has shown that there are a high percentage of families who are living under poverty line; nearly half of the study had no income or less than 1000 NIS monthly. This percentage of poverty in the Palestinian community refers to many reasons, such as occupation, closure, unemployment, siege… etc.

This result is convenient with the World Bank who reported that 67% of Palestinian households are living below the poverty line due to unstable political situation which negatively affected the socio economic status in Palestine, (World Bank 2007).

In Table 4.9 the result showed that 35 smoking students (35.7%) were had income of less than 1000 NIS, (18.45%) had no income, (17.3%) had income between 1001 to 2000 NIS, (13.3%) between 2001 to 3000 and (15.3%) had income more than 3000 NIS.

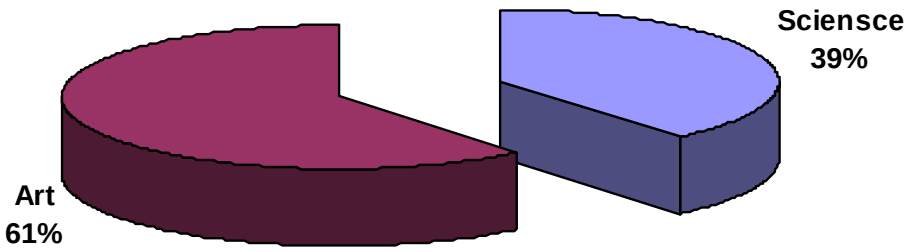

Figure 4. 6: Distribution of study population of tried smoking for even one or two puffs

The researcher divided study population of who tried smoking for one or two puffs into two categories, as shown in figure (4.6), the finding revealed that nearly half of the study population (55%) have tried smoking even one or tow puffs who were 222 students out of 400, which is a high percentage compared with a similar study prepared by CDC which showed that Fifty percent of high school students have ever tried cigarette smoking, even one or two puffs (CDC.2008)., this result showed the seriousness of the problem and how its spread globally.

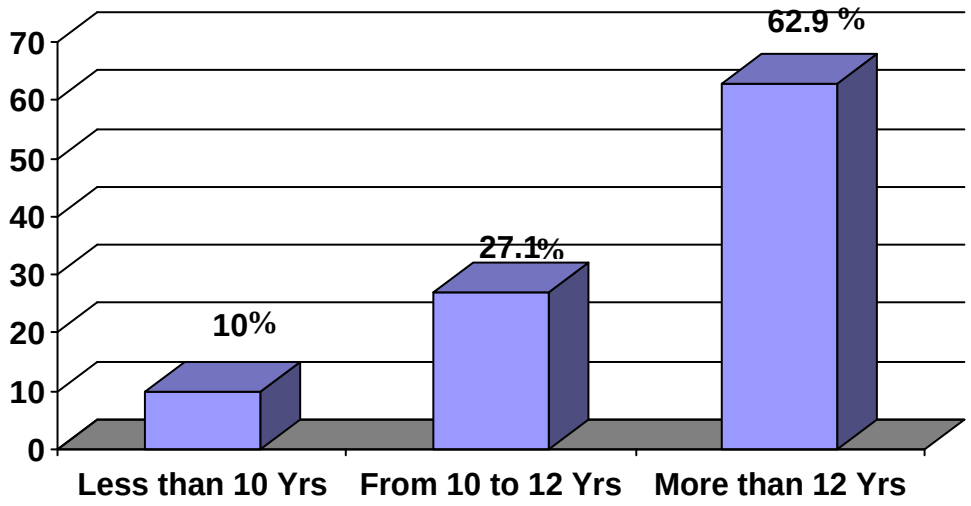

Figure 4. 7: Distribution of study population by age on tried smoking

Regarding age on tried smoking, figure 4.7 shows that 62.9 % of the students start smoking in age more than 12 years; however 27.1% start in age 10 to 12 years, while 10% start when they were less than 10 years. This result is consistent with GYTS (National Council on Substance Abuse) who found in a study prepared in 2002 that most students surveyed indicated that they started either experimenting or smoking at the age of 12, or 13 (GYTS, 2002).

Unfortunately, this problem begins long before high school, or even junior high. Very little data about smoking is regularly collected for kids under 12, but the peak years for first trying to smoke appear to be in the sixth and seventh grades, or between the ages of 11 and 12, with a considerable number starting even earlier. For example, in a Nationwide Monitoring the Future survey, thirteen percent of eighth grade students

reported having first smoked by the fifth grade (ages 10 and 11), and 28 percent have tried smoking by the eighth grade (Johnston, 2002).

A study conducted in Yemen showed that the most common place for smoking the first cigarette for those aged 14 years or under was the home, while for males aged 15-19 years it was outside the home. The place of smoking the first cigarette was significantly different between girls and boys; girls predominantly smoked their first cigarette at home, while boys had this experience on the way to/from school.

The main reason for starting smoking was to see what it was like but a significantly higher proportion of girls than boys gave this as the reason. Among those aged 14 years or under the second reason expressed was to imitate the behavior of others, while among the age group 15-19 years it was because of encouragement by others. (Yemen Association for Cancer Control, 1995).

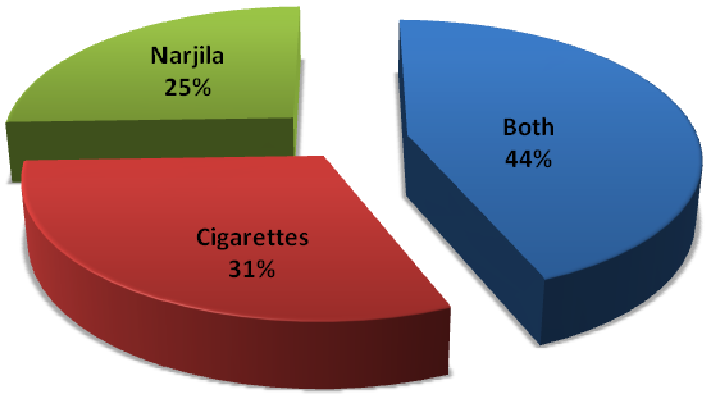

Figure 4. 8: Distribution of smoked study population

In figure 4.8 the study revealed that 44% of the study population were smoking both cigarettes and Narjila, while 31% of the students were smoking cigarettes and 25 were smoking the Narjila, this study is consistent with Haddad and Hamadeh, (1997) who showed that the prevalence of smoking in Bahrain was 26.6%, 25.5% and 25.4% among first-year, second-year and third-year students respectively, cigarettes (21.0%) and water-pipes (13.0%) were popular .These days Narjila has spread widely between

youth and the most dangerous matter at this problem is that the student is unaware of the dangerous effect of Narjila smoking.

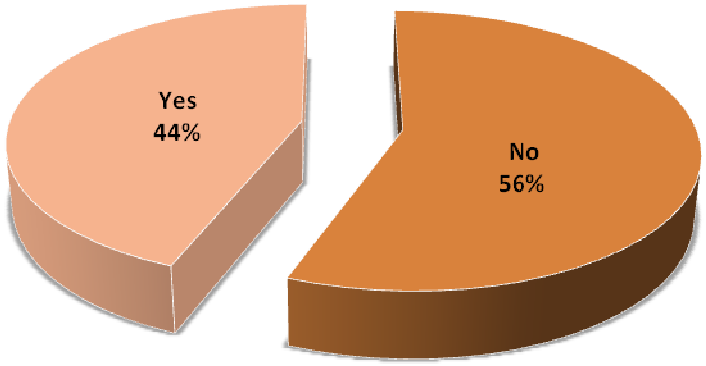

Figure 4. 9: Distribution of study population who still smoking

The study showed that 44% of 222 students who tried smoking for one or two puffs are still smoking until now this percentage equals 98 students of the population study, while 56% stopped smoking. Smoking prevalence among 13-15-year old ranges from 1 % to 40 % in different countries (Global Youth Tobacco Survey (GYTS) Collaboration Group, 2002).

The study revealed that 24.5% of the population study which was 400 students are still smoking until now, this result is convenient with other studies in Arab countries which showed that the prevalence of smoking among male secondary students was also higher than reported in the Republic of Yemen (21.9%), Saudi Arabia (20.0%), Syrian Arab Republic (15.9%) and Oman (6.5%), but lower than in Kuwait (50.0%).

The prevalence of smoking was 26.6%, 25.5% and 25.4% among first-year, second-year and third-year students respectively (Haddad and Hamadeh, 1997).

Table 4. 10: Distribution of the study population by frequently consumption of tobacco products:

Frequently consumption of tobacco products	Frequency	Percent
Regular use	48	48.9
Occasional use	38	38.8
Past use only	2	2.1
Experimental use	10	10.2
Total	**98**	**100.0**

Table 4.10 presented the frequent consumption of tobacco products among the smokers, the findings revealed that around half of the smokers (47.0%) consumes tobacco on a regular use, 37.2% of them consumes occasional use, 9.8 experimental uses, while 2.0% consumed tobacco products in the past only. However, recent studies showed that surprisingly many smokers start experimenting or regular smoking only in young adulthood (Lantz, 2003).

Table 4. 11: Distribution of the study population by the times of smoking:

Smoking frequently	Frequency	Percent
Usually once a month	8	8.1
A few times each month	14	14.2
Usually once a week	8	8.1
A few times a week	14	14.2
A few times most days	22	22.4
About half a pack each day	32	32.6
Total	**98**	**100.0**

As shown in the table 5.7, which illustrate the frequently smoking among smokers around one third of study (32.6%) smoke about half a pack each day, 22.4 % of the smokers consumes few times most days , and 14.2 of the smokers consumes few times each month. Regarding to the weekly use, 14.2% smokes usually once a month and few times a week respectively. (8.1%) smokes usually once a week,

The percentage of (32.3%) who smokes about half a pack each day is high and that is due to the law price of cigarettes packs in Gaza, which appears in figure no.5.12, which showed that about 51.0% of the smokers think that cigarettes are quite cheap and affordable. According to the Centers for Disease Control and Prevention (CDC) report

conducted in 1998 showed that each day in the United States more than 2,000 people under the age of 18 began daily smoking (CDC, 1998).

Table 4. 12: Number of cigarettes smoked per day

Cigarettes smoked	Frequency	Percent
5 Cig. And less	58	59.2
From 6 to 10 Cig.	33	33.6
More than 10 Cig.	7	7.1
Total	**98**	**100.0**

Table 4.12 showed that more than half of the smokers are smoking five and less cigarettes daily which was 59.2%, followed by 33.6 % smoking six to ten cigarettes per day and 7.1 % of the smokers consumed more than ten cigarettes daily.

Ling P & Glantz S, 2002 found that the number of cigarettes smoked per day leads to addiction. (Ling P and Glantz S, 2002).

A person who smokes about 1-1/2 packs (30 cigarettes) daily gets 300 “hits” of nicotine to the brain each day. These factors contribute considerably to nicotine’s highly addictive nature. Scientific research is also beginning to show that nicotine may not be the only psychoactive ingredient in tobacco (Gupta and Subramanian ,.2006).

