



COPYRIGHT NOTICE

Please note:

The material contained in this document can be used **ONLY** for **personal** study/research and therefore can be copied but only for **personal** use.

Any form of copying for distribution purposes requires copyright permission from author/university.

KNOWLEDGE AND PRACTICES OF SMOKING AMONG
STUDENTS OF THE UNIVERSITY OF NATAL ON
DURBAN CAMPUS RESIDENCES.

BY

Désiré KAMANZI

A dissertation submitted to the school of Nursing at the University of
Natal, Durban, in partial fulfilment of the requirements for a degree of

Master of Community Health Nursing

Supervisor: Dr. Oluyinka ADEJUMO.

December, 2001

TABLE OF CONTENTS

Title	Page
Dedication.....	i
Acknowledgements.....	ii
Declaration.....	iii
Chapter One: Introduction.....	1
1.1 Background to the problem to the problem.....	1
1.2 Problem statement.....	3
1.3 Purpose of the study.....	4
1.4 Research Questions.....	4
1.5 Objectives.....	4
1.6 Significance of the study.....	5
1.7 Definitions of terms.....	5
1.8 Conceptual Framework.....	5
1.9 Limitation of the study.....	8
Chapter Two: Literature Review.....	9
2.1 The global epidemic.....	9
2.2 Developed countries.....	12
2.3 Developing countries.....	19

2.4 South Africa.....	20
-----------------------	----

Chapter Three: Research Methodology.....24

3.1 Study design.....	24
3.2 Study Population.....	24
3.3 Sample size.....	25
3.4 Sampling.....	27
3.5 Case selection	27
3.6 Tools and data collection Technique.....	28
3.7 Data analysis.....	29
3.8 Ethical consideration.....	29

Chapter Four: Data presentation.....30

Introduction	30
4.1 Identification of the respondents.....	31
4.2 Knowledge of smoking.....	34
4.3 Practices of smoking.....	40

**Chapter Five: Discussion of the findings, Conclusion and
Recommendations.....51**

5.1 Overview of the findings.....	51
5.2 Rate smoking among students	51

5.3 Knowledge of smoking and smoking behavior.....	52
5.4 Practices of smoking.....	54
5.4.1 Smokers and their smoking initiation.....	55
5.4.2 State of second-hand smoke.....	56
5.4.3 Reasons for smoking.....	56
5.4.4 Smoking and decision-making about stop smoking.....	58
5.5 Conclusion and recommendations.....	59
5.5.1 Conclusion.....	59
5.5.2 Recommendations to:.....	60
1. Students.....	60
2. University of Natal Durban residences' Office.....	61
3. Health clinic at UND campus.....	61
4. University of Natal authorities.....	62
5. Other researchers.....	62
References.....	63

Appendixes:

1. Letter asking permission to conduct study survey on UND campus residences
2. Copy of letter granting permission to conduct the survey
3. Copy of approval granted by Research Ethic Committee
4. Research questionnaire

DEDICATION

I dedicate this work to my lovely family, my wife N. Hélène, to my daughters N. Nathalie, M. Elise and to my son S. Ivan.

ACKNOWLEDGEMENTS

I thank my creator for giving me strength, perseverance and courage to pursue and complete this study.

I am thankful to my supervisor, Dr. Oluyinka ADEJUMO who, despite his busy schedule ensured that I completed this study.

My sincere gratitude goes to the WHO AFRO and the School of Nursing, University of Natal collaborating centre for Nursing & Midwifery Development, from whom I received my scholarship. I am thankful especially to Professor L. Uys, the head of the School.

My sincere gratitude goes to the staff of the school of nursing. Your psychological and material support helped me to complete this study.

May I address my gratitude to the following people who deserved a special mention:

- ◆ My father's family,
- ◆ To my brothers and sisters
- ◆ Winnifred Agricole, my colleague, for the shared long busy time of studies.
- ◆ Rosemary Cadman for your help in editing this paper.

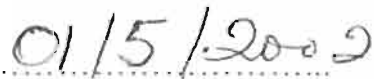
DECLARATION

I declare that this work being submitted for a Masters degree in Community Health Nursing is my own. It was completed in the year 2001, at the University of Natal, Durban campus, School of Nursing. This work has never been submitted for any other purpose. All authors used have been acknowledged by means of the American Psychologist's Association (APA) format for referencing. I am solely responsible for the opinions, interpretations and conclusions expressed in this study.



Signature

Mr. D. KAMANZI



Date

LIST OF TABLES

Table number	Table Title	Page number
2.1	Beneficial health changes according to time since quitting smoking	17
3.1	Distribution of University of Natal Durban campus residences and their housing capacity	25
3.2	Sample size among students on University of Natal Durban campus residences	26
4.1	Age of participants	31
4.2	Distribution of the participants by the level of study	32
4.3	Distribution of the respondents according to their residences	33
4.4	Distribution of the respondents by sex	34
4.5	Number of the respondents according to their knowledge of cigarette components	34
4.6	Frequency of the responses regarding the knowledge of organs damageable by tobacco	35
4.7	Frequency of the respondents regarding the knowledge of diseases caused by tobacco consumption	36
4.8	Knowledge of smokers about strategies useful in quitting smoking	37
4.9	Recognition of tobacco harm to non-smokers	38
4.10	Awareness of students about campus regulation against smoking	38
4.11	Awareness of students who smoke about campus regulation against smoking	39
4.12	Awareness of the respondents about strategies to stop smoking	39
4.13	Proportion of smokers among the respondents	40
4.14	Classification of smokers according to sex	40
4.15	Proportion of smokers per residence	41
4.16	Proportion of ex-smokers plus current smokers	42
4.17	Distribution of the respondents regarding their smoking initiation	42
4.18	Distribution of the respondents by age and sex at the beginning of tobacco consumption	43
4.19	Distribution of the respondents according to the length of time they have been smoking	44
4.20	Distribution of smokers according to the type of substance consumed	44
4.21	Distribution of the respondents according to the number of cigarettes consumed per day	45
4.22	Distribution of the respondents and their time used for smoking	45
4.23	Distribution of the respondents in terms of place used for smoking	46
4.24	Distribution of the respondents and daily cost of tobacco	47
4.25	Distribution of people among the respondents living with regular smokers	47
4.26	Proportion of second-hand smoke among the respondents	48
4.27	Proportion of smokers and their decision about quitting smoking	48
4.28	Distribution of the respondents according to the reasons for smoking	49
4.29	Distribution of the respondents according to the frequency of attempts to give up smoking	49
4.30	Proportion of current smokers who need help in stopping smoking	50
4.31	Distribution the respondents according to the length of time their attempted to stop smoking lasted	50

Chapter One:

INTRODUCTION

1. 1 Background to the problem

Tobacco use poses a growing threat to health, the economy and the environment world - wide. Although the rate of tobacco use has decreased somewhat among adults in some parts of the developed world, smoking rates among children and adolescents in these countries have increased, reversing the public health gains observed during the 1970s and 1980s (WHO, 1999). On 24 May 1999, the World Health Assembly (WHA), the governing body of the World Health Organization (WHO), paved the way for multilateral negotiations to begin on a set of rules and regulations to control the global rise and spread of tobacco products in the current century. The 191 member WHA unanimously backed a resolution calling for work to begin on the Framework Convention on Tobacco Control (FCTC), a new legal instrument to address issues as diverse as tobacco advertising and promotion, agricultural diversification, smuggling, taxes and subsidies (WHO, 2000).

In many countries, tobacco use is rising among young people. At the same time, the age of smoking initiation is declining. The majority of smokers begin while in their teenage years or earlier. If young people do not begin to use tobacco before the age of 20, they are unlikely to initiate its use as adults (WHO, 1998).

Data from the 1994 survey of smoking in Canada indicated that 84% of Canadian adults who had ever smoked began smoking before they reached the age of 20 years. Further, an U.S. study revealed that adolescents who smoked

regularly at least once a month were 16 times more likely than their non-smoking peers to smoke in young adulthood. (Ontario Tobacco Research Unit, 1995).

Tobacco was estimated to account for just over 3 million deaths in 1990, rising to 4.023 million annual deaths in 1998. It is estimated that tobacco-attributable deaths will rise to 8.4million in 2020 and reach 10 million annual deaths in about 2030, with 70% of deaths occurring in the developing world. Developing countries are particularly vulnerable to the health costs of tobacco, as law and public policy insufficiently protect potential smokers, children and young people from the marketing efforts used by tobacco companies (WHO, 1999).

World No-Tobacco Day was held on May 31,2001. The slogan, 'Second- Hand Smoke kills: Let's clear the Air' was designated by the World Health Organization to raise awareness of the hazards of exposure to second-hand smoke. An effective strategy to promote and encourage tobacco-free policies is to link them with sporting events. Such policies also reduce non-smokers' exposure to second-hand smoke. The 1988 Olympic Winter Games in Calgary, Alberta, Canada, were the first tobacco-free Olympics. Since then, all of the Olympic games have had tobacco-free policies (WHO, 2001).

Strachan (1999) says that the tobacco consumption levels in Africa now are similar to those in the USA in the 1920s and that very few women smoke in Africa. In 1990, about 580 cigarettes per adult per year were sold in Africa, compared to a global average of 1660. Further, in contrast to the United States, United Kingdom and Canada, where tobacco causes 1 in every 5 or 6 deaths, in Africa, it causes only 1 in every 84 deaths. Africa is, however, being viewed with predatory eyes by the tobacco industry. Already, in middle-income countries like South Africa and Mauritius, smoking-related diseases are a common and serious health problem

(Strachan, 1999). In South Africa, a survey by Martin, Steyn & Yach (1992) into attitudes, beliefs and practices regarding smoking was conducted among adult South Africans. He found that the majority of smokers (68.5%) knew that smoking was harmful to health, and that an even larger proportion of non-smokers (79.5%) knew this to be the case. Most people interviewed supported public policies to control tobacco consumption, such as stopping the sale of cigarettes to children, increasing taxes on cigarettes, and preventing the advertisement of tobacco products in the media. Martin's study suggests that there is widespread support among the public for legislative measures to create a social environment that is conducive to the reduction of smoking.