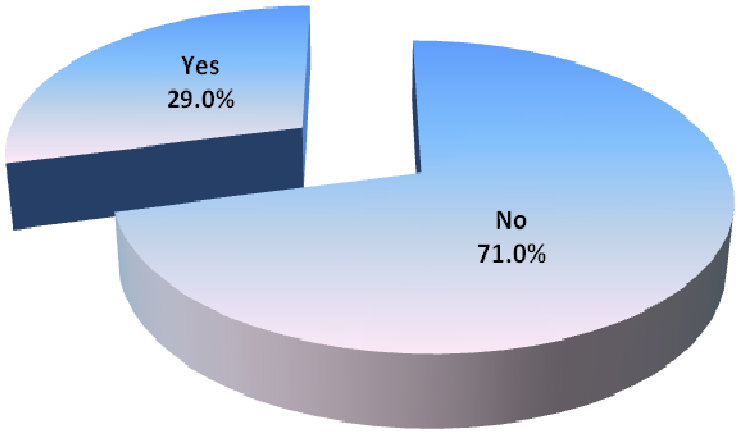

Figure 4. 10: Distribution of the study population by whom having enough money to buy cigarettes

Figure 4.10, showed that 29% of the smokers were having enough money to buy cigarettes, while 71% were not having the needed money to purchase cigarettes, followed by table 4.13, which showed that 44.1 % of smokers spend 50 and less NIS on a monthly basis, 22.5% of them spend From 51 to 100 NIS, 9.8% spend more than 100 NIS, while 19.6% spend nothing.

Table 4. 13: Summary table shows the monthly money spent and resources of tobacco.

Monthly money spent on tobacco	Frequency	Percentage%
Nothing	20	20.4
50 NIS and less	45	46
From 51 to 100 NIS	23	23.4
More than 100 NIS	10	10.2
Total	**98**	**100.0**

Usual way getting your tobacco	Frequency	Percentage%
By buying it	43	43.8
By Someone buy it for me	12	12.4
By friends	22	22.4
From home	21	21.4
Total	**98**	**100.0**

In the question of how do you usually get you cigarettes, the smokers answers were varied, 43.8% of them were purchasing their cigarettes, and 12.4% were buying the cigarettes by someone else, while 22.4% of the smokers were getting their cigarettes from their friends, 21.4% of the smokers were having their cigarettes from their home. Having enough spare cash to afford to buy cigarettes is also a factor in whether or not people smoke (Taioli, et al, 1991).

Millar WJ, et al revealed that, the personal income of adolescents has been associated with adolescent smoking: young people with more spending money showed higher levels of smoking presumably because they have the money which is needed to the purchase of cigarettes (Millar, et al, 1990).

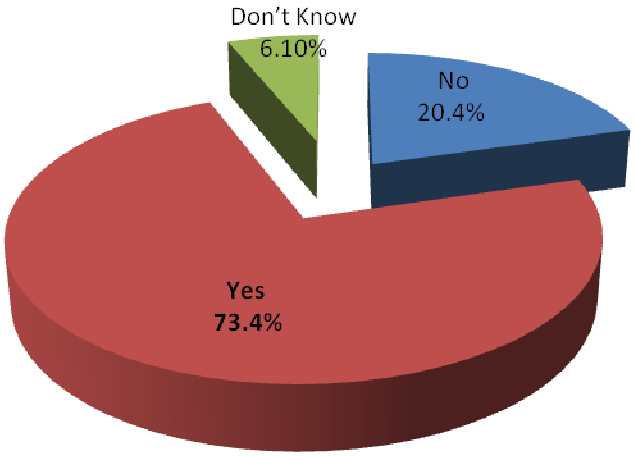

Figure 4. 11: Easiness to get cigarettes when the smoking student wants to

Figure 4.11 showed that the majority of students (73.4%) said that it was easy for them to get cigarettes if they wanted to do so, and that refers to the huge number of cigarettes street vendors who spreads widely in Gaza and are available at every street. 20.4% of the students answered that it was not easy for them to get cigarettes while 6.1% were don't know if they can or not.

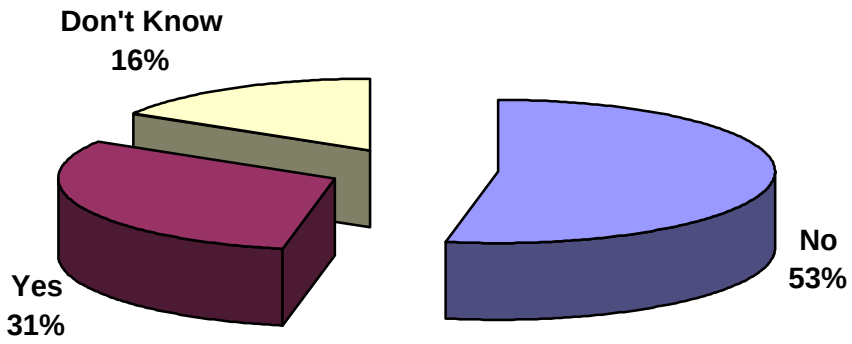

Figure 4. 12: Easiness to get cigarettes at home

When the students asked about if it was easy for them to get cigarettes at home, 30.6% of them answered that it was easy for them to get cigarettes at home, while more than half of the students answered that it was not easy for them to get cigarettes at home.

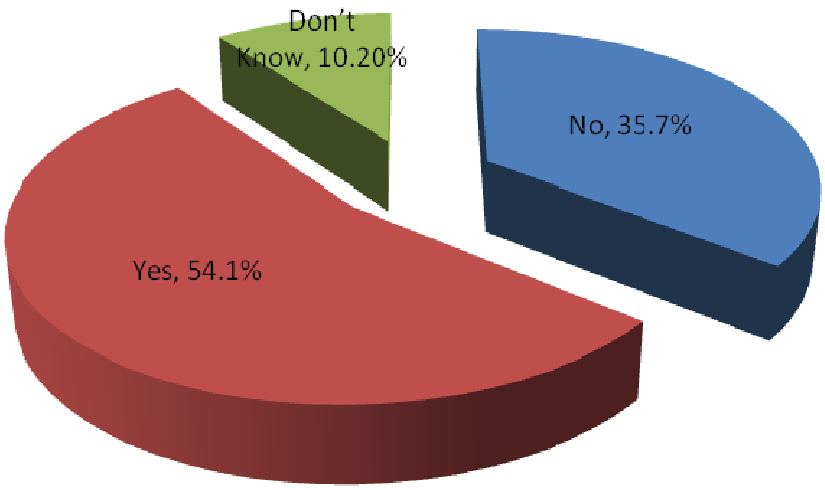

Figure 4. 13: Distribution of study population by if cigarettes price

Figure 4.13 show that the students opinion regarding the price of cigarettes were varied, 54.1% said that the cigarettes price was cheap and affordable, while 35.7% said that the price are not cheap, followed by 10.2% of them were don't know if the price is cheap or not.

The situation in Gaza Strip and the closure conditions and the contraband of goods through tunnels made the cigarettes prices available for most of people including students.

The law prices of cigarettes increase the prevalence of smoking among people. This study agreed with a study prepared by Chaloupka Frank, 1991 who found that higher cigarette prices reduce the probability of youth cigarette smoking. (Chaloupka, 1991).

When the students were asked about the reasons of smoking their answers came as shown in the table 4.14:

Table 4. 14: Reasons for smoking

If you smoke now, what are your reasons for smoking? (Circle all that fits you)	Frequency	Percent
I smoke when I'm stressed	48	49
I like the image smoking give me	2	2
It's enjoyable	13	13.2
My brother's/father's smoke	14	14.2
I smoke at special events	7	7.1
To be accepted as a member of my group	13	13.2
Being forced by friend	1	1
Total	**98**	**100.0**

Some young people think that smoking will calm their nerves and give them confidence. Others might feel that smoking makes them look and feel grown up. Some young people smoke because they think it helps them cope with stress, boredom, unhappiness, fear, anxiety and other problems. Young women who are unhappy about their appearance often take up smoking because they believe it makes them more attractive and they may use smoking as a tool to control weight (Hill, et al 1987).

Table 4. 15: Family members and friends who use any tobacco products

Do any of your family members use any tobacco products?	Frequency	Percent
Yes my father	132	33
Yes my brother	53	13.3
Yes both	50	12.4
No	165	41.3
Total	**400**	**100.0**

Table 4.15 show the percentage of family members who use tobacco products, the majority of the students have even father, brother or even both of them who smoke. 33.0% of the students fathers were smokers followed by 13.3 % of the students brothers were smokers, 12.4% of them were having both of father and brother who were smokers. A high percentage (41.3%) of the population study was having no smokers either fathers or their brothers.

Table 4. 16: Presence of other smokers students who in the family

Smoker students who are having smoker in their families	Frequency	Percent
My father smoker	39	39.8
My brother	10	10.2
Both (father and brother)	24	24.5
No one	25	25.5
Total	**98**	**100.0%**

The researcher revealed that 39.8% of the smoking students having a smoking father, 24.5% of them said that they have both smoking father and brother, while 10.2% of the smoking students said that their brother is a smoker and 25.5% of them said that they have no smokers at their families. Tyas and Pederson, 1998 noted that many studies demonstrated a relationship between parental smoking and adolescent smoking and other found no significant effect. In addition, some cross-sectional studies have found this relationship to be particularly strong (Buller, et al., 2003). On the other hand, youth smoking behavior is strongly influenced by people in the social environment such as parents, brothers and other people who might live in the youth's home (Tyas and Pederson, 1998).

Table 4. 17: Knowledge of smoking and passive smoking

Item	No.	%
Knowledge /Regular Smoking		
Bad knowledge	16	4.0
Medium Knowledge	43	10.8
Good Knowledge	341	85.3
Total	**400**	**100.0**
(Mean = 18.8 , MD=20.0 , Std=3.6)		

Knowledge /Passive Smoking		
Bad knowledge	54	13.5
Medium Knowledge	53	13.3
Good Knowledge	293	73.3
Total	**400**	**100.0**
(Mean = 9.6 , MD=10.0 , Std=2.7)		

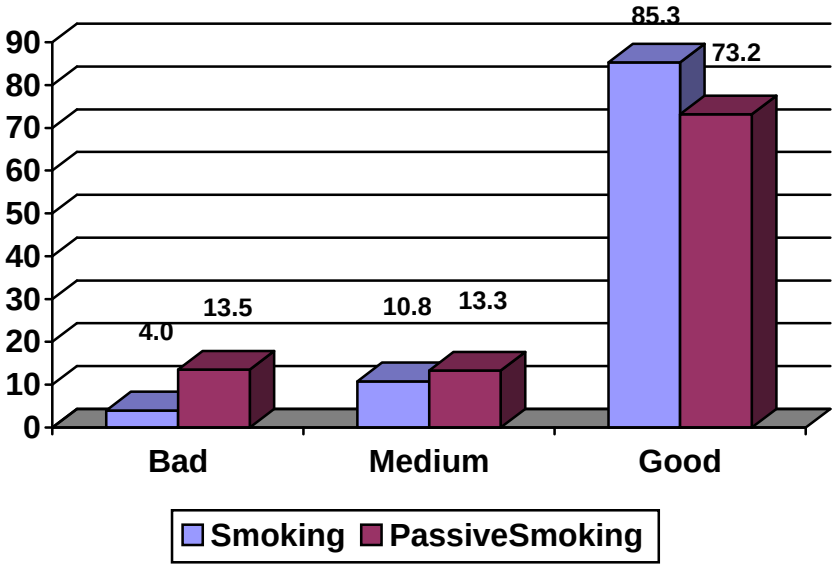

Figure 4. 14: Knowledge of smoking and passive smoking

Table 4.14 showed that 85.3% of the population study has a good knowledge about smoking; the majority of the students know the health hazards of smoking on heart, lungs and they know that smoking can cause cancer and cough. While 10.8% of the population study was having medium Knowledge towards smoking, while 4% was having bad knowledge of the health hazards of smoking.