1. 2 Problem statement

Although many efforts to raise public awareness through mass media and different organisations and regulations have been implemented in different areas, the smoking epidemic is still a menace to the health of people all over the world and to the youth in particular. Smoking causes an increase in mortality and morbidity rates not only among smokers but also among non-smokers who are exposed to smoke (WHO, 2001). It has been observed by the researcher that on the University of Natal, Durban campus, a large number of students continue to smoke everywhere, even in public places, despite the clear statement in the University rules that “ a student shall not smoke in any part of the premises of the University where smoking is prohibited by notice, and smoking is prohibited within any University building” (University of Natal, 2000: 39). Additionally to its impact on health, tobacco costs money, which may add to the financial problems of some of the smokers. The

question arises whether this is due to lack of knowledge by the students about tobacco consumption and about what strategies to use to give up smoking.

1. 3 Purpose of the study

The purpose of this study is to investigate the extent of smoking among students in the University of Natal Durban campus residences, and to evaluate their knowledge and practices about smoking.

1. 4 Research questions

- ◆ What is the extent of knowledge of Natal University students regarding smoking?
- ◆ What are the students' practices towards smoking?
- ◆ What reasons do the students give for smoking?
- ◆ What is the proportion of student smokers to non-smokers?
- ◆ Would the student smokers want to quit smoking?
- ◆ Are the students aware of possible strategies to quit smoking?

1. 5 Objectives

1. To determine the extent of students' knowledge about smoking and its effects on health;
2. To determine the proportion of students who are smokers;
3. To analyse the reasons given by students for smoking;
4. To determine how students who smoke make decisions about quitting smoking.

1. 6 Significance of the study

Some developing countries such as Botswana, South Africa and Thailand have implemented strategies against tobacco which have decreased the rates of smoking (Strachan, 1999). It is hoped that this study will clarify the current situation about smoking among students on campus residences and therefore, the results from this study could help the target population to avoid or quit tobacco. This study could also cause the UND authorities to pay attention to the gravity of the problem in order to devise actions to prevent smoking on campus. Finally, this study will provide information and documentation about student smokers and smoking habits because no such information presently exists in the Durban campus residences of the University of Natal.

1. 7 Definitions of terms

Tobacco: It is a plant the leaves of which are dried and used for smoking and chewing, and in snuff (Glanze, Anderson, and Anderson, 1990). There are several species of tobacco plants, especially the American plant *Nicotiana tabacum* (William, Thomson, 1976).

Nicotine: This is a rapidly acting toxic substance in tobacco that is one of the major contributors to the ill effects of smoking. It is used as an insecticide in agriculture and as a parasiticide in veterinary medicine. Nicotine poisoning is characterised by stimulation of the central and automatic nervous systems followed by depression of

these systems. In fatal cases, death occurs from respiratory failure (Glanze et al., 1990).

Smoke inhalation: The inhalation of noxious fumes or irritating particulate matter that may cause severe pulmonary damage (Glanze et al., 1990).

Smoking: This is a process of consuming tobacco by inhaling its different chemical substances e.g. carbon monoxide (CO), nicotine, tar derivatives, etc., by using a cigarette, pipe, cigar, etc.

Smokers: This term refers to people who smoke e.g. cigarettes, marijuana, cocaine.

Knowledge of smoking: This term covers the extent of students' understanding about tobacco consumption, through their experience or information, and its consequences on their health and the environment.

Practices of smoking: This term refers to how regularly students consume tobacco in terms of how many cigarettes are smoked per day and how long they have been smoking, what also influences them towards smoking and how they may decide to quit smoking.

Student: Any person who has registered at the University of Natal and remains studying for the year 2001 and dwells in a campus residence.

Student Residence: This term denotes a specific place (hall) where students live during an academic year.

1. 8 Conceptual Framework

The Health Belief Model developed by Becker (1984) cited in Katzenellenbogen et al. (1999) guided this study. The model attempts to identify beliefs and the way they may interact to influence individuals' conscious decisions to undertake certain health-related actions. "The most important health beliefs that influence actions are thought to be:

- ◆ The person's perceived vulnerability to a particular condition or illness,
- ◆ The person's perceptions of the severity or effects of the condition or illness,
- ◆ The Person's perception of the efficacy, costs, and benefits of any proposed actions" (Katzenellenbogen, Joubert & Karim, 1999.169).

The three points mentioned above guided systematically the whole study as follows:

1. The students' perceived vulnerability to a particular condition or illness in this case guided the researcher to describe and to understand students' personal perceptions of the risk of diseases they run by smoking or that they can cause to other people in their surroundings. It was also necessary to find out whether or not non-smokers were aware of the consequences in terms of diseases of being permanently exposed to tobacco smoke.

2. Once smokers as well as non-smokers have agreed that smoking increases the risk of diseases, the following step was to ensure whether or not they continue to neglect and run the same risk, because smoking consequences occur only after a long period of time.

3. The last step was to ensure that students who smoked could actually accept and put into practice some available strategies for giving up smoking, after being sensitised or on their own initiative, in order to remain in good health.

1. 9 Limitation of the study

Under limitations of the study, the following were some shortcomings encountered. There was shortage of time which was in connection with the researcher's programme structure as it was a full time study programme. Another problem the researcher faced is that there was no financial budget meant for this research work. The above limitations therefore, hindered the researcher's progress in pilot study.

Chapter Two:

LITERATURE REVIEW

2. 1 The Global Epidemic

The World Health Organization indicates that most health consequences of smoking are not manifested until three to four decades after the onset of persistent smoking (WHO, 1998). As 50% of men in developing countries are smokers, and cigarette consumption is steadily rising in these countries, tobacco is predicted to become one of the major causes of death and disability-adjusted life years (DALYs) in the century. Smoking has been significantly associated with 25 causes of death. The major ones include a range of cancers, heart and respiratory disease (WHO, 1998). There are a number of complex and inter-relating factors that predispose young people to smoke, although these factors vary among individuals and populations. Years of research have identified certain factors that commonly play a role in smoking initiation. These include high levels of social acceptability for tobacco products, exposure and vulnerability to tobacco marketing efforts, availability of and ease of access to tobacco, role modelling by parents and other adults, and peer group use (WHO, 1999). The WHO announces as the major causes of smoking habits among youth, that tobacco is sold as a life style, as a taste of freedom and sophistication. Children, some times as young as nine, are lured into the tobacco habit by aggressive advertising and marketing. The WHO continues to state that every day, 11,000 people die due to tobacco disease and state that most of today's 1.2 billion

smokers started before they were eighteen (WHO, 2000). The Health System Trust (1999) reports that smoking contributes significantly to the burden of disease in the human society. In a British Cohort Study (1999), data from 5264 members of the 1970 cohort were used to investigate whether exposure to tobacco smoke is associated with an increase in appendicitis. Researchers found the relation of the smoking variables with appendectomy statistically significant ($p < 0.002$). There was a slight excess risk for females, with 6.5% smokers reporting appendectomy compared with 5.3% of female non-smokers ($p = 0.059$) (Montgomery, Scott, Pounder, Roy, 1999). Smoking directly causes or exacerbates a number of diseases, some which have been discussed by the Health System Trust (1999) as follows:

- ◆ Tobacco is conclusively linked to the development of lung cancer. Men who smoke increase their risk of death from lung cancer by more than 22 times and women by 12 times.
- ◆ Lung diseases like bronchitis and emphysema may be direct results of smoking. Men who smoke increase their risk of dying from bronchitis and emphysema by nearly 10 times, women more than 10 times.
- ◆ Smoking is also directly related to cardiovascular diseases. These may be manifested by a heart attack or angina, by a stroke, or peripheral vascular disease (which may necessitate the amputation of limbs, usually the legs). Smoking triples the risk of dying from heart disease among middle-aged men and women.
- ◆ On average, smokers die nearly seven years earlier than non-smokers.
- ◆ Even non-smokers are at risk of smoking related illnesses, if they are exposed to environmental tobacco smoke, for example if they live in the same house or work in the same office as someone who smokes. Scientific studies also link second-hand smoke with heart disease, and serious respiratory problems in children.

- ◆ Smoking has also been linked to lower birth weight and mental retardation in the children of women who smoke during their pregnancies. The April 1996 issue of the journal of Paediatrics, cited in the Health System Trust report, stated that women who smoked were 50 percent more likely to have a child with mental retardation of unknown aetiology (an IQ of 70 or less) than were non-smoking women.

The WHO (1998) says as countries strive towards tobacco-free societies, prevention of smoking among youth is of key importance. Around the world, however, high rates of smoking among teens provides a strong argument for effective youth-oriented smoking cessation programmes. By the time teens have been smoking on a daily basis for a number of years, the smoking habit and addiction levels may well have become entrenched, and they are faced with the same difficulties in quitting as adult smokers. Although intentions to quit and quit attempts are common among teenagers, only small numbers of teenagers actually quit. One of the problems may well be the lack of smoking cessation resources tailored to young people. Singleton (2000), in a study about comparison of successful smoking cessation interventions for adults and adolescents, states that adults can benefit from smoking cessation strategies that address the issues that constitute their reason for smoking. Support from people in a smoker's life, including that of a counsellor, can help a smoker develop and sustain the motivation and confidence to stop smoking successfully. Adolescent smokers, however, have less research available to facilitate their smoking cessation efforts. The author said that the existing research analyses the reasons adolescents smoke, some of the factors that help them stop smoking, how they choose a method to stop smoking, which methods are more effective, and how to quantify an individual adolescent's addiction to nicotine (Singleton, 2000).

The WHO (2000) announces that research shows that people's decision to smoke is influenced by tobacco industry promotion. Tobacco advertising featuring prominent sports and entertainment figures projects and reinforces an image of tobacco as glamorous, fun, healthy, sophisticated and wealthy (<http://www.tobacco.who.int/en/Advocay/dmessage.html>).

According to the WHO, studies from India, China and Switzerland suggest that the tobacco epidemic may have been vastly under-estimated. They maintain that smoking prevalence in many countries has increased, especially among the young and men. The WHO global youth tobacco survey that provided standardised tobacco use of data for 13-15 year-olds, and was completed in 30 countries, reveals an alarming picture of early addiction. In some areas of Poland, Zimbabwe and China, children as young as 10 are hooked on tobacco. The WHO confirmed that the health impacts of tobacco are among the most often described in the biomedical literature. Much of the stress has been placed on the increased risks of cancer and heart disease initially described over 50 years ago. In addition an increasing range of harmful effects on the health of women and youth has been recorded (WHO, 2001).