Table 4. 18Attitude towards active smoking and passive smoking

Item	No.	%
Attitude/ Regular Smoking		
Negative	18	4.5
Positive	382	95.5
Total	**400**	**100.0**
(Mean = 33.6 , MD=35.0 , Std=6.9)		

Attitude/ Passive Smoking		
Negative	75	18.7
Positive	325	81.3
Total	**400**	**100.0**
(Mean = 4.8 , MD=6.0 , Std=1.7)		

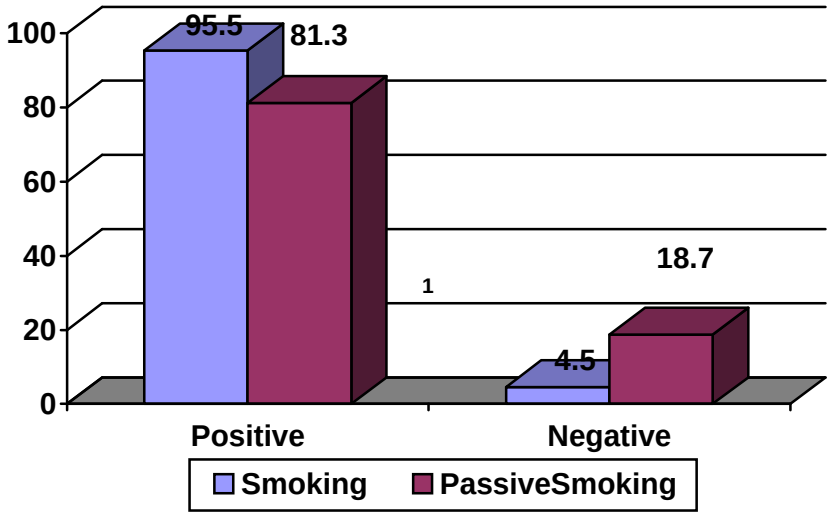

Figure 4. 15: Attitudes of smoking and passive smoking

The researcher found that the majority of the students (95.5%) had positive attitudes towards active smoking, the students opinions regarding passive smoking were varied some of the students agree that smoking is a waste of money.

While other students of the study sample disagreed that smoking makes you feel mature or self confidence.

Smoker's attitudes also varied by whether they were seriously considering quitting smoking or not. These results suggest that awareness of the health risks may be an important catalyst in the process of quitting. It may also be that those who are ready to quit are more likely to accept and admit the health risks.

Table 4. 19: Distribution of the study population of knowledge and attitude of smoking and still smoking cigarettes until now by t test

Item	Categories	N	Mean	df	T	Sig
Knowledge	Still smoker	98	18.1	220	-1.84	0.051
	Quit smoking	124	19.0	191.6		
Attitude	Still smoker	98	29.6	220	-4.99	0.001
	Quit smoking	124	34.0	207.5		

There was a significant relationship between knowledge and the still smoking students as evidence by t test -1.84 and p value 0.051, Some studies have shown that many early high school students and for most non-smokers, were having almost exclusively negative views of smoking.

They viewed smoking as a smelly, repulsive habit and tended to focus on its health effects. (Australian Government Department of Health and Aging Youth Tobacco

Prevention- 2005). And regarding attitude the study revealed that there is a significant relation ship between attitude and the still smoking students as evidence by t test -4.99 and p value 0.001

Early high school students and non-smokers often held negative attitudes towards smoking. As development progresses and young people start to experiment with smoking, they begin to develop positive associations, despite still acknowledging numerous negative aspects of smoking. (Haddad, Hamadeh1997).

Table 4. 20: Distribution of the study population of Knowledge and attitude of passive smoking and still smoking cigarettes until now by t test

Item	Categories	N	Mean	df	T	Sig
Knowledge	Still smoker	98	18.0	220	-1.97	0.050
	Quit smoking	124	18.9	197.9		
Attitude	Still smoker	98	34.2	220	-1.69	0.092
	Quit smoking	124	32.7	184.9		

There was a significant relationship between knowledge and the still smoking students as evidence by t test -1.97 and p value 0.050. Also there is no significant relationship between attitude and still smoking students as evidence by t test-1.69 and p value 0.092.

Table 4. 21: Distribution of the study population of Knowledge and attitude of smoking and department by t test

Item	Categories	N	Mean	df	T	Sig
Knowledge	Science	**156**	18.9	398	0.367	0.716
	arts	**244**	18.8	390.6		
Attitude	Science	**156**	34.2	398	2.273	0.023
	arts	**244**	32.7	388.8		

Table 4.21 showed that there were no statistical differences between knowledge of smoking and department (science and arts) as evidence by t test (0.376) and P value (0.716). On the other hand, there are statistical differences between department (science and arts) and attitude as evidence by t test 2.273 and p value (.02).

The study revealed that there is susceptibility for smoking at the scientific department more than the Arts department.

Table 4. 22: Relationship between knowledge and attitude of passive smoking and department

Item	Categories	N	Mean	df	T	Sig
Knowledge	Science	**156**	10.0	398	2.292	0.022
	arts	**244**	9.4	364.3		
Attitude	Science	**156**	5.2	398	3.653	0.001
	arts	**244**	4.6	373.9		

Table 4.22 showed that there were statistical differences between knowledge of passive smoking and department (science and arts) as evidence by t test (2.292) and P value (0.022). On the other hand, there are statistical differences between department (science and arts) and attitude as evidence by t test 3.653 and p value (0.001).

Table 4. 23 :Relationship between knowledge and attitude of smoking and living area

Item		N	Mean	Sum of Squares	df	Mean Square	F	Sig.
Knowledge	City	104	19.1	32.302	2	16.2	**1.277**	**0.280**
	Camp	234	18.8	5022.0	397	12.7		
	Village	62	18.2	5054.3	399			
	Total	**400**	**18.8**					
Attitude	City	104	33.7	305.847	2	152.9	**3.2**	**0.041**
	Camp	234	33.7	18904.5	397	47.6		
	Village	62	31.3	19210.3	399			
	Total	**400**	**33.3**					

Table 4.23 showed that there is no significant differences between knowledge of smoking and living area as evidence by F test (1.277) and p value (0.280).. On the other hand, there is a significant difference attitude of smoking and living area as evidence by F test (3.2) and p value (.041).

Table 4. 24: Relationship between knowledge and attitude of passive smoking and living

Item		N	Mean	Sum of Squares	Df	Mean Square	F	Sig.
Knowledge	City	104	9.7	26.536	2	13.3	**1.828**	**0.162**
	Camp	234	9.8	2881.6	397	7.3		
	Village	62	9.0	2908.2	399			
	Total	**400**	**9.6**					
Attitude	City	104	5.0	21.936	2	10.9	**4.045**	**0.018**
	Camp	234	4.9	1076.5	397	2.71		
	Village	62	4.3	1098.4	399			
	Total	**400**	**4.8**					

Table 4.24 showed that there is no significant relationship between knowledge of passive smoking and living area as evidence by F test (1.828) and p value (0.162). . On the other hand, there is a significant difference between attitude of passive smoking and living area as evidence by F test (4.045) and p value (0.018).

This study result was convenient with recent major surveys conducted by the U.S. National Cancer Institute and Centers for Disease Control have found widespread public belief that secondhand smoke is harmful. In both 1992 and 2000 surveys, more than 80% of respondents agreed with the statement that secondhand smoke was harmful. A 2001 study found that 95% of adults agreed that secondhand smoke was harmful to children, and 96% considered tobacco-industry claims that secondhand smoke was not harmful to be untruthful.

Table 4. 25: Relationship between knowledge and attitude of smoking and educational Level

Item		N	Mean	Sum of Squares	df	Mean Square	F	Sig.
Knowledge	Excellent	75	17.9	79.2	3	26.4	2.101	0.100
	V. good	137	19.0	4975.1	396	12.6		
	Good	148	19.1	5054.3	399			
	Acceptable	40	19.1					
	Total	400	18.8					
Attitude	Excellent	75	30.3	936.2	3	312.0	6.762	0.000
	V. good	137	33.4	18274.1	396	46.1		
	Good	148	34.6	19210.3	399			
	Acceptable	40	34.1					
	Total	400	33.3					

Table 4.25 showed there are no statistical differences in knowledge between smoking and educational level as evidence by F test (2.101) and p value (0.1) but at the same time it showed a statistical difference in attitude between smoking and educational level as evidence by F test (6.762) and p value (0.00).

This result is consistent with Several studies who reported a positive relationship between smoking and low school performance (Conrad, Flay, and Hill., 1992) or smoking and a low educational level in adolescence (Karvonen and Rimpelä, 1996; Rahkonen, 1994; Vereecken et al., 2004) and the students who are not doing well at school (Audrain-McGovern et al., 2004; Flay, Hu, and Richardson,., 1998; Griffin et al., 1999; Karp et al., 2005; Reimers et al., 1990; Rimpelä, 1980; Tucker et al., 2003; van den Bree et al., 2004; Vartiainen et al., 2004; White et al., 2002) or have low academic orientation and smoking (Chassin, et al., 2002 and van den Breeet ,et al, 2004).

Table 4. 26: Relationship between knowledge and attitude of passive smoking and educational Level

Item		N	Mean	Sum of Squares	df	Mean Square	F	Sig.
Knowledge	Excellent	75	8.5	138.7	3	46.220	6.609	0.000
	V. good	137	9.6	2769.5	396	6.994		
	Good	148	10.1	2908.1	399			
	Acceptable	40	10.2					
	Total	400	9.6					
Attitude	Excellent	75	3.9	78.2	3	26.084	10.125	0.000
	V. good	137	4.9	1020.1	396	2.576		
	Good	148	5.0	1098.4	399			
	Acceptable	40	5.4					
	Total	400	4.8					

Table 4.26 showed the relationship between knowledge and knowledge of passive smoking and educational level as evidence by F test (6.60) and p value (0.01) but at the same time it showed a statistical difference in attitude between passive smoking and educational level as evidence by F test (10.125) and p value (0.000). This result is consistent with Several studies who reported a positive relationship between smoking

Newcomb et al (1989), found that what they termed ‘academic lifestyle orientation’ (measured by school grades, educational aspirations, personal and professional plans,

and expectations) played a central influential role in adolescent smoking behavior, even when taking other related variables into consideration. (Newcomb et al 1989).

Adolescent smoking has been shown to be part of a larger suite of 'problem-prone' behaviors that tend to be highly correlated. These behaviors encompass involvement p-violent and delinquent behavior, a history of trouble with the police. (Tyas & Pederson, 1998).

Table 4. 27: Summary tables of the students being in a smoker's environment.