2. 2 Developed Countries

Tobacco use remains the leading preventable cause of death in the United States, causing more than 400 000 deaths each year and resulting in an annual cost of more than \$ 50 billion in direct medical costs. Each year, smoking kills more people than AIDS, alcohol, drug abuse, car crashes, murders, suicides, and fires combined. Nationally, smoking results in more than 5 million years of potential life

lost each year (<http://www.cdc.gov/tobacco/research>). The U.S. Department of Health and human services (2001) reports a study into college alcohol and tobacco usage. This study surveyed 4,495 students at 101 four-year U.S. colleges. The study found that only 27% of Colleges prohibit smoking in student's dormitories, despite findings that students living in smoke-free dormitories are 40% less likely to start smoking than are those in unrestricted housing. Colleges did not offer enough smoke-free dormitories, according to researchers who found that 29% of students who do not live in smoke-free dormitories would like to. 40% of colleges did not offer smoking cessation programs, and most of the programs that existed lacked key elements of successful adult cessation programs (US Department of Health, 2001). Hines, from Ball State University, reports an increased smoking rate among college students in 1998. The author found that occasional smokers were being initiated by previously non-smoker' students. Many of smokers knew that being a smoker was less healthy, that smokers were less desirable as a date and that smokers were less attractive while smoking. The occasional smokers rated some attributions positively; starting that smoking made them feel more daring and more adventurous and did not make them feel like an outcast. The non-smokers rated a number of additional attributes about smokers negatively starting that smokers are less sexy, less feminine, less sophisticated, less masculine, and less mature. Thus, the results suggested that smoking shows at the best-mixed associations with self-attributions of college students who smoke and that smoking was viewed negatively by those who did not smoke (Hines, Fretz, Nollen, 1998).

A study by Loma Linda University in 1994, comparing Californian Seventh-Day Adventists with Californians who were not members of the religion, found that Adventists' life expectancies surpassed those of the general population.

Men Adventists had a gain of more than 7 years over other men, while female Adventists had a life expectancy of 4.5 years longer than that of other women. The facts were attributed to the non-existent rates of smoking among members of the church (Norton, 1994). California and Massachusetts have shown that implementing comprehensive statewide tobacco control programs can result in substantial reductions in tobacco use. Between 1992, the year prior to a voter-approved petition to raise tobacco taxes and to fund a statewide mass-media antismoking campaign, and 1996, per capita consumption declined 20 percent in Massachusetts. California's per capita consumption declined by 16 percent for the same period. In 1999, median adult smoking prevalence in all 50 states and the District of Columbia was 22.7 percent, 24.2% for men and 21.2% for women. The states with highest smoking prevalence among adults were Nevada (31.5%), Kentucky (29.7%), and Ohio (27.6%) (South African Government Gazette, 1999).

The results of a survey of college health centre directors in United States indicated that health centre directors reported many challenges in addressing student smoking as a health concern and in developing on-campus cessation programs. Students' attitudes, smoking styles, and reasons for smoking were commonly cited challenges. Directors indicated that students who currently smoked or who began smoking in college thought that they would quit once they graduated. Those students saw themselves as infrequent or occasional smokers who were not addicted to cigarettes. Many of those occasional smokers were undergraduate women who smoked in an attempt to control their weight. Students also became occasional smokers at college in response to stress (Wechsler, Kelly, Seibring, Kuo, Rigotti, 2001).

Despite increased smoking rates among adolescents, there appears to be a desire to quit smoking among many of the smokers in this age group. According to the 1994 Canada youth smoking survey, among all adolescent smokers' 10-19 years of age, 79% reported that they had seriously thought about quitting. Of those smokers who had ever seriously thought about quitting, 82% had made at least one attempt to quit, with the majority of adolescents who reported trying to quit having made more than one attempt. Approximately 22% reported making only one attempt, 26% two attempts, 26% 3-4 attempts, and 19% 5 or more quit attempts, with the remaining 7% not indicating the number of quit attempts made. Thus, it would appear that adolescents who smoke both think about quitting and frequently make attempts to quit (Ontario Tobacco Research Unit, 1995). In a study about exploration of determinants of regular and occasional smoking and the feasibility and acceptability of harm reduction strategies among Australian students, Hamilton states that efforts to prevent progression of smoking to higher levels may yield numerous public health benefits. While there are no safe levels of tobacco use, much of the harm associated with tobacco use is dose-related. Hamilton says that as the number of cigarettes smoked per day, the amount of tar and nicotine consumed, and the period of smoking in year's increase, so does the risk of lung cancer, heart disease and obstructive lung disease. Additionally in this study it was found that light smokers were more likely to quit smoking than heavy smokers. The study found that for adolescents, a harm reduction approach recognises that over two-thirds of them were likely to experiment with smoking by the time they reached 15 years of age (Hamilton, Cross, Resnicow, 2000).

In Canada, smoking is the most important cause of preventable illness, disability and premature death. In 1996, more than 45 200 deaths (29 229

males and 15 986 females) were caused by smoking, more than 20% of all deaths among Canadians. Smoking far exceeds the second most important preventable cause of death, accidents, (over 8 600 deaths). Compared with non- smokers, the risk of premature death is more than double among Canadian men and almost double among Canadian women who begin smoking by age 15 (WHO, 1999). Smoking among school students in both Ontario and Quebec continues to increase, according to two studies. The first study, conducted by Quebec's statistics institute for the health ministry, showed that the number of students who smoked tripled between the first year they attended secondary school and the year they graduated. Almost a fifth of Quebec secondary school students were confirmed smokers, and more than 10% had experimented with the habit. More girls (23%) than boys (17%) smoked. The second study conducted in 1998 among more than 4200 students in 128 Schools also showed that the influence of family and friends was important. The proportion of confirmed smokers among students with at least one parent who smoked was 24%, compared with only 17% among students with parents who were non-smokers. In Ontario, a report from the University of Toronto Tobacco Research Unit showed that the rate of smoking among students in grades 7, 9, 11, and 13 rose from 22% in 1991 to 28% in 1999. At the same time smoking decreased among adults (Spurgeon, 1999).

In the United Kingdom, about 4000 people die each year from road accidents and 120 000 are killed by diseases caused by smoking, yet most Britons believe that more people die in road accidents than from smoking (Saloojee, 2000). A report by the Royal College of Physicians in the United Kingdom found that many smokers continue smoking not through free choice but because they are addicted to the nicotine in cigarettes. The same report declares that surveys have consistently shown that at least 70% of adult smokers would like to stop smoking and of those

who expressed a desire to quit, a third were very keen to stop (WHO, 2001). In the above Royal College of Physicians report, it says that a 1999 survey found that of those who expressed a desire to quit, a third were very keen to stop. This report stated that the most important element of the cessation process is the smoker's decision to quit, with the aid or method of secondary importance. Those who used aids such as nicotine replacement therapy, however, doubled their chances of successfully quitting. The Royal College of Physicians found that on stopping smoking, the body will begin to repair the damage done almost immediately, kick-starting a series of beneficial health changes that continue for years, as presented in the following table:

Table 2. 1 beneficial health changes according to time since quitting smoking (WHO, 2001).

Time since quitting	Beneficial health changes that take place
20 minutes	Blood pressure and pulse return to normal
8 hours	Nicotine and carbon monoxide levels in blood reduce to half, oxygen levels return to normal
24 hours	Carbon monoxide will be eliminated from the body. Lungs start to clear out mucus and other smoking debris.
48 hours	There is no nicotine left in the body. Ability to taste and smell is greatly improved
72 hours	Breathing becomes easier. Bronchial tubes begin to relax and energy levels increase.
2 – 12 weeks	Circulation improves.
3 – 9 months	Coughs, wheezing and breathing problems improve as lung function is increased by up to 10%.
1 year	Risk of heart attack falls to about half that of a smoker.
10 years	Risk of lung cancer falls to half that of a smoker.
15 years	Risk of heart attack falls to the same as someone who has never smoked.

A survey of the prevalence of smoking among adolescents in European countries during 1993-1994 indicated that among five countries in central and eastern regions (Czech Republic, Hungary, Poland, the Russian Federation, and the Slovak Republic), approximately 10% of adolescents reported smoking cigarettes at least weekly (Ursicz, Kiss, 1997). The WHO (2001) states that more a person smokes, the less faith that person has that he or she can stop. There are two proven pharmaceutical aids to stopping smoking: Nicotine replacement therapy and bupropion, known by its tradename, Zyban. Nicotine Replacement Therapy (NRT), such as chewing gum, skin patch, tablet, nasal spray or inhaler, is designed to help the smoker to break the habit while providing a reduced dose of nicotine to overcome withdrawal symptoms such as craving and mood changes (WHO, 2001).

A survey conducted by the University of Pennsylvania in year 2000 found that young people are adequately informed. Most people do not, however, have the kind of understanding that will prevent them from trying smoking and young people do not fully understand the hazards, especially how hard it will be to quit once they have started. Most young people are aware of lung cancer but there is a multitude of other illnesses attributable to smoking that young people have no knowledge about (Slovic, 2001).

Keeling (1999) reports a survey about preventing smoking among students conducted in Yale. The researcher found that 40% of the Yale non-smokers surveyed were interested in learning more about the effects of second-hand smoke. It could be that most of the 90% who did not want more information about the health hazards of smoking were not themselves smokers and had no interest in becoming smokers, though 11.5% of the non-smokers in the Yale study said they intended to start smoking (Keeling, 1999).

2.3 Developing countries

The vast majority of smokers now live in low and middle-income countries. The addiction has spread from men to women in high-income countries and then to men in low-income regions. The future growth market for the industry is women in low-income countries (Saloojee, 2000). In referencing to the 21st century's international conference on Women and Tobacco by the WHO in Kobe, Japan, 1999, the Health System Trust (1999) says that increasing use of tobacco is becoming a global trend as aggressive marketing and promotion moves from developed countries and enters developing countries and economies in transition. Tobacco companies use misleading labels such as "mild" or "light", making health claims that are not true. False images of good health, fitness, stress relief, beauty and being slim are used to appeal to women. According to the conference statement, research findings point out specific vulnerabilities that women have to tobacco. Pregnant women who chew tobacco or smoke, or who are exposed to second-hand smoke, have the higher risk of miscarriages and give birth to low-weight babies who are prone to infection. Smokers are more likely to experience primary and secondary infertility, delays in conceiving, an increased risk of earlier menopause and lower bone density. In addition to lung cancer, says WHO; women who smoke have markedly increased risks of cancers of the mouth, and pharynx, oesophagus, larynx, bladder, pancreas, kidney, and cervix. They have an increased risk of cardiovascular disease, particularly when using oral contraceptives. The conference concluded that many women and girls are unaware of this basic information regarding health and tobacco and stated that much effort must be made to reach women and girls concerning their health risks (WHO, 2001). The Health System Trust, comparing South Africa to other African countries, found that

even in the poorest countries, there is an emerging capacity for tobacco control. This is illustrated by example of the first pan-African organization, Tobacco Control Commission for Africa that was established in 1994 with little more than determination and a belief in health. In terms of maximising profit at the expense of health, the Health System Trust gave examples of Botswana, South Africa and Thailand, among developing countries that have shown what can be achieved, but the victories have been won in the face of stern tobacco industry opposition. Big tobacco companies remain in a powerful position to oppose health policies in most countries (Strachan, 1999). The WHO (2001) says that more than half of the 4 million deaths due to tobacco each year are happening in developing countries, and according to their estimations there will be an increasing proportion of about 70% in the year 2020 (WHO, 2001).

2. 4 South Africa

“It is estimated that 7 million people in South Africa smoke” (Alperstein, Hoodendoom, Urgoiti and Keikelame, 1999: 34). A 1986 survey found that while there is a widespread public awareness that smoking is harmful, there is little knowledge of the actual diseases caused by smoking. So although over 90% of the public believe that smoking is bad for one’s health, only 70% know that it causes cancer and fewer than 30% that it causes heart disease (Saloojee, 2000).

“The Tobacco Control Amendment Bill enables the Minister of Health to prohibit or restrict smoking in public places, by notice in the Government Gazette. The definition of ‘public place’ has been widened to include a work place” (Alperstein et al., 1999: 34). The bill approved by parliament prohibits smoking in

enclosed public places and advertising or promoting tobacco products, giving out tobacco products free or at a reduced price (other than normal trade discounts), or providing some other financial incentive for people to purchase tobacco products (Benatar, 1999). The HST (1999) report that after increasing steadily from 1948 to a peak in 1990, tobacco consumption in South Africa has been in continuous decline throughout the 1990s at a rate of 4% per annum. The Product Control Amendment Bill was reported also by the Health System Trust and the main purposes of the Act were given as (a) to reduce the pressure on young people to begin a lifelong addiction at age 15 and younger; (b) to protect the constitutional right of the non-smoking majority to a smoke free environment; and (c) to attempt to reduce the harmfulness of cigarettes for those who cannot or will not stop smoking. The Health System trust confirmed that “as a result of strong political leadership, South Africa now has a stronger legislative framework in place to regulate tobacco than does the United States” (Strachan, 1999: 15).

In 1995 it was reported that the number of children and non-smokers exposed to tobacco smoke at home had reached critical levels, as nearly 50% of respondents in a national survey of smoking trends in South Africa reported that at least one household member smoked. One in three South Africans smoked in 1995, and the rate had risen by 3% since 1992 when 30% of the population smoked (SA Family Practice, 1995). In the South African Medical Journal, Benatar says “A number of studies have suggested that there is good reason to think that cigarette advertising increases the likelihood that youths will take up smoking” (Benatar, 1999: 54).

A nationally representative study of over 2 200 adults was conducted by the Medical Research Council and the Human Sciences Research

Council in February 1995. This study showed that the provinces with the highest smoking rate were the Northern Cape (48%), and the Northwest (46%). The coloured population group had the highest smoking rate nationally at 59%. 36% of Asians and 35% of whites smoked, followed by blacks at 31%. In terms of knowledge of the effects of smoking, 87% of the respondents agreed that the health effects of smoking were serious, and nearly 60% knew that cancer was associated with smoking. Over 70% thought that the health of non-smokers was affected by smokers at home (Morell, 1995). Morell's study found also that over 60% of adults would support a total ban on tobacco advertising on radio and 78% supported local health departments regulating smoking in public places. Of this group, 54% approved of smoking regulations in all public places. Over half of adults (53%) believed that the government should support farmers in replacing tobacco with other crops. Half of all adults in rural provinces of Northern Cape, would support increases in tobacco excise tax if the money was used for health. In the South African Medical Journal, Morell reported results of a survey conducted by the Medical Research Council in the Greater Johannesburg Transitional Metropolitan Council. It was found that 9 out of 10 children aged between 10 and 12 were able to buy cigarettes, either singly or in packs, from 200 retail outlets in the Greater Johannesburg Metropolitan area. There was little variation in the childrens' ability to buy cigarettes by suburb or by type of outlet, although it was more difficult for the children to obtain cigarettes in Soweto (Morell, 1995).

A survey conducted by the Medical Research Council in 1995 found that although 70% of adults knew that the health of non-smokers was affected by smoking, and over 80% believed that the unborn baby's health was affected if the

mother smoked, this knowledge was not sufficient to stop people exposing their children to the harmful effects of tobacco (SA Family Practice, 1995).

According to the South African Health Review 2000, “ Tobacco use has dropped dramatically in South Africa. The prevalence of cigarette smoking among adults has declined, from 34% in 1992 to 24% in 1998. About 42% of men and 11% of females are current smokers. The national data on prevalence of smoking among adolescents aged 15-19 also became available for the first time in 1998. About 14% of males and 6% of females were smokers” (Saloojee, 2000: 1).

In summary, smoking habits among youth and students in particular have been highlighted and well documented by the WHO as well as researchers in their respective developed countries. The literature review has shown that deaths due to tobacco were very high among the causes of deaths in these countries. Most of smokers in both developed and developing countries wanted to give up smoking. Most young people are aware of lung cancer but there is a multitude of other illness attributable to smoking that they have no knowledge about.

The researcher did not unfortunately find enough literature about smoking habits among youth in developing countries. It was shown, however that smoking habits are moving from developed countries to developing countries.

In South Africa, smoking habits have been also sufficiently documented. The literature review has shown that smoking rate among all ages has been decreasing. This problem, however, still lacks studies among university students, as most researchers focused on teenagers and adults.

Chapter Three:

RESEARCH METHODOLOGY

3. 1 Study design

The quantitative research approach is used in this study. It involves a descriptive survey that aims to establish the knowledge and practices of smoking among students living in the University of Natal, Durban campus residences. Therefore, it involves systematic collection and analysis of data from the component residences of the Campus in order to investigate the situation fully. Katzenellenbogen et al. state that knowledge, attitude, beliefs and practice (KABP) surveys aim to measure the factors that influence psychological personal health-related behaviour in order to understand why people act in ways which are detrimental to their own health (Katzenellenbogen et al., 1999). The survey method was estimated as suitable for this study focusing on students smoking habits, based on the statement by Wallen and Fraenkel that the intent of surveys is to obtain a sizeable amount of information about the characteristics of a particular group. The authors say that the researcher is entitled to generalise the findings to a larger group (Wallen & Fraenkel, 1991).

3. 2 Study population

The study target population constitutes students in the University of Natal Durban campus residences, exclusively registered for the year 2001. There is a total of

thirteen residences, some of them are designed for males or females separately and others are mixed. The total number of students in all residences was 1934. As shown in the table 3.1 below, Albert Luthuli residence has the highest number of students and the postgraduate and Scully house residences have the lowest capacity of housing.

Table 3. 1 Distribution of UND residences and their housing capacity

N0.	Residence name	Residences capacity
01	Ansell May	159
02	John Bews	111
03	St. Hillier	166
04	Charles James	57
05	Townley Williams	108
06	Albert Luthuli	550
07	Florence Powell	077
08	Louis Botha	140
09	Mabel Palmer	190
10	Pius Langa	251
11	Postgraduate	8
12	Scully House	6
13	Ernest Jansen	111
	Total	1934

Source: Records from Island student Residences office (2001).

3. 3 Sample size

Based on the common formula used in epidemiology, in a manual for South Africa (Katzenellegenbogen et al., 1999), the representative sample size was calculated as follows:

$$n = Z^2 \cdot P \cdot Q / d^2$$

n = the simple size

z = the normal deviation (1,96)

p = the expected proportion

q = 1-p

d = the required precision.

$n = (1,96 \times 1,96) \times 0,14 \times 0,8 / (0,05 \times 0,05) = 172$ students.

The prevalence of smoking among the young adults in South Africa is not known. An estimation of the prevalence of smoking among adolescents (14%) published by the Health System Trust was used in the calculation of the sample size. The total number of students resident on UND campus is 1934. Thus, the figure of 172 which constitutes the representative sample size, represents in terms of proportion 8.9% of the whole student population. To overcome the problem of the non-respondents, the sample size was raised to 10%. Thus, the sample size is 194 students as indicated in the following table:

Table 3. 2 Sample size among students on University of Natal Durban campus residences year 2001.

No	Residence Name	Capacity	Room sample (10%)
01	Ansell May ✓	159	16
02	John Bews ✓	111	11
03	St. Hillier	166	17
04	Charles James ✓	57	06
05	Townley Williams ✓	108	11
06	Albert Luthuli	550	55
07	Florence Powell	77	08
08	Louis Botha	140	14
09	Mabel Palmer ✓	190	19
10	Pius Langa	251	25
11	Postgraduate ✓	8	01
12	Scully House ✓	6	01
13	Ernest Jansen	111	11
	Total	1934	194

3. 4 Sampling

A systematic sampling was used in this study. The systematic sampling is one of the probability sampling methods (Bless, Higson, 1995). As the method relies on the availability of a complete and unbiased population list, the technique of case selection, instead of relying on a random number table, was based on the selection of elements at equal intervals, starting with a randomly selected element on the students room numbers. In this study each student registered for the year 2001 who lives in UND campus residences had equal chance to be selected among all the students in the same campus residences.

3. 5 Case selection

The interval or systematic sampling has been chosen as the method of selecting students from each residence. Based on the proportion of the study sample (n) from each residence, the first student (k) was randomly selected. That is, all room numbers for each residence between 1 and k were placed in a basket and the first number (first student) was drawn and systematically other students were selected until the sample size was reached. The length of k of intervals was determined by the ratio $k = N/n$ (size of the population over the size of the sample).