Item	No.	%
Smoker's beliefs that being beside a smoker motivates and encourage hem t smoke		
Yes	156	39.0
No	193	48.3
I Don't know	51	12.8
Total	400	100.0
Number of days that people smoked in student's home, during the past 7 days, o how many days and while he was at home		
0 days	93	23.3
1to2 days	118	29.5
3 to 4 days	32	8.0
5 to 6 days	43	10.8
7 days	114	28.5
Total	400	100.0
Number of days that people smoked in other places during the past 7 days, a student's presence		
0 days	47	11.8
1to2 days	120	30.0
3 to 4 days	86	21.5
5 to 6 days	42	10.5
7 days	105	26.3
Total	400	100.0

Table 4.27 shows that the students believe about being beside a smoker encourages and motivates him to be a smoker, the answers on this question was 48.3% of the study population said that being beside a smoker is not having any effect on us to be smokers. 39% of the population study said that being beside a smoker encourages and motivate them to be smokers or to start smoking, while 12.8% were not having any information about the effect of passive smoking on health.

The table also shows the number of days in which the student exposed to smoking weather in their homes or even at their presence, the ratio shows that 29.5% of the population study, said that they have been exposed to smoking for one to two days, while 28.5% were exposed to smoking for 7 days, 23.3% answered that they have never been exposed to smoking at their homes or at their presence. 10.8%, 8% were exposed to smoking for three to six days.
Center for Disease reported that one-quarter (26.5%) of the students in UAE live in homes where others smoke, and 1 in 3 (32.9%) of students are exposed to smoke around others outside of the home; 1 in 4 (26.0%) have a parent who smokes and almost 10% of the students have most or all friends who smoke.

This result is convenient with the same study made by CDC which showed that the percentage in Egypt is 38.0 % live in homes where others smoke. In UAE 32.9% is around others who smoke in places outside their home. (CDC, 2005). The proper knowledge about passive smoking and the health hazards was related to the presence of smokers in the homes where the pupils live.

The percent of the students was significantly higher among those who were living with no-smokers at home in comparison to the students who were living with smokers.

The study showed that 26.3% of the students has exposed to smoking for seven days in places other than their homes, while 10.5% of them has exposed to smoking for five to six days, followed by 21.5% exposed for three to four days, 30.0% and 11. % has exposed to smoking for one to two days and never exposed to smoking respectively.
According to ASH (Action on Smoking and Health), a UK charity, 600 people die each year in the workplace in the UK as a result of passive smoking.

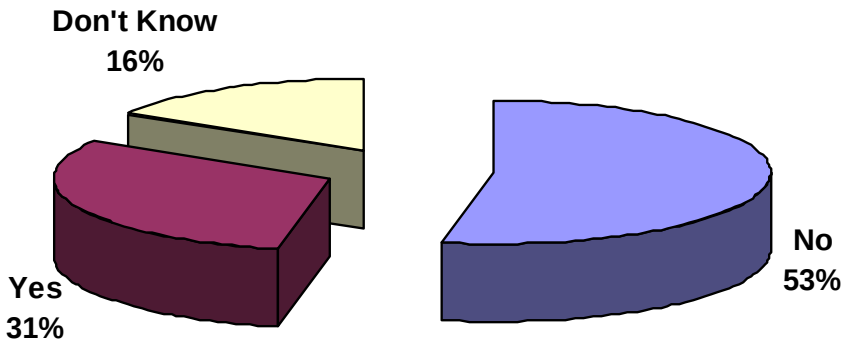

Figure 4. 16: Banning smoking in public places

Figure 4.16 showed that the students opinion of smoking bans in public places, a high percentage of students 83.0% were with banning smoking in public places, while 17.0% were disagree of banning. The same study has been conducted in UAE revealed that 69.8% of the population study think that smoking should be banned in public places, a similar study conducted in Egypt the percentage was 84.7 %. (CDC, 2002).

In addition, other study done by Robert C, et al. (2003) showed that the majority of adults, both smokers and nonsmokers support smoking bans in a wide variety of places.

The percentage of all respondents reporting the presence of smoking bans in several public and private places increased from 2000–2001.

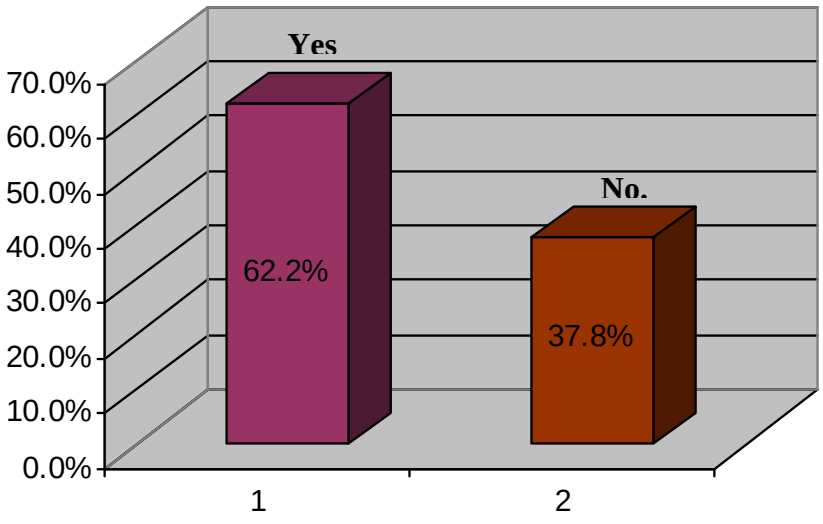

Figure 4. 17: Student's opinion regarding quitting smoking

Figure 4.17 showed the students opinion regarding quitting smoking, 62.2% of the smokers tried to quit during the last year. This result was approximately consistent with a study done by CDC (2008) which showed that 49.7% of current smokers in high school had tried to quit smoking cigarettes in the year of 2007. Also other study done by CDC (2005) showed that 55.4% of middle school students who smoked seriously tried to quit in the year of 2002.

Table 4. 28: Summary table of students quitting

Variables	**Frequency**	**Percent**
Reasons of quitting		
Harmed my health	21	34.4
To save money	3	4.9
Both	14	23.0
My father punish me	23	37.7
Total	61	100.0
Quitting smoking in the next six months		
Yes	66	67.3
No	32	32.7
Total	98	100.0
Reasons for not smoking now		
I think it may be harmful to my health	157	51.1
I tried smoking, but 1 don't like the taste	14	4.6
I think it may be addictive	17	5.5
I just experimented with smoking and did not plan to do it	29	9.4
I am not interested in smoking	12	3.9
I know that my parents would disapprove	13	4.2
It will affect my athletic ability	8	2.6
1 have seen bad examples of what smoking can do	31	10.1
1 have other things I enjoy doing	3	1.0
It is a waste of money	14	4.6
Smoking could change my teeth color	9	2.9
Total	307	100.0
Smokers could quit smoking whenever they want		
Agree	103	25.8
Disagree	190	47.5
I don't now	107	26.8
Total	400	100.0

Table 4.28 showed that the majority of the students (34.4%) were thinking that smoking is harmful to their health, 4.9% of them tried to quit to save money, while 23% of them tried to quit for both above mentioned reasons. 37.7% of the population study tried to quit due to the restrictions putted by their fathers and their fear of the punishment.

67.3% of the smokers were planning to quit smoking with the next six months, while 32.7, were not planning to quit.

A study prepared by CDC, (2008) among high school students who are current smokers showed that 50% have tried to quit smoking cigarettes during the 12 months. In United Arab Emirates 67.2% tried to stop smoking during the Last year, In UAE the percentage of the student who wanted to stop smoking was 66.8 (CDC, 2008)
Our study result is consistent with a study done by NIDA, (1998) which showed that it is well documented that most smokers identify tobacco as harmful and express a desire to reduce or stop using it, and nearly 35 million of them make a serious attempt to quit each year.

The study also showed varied answers regarding the student's reasons for not smoking, the highest percentage was 51.1% of the students who do not smoke because they think that smoking may be harmful to their health, while the rest of the students were not smoking for the bad taste of smoking (4.6%), they think it is addictive (5.5%), 9.4% and 10.1% were not smoking because they experience it for once and not planning to repeat it and they have saw the bad examples of what smoking do respectively.

3.9% and 4.2% were not smoking because they are not interested in smoking and due to their father's disapproval respectively. 4.6% think that it is waste of money.
Students showed that they have good knowledge of smoking risk factors which appears in the percentage resulted in the study.

Students were asked why it is not a smart to smoke, They mentioned that smoking makes the heart beat faster, it temporarily raises blood pressure, it makes the arteries smaller and harder and it makes difficulty in breathing .They also mention that smoking is messy; it makes clothes, hair and breath smell bad; it makes a smoker's teeth yellow; it pollutes the air; and it hurts others who breathe the smoke (American Heart Association, 2008).

The study showed that 47.5% of the students said that they disagree with that smokers could quit smoking whenever they want, while 25.8% agreed and 26.8% don't know if they can quit whenever they want.

People who begin smoking at an early age are more likely to develop a severe addiction to nicotine than those who start at a later age. Of adolescents who have smoked at least 100 cigarettes in their lifetime, most of them report that they would like to quit, but are not able to do so. (American Legacy Foundation, 2000).

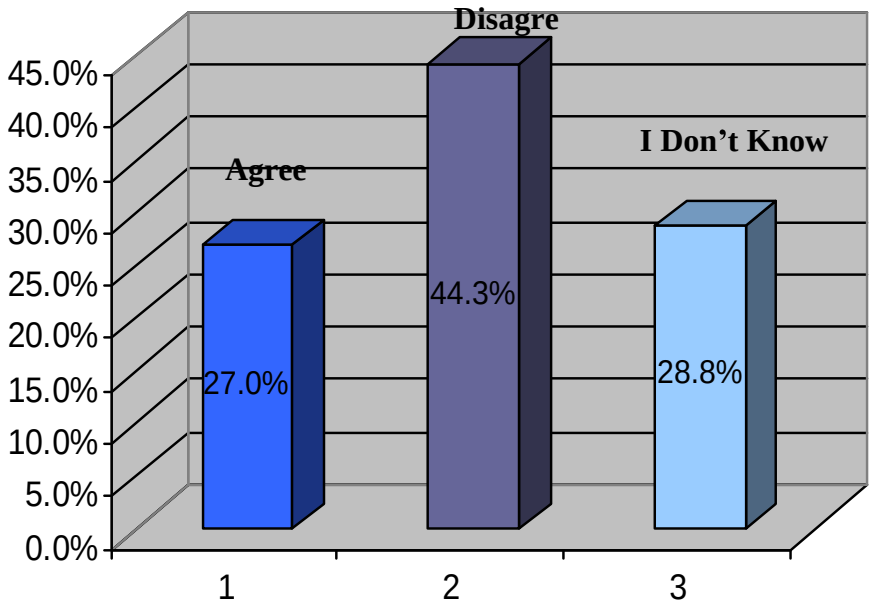

Figure 4. 18: Difficulty of quitting

In figure 4.18 the study showed that 44.3% of the students disagree with the difficulty of quitting, this mean that it is not difficult for those students to stop smoking, 24.0% and 28.8% of the students agreed that its difficult to quit smoking and don't know if it is difficult or not respectively.

Furthermore, many young people (including some who are already addicted) believe they are unlikely to become addicted to smoking and among teenagers who smoke; there is generally a belief that quitting would not be that difficult for them. Even among parents, knowledge about the process of addiction was limited.

There is no recognition that addiction can be contextual and that addiction typically occurs situation by situation, rather than cigarette by cigarette (Australian Governorate Department of Health and Aging June 2005).