3. 6 Tools and Data Collection Technique

Information about the students selected was collected exclusively through a questionnaire that was administered by the researcher. The questionnaire (see

appendix) is composed of 3 parts, with a series of questions in each part. The first part concerns the anonymous identification of the participants, the second one concerns the knowledge of smoking, with the aim of finding out if the smoker know its effects on health such as the diseases caused by smoking , the effects on second hand smokers and whether the students knew the organs which can be damaged by smoking. The last part is related to the practices of smoking. Under this part, the researcher focused on such as whether the students practice tobacco smoking. This question helped the researcher to determine the proportion of tobacco smokers among students. More so, it was deemed necessary for the researcher to ask questions in the instrument such as why do students smoke tobacco and the trials they may have had in quitting tobacco consumption. The questionnaires were distributed in the evening after classes, from 5pm to 6pm. The student selected was asked to fill in the questionnaire in a maximum of two days and thereafter, the researcher went back to collect it. Those who were available to complete the questionnaire immediately did so. The measurement of variables (validity) in this study is based on the accuracy of the responses to the questionnaire, which has simple and clear questions. For example, in determining the proportion of smokers, the criterion to consider oneself as smoker was a student who claims to smoke regardless of the type of the tobacco he or she uses in the period of this study. Those who had never smoked were considered as non-smokers. Students who responded that they lived permanently with regular smokers were considered as being at risk of second-hand smoke. In striving to measure the knowledge of students about smoking, the following criterion was considered: students should respond correctly to at least 65% of each question regarding the smoking habits and its consequences. These students were then considered to have sufficient knowledge in connection with smoking. Finally, the

most repeated reason(s) for smoking in the responses given by students are considered as the major reason (s). To ensure the reliability of this study, the questionnaire used was systematically constructed according to the objectives of the study and covers the main concepts of the research topic.

3. 7 Data Analysis

After collection of data, most of the analysis was done on the computer, using SPSS data files. Only for some responses in string variables (refer to Questions 9, 11, 12, 34 & 32) in particular, have been analysed manually. Generally, the researcher used the counting frequency, that is, just counting the number of times various answers occur. For example, to find out how many students are smokers, the researcher counted the number of those who have selected the response 1 (yes, they smoked). The analysis of data in this study was mostly based on frequencies. The chi-square test, however, has been used to test the significance level of the responses by evaluating the discrepancy between a set of observed frequencies and a set of expected frequencies. The procedure is described as follows:

1. Find the difference between the observed frequency and the expected frequency
2. Square this difference
3. Then divide the squared difference by expected frequency
4. This three-step procedure is repeated for each of the cells in the table. Then add up all these numbers. The sum is the Pearson chi-square statistic for the table.

The results of chi-square test are considered significant when the value of $p < 0.05$ (Bless et al., 1995).

3. 8 Ethical Consideration

A letter (see appendix) asking for permission to conduct the survey on UND campus was addressed to the director of Student Housing and the anonymity of the respondent was kept absolutely. A preamble was mentioned on the first page to ensure the consent of the respondent. The respondent was free to respond to the questionnaire, without any attempt to force him/her to respond to the questions. Except for the researcher, nobody else has had access to the questionnaires filled in

Chapter Four:

DATA PRESENTATION

Introduction:

This chapter presents the findings of the study. For some reasons, however, not known to the researcher, not all the sampled group of respondents responded to some questions in the questionnaires. This reduction of the sample size deemed it unnecessary to present “N” in data presentation as indicated some where in this chapter. Systematically it starts by the identification of the respondents in terms of age, study level, sex, the number of respondents and their smoking habits per residences.

The second part concerns the knowledge of the respondents about tobacco harmful, campus regulations against tobacco, recognition of useful strategies for giving up smoking, students’ knowledge about diseases caused by tobacco as well as organs damageable by components of tobacco and cigarettes.

The last part presents the practices of smoking in terms of overall rate of smoking smokers and ex-smokers, the age of starting smoking, exposure to second-hand smoke, smoking experience and daily tobacco frequency and costs, type of substances consumed, and reasons given by the respondents for smoking.

4. 1 IDENTIFICATION OF THE RESPONDENTS

Table 4. 1 Age of participants

Age	Frequency	Percentage
17-21	81	47.4
22-26	77	45.0
27-31	11	06.4
32-36	01	0.6
Over37	01	0.6
Total	171	100
Minimum	17.000	
Maximum	39.000	
Mean	22.047	

The mean age of the all participants is 22 years old, the minimum is 17years old and the maximum is 39 years old. It is shown in the above table that most of the respondents are young. Close to half of the participants (47.3%) fall in the age between 17-21 and 45% in between 22-26 years old.

Table 4. 2 Distribution of the respondents by level of study

Study level	Frequency	Percentage
Undergraduate	154	90.1
Postgraduate	17	9.9
Total	171	100

Most of the respondents (90.1%) are undergraduate students. It appears that only 9.9% among all respondents were postgraduate students.

Table 4. 3 Distribution of the respondents according to their residences

Residence Name	Expected respondents Number	No and percentage of Respondents
Albert Luthuli	55	50 (90.9%)
Ansell May	16	16 (100%)
Charles James	06	05 (83.3%)
Ernest Jansen	11	09 (81.8%)
Florence Powell	08	07 (87.5%)
John Bews	11	09 (81.8%)
Louis Botha	14	12 (85.7%)
Mabel Palmer	20	19 (95%)
Pius Langa	25	18 (72%)
Postgraduate	01	01 (100%)
Scully House	01	01 (100%)
St. Hillier	17	14 (82.3%)
Townley Williams	11	09 (81.8%)
Subtotal	194	171 (88.1%)

The rate of the respondents per residence is above 70%. A large rate of the respondents were from Mabel Palmer (95%) and the lowest respondent rate (72%) was found in Pius Langa residence. A surprising equal proportion (81.8%) of respondents was found in three different residences Florence Powell, John Bews, Townley Williams.

Table 4. 4 Distribution of the respondents by sex

Sex	Frequency	Percentage
Male	97	56.7
Female	74	43.3
Total	171	100

Table 4. 4 shows that 56.7% of the respondents are males, whereas 43.3% are females.

4. 2 KNOWLEDGE OF SMOKING

Table 4. 5 Number of the respondents according to their knowledge of cigarette components

Components	Frequency	Percentage
Nicotine	99	57.8
Carbon monoxide	10	5.8
Tar	54	31.5
Number of the participants	171	

Nicotine as a component of cigarette was cited by more than half (57.8%) of the participants, tar was known by 31.5% and carbon monoxide was cited by 5.8% only of the participants.

Table 4. 6 Frequency of the responses regarding the knowledge of organs damageable by tobacco

Organs	Frequency	Percentage
Brain	30	17.5
Lungs	152	88.8
Liver	22	12.8
Mouth	17	9.9
Throat	35	20.4
Number of Participants	171	

In Table 4.6, lungs are recognized by the participants as organs to be mostly (88.8%) damageable. The throat is known by 20.4% and the brain by 17.5% of the participants.

Table 4. 7 Frequency of the responses regarding the knowledge of diseases caused by tobacco consumption

Major diseases	Frequency	Percentage
Lung Cancer and other forms of cancer	168	98.2
Heart diseases	34	19.8
TB	29	16.9
Bronchitis	16	9.3
Brain retardation	2	1.1
Number of participants	171	

In table 4.7, it is obvious that in terms of knowledge of major diseases caused by tobacco, cancer, especially lung cancer was well known by respondents. It was mentioned in 98.2% responses. In other words, almost all respondents mentioned it in the three diseases he or she was asked to name in the questionnaire. Heart diseases as well as bronchitis, two other major diseases caused by tobacco were insufficiently known by 19.8% and 9.3% respectively.

Table 4. 8 Knowledge of smokers about strategies useful in quitting tobacco

Strategies	Respondents	
	Smokers	Non smokers
Known	24 (54.5%)	76 (59.8%)
Unknown	20 (45.5%)	51 (40.2%)
Total	44	127

Chi-square test value = 0.378, df = 1, p = 0.596, not significant.

45.5% of the smokers did not know strategies to be used while trying to quit tobacco.

A good proportion (59.8%) of ex-smokers and non- smokers, however, reported knowing some of the strategies. The chi-square test does not show any statistically significant difference between smokers and non-smokers about the knowledge of useful strategies in quitting tobacco.

Table 4. 9 Recognition of tobacco harm to non-smokers

Tobacco harm to non smokers	Frequency	Percentage
Yes	158	92.4
No	3	1.8
Unknown	10	5.8
Total	171	100

That tobacco is harmful to non-smokers, who are exposed to it, is known by 92.9% of students. Only 1.8% of the respondents did not agree about the above tobacco consequence. 5.8% of the respondents were not sure.

Table 4. 10 Awareness of students about campus regulation against smoking

Regulation	Frequency	Percentage
Known	109	63.7
Unknown	62	36.3
Total	171	100

A surprising proportion (36.3%) of respondents did not know about the ban on smoking that exists on campus. 63.7% of respondents, however, are aware of the ban on smoking in the University of Natal rules.

Table 4. 11 Awareness of students who smoke about campus regulation against smoking

Regulation awareness	Respondents	
	Smokers	Non smokers
Yes	24 (54.5%)	85 (66.9%)
No	20 (45.5%)	42 (33.1%)
Total	44	127

Chi-square test; value = 2.168, df = 1, p = 0.099, not significant.

45.5% of smokers did not know about any ban on smoking on campus as well as 33.1% of non-smokers. There is, however, a number (66.9%) of non-smokers who are informed about the ban regarding smoking on campus. According to the chi-square test, there is no statistically significant difference in terms of awareness of the smoking regulations on campus for between smokers and non-smokers.

Table 4. 12 Awareness of the respondents about strategies to stop smoking

Strategies awareness	Frequency	Percentage
Yes	100	58.5
No	71	41.5
Total	171	100

Useful strategies to quit smoking are known only by 58.5% of the respondents and

41.5% of respondents are not aware of useful strategies that could help them to give up smoking.

4. 3 PRACTICES OF SMOKING

Table 4. 13 Proportion of smokers among the respondents

Smoker	Frequency	Percentage
Yes	44	25.7
No	127	74.3
Total	171	100

The proportion of the current and regular smokers of all the participants in the survey was found to be 25.7% and 74% represents the proportion of the non-smokers respondents together with ex-smokers

Table 4. 14 Classification of smokers according to sex

Sex	Smokers	Non smokers	Total
Male	26 (26.8%)	71 (73.2%)	97 (100%)
Female	18 (24.3%)	56 (75.7%)	74 (100%)
Total	44	127	171

Table 4. 14 shows that 26.8% of males are currently smokers as well as 24.3% of females. 73.2% of males are non-smokers whereas 75.7% of females do not smoke.

Table 4. 15 Proportion of smokers per residence

Residence Name	Number of smokers	Percentage
Albert Luthuli	16	36.3
Ansell May	4	9
Charles James	1	2.3
Ernest Jansen	0	0
Florence Powell	2	4.5
John Bews	2	4.5
Louis Botha	3	6.8
Mabel Palmer	4	9
Pius Langa	5	11.4
Postgraduate	0	0
Scully House	0	0
St. Hillier	4	9
Townley Williams	3	6.8
Total	44	100

The table 4. 15 represents the number of smokers per students' residence. To calculate the percentages, the researcher divided the number of smokers per residence by the total number of all smokers in the sampled residences. Albert Luthuli has the highest percentage of smokers (36%). Pius Langa residence is the second, with a smoker's

rate of 11.3% even though it has the lowest rate of the respondents (Table 4.15). It is followed by Mabel Palmer and St Hillier with 9% of smokers each.