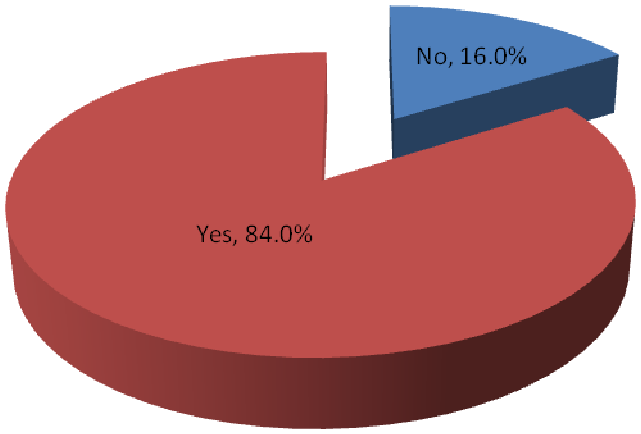

Figure 4. 19: Students who listened to cigarette advertisement

Figure 4.19 showed that 84.0% of the students listened to advertisements about smoking while 16.0% of them said that they did not listened to any advertisements about smoking.

The researcher think that listening or watching cigarette advertisement affect students to smoke, and that was due to the importance of people who are making these advertisements who may be a famous actor, or singer… etc.

Table 4. 29: Summary of relationship between advertisements and smoking

Item	No.	Percent
Places of reading or listening to cigarette advertisements		
Magazines	38	11.3
Newspaper	26	7.7
Billboard	140	41.7
Television	25	7.4
Radio	7	2.1
Super market	100	29.8
Total	**336**	**100.0**
Influence of cigarette advertisements on the students		
Very likely	81	20.3
Very unlikely	238	59.5
I don't know	81	20.3
Total	**400**	**100.0**
No of anti-smoking media messages (e.g., television, radio, billboards, posters, newspapers, magazines, and movies) have the students seen or heard During the past 3 month.		
A lot	125	31.3
A few	213	53.3
None	62	15.5
Total	**400**	**100.0**
Places of watching or reading the anti-smoking media messages		
TV	139	34.8
Radio	33	8.3
Posters.	139	34.8
School	5	1.3
Hospital and clinic	9	2.3
On cigarette box	75	18.8
Total	**400**	**100.0**
When you go to sports events, fairs, concerts, community events, or social gatherings, how often do you see anti-smoking message		
I never go to sports events, fairs, concerts, community even	73	18.3
A lot	68	17.0
Sometimes	159	39.8
Never.	100	25.0
Total	**400**	**100.0**

Table 4.29 showed that 41.7% of the students read or listen to cigarette advertisements on the billboard, 29.8% of the students read or listen to these advertisements in the supermarket, while 7.7% and 7.4 read or listen to these advertisements in newspapers and television respectively. Followed by 2.1% l read or listens to these advertisements

in radio. The same study conducted in Egypt said that 58.8% read or listen to cigarette advertisements on the billboard and in Lebanon 88.4% saw pro-cigarette advertisement on billboards (CDC, 2002).

A study by (CDC, 2002) conducted in Egypt revealed that 73.0% saw anti-smoking media messages, the same study conducted in Lebanon said that 77.4% saw anti-smoking media messages.

The study showed that 59.5% of the students think that cigarette advertisements does not have an influence on them while 20.3% were thinking that advertisements have and influence on them and 20.3% of them were don't know about the advertisement's influence on them.

Research might also benefit by considering social influences other than friends and family members. For example, an emerging body of literature is demonstrating that role model in the media via movies, television and advertising is related to youth smoking behavior (Schooler, et al, 1996).

The study showed that 53.3% of the students saw few advertisements of tobacco while 31.3% saw a lot of tobacco advertisements, followed by 15.5% did not see any tobacco advertisements.

The result showed that 34.8% see or read about the anti-smoking media messages in TV, followed by the same percentage 34.8% see or read about the anti-smoking media messages on posters, while 8.3% of the students listened to these advertisements in radio, and 1.3% followed by 2.3% saw or read about the anti-smoking media messages in schools and hospitals respectively while 18.8% of them see or read about the anti-smoking media messages on the cigarette's box itself.

A number of studies suggest that anti-industry advertisements increase anti-industry attitudes and in turn reduce smoking among youth. Media campaigns with anti-industry components appear to have contributed to declines in youth smoking (Goldman and Glantz , 1998).

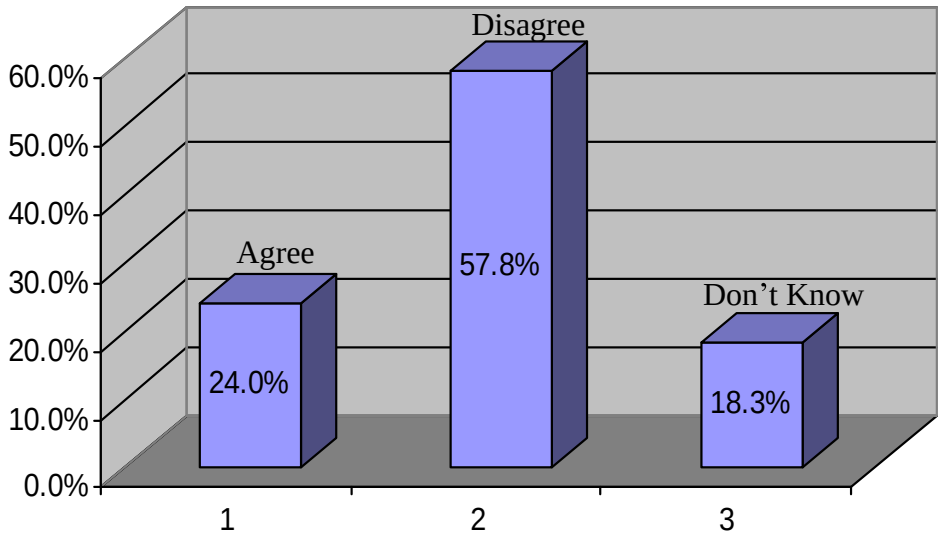

Figure 4. 20: Students opinion regarding cigarette advertisement influence on people

In figure 4.20 the study revealed that 231 students (57.8%) think that the advertisement can't influence some one to smoke, while 24.0% of study population think that advertisement can influence some one to start smoke , which is convenient with a study prepared by Tickle, and Sargent.(2001). who said that Cigarette advertisements mislead kids and increase their risk of smoking and 18.3% of the students were don't now if advertisements have an influence on people or not.

The conclusion of many researches revealed that mass-media anti-smoking publicity has proved effective in reducing smoking, both initially and in the longer term (Health Promotion International, 1987).

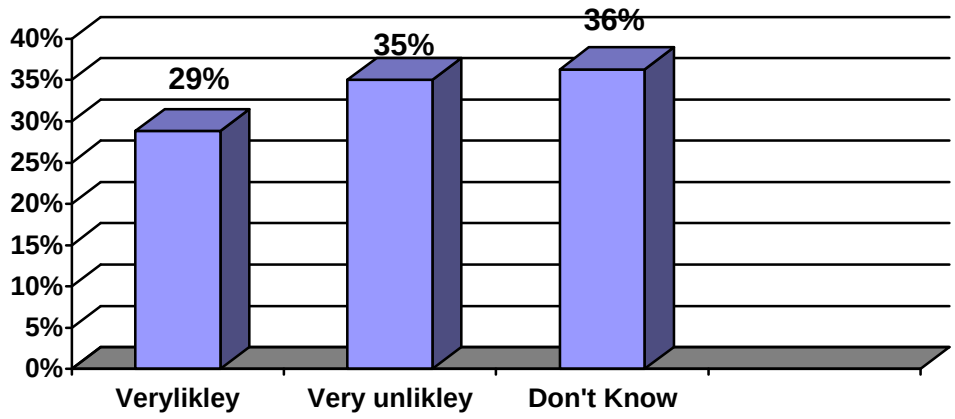

Figure 4. 21: Smoking advertisements influence non-smokers to begin

The study revealed that 36 % of study population doesn't know if the advertisements influence non-smokers to begin smoking, and 35 % were thinking that it doesn't affect them while 29 % of the students think that Smoking advertisements influence non-smokers to begin.

A study prepared by Lovato, 2003 revealed that longitudinal studies consistently suggest that exposure to tobacco advertising and promotion is associated with the likelihood that adolescents will start to smoke.

Based on the strength of this association, the consistency of findings across numerous observational studies, temporality of exposure and smoking behaviors observed, as well as the theoretical plausibility regarding the impact of advertising, we conclude that tobacco advertising and promotion increases the likelihood that adolescents will start to smoke (Lovato, et al, 2003).

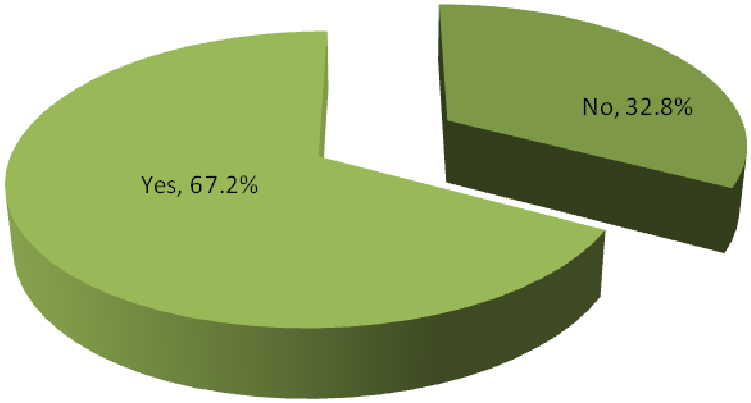

Figure 4. 22: Students who listened to a lecture about danger of smoking during the last months

Figure 4.22 showed the percentage of students who listened to a lecture about danger of smoking during the last months the study revealed that 67.3% did not hear lectures about the danger of smoking, while only 32.8% students heard lectures about the damages caused by smoking, the same study conducted in Egypt, the result showed that 50.8% of the students had been taught in class during the past year about the effects of tobacco use, the percentage in Jordan was 37.6% and in UAE 45.0% (CDC, 2005).

Evidence suggests that school health programmers can prevent tobacco use among youth (Glynn, 1989).

Anti-smoking school education can postpone smoking initiation for years. Schools are in a uniquely powerful position to play a major role in reducing the serious problem of smoking and other tobacco use by students (Jackson, 1997).

Chapter (5)

Conclusion & Recommendations

Chapter (5)

Conclusion & Recommendations

5.1 Conclusion

As before mentioned Smoking is an easy way to die early and at the same time is the first preventable cause of death in developing countries, tobacco industry keeps the tobacco consumption persistent despite all the effort exerted to control it. It is the baggiest threat at our youth starting smoking at young age increases the risk of addiction and consequently increasing the risk of death from smoking.

More than 80% of adult smoking starts before the age 18. That's why focusing the intervention programs to those people will reduce the prevalence of tobacco among adults and ultimately reduces the prevalence among adults. The prevalence rates of tobacco use presented in this study are alarming.

The present study provided the first data on prevalence of smoking among secondary school students in middle area; it is cross sectional study aimed to identify the effect of socio –demographic characteristics on Cigarette smoking.

The study sample composed of (400) students distributed on 6 secondary schools in the middle zone of Gaza, students were chosen from every school by simple random selection.

1. The study found that there is high prevalence of smoking among secondary school students which was 24.5% of the population study who are still smoking until now.