Table 4. 16 Proportion of ex-smokers plus current smokers

Ever smoked	Frequency	Percent
Yes	91	53.2
No	80	46.8
Total	171	100

In Table 4.16, it is obvious that there are more than half (53.2%) of the respondents who have consumed or are currently consuming tobacco. Only 46.8% of the respondents have never tried to smoke.

Table 4. 17 Distribution of the respondents regarding their smoking initiation

First person to give tobacco	Frequency	Percent
One of my parents	03	3.7
One of my siblings	12	15.0
Boy or Girl friend	33	41.3
Other relatives	31	38.7
None	01	1.3
Total	80	100

A high percentage (41.3%) of people who responded to the specific question showed that the initiation of many of the smokers was due to boy/girl friends or to other relatives (38.7%) rather than their parents or themselves. The smoking initiation was done in 15% by smoker's siblings.

Table 4. 18 Distribution of the respondents by age and sex at the beginning of tobacco consumption

Sex	Age of starting smoking (years)				
	<10	11-13	14-16	17-19	Over 20
Female	01 (1%)	11 (12%)	06 (6.6%)	16 (17.5)	0
Male	04 (4.3)	21 (23%)	19 (20.8)	12 (13.1%)	01 (1%)
Total	91 (100%)				

Comparing the percentages of the ages of tobacco initiation, Table 18 shows that 20.8% is the largest grouping of the respondents and falls in the age of 14-16 years of males versus 17.5% of males in the age of 17-19 years.

Table 4. 19 Distribution of the respondents according to the length of time they have been smoking.

Smoking period	Frequency	Percent
0 – 11 months	12	27.2
1 – 5 years	28	63.6
More than 6 years	4	9
Total	44	100

It is shown in Table 4.19 that many of the smokers (63.6%) have been consuming tobacco for quite a long period, more than 1 year, and that 9% of the same smokers have been smoking for more than 6 years.

Table 4. 20 Distribution of Smokers according to the type of substance consumed.

Type of substance	Frequency	Percent
Cigarette	54	87
Marijuana	6	9.7
Both of these	2	3.2
Total	62	100

Tobacco substance (Cigarette) is the most consumed (80.7%). Marijuana, however, is also consumed in 12.9% of the cases.

Table 4. 21 Distribution of the respondents according to the number of cigarettes consumed per day.

Number of cigarettes	Frequency	Percent
1 – 5	46	80.7
6 – 10	10	17.5
11 – 15	1	1.8
Total	57	100

The vast majority of the respondents (80.7%) consume 1-5 cigarettes and 1.8% consume up to 15 cigarettes per day. 17.5% consume 6-10 cigarettes per day and 1.8% of the respondents consume 11-15 cigarettes per day.

Table 4. 22 Distribution of the respondents and the time used for smoking

Time used for smoking	Frequency	Percent
Morning	7	11.6
Noon	3	5.0
Evening	19	31.7
Any time	31	51.7
Total	60	100

Almost more than half (51.7%) of the respondents to the specific question mentioned above smoked at any time. 31.7%, however, smoked in the evening, 11.6% in the morning and 5.0% during the day.

Table 4. 23 Distribution of the respondents in terms of place used for smoking

Place used for smoking	Sex	
	Male	Female
Bedroom	11 (31.4%)	11 (50%)
Outside venue	1 (2.8%)	2 (9%)
Anywhere	23 (65.7%)	9 (40.9%)
Subtotal	35 (61.4%)	22(38.5%)
Total	57 (100%)	

In terms of smoking behaviour and sex, referring to table 4.23 data findings indicate that 50% of females smoke in their bedrooms while only 31.4% of males also smoke in their bedroom in contrast to 65.7% of males who smoke from anywhere compared to only 40.9% of females who also smoke from anywhere.

Table 4. 24 Distribution of the respondents and daily cost of tobacco

Cost (Rands)	Frequency	Percent
2 – 4	19	34.5
5 – 7	29	52.7
8 – 10	7	12.7
Total	55	100
Minimum	2.00	
Maximum	10.00	
Mean	5.25	

In Table 4. 24, R 5-7 has been cited by most of the respondents (52.7% of all cases) as their spending per day on tobacco. 34.5% utilized R 2- 4. The minimum cigarette cost per day is R 2.00 and the maximum is R 10.00.

Table 4. 25 Distribution of people among the respondents living with regular smokers

Live with a smoker?	Frequency	Percent
Yes	61	35.7
No	110	64.3
Total	171	100

35.7% of the respondents, whether smokers or not, live with regular smokers whereas 64.3% of non-smokers live in smoke-free environment

Table 4. 26 Proportion of second-hand smoke among the respondents

Live with regular smoker	Respondents	
	Smokers	Non – smokers
Yes	18 (40.9%)	43 (33.9%)
No	26 (59.1%)	84 (66.1%)
Total	44	127

33.9% of the non-smokers live with regular smokers and 40.9% of smokers live with other regular smokers. 59.1% of smokers do not live with other smokers and 66.1% of non-smokers live away from smokers.

Table 4. 27 Proportion of smokers and their decision about quitting smoking

Need to quit smoking?	Frequency	Percent
Yes	30	68.1
No	14	31.9
Total	44	100

It is clear that a big proportion (68.1%) of the current smokers expressed their need to give up smoking. 31.9% of them, however, did not want to stop smoking.

Table 4. 28 Distribution of the respondents according to the reasons for smoking

Reasons for smoking	Frequency	Percent
Diminish anxiety	5	9.6
Pleasure	31	59.6
Absolute need	2	3.8
Not sure	14	26.9
Total	52	100

The most given reason by the respondents was that tobacco gives pleasure (59.6%). On the other hand, 9.6% smoked to diminish anxiety and 26.9% of the respondents did not recognize any particular reason for them to smoke.

Table 4. 29 Distribution of the respondents according to frequency of attempts to give up smoking.

Times	Frequency	Percent
Once	7	14
Twice	16	32
Several	27	54
Total	50	100

Many of the respondents (54%) reported to have tried several times to stop smoking. 32% of them had tried twice and 14% only once.

Table 4. 30 Proportion of current smokers who need help in stopping smoking

Help Needed?	Frequency	Percent
Yes	3	6.8
No	41	93.2
Total	44	100

Although current smokers (68.1%) expressed the desire to stop smoking (Table 24), the vast majority (93.2%) of the respondents did not ask for help in their struggle to stop smoking.

Table 4. 31 Distribution of the respondents according to the length of time their attempted to stop smoking lasted

Attempted duration	Frequency	Percent
Day	1	2.5
Week	27	67.5
Month	11	27.5
Year	1	2.5
Total	40	100

The majority (67.5%) of the respondents resumed smoking after only a week and 27.5% after a month. Only 2.5% did so after a year.

Chapter Five:

DISCUSSION OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Overview of the findings

A sample of 194 people was drawn from a population of 1934 students who were living in the campus residences for the year 2001. Responses were voluntary and respondents were not required to identify themselves. 88.1% of the questionnaires were returned, which is a higher rate of return than the 69.6% in a study about cigarette smoking amongst US adults, conducted by the National Health Survey in 1999. The proportion of smokers among the respondents was found to be 25.7%. Exactly the same rate of 25.7% of males was found in a survey conducted in US about cigarette smoking among adults in 1999 (NHIS, 1999). This proportion is lower than the 35.8% of prevalence of cigarette smoking among secondary school 16-year-old students in the republic of Hungary (Ursicz, 1995). A nearly similar prevalence of 36.3% of cigarette smoking was found, however, in Albert Luthuli, one of the University of Natal Durban campus residences (Table 4.3).

5.2 Rate of smoking among students

Collectively, the findings indicate that the proportion of the current and regular smokers of all the participants in the survey was 25.7%. Further more results have shown that 26.8% of males and 24.3% of females are smokers. These results are higher than those found in a study about smoking among students in

Canada, where more females (23%) than males (17%) smoked (Spurgeon, 1999). The researcher was very astonished that there is a high proportion (Table 4.14) of females who smoke on University of Natal Durban campus. The number of females is almost equal to the number of males who smoke, because the African culture tends to tolerate males' smoking habits more than females. The major reason might be the females' independent feeling in the university. In chapter One, the Introduction, reference was made by Strachan (1999) who found that tobacco consumption in Africa, a developing continent, was similar to the consumption in the USA in the 1920s, and that very few women smoked in Africa. This study has shown surprisingly that among this sample of the university students almost a quarter (24.3%) of females are smokers and that this incidence is almost as high as that among male students (26.8%). This certainly disagrees with Stratton's finding. The smoking rates are also higher than the national data on the prevalence of cigarette smoking among adolescents aged 15-19 years, reported by the South African Health Review, which found 14% of males and 6% of females to be smokers (Saloojee, 2000).

5.3 Knowledge of smoking and smoking behaviour

That tobacco is harmful is well known, as this was recognized by 92.4% of the respondents (Table 4.9). Almost the same result (90%) of college students' self-reported knowledge in a survey conducted in the US demonstrated high levels of awareness that smoking is harmful (Keeling, 1999). In terms of knowledge of the health effects of smoking, The South African Family Practice reported that 87% of the participants in a national study on smoking in South Africa agreed that there are health effects of smoking (SA Family Practice, 1995). This percentage is lower than

the findings of this study. The danger of tuberculosis associated with smoking is only known by 16.9 % of respondents (Table 4.7). The South African Health Review, however, reports that “new data suggests that more deaths from smoking may be attributable to tuberculosis than lung cancer in South Africa” and said that “an analysis of certificate data found that smoking increases the risk of dying from tuberculosis by 60%” (Saloojee, 2000: 430). Hamilton et al. (2000) state that after declining through the 1980s, teenage smoking prevalence in Australia has increased during the nineties, despite adolescents’ increased knowledge of the consequences of smoking cigarettes (Hamilton, Cross, Resnicow, 2000). It has been found, however, in the present study, that 36.3% of the sample of University of Natal Durban campus students in residences did not know about the regulation of smoking that exists on campus (Table 4.10). According to the chi-square test ($p = 0.099 > 0.05$), there was no statistically significant difference in terms of awareness of smoking regulation on campus for both smokers and non-smokers.