2. The study revealed that the parental smoking was the initiative factor to start smoking among students. Father occupation plays a major role in influencing students to start smoking.

3. Study revealed that high percentage of the study population tried to quit smoking during the last years, and more than half of the study think that cigarette advertisements does not affect them or encourage them to start smoking.

4. Additionally the result reflects the ignorance of the effect of media or advertisements and if it influence non-smokers to be smokers.

5. Unexpected result in this study that the students were not having any lectures which was talking about the dangers of smoking, the researcher think that the school plays a major role in students awareness of smoking hazards.

6. Unfortunately, the students achievement at school is not affecting the student's smoking status 36.7% of the smoking students were having excellent marks followed by 32.7% of them were having very good marks at school. While 30.6% of the smoking students were rolled in science department and 69.4% were rolled in the arts department.

7. The results revealed that 64% of the smoking students were having a working father which reflects the effect of father employment on students smoking.

5.2 Recommendations

The result of this study showed the seriousness of the problem and motivates the researcher to make the needed recommendations to help the families and decision maker to avoid the smoking phenomena among students.

- Suggest prevention programs among the whole community to increase the awareness, so we can or reduce initiation and increase the role models for the teenagers.
- Ban smoking in all public, governmental, and private sectors to reduce exposure of second hand smoke especially Narjila.
- Schools must provide the students with anti smoking lectures a including and give effective health promotion programs (workshops, discussion, face to face, etc.) and special lessons about danger and effects of tobacco smoking.
- Young people must take action to protect themselves, other young people and their communities from being victimized by tobacco companies. By assuming active anti-tobacco advocacy roles Increase the anti- smoking advertisement and messages through the media and the public places.

- Impose the application of the law, which forbids the advertisement through the mass media (as nowadays Narjila smoking is promoted through the newspapers as part of cafes).
- Impose the application of the law of not selling cigarettes to those less than 18.
- Increased taxation on tobacco products so as to make them less affordable to children and adolescents.
- Repeat these types of studies to see the effect of intervention programs.

5.3. Future Research Recommendations:

- Future studies should be taking place on larger study sample to estimate the seriousness of the problem.
- Future studies should be conducted on female's students to estimate the prevalence of smoking among girls.
- More studies should be done to evaluate the health education programs in school and it's covering to the smoking hazards on health.
- The researcher advised another studies to provide more information about the relation ship between secondary school students and the factors affect those students.

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Annex one- Map of Palestine

Source (www.transitionsabroad.com/listings/work/volun...(

Annex Two - Map of Gaza Strip

Annex 3

بسم الله الرحمن الرحيم

دعــوة

أخي الطالب،،،

أنا الطالب حازم عبد الحكيم أبوملوح، أدرس بكلية الصحة العامة - جامعه القدس أبوديس، أقوم بإعداد بحث بعنوان ***"محددات التدخين بين طلبة المدارس الثانوية بنين في المنطقة الوسطى"*** باعتباره متطلب للتخرج والحصول على درجة الماجستير وتم اختيارك بناء لمطابقتك شروط اختيار العينة.

إذ نشكر لك مشاركتك في هذا البحث، والذي سيساهم في وضع الخطط الكفيلة بمكافحة ظاهرة التدخين بين أفراد المجتمع وتجنيبهم الإصابة بالأمراض الناتجة عنه كالسرطان وأمراض القلب، يرجى الإجابة على هذه الاستمارة بجدية ودقة وبدون ذكر الأسماء مؤكدين لك **بأن المعلومات ستعامل بسرية تامة** ولن تستخدم إلا لأغراض البحث العلمي فقط.

تعليمات هامة:

1. اقرأ كل سؤال بعناية
2. اختر إجابة صحيحة واحدة، من الخيارات المذكورة بعد كل سؤال في الاستبيان.
3. استعمل قلم الرصاص الخاص لملء الإجابات
4. حاول الإجابة على كل أسئلة الاختبار، وفي حالة عدم تأكدك من الإجابة الصحيحة حاول اختيار أقرب إجابة إلى الصواب.

ملاحظة: قبل البدء في الإجابة هل تود الاستفسار حول أي شيء عن الدراسة؟

شاكرين لكم حسن تعاونكم،،،

Invitation

Dear student,,

My name is Hazem Abdel-Hakim Abu Maloh, a student at the Faculty of Public Health - University of Jerusalem, Abu Dis, I am preparing a research entitled "The determinants of smoking among secondary school students in the Middle zone" this study is being carried out as a part of the requirement for the master degree of public health.

I would like to thank you for your participation in this research, which will contribute to the development of plans to combat the phenomenon of smoking among members of the community and prevent diseases caused by such as cancer, heart disease, please answer the questions of this form seriously, thoroughly and without mentioning names, assuring you that the information will be treated strictly confidential and will only be used For the purposes of scientific research only.

Important instructions:

- Read each question carefully.
- Choose the correct answer
- Use a pencil to fill in the answers.
- Try to answer all the questions of the questionnaire, in case you do not know the right answer try to choose the nearest answer.

Note: Before proceeding to answer, would you like to ask any question?

Thank you for your cooperation,,

Annex 4

استبيان حول محددات التدخين بين طلبة المدارس الثانوية في المنطقة الوسطى بغزة

المجال الأول :يتعلق ببعض المعلومات الشخصية عنك

1- **كم هو عمرك الحالي؟**

---------- سنة.

2- **أين تسكن؟**

A- مدينة. **B-** مخيم. **C-** قرية.

3- **في أي صف تدرس حالياً؟**

A - الحادي عشر **B** - الثاني عشر

4- **في أي قسم؟**

A - علمي **B** أدبي

5- **كيف هو مستواك العلمي؟**

A مقبول **B** - جيد

C - جيد جدا **D** ممتاز

6- **من كم فرد تتكون عائلتك ؟**

A أربعه أشخاص أو أقل **B** من 5 -7 أشخاص

C من 8 - 10 أشخاص **D** أكثر من 10 أشخاص

7- **ما هي وظيفة والدك؟**

A- لايعمل **B**-موظف حكومة

C- في الجيش أو الشرطة **D**- موظف قطاع خاص

E- متقاعد **F- مزارع**

G - عامل أو سائق **H** أخرى/ حدد----------

8- **ما هو مستوى والدك العلمي؟**

A- أمي **B**- مثقف

C- المدرسه الابتدائية **D**- المدرسة الثانوية

E- جامعه أو كلية **F** - أخرى/ حدد----------

9- **ما هو مستوى والدتك العلمي؟**

A- أمية **B**- مثقفه

C- المدرسه الابتدائية **D**- المدرسة الثانوية

E- جامعه أو كلية **F**- أخرى/ حدد----------

10- **ما هو مقدار الدخل الشهري لا سرتك؟**

---------- **شيكل.**

المجال الثاني /يتعلق باستهلاك التبغ والتدخين :

ضع دائرة حول الإجابة التي تتناسب مع رأيك:

11- **هل سبق لك أن حاولت تدخين السجائر، حتى ولو نفس واحد أو نفسين؟**

A - نعم **B** لا **(إذا كانت إجابتك بـــ لا انتقل للسؤال رقم 24)**

12- **هل مازلت تدخن السجائر حتى الآن؟**

A - نعم B لا

13- **إذا كانت إجابتك على السؤال السابق بـ (نعم) كيف هو اعتيادك على استهلاك منتجات الدخان؟**

A- يومياً **B**- أحياناً

C- لقد دخنت في الماضي فقط **D**- ادخن فقط للتجريب (مرات قليلة فقط)

14- **ما هي كمية الدخان التي تدخنها حالياً؟**

A مرة في الشهر **B**- مرات قليلة في الشهر

C- مرة في الأسبوع **D**- مرات قليلة في الأسبوع

E- مرات قليلة في اليوم **F**- نصف علبة في اليوم

15- **كم هو عدد السجائر التي تدخنها في اليوم؟**

---------- **سيجارة**

16- **كم تصرف من الأموال على السجائر في الشهر؟**

A لم أشترى السجائر أبداً **B**- ---------- شيكل

17- **ما هو نوع الدخان الذي تستخدمه؟**

A- السجائر **B**- الشيشة **C**- كلاهما معاً

18- **كم كان عمرك عندما حاولت تدخين السجائر للمرة الأولى؟**

---------- **سنة**

19- **هل عادة ما يتوفر لديك المال لشراء السجائر؟**

A - نعم B لا

20- **هل تعتقد أنه من السهل عليك الحصول على السيجارة إن أردت ذلك؟**

A - نعم B لا **C**- لا أدري

21- **هل من السهل عليك الحصول على السيجارة في المنزل؟**

A - نعم B لا **C**- لا أدري

22- **في رأيك هل اسعار السجائر رخيصة ومعقولة؟**

A - نعم **B** لا **C**- لا أدري

23- إذا كنت تدخن الآن، ما هي أسبابك للتدخين؟ ضع دائرة حول الإجابة التي تناسبك.

A أدخن عندما أكون مضغوط
B- لأنني أحب أن أظهر بصورة مدخن
C- لأن التدخين ممتع
D- لأن أبي وأخي يدخنان
E- أدخن في المناسبات الخاصة
F- أدخن كي أكون مقبولاً بين أصدقائي.
G - يتم الضغط علي من قبل أصدقائي كي أدخن
H - أخرى/ حدد----------

24- هل يدخن أي أحد من أفراد أسرتك أو عائلتك؟

1 - أبي / A – نعم يدخن **B** لا يدخن
2 - أخي / A – نعم يدخن **B** لا يدخن
3 - صديقي / A – نعم يدخن **B** لا يدخن

المجال الثالث: أسئلة تتعلق بالمعرفة والمواقف حول التدخين

25- إقرأ العبارات التالية بدقة وضع علامة صح عند الإجابة التي تراها مناسبة.

م.	العبارة	الإجابة		
		صحيحه	خطأ	لا أدري
.1	تدخين السجائر يمكن أن يسبب اضطرابات صحية			
.2	الشخص المدخن ربما يتعرض للسعال			
.3	السجائر تحتوي على مواد يمكن أن تسبب السرطان			
.4	النيكوتين في السجائر يمكن أن يسبب الإدمان			
.5	الاعتياد على التدخين لفترات هو أحد العوامل التي تؤثر على صحة الرئة			
.6	المرأة الحامل التي تدخن تتسبب في الاضطرابات لحملها			
.7	المرأة الحامل التي تدخن تتسبب في عدم نمو جنينها بصورة طبيعية.			
.8	تدخين سجائر قليلة لن يضر بصحتي.			
.9	تدخين السجائر لا يسبب أي ضرر لصحتي			
.10	أنا جدا قوي وأتمتع بصحة جيدة ولا أتأثر بالأمراض الناتجة عن التدخين			
.11	الأمراض الناتجة عن التدخين هي أمراض سهلة ويمكن الشفاء منها.			
.12	تدخين السجائر لا تؤثر على إنجازاتي			
.13	تدخين السجائر لا يسبب أي ضرر لصحتي			
.14	التدخين سوف يزيد من مستوى التركيز في الدراسة			
.15	سوف أكون أكثر جاذبية (عند الجنس الآخر) لو كنت مدخناً			
.16	تدخين السجائر يعزز من الحياة الاجتماعية			
.17	يعتبر تدخين السجائر خطير لكبار السن فقط			
.18	التدخين يساعد على فقدان الوزن			
.19	تدخين السجائر يجعلني أكثر ثقة بنفسي			

.20	المدخن ممكن أن يظهر أكثر نضجاً			
.21	تدخين السجائر يمكن أن يسبب أمراض القلب			
.22	التدخين ظاهرة مقبولة اجتماعيا.			
.23	يجب أن يكون هناك قوانين صارمة تطبق ضد التدخين.			
.24	لا يوجد فوائد لو أقلعت عن التدخين.			
.25	من الصعب جدا مقاومة ضغط الأصدقاء من أجل التدخين			
.26	التدخين هو في غاية الخطورة على الصحة.			
.27	بعد تدخين سيجارة ، يمكن للشخص أن يركز بشكل أفضل.			
.28	دخان السجائر يترك رائحة غير سارة.			
.29	التدخين يهدئ الشخص إذا كان مستاءً أو عصبياً.			
.30	الناس تنفق الكثير من المال على السجائر.			
.31	الشخص سوف يحصل على مزيد من الطاقة إذا لم يدخن			
.32	التدخين يسبب سوء في التنفس.			
.33	سيجارة واحدة تساعدني على التعامل مع الحالات الصعبة.			
.34	سيجارة واحدة ممكن أن تهدئني إذا كنت مضغوطاً.			