The researcher has observed that little effort is made to publicize the ban on smoking in public places and in residences in particular. There are very few posters, for example, that instructs students not to smoke in specific places or that smoking is permitted in other places. The only official regulation is mentioned in the university’s general rules, which may not be accessible to each and every student. That may be the reason why 65.7% of males and 40.9% responded that they smoked anywhere (Table 4.23). It has been recognized also that the policy of maintaining a smoke-free workplace reduces exposure to environmental tobacco smoke and increases the likelihood that smokers in these settings will smoke fewer cigarette or quit smoking (US Department of Health, 2000). There is no special smoking cessation programme on this university campus. The results show that 45.5% of

smokers did not have information about useful strategies to give up smoking (Table 4.8). The results of a survey conducted among health centre directors at 393 4-year US Colleges and Universities provided information with a response rate of 65.1% about college policies addressing smoking and the availability of smoking cessation programs. 81% of these colleges prohibited smoking in all public areas although only 27% banned smoking in indoor areas such as student's rooms and dormitories. More than 40% of the respondents reported that their schools did not offer smoking cessation programs and that the demand for the existing program was low (Wechsler, Kelley, Seibring, Kuo, Rigotti, 2001). Advertising bans reduce smoking. Both the United States of America and the United Kingdom confirmed that a ban on smoking results in a fall in smoking levels. In Norway, Finland, New Zealand and France, four countries with effective bans on tobacco advertising and promotions, cigarette sales decreased after advertising was totally banned in 1996 (Strachan, 1999).

5. 4 Practices of smoking

5. 4. 1 Smokers and their smoking initiation

The results showed that smokers' friends played a big role (41.3%) in smoking initiation (Table 4.17). Ursicz found a similar situation in Budapest, where the prevalence of smoking among students whose friends smoked (42.6%) was much higher than those whose friends did not smoke (6.8%). Among students who reported that they had seen a teacher smoking, 37.3% were smokers, whereas the prevalence of smoking fell to 19% among students who had not seen a teacher smoking. Similarly, the prevalence of smoking among students with family members who smoked was

significantly higher at 40.7% than the prevalence among students whose family members abstained from smoking (Ursicz, 1997). The WHO (1998) says also that exposure to peers who smoke increases the risk of adolescents starting to smoke. It appears, however, that this influence is particularly important after the adolescent has already become susceptible to smoking. Indeed, the effect of peers is most noticeable in the transition from experimental smoking to addiction. These studies, then, indicate the effect that other smokers in the individual's environment have on the predisposition of the individual to start smoking himself or her. A study conducted in Canada in 1998, among more than 4200 students in 128 schools, also showed that the influence of family and friends was important. The proportion of confirmed smokers among students with at least one parent who smoked was 24%, compared with only 17% among students with non-smoking parents. In the same study it is reported that the likelihood of students whose brothers or sisters smoked becoming smokers was increased two and half times (Spurgeon, 1999).

A percentage of 20.8% of the respondents started smoking between the age of 14-16 years (Table 4.18). This rate is lower than 40% of the same age found in Ukraine in 1990 but almost equal (20.9%) to that found in Germany in 1994, and higher than that found in Sweden, 15.1% in 1994 (WHO, 1997). The results have shown again a rate of 4.3% among the respondents who started smoking at an age below 10 years. The WHO reported that the smoking rate among primary school children was estimated at 40% in 1989, a huge jump from the 10% level estimated a decade earlier. Although there have been reductions in smoking among French youth since 1977, 35% of 12-18 years old smoked in France in 1995 (WHO, 1997). In US university students, more than one quarter of students who smoked in 1997, reported starting to smoke while at university, and half of those who were currently smoking at

university said that they had tried to stop at least once in the preceding year (Gottlieb, 1998).

5. 4. 2 State of second-hand smoke

From the results it has been noticed that an additional percentage of 33.9% of non-smokers who live with regular smokers increase the number of the population at the risk of tobacco consequences (Table 4.26). The WHO states that smoke contains thousands of toxic chemicals that cause many diseases, including benzene, cyanide, cadmium, lead, radioactive polonium, benzo(a)pyrene, ammonia, carbon monoxide, and nicotine. So the WHO conclude that non-smokers breathe in the same toxic chemicals in tobacco smoke as the smokers do, with similar, although lesser effects (WHO, 2000). A study conducted in Brazil by Laranjeira, Pillon and Dunn (2000) about environmental tobacco smoke exposure among non-smoking waiters in restaurants found that exposure to environmental tobacco smoke was the most likely explanation for increase in carbon monoxide levels among non-smoking waiters. The authors argued that their findings could be used to inform the ongoing public health debate on passive smoking.

5.4.3 Reasons for tobacco consumption

59.6% of the participants (Table 4.28) confirmed pleasure as the major reason for smoking. This is firstly, different to the result from a survey conducted in Yale, where students cited stress as a reason to smoke (Keeling, 1999). Secondly, it is different from the most commonly cited reason that smoking 'was cool' by US students (US Department of Health, 2000). Other reasons for student's smoking habits were found

in Australia by Hamilton “peer pressure” (22%) and “wanting to try smoking or enjoying smoking” (21%)(Hamilton, 2000). Results from a study about relative influence of smoking and drinking vice-versa among high school students in a rural tobacco-growing country by Ritchey et al. (2001), found that students who found smoking offensive were less likely to be smokers. Attitudes toward smoking, however, were not associated with drinking. Having drinking friends increased both the likelihood of being a drinker and of being a smoker. The study confirmed also that peer pressure to drink increased the likelihood of being a smoker and of being a drinker (Ritchey, Reid, Hasse, 2001).

The results of the present study found that 52.7% (Table 4.24) of the respondents spend R 5-7 buying cigarettes per day. Although there was no item in the questionnaire asking whether or not cigarettes were affordable, one can say that the mean of 5 to 6 rands per day is actually a high cost for a student. Most commonly all groups of students identified health-related problems (62%) as the reason they believed young people limited their smoking. The cost of cigarettes was also identified by Australian students as a factor contributing to why young people deliberately limit their smoking (Hamilton, 2000). The WHO states that between 1990 and 2000 cigarette prices in many African countries have declined in real terms. The examples of Côte d’Ivoire, Gabon, Kenya and Nigeria were given, where a pack of 20 Marlboros was more than 25% cheaper than it was in 1990 (Yach, 2001). In the US, the effects of smoking are estimated to be responsible for between 6% and 10% of the country’s medical expenditures (WHO, 1999).

5. 4. 4 Smoking and decision making about to stop smoking

68.1% of current smokers expressed their need to give up smoking but 93.2% of them did not ask for help (Table 4. 27). Singleton (2000), in a study about a comparison of successful smoking cessation interventions for adults and adolescents in America, found that adults and most adolescents prefer to stop smoking on their own, which is not, however, the most effective means to achieve smoking cessation and even brief counselling will increase their chances of success (Singleton, 2000). A study done by Hamilton in Australia (2000) found that a large proportion of students claimed they had attempted to reduce or quit smoking. Of the regular smokers, 50% had attempted to quit and 20% had attempted to reduce their smoking. Similarly, 46% of occasional smokers had attempted to quit and 24% to reduce smoking. Of those who had attempted to quit or reduce smoking, the primary reason cited for this change in behaviour were threats to their health and fitness (55%). The researcher's point of view is that many of the respondents, especially females, started smoking while being with their boy friends on campus and they are still experimenting or enjoying cigarettes. This may be the reason why they expressed the desire to quit but do not yet need any help. The results show that 45.5% of smokers did not know about strategies to be used while trying to quit tobacco (Table 4.8). Although 54.5% of smokers and 59.8% of non-smokers reported to know some of the strategies for giving up smoking, the chi-square test did not show any statistically significant difference between the two groups. A qualitative study of the determinants of factors that contribute to the problem of smoking in pregnant women in Cape Town by Tobias (1998), found that the majority of respondents had started smoking at school, when aged about 12-13. The author found the same as in this study that most of the respondents expressed a

wish to stop. There was, however, a different opinion, his respondents felt that a support group would be useful whereas in the present study, respondents wanted to stop on their own.

5.5 CONCLUSION AND RECOMMENDATIONS

5.5.1 Conclusion

According to the South African Health Review, consumption of tobacco in South Africa has declined for six consecutive years. The prevalence of cigarette smoking among adults has declined from 34% in 1992 to 24% in 1998 (Saloojee, 2000). This was a result of many efforts by the government that introduced new policies regarding tobacco control. In this study, however, tobacco consumption still remains a threat among students in the University of Natal Durban campus residences. The findings show a high rate of smokers as well as a high rate of second-hand smoking. The purpose of this study was to investigate the extent of smoking among students in the University of Natal Durban campus residences and to evaluate their knowledge of practices about smoking. Many of the questions posed at the outset of this study proved to be pertinent to the assessment of the effects of smoking confirmed by the survey.

Although tobacco is well known to be harmful by most of the respondents (92%), students still lack knowledge in terms of the diseases caused by tobacco consumption. For example, heart diseases were only known by 19.8% of the respondents and tuberculosis was only known by 16.9% of them. 45% of smokers did not know any useful strategy to give up smoking. The lack of knowledge in terms of the regulations regarding smoking on campus allowed students to smoke anywhere around the campus, therefore increasing the number of passive smokers. Smoking is

practiced by 26.8% males and 24.3% of females. These proportions of current smokers are high if compared to other different settings in the world as discussed earlier in this paper.

The most repeatedly reasons for smoking by students was pleasure. This is indicated by the highest percentage of 59.6% of the respondents.

The percentage of 25.7% of smokers overall plus the percentage of non-smokers who live with regular smokers increases the number of the population at-the risk of diseases caused by smoking.

Most smokers want to give up smoking but admitted a lack of success doing it on their own.

5.5.2 RECOMMENDATIONS

Based on the findings the researcher would like to make recommendations to different people as follows:

1. Students in the University of Natal Durban campus residences

1.1 Smokers

Smokers should be aware of the long incubation period of damage from tobacco. "After a population begins smoking it takes 30 to 40 years before tobacco death rates reach their maximum" (Saloojee, 2000: 430). Yach, from WHO, said that deaths from HIV/AIDS and tobacco are the only two major global causes of deaths that are increasing (Yach, 2001). Earlier in the literature review a startling comparison in

terms of deaths in the United Kingdom was mentioned to show the gravity of tobacco consumption. That is, about 4000 people die each year from road accidents and 120 000 are killed by diseases caused by tobacco (HST, 2000). Based on these examples, one would suggest to smokers not to neglect the dangers inherent in smoking and think that it doesn't matter to continue to smoke because they are not yet suffering from tobacco problems. Rather, they should ask for help to give up smoking as soon as possible.

1. 2 Non-smokers

Non-smokers who live with regular smokers should consider themselves as smokers because they are exposed to the same risk of diseases as their friends, husbands, parents or any other relatives who smoke close to them. Non-smokers should thus define and agree with smokers they live with about a specific place for smoking. Non-smokers should sensitise regularly and help smokers to give up smoking.

2. University of Natal Durban Residences' Office

The residence's Office monitors daily all activities happening in residences. It is thus, very important to ensure that residences are smoking-free. The most important action is to increase the awareness of the threat of tobacco by using posters on walls or on notice boards. The Office personnel should also systematically refer students to the rules about smoking on campus while assigning them their respective rooms.

3. Health clinic at University of Natal Durban campus

As the health clinic is the body of the University in charge of students' health, its personnel should play a big role in tobacco control among students. One would

recommend to the clinic to organize regularly some educational campaigns against tobacco consumption on campus and also to just take time to talk to each patient who smokes, whenever he or she consults for another cause, not necessarily for a cause due to tobacco consumption. This is because of the magnitude of the tobacco epidemic. Tobacco control must take in fact its rightful place among other health care provided by the health clinic.

4. University of Natal Authorities

The researcher would recommend to the University authorities to impose penalties on students who smoke in public places on campus and may also contribute to the development of some strategies to combat smoking in terms of information, education and communication.

5. Other researchers

From the researcher's own observation, there are more black students in the University of Natal Durban Campus residences than other ethnic groups. It would be useful for another researcher to expand this research topic in order to make comparison about smoking behaviour among all university students, including those who do not live in campus residences. Gottlied (1998), in a study among US university students, found that smoking prevalence was higher among white students than black students. It was also higher amongst first, second, and third year students than fourth and fifth year students (Gottlied, 1998). Further research would be necessary on this campus to establish the smoking prevalence among the total student population, and their distribution among various years of study.

References:

Alperstein, M., Hoogendoorn, L., Urggoiti G., Keikelame, J., Swabrtbooi, M., De Waal, R., Khan, Y., Khandekana, A., Mpahlwa, M., Manciya, H., De Villiers, T., Schweizer, B., Abrahams, G. & Lake L. (1999): Network, Newsletter of the National Progressive Primary Health care Network. Special Feature Youth Health Tobacco smoking and Law. Magazine of the National Progressive primary care Network, Edition 28 April 1999: p34, South Africa.

Benetar, D. (1999): Beyond the haze of the Tobacco Bill Debate, South African Medical Journal, vol.89, No. 7, 52-54.

Bless & Higson, S. (1995). Fundamentals of Social Research Methods: An African perspective, Second edition Lusaka, Zambia.

Canadian Council on smoking and Health (1995): Examining Youth cessation and Relapse Prevention. (http://www.hcsc.gc.ca/hppb/cessation/youth/youth_smoking/ch1_intro.html)

Glanze W.D, Anderson K.N & Anderson L.E. (1990): MOSBY'S Dictionary, Medical, Nursing and Allied Health. Third edition illustrated St. Louis, Baltimore, Philadelphia, Toronto, 1990.

Gottlied, S. (1998): Smoking rises sharply among US university students. British Medical Journal, Vol. 317 Issue 7170, p 1405, p1-3.

Hamilton,G., Cross, D. & Resnicow, K (2000). Occasional cigarette smokers: cue form harm reduction smoking education. Addiction research, Vol. 8 Issue 5, p419, p19.

Helth System Trust (1999) Tobacco and alcohol in South Africa. HST PDATE Issue No. 43

Hines, D., Fretz, A.C& Nollen, N.L. (1998). Regular and occasional smoking by college students: personality attributions of smokers and non-smokers. Psychology report , Vol. 83, pp1299-306, United States of America.

Katzenellenbogen, J.M., Joubert, G. & Karim, A. (1999): Epidemiology: A Manual for South Africa. Oxford University Press. Cape Town.

Keeling, R.P. (1999). Smoking among students: New Pathways to Prevention. Journal of American College Health, Vol. 48 Issue 2, United States of America.

Laranjeira, R., Pillon, S. & Dum, J. (2000). Environmental tobacco smoke exposure among non-smoking waiters: Measurement of expired carbon monoxide levels. Sao Paulo Medical Journal, July 6, Vol. 118 (4), pp. 89-92, Brazil.

Makomaski, E.M. & Kaiserman, M.j. (1996): Mortality attributable to tobacco use in Canada and its Regions. (Infotobacco.com)

Martin, G., Steyn, K. & Yach D. Beliefs about smoking and health and attitudes towards tobacco control measures. South African Medical Journal 1992,82: 242-245

Montgomery, S.M. & Pounder, R. E (1999). Smoking in adults and passive smoking in children are associated with acute appendicitis. Lancet, Vol. 353 issue 9150, p379.

Morell, S. (1995): Smoking in South Africa News. South African Medical Journal, vol.85, No.9, 826

National Health Interview Survey (NHIS) (2001). Cigarette Smoking among adults - United States Morbidity & Mortality Weekly Report, Vol. 50 Issue 40, p869.

Norton, A. (1994): Health habits may add years to life span, Archives of Internal Medicine 2001, 161:1645-1652 (http://dailynews.yahoo.com/h/20010712/hl/habit_1.html)

Ontario Tobacco Research Unit (1995): Youth smoking cessation. (<http://www.hc-sc.gc.ca/hppb/cessation>)

Ritchey, P. N., Reid, G.S. & Hasse, L.A. (2001): The relative influence of smoking on drinking and drinking on smoking among high school students in a rural tobacco-growing country. Journal of Adolescents' Health, Vol. 29 (6), pp. 386-94. United States of America.

Saloojee, Y. (2000) Tobacco Control, South African Health Review 2000. (<http://research@hst.org.za/sahr/2000/chapter22.htm>)

Singleton, M.G. & Pope, M. (2000): A comparison of successful smoking cessation interventions for adults and adolescents. Journal of counselling & Development, Vol. 78 Issue 4, p448, United States of America.

Slovic, P (2001). Smoking: Risk, Perception and Policy. Sage Press. (<http://www.tobacconews.org/newsletter/mynews.cfm>).

South African Family Practice (1995): Results of national study on smoking in South Africa. SA Family Practice, Vol. 16, August 1995, 572-573.

South African Family Practice (1995): Smoking and South African children, general news. SA Family Practice Vol. 16, July 1995, 496.

South African Government Gazette (1999) Best Practices for Comprehensive Tobacco Programs (<http://www.cdc.gov/tobacco/issue.htm>)

Spurgeon, D. (1999). Studies reveal smoking among students in Canada. British Medical Journal, Vol. 319 Issue 7222, p1391, Ontario, Canada.

Strachan, K. (1999): Tobacco control in South Africa. Health System Trust update, 43, 14-17.

Tobias, B. (1998). A qualitative study of the determinants of factors that contribute to the problem of smoking in pregnant women. Health System Trust, Clinic Bishop Lavis, Cape Town, South Africa.

University of Natal (2000): Common Rules, Rules for Students and Traffic Rules. Correspondence: The Registrar, University of Natal Durban.

Ursicz, G., & Kiss, E. (1997): Prevalence of cigarette smoking among secondary school. Mortality & Morbidity weekly report, Vol. 46 Issue 3, p56, 2charts, Budapest, Hungary.

US Department of Health (2001). Alcoholism & Drug Abuse weekly, Vol. 13 Issue 16, p1-7p

Wallen, N.E. & Fraenkel, J.R. (1991). Educational Research: A Guide to the process. Library of Congress Cataloging-in-Publication Data. United States of America.

Wechsler, H., Kelley, K., Seibring, M., Kuo, M. & Rigotti, N.A. (2001): College smoking policies and smoking cessation programs: Results of a survey of College Health Center Directors. Journal of American College Health, Vol. 49 issue 5, p205,

WHO (1998). Beyond prevention: Helping Teens Quit Smoking (http://www.who.int/archives/ntday/ntday98/ad98c_10htm)

WHO (1999). Health Impact (<http://www.tobacco.who.int/en/health/index.html>).

WHO (1999). Tobacco Control Research (<http://tobacco.who.int/en/research/index.html>).

WHO (2000). Framework Convention on Tobacco Control (<http://www.who.int/en/fctc/index.html>)

WHO (2000) Tobacco kills don't be duped says WHO on world no-tobacco day (<http://www.who.int/inf-pr-2000/en/pr2000-38.html>).

WHO (2001) Press release WHA/ 1,15:(<http://www.who.int/inf-pr-2001/en/pr2001WHA-1.html>).

WHO (2001). Lutte antitabac: Les pays en voie de développement aussi (<http://fr.news.yahoo.com/010710/185/1fxwl.html>).

WHO (2001). Action on smoking and health (<http://www.ash.org.uk/html/factsheets/html/fact11.html>).

WHO (2001). World No-Tobacco Day- May 31, 2001 ([Http:// www.cdc.gov/tobacco](http://www.cdc.gov/tobacco))

WHO urges countries to prevent a tobacco epidemic among women and girls. Press Release WHO/27, 30 may 2001. (<http://www.who.int/inf-pr-2001/en/pr2001-27.html>).

William A.R, Thomson M.D (1976): Black's Medical Dictionary, Thirty-first edition, Britain.

Yach, D. (2001): Non-communicable Diseases and Mental Health, World Health organization. Press Releases and speeches. ([Http://tobacco.who.int/en/tfi/dyspeeches/DY15-03-01.html](http://tobacco.who.int/en/tfi/dyspeeches/DY15-03-01.html))

Research Questionnaire

Preamble:

Dear comrade,

As you have been randomly selected to be part of my research sample, a request is made that you respond to the following questions about smoking as stated bellow. All information will be kept confidential. Make (X) in the appropriate space provided.

I. Identification

1. Survey date: .../...../.....
2. Hall name:
3. Age (years):
4. Sex:
 1. Male
 2. Female
5. Religion:
 1. Catholic
 2. Protestant
 3. Seventh Day Adventist Church'
 4. Muslim
 5. None
 6. Other

6. Are you an UND student registered for the year 2001 and currently resident in a Campus Student residence?

1. Yes
2. No

7. Level of Studies:

1. Undergraduate
2. Postgraduate

II. Knowledge of smoking

8. Is smoking harmful to your health?

1. Yes
2. No
3. I