المجال الرابع : يتعلق بالمعرفة والمواقف اتجاه التدخين القسري/ السلبي أو اللاإرادي

26- إقرأ العبارات التالية بدقة وضع علامة صح عند الإجابة التي تراها مناسبة.

م.	العبارة	الإجابة		
		صحيحه	خطأ	لا أدري
.1	أنا أعتبر مدخن سلبي إذا كان هناك شخص يدخن بالقرب مني.			
.2	استنشاق دخان السجائر من أشخاص آخرين ليس لديه آثار سيئة على جسدي.			
.3	الأطفال الذين يحيطون بالمدخنين لا يتعرضون لاضطرابات رئوية			
.4	التدخين السلبي لن يسبب الاضطرابات الصحية للآخرين			
.5	التدخين السلبي يمكن أن يسبب مشاكل صحية خطيرة.			
.6	التدخين السلبي لن يسبب الاضطرابات الصحية للآخرين			
.7	إنه ليس من الحكمة أن يتم التدخين في مكان مغلق.			
.8	يجب أن يحظر القانون التدخين في جميع الأماكن العامة.			
.9	التدخين السلبي هو خطر لمن هم حوله.			
.10	استنشاق السجائر هو من العوامل التي تؤثر مرض الرئة			

المجال الخامس : يتعلق بالتدخين القسري/ السلبي أو اللاإرادي

27- هل تعتقد أن وجودك بجوار مدخن وتعرضك لدخان السجائر يدفعك أو يشجعك على التدخين؟

A نعم B لا C- لا أدري

28- في كم يوم من الأيام السبعة الأخيرة دخن أحد بحضورك وفي منزلك؟

A – لم يدخن أحد في أي يوم B – يوم أو يومان

C – 3 -4 أيام D – 5 -6 أيام E – 7 أيام

29- في كم يوم من الأيام السبعة الأخيرة دخن أحد بحضورك وفي غير منزلك؟

A – لم يدخن أحد في أي يوم B – يوم أو يومان

C – 3 -4 أيام D – 5 -6 أيام E – 7 أيام

30- 28- هل تؤيد حظر التدخين في الأماكن العامة (كالمطاعم والمقاهي والمدارس والعيادات والمستشفيات الخ)

A نعم B - لا

المجال السادس: يتعلق بموقفك تجاه الإقلاع عن التدخين:

31- هل حاولت الإقلاع عن التدخين خلال السنوات الماضية؟

A – نعم B لا

32- إذا كانت جوابك على السؤال السابق بنعم، حدد لماذا حاولت الإقلاع؟

---------- ----------

33- هل تخطط للإقلاع عن التدخين في الستة أشهر القادمة؟

A – نعم B لا

34- إذا كنت لا تدخن في الوقت الحالي ، ما هي أسبابك لعدم التدخين؟ ضع دائرة حول الإجابة التي تناسبك.

A لأن التدخين ضار بالصحة. B- لأنني حاولت التدخين ولم يعجبني طعمه.

C- لأنني أعتقد أنه يسبب الإدمان. D-لأنني استخدمته كتجربة فقط ولا أخطط لتكرارها.

E- لأنني لست مهتماً في التدخين. F- لأنني أعرف أن والداي سيعترضان على التدخين.

G- لأن التدخين سيؤثر على قدراتي الرياضية. H - لأنني شاهدت أمثلة سيئة على ماقد يسببه التدخين.

I - لأنني أستمتع بفعل أمور أخرى غير التدخين. J - لأن التدخين مضيعه للمال.

K- أخرى/ حدد----------

35- إذا حاول شخص ما التدخين ولو لمرة واحدة سيكون من الصعب الإقلاع عنه؟

A – نعم أوافق B لا أوافق C - لا أدري

36- يمكن للمدخنين الإقلاع عن التدخين بسهولة وقتما أرادوا ذلك

A – نعم أوافق B لا أوافق C - لا أدري

المجال السابع / يتعلق بالوسائل الإعلامية (الدعايات الخاصة بالتدخين)

37- هل سبق وأن قرأت أو استمعت لإعلانات عن السجائر؟

A – نعم B لا

38- إذا كانت إجابتك بنعم/ أين استمعت أو قرأت إعلانات عن السجائر؟ (يمكنك اختيار أكثر من إجابة)

A -في المجلات B في الجرائد

C - على اللوحات الإعلانية D في التلفزيون

E - على الراديو F أخرى/ حدد----------

39- في رأيك هل من الممكن أن تدفع إعلانات السجائر شخص ما على التدخين؟

A - أوافق وبشدة B غير متأكد C - أرفض وبشدة

40- كم كان مقدار تأثير إعلانات السجائر عليك؟

A - أثرت علي بشكل كبير B لم تؤثر علي C - لا أدري

41- إعلانات السجائر ممكن أن تؤثر على غير المدخنين ليبدأوا التدخين.

A - تؤثر بشكل كبير B لا تؤثر C - لا أدري

42- خلال الـ 3 أشهر الماضية، كم مرة شاهدت أو سمعت رسائل إعلامية (دعايات) تحذر من أو تتحدث عن مخاطر التدخين (سواء في التلفاز أو الراديو أو الجرائد، أو المجلات، أو الأفلام أو لوحات الإعلان أو الملصقات والنشرات)

A – كثيراً B قليلاً C أبداً

43- أين شاهدت أو قرأت عن وسائل إعلامية تتحدث عن مخاطر التدخين؟

A - في التلفزيون B على الراديو

C - على اللوحات الإعلانية D أخرى/ حدد----------

44- عندما تذهب لحضور المسابقات الرياضية أو الحفلات الموسيقية والثقافية أو المناسبات الاجتماعية هل تشاهد أية رسائل أو إعلانات تحذرك من مخاطر التدخين أو تدعوك للتوقف عنه؟

A – لا أذهب إلى المسابقات الرياضية أو الحفلات الموسيقية والثقافية أو المناسبات الاجتماعية.

B – في معظم الأوقات C – أحياناً D - لم أشاهد أية رسالة أو إعلان على الإطلاق

45- هل استمعت لمحاضرة في المدرسة عن مخاطر التدخين خلال الأشهر الماضية؟

A - نعم B لا

Determinants of smoking among secondary school students in middle zone:

Part I: Sociodemographic and educational data

1-How old are you? …… **years**
2-Where do you live?
a. City b. Camp c. Village

3-What grade/class are you in?
a. 11 b. 12

4-What is your department?
a. Science
b. Arts

5-What is your educational achievement?
a. Excellent b. Very good
c. Good d. Poor

6-How many persons do you live with?
a. 4 persons or less b. 5 – 7 persons
c. 8 –10 persons d. more than 10 persons

7-What is your father occupation?
a. No work b. Government worker
c. Army or Police d. Private sectors
e. Retirement f. Farmer
g. Labor or diver h. Others ……

8-What is your father educational level?
a. Illiterate
b. Literate
c. Primary school
d. Secondary school
e. University or college
f. Other specify …….

9-What is your mother educational level?
a. Illiterate
b. Literate
c. Primary school
d. Secondary school
e. University or college
f. Other specify …….

10-Household average monthly income?..... NIS

Part 2 : (Tobacco & Smoking consumption) Please, circle the answers, which are fits your opinion :

11. Have you ever tried smoking or use of tobacco in any form (even just one puff?)

1. Yes 2.No ⟶ ***Go to Q 25***

12. Do you smoke cigarettes until now?

a. Yes b. No

13. If Yes, How frequently do you consume tobacco products?

a. Regular use
b. Occasional use
c. Past use only
d. Experimental use (no more than few times)

14. How much do you currently smoke?

a. Usually once a month
b. A few times each month
c. Usually once a week
d. A few times a week
e. A few times most days
f. About half a pack each day

15. How many cigarettes do you usually smoke each day? ……. cigarettes

16. How much money do you spend for cigarettes in a month?

a. I have never bought any cigarettes
b. ……NIS

17. What tobacco products do you consume?

a. Cigarettes
b. Narjila (shesha)
c. Both

18. How do you usually get your tobacco?

a. I buy them
b. Someone buy them for me
c. I get them from my friends
d. I get them from home
e. Other ……

19. How old were you when you first tried smoking? ……. **Years**

20-. Have you always have enough money to buy cigarettes

a. Yes b. No

21. Dou you think it would be easy to obtain your own cigarettes if you wanted to?

a. Yes b. No c. I don't know

22. You can get cigarettes easily at home

a. Yes b. No c. I don't know

23. In your opinion, are cigarettes quite cheap and affordable

a. Yes b. No c. I don't know

24. If you smoke now, what are your reasons for smoking? (Circle all that fits you)

a. I smoke when I'm stressed
b. I like the image smoking give me
c. It's enjoyable
d. My brother's/father's smoke
e. I smoke at special events
f. To be accepted as a member of my group
g. Being forced by friend
h. Other specify……

25. Do any of your family members and friends use any tobacco products?

1. Father
2. Brothers
3. father& brothers
4. No one

Part 3 Questions about knowledge & Attitude of smoking

S.	Item	Answer		
		Agree	Disagree	Don't Know
1	Smoking cigarettes can cause health disorders			
2	The smoking person possibly gets cough			
3	A cigarette contains materials that can cause cancer			
4	Nicotine in cigarettes can cause addiction			
5	The length of smoking habits is a factor that influences lung health			
6	A pregnant woman who smokes cause disturbances to her pregnancy			
7	A smoking pregnant woman doesn't cause developmental disturbances on her child			
8	Smoking few Cigarettes will not harm my health.			
9	I am quite strong and healthy not be affected from smoking related diseases			
10	Smoking related diseases are easy and able to be cured			
11	Smoking cigarettes doesn't influence my achievement			
12	Smoking cigarettes doesn't do any harm to my health			
13	Study concentration will increase if I smoke			
14	I will be more attractive (to another sex) if I smoke			
15	Smoking cigarettes promote socialization			
16	Smoking cigarettes is only dangerous to elderly people			
17	Smoking cigarettes makes you lose weight?			

18	Smoking cigarettes make me more confident			
19	Smokers may appear mature			
20	Smoking cigarettes can cause heart disease			
21	Smoking is socially acceptable.			
22	There should be stricter enforcement of laws against smoking.			
23	There are no benefits if I quit of smoking cigarettes			
24	It is very difficult to resist peer pressure for smoking			
25	Smoking is extremely dangerous to smokers' health			
26	After a cigarette, people can concentrate better.			
27	Cigarette smoke leaves an unpleasant smell.			
28	Smoking calms people down when they are upset.			
29	People spend too much money on cigarettes			
30	People would have more energy if they did not smoke			
31	Smoking causes very bad breath			
32	A cigarette helps me deal with difficult situations.			
33	A cigarette would calm me down when I am stressed			

Part 4 : **Questions about knowledge & Attitude of Passive smoking**

S.	**Item**	**Answer**		
		Agree	**Disagree**	**Don't Know**
1	I am a passive smoker if there is a smoking man surrounded me			
2	Inhaling cigarettes smoke from other persons doesn't have bad effects to my body			
3	Children who are surrounded by smokers don't experience disturbances on their lung			
4	passive smoking won't cause health disturbances to others			
5	Passive smoke can cause serious health problems.			
6	It is unwise to smoke in an enclosed area.			
7	The law should prohibit smoking in all public places.			
8	Passive smoke is dangerous to those around it.			
9	inhaled cigarettes in a day are a factor that influences lung disease			

Part 5 : Passive smoking

28-Do you think that being beside a smoker motivates and encourage you smoke?
A-yes B-No C-I Don't now

29 During the past 7 days, on how many days have people smoked in your home, in your presence?
A- None B- 1 to 2 days C- 3 to 4 days D- 5 to 6 days E-7 days

30-During the past 7 days, on how many days have people smoked in your presence, in places other than in your home?
A- None B- 1 to 2 days C- 3 to 4 days D- 5 to 6 days E-7 days

31-Are you in favor of banning smoking in public places (such as in restaurants, in buses, streetcars, and trains, in schools, on playgrounds, in gyms and sports arenas, in pubs and discos)?
A- Yes B- No

Part 6 :Attitudes towards quitting smoking

32. During the past years, have you ever tried to quit tobacco?
1. Yes
2. No

33. If yes, specify why: ……..

34. Do you plan to quit smoking in the next 6 months?
a. yes b. No

35. If you don't smoke now, what are your reasons for not smoking? Circle all that fits you)

1. I think it may be harmful to my health
2. I tried smoking, but 1 don't like the taste
3. I think it may be addictive
4. 1 just experimented with smoking and did not plan to do it again
5. I am not interested in smoking
6. I know that my parents would disapprove
7. It will affect my athletic ability
8. 1 have seen bad examples of what smoking can do
9. 1 have other things 1 enjoy doing
10. It is a waste of money
11. Other specify……

36- if some one tried to smoke for once , it will be difficult to quit?
A-Agree B- Disagree C - I Don't know

37-Smokers could quit smoking whenever they want?
A-Agree B- Disagree C - I don't know

Part 7 : Cigarettes advertisement

38. Have you ever read or listen to cigarette advertisements
A. Yes b. No

39. If yes, where did you ever read or listen to cigarette advertisements? (You can choose more than one)

a. magazines b. Newspaper
c. Billboard d. Television
e. Radio f. Others:……

40. In your opinion, cigarette advertisement can influence someone to smoke.

a. I definitely agree b. unsure c. I definitely disagree

41. How much of an influence have cigarette advertisements had on you?

a. Very likely b. Very unlikely c. I don't know

42. Smoking advertisements influence non-smokers to begin.

a. Very likely b. Very unlikely c. I don't know

43. During the past 3 month, how many anti-smoking media messages (e.g., television, radio, billboards, posters, newspapers, magazines, and movies) have you seen or heard?

a. A lot
b. A few
c. None

44. Where did you see or read about the anti-smoking media messages?

a. TV
b. Radio
c. Posters.
d. Others, Specify----------

45. When you go to sports events, fairs, concerts, community events, or social gatherings, how often do you see anti-smoking messages?

a. I never go to sports events, fairs, concerts, community events, or social gatherings.
b. A lot
c. Sometimes
d. Never.

46- have you ever listened to a lecture about danger of smoking during the last months?

A-Yes B-No

Annex 5

Helsinki

Palestinian National Authority
Ministry of Health
Helsinki Committee

السلطة الوطنية الفلسطينية
وزارة الصحة
لجنة هلسنكي

Date: 18 / 12 /2006

التاريخ: 18 /12/ 2006

Mr./ Hazem Abu Maloh

السيد: حازم أبو ملوح

I would like to inform you that the committee has discussed your application about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:-

Determents of smoking among Governmental secondary school children in middle zone, Gaza Strip.

In its meeting on December 2006
and decided the Following:-
To approve the above mention research study.

و ذلك في جلستها المنعقدة لشهر ديسمبر 2006
و قد قررت ما يلي:-
الموافقة على البحث المذكور عاليه.

Signature
توقيع

Member
عضو

Member
عضو

Chairperson
Ministry of Health
Helsinki Committee

Conditions:-

- Valid for 2 years from the date of approval to start.
- It is necessary to notify the committee in any change in the admitted study protocol.
- The committee appreciate receiving one copy of your final research when it is completed.

Gaza Etwam – Telefax 972-7-2878166

Annex 6

MOE Permission letter

بسم الله الرحمن الرحيم

السلطة الوطنية الفلسطينية
وزارة التربية والتعليم العالي
مكتب الوكيل

Palestinian National Authority
Ministry of Education & Higher Education
Deputy Minister Office

الرقم : و ت غ / مذكرة داخلية ١٩٢٥
التاريخ : 2008/ 9/22

السيد / مدير التربية والتعليم – الوسطى حفظه الله،،،
السلام عليكم ورحمة الله وبركاته،،،

الموضوع : تسهيل مهمة بحث

يقوم الباحث / حازم أبو ملوح ، والمسجل لدرجة الماجستير بجامعة القدس كلية الصحة العامة تخصص الوبائيات والإحصاء الحيوي، بعمل بحث بعنوان:

"Determinates of smoking among Governmental Secondary School Children in Middle Zone Gaza "

لا مانع من قيام الباحث من تطبيق أداة بحثه وهي استبانة على المدارس الثانوية– بنين، وذلك حسب الأصول .

وتفضلوا بقبول فائق الاحترام ،،،

د. محمد أبو شقير
وكيل وزارة التربية والتعليم العالي

الأخوة / مديرو المدارس الثانوية المحترمين
تحية طيبة وبعد
للتعاون مع الباحث.
مع تعبئة استمارة الدراسة
ومدة التأثير حصص الطالب

نسخة : الملف 2008.10.12

غزة. هاتف(08-2861409- 2849311) فاكس(08-2865909) Fax:(08-2865909) Gaza (08-2861409-2849311)
E-MAIL: MOEHE@GOV.PS

Annex 7

Faculty of Public Health Permission Letter.

Al-Quds University
Jerusalem
School of Public Health

جامعة القدس
القدس
كلية الصحة العامة

20/9/2008

عطوفة وكيل وزارة التربية و التعليم العالي حفظه الله

تحية طيبة وبعد،،،

الموضوع: مساعدة الطالب حازم أبو ملوح

يقوم الطالب المذكور أعلاه بإجراء بحث بعنوان:

"Determinates of Smoking among Governmental Secondary School Children in Middle Zone Gaza"

كمتطلب للحصول على درجة الماجستير في الصحة العامة-مسار الوبائيات و الإحصاء الحيوي و عليه نرجو التكرم للإيعاز لمن ترونه مناسب لتسهيل مهمة الطالب في جمع البيانات اللازمة. علماً بأن المعلومات ستكون متوفرة لدى الباحث و الجامعة فقط وسنطلعكم على النتائج.

شاكرين لكم حسن تعاونكم ودعمكم للمسيرة التعليمية ،،،

و اقبلوا فائق التحية و الاحترام،،،

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Annex 8

Abstract “Arabic Form”

الخلاصة

التدخين مرتبط على نطاق واسع بأمراض خطيرة مثل أمراض القلب والأوعية الدموية والرئتين ويسبب الوفاة في كثير من الأحيان في البلدان المتقدمة والبلدان النامية. عالميا ، حوالي 90 ٪ من المدخنين يبدأون التدخين قبل بلوغ سن 20 عاما. كان الغرض من هذه الدراسة هو تقدير معدل انتشار التدخين والمحددات الرئيسية لانتشاره بين طلبة المدارس الثانوية في المحافظة الوسطى في قطاع غزة.

هذه الدراسة دراسة وصفية تحليلية، تم اختيار العينة عشوائيا من 4 مدارس ثانوية في المحافظات الوسطى في العام الدراسي 2008-2009. كانت العينة عبارة عن أربعمائة طالب تم اختيارهم عشوائيا من المدارس المستهدفة. قام الطلاب بتعبئة استبيان عبارة عن اسئلة وتم إجابة الأسئلة ذاتياً.

كشفت الدراسة عن أن 24.5% من الطلاب الذين شملهم الاستطلاع مدخنون من بينهم 44% يدخنون السجائر والنرجيلة على حد سواء ، في حين أن 61% يدخنون السجائر فقط ، وكان 25.5% من المدخنين يدخنون النرجيلة فقط. وعلاوة على ذلك ، كشفت الدراسة عن أن 69.4% من الطلاب المدخنين يدرسون في القيم الأدبي ، في حين أن 30.6% من الطلاب يدرسون التدخين في القسم العلمي. وبالإضافة إلى ذلك 65.3% من الطلاب المدخنين في الصف الحادي عشر و 34.7% في الصف الثاني عشر. كما إن متوسط عدد السجائر المدخنة يوميا هو 7 السجائر.

الدلائل تشير إلى أن الأبوين المدخنين أو تواجد الطلاب بالقرب من مدخنين هي من العوامل الرئيسية التي تدفع بهم لبدء التدخين.

من بين الطلبة المدخنين 38.2 % تأثر بتدخين والديه كما أن 39% من الطلبة المدخنين قالوا بأن وجودهم بالقرب من المدخن يحفزهم ويشجعهم على البدء بالتدخين.

وكشفت الدراسة عن أن 62.2% من المدخنين حاولوا الاقلاع عن التدخين خلال السنوات الأخيرة. 59.5% من عينة الدراسة أفادوا بأن إعلانات السجائر لا تؤثر عليهم أو تشجيعهم على البدء في التدخين.

على النقيض من ذلك ، 36.3% من عينة هذه الدراسة لا يعرفون ما إذا كان إعلانات السجائر تأثر على اتخاذ قرار التدخين أم لا. وعلاوة على ذلك ، وجدت الدراسة ان 67.3 % من عينة هذه الدراسة لم يتلقوا دورات توعية عن الأضرار الناجمة عن التدخين.

كانت هناك علاقات مهمة بين المعرفة عن مخاطر التدخين والطلبة المدخنين (0.051P value). وبالمثل ، فإن مواقف الطلاب دلت على أن لديهم قابلية للتدخين (0.001 P value).

وأوصت الدراسة بأن هناك حاجة إلى اتخاذ تدابير لازمة لاطلاق دورات التوعية في المدارس حول مخاطر التدخين، وبحاجة إلى برامج خاصة عن الإقلاع عن التدخين وبخاصة البرامج التي تستهدف الشباب والطلاب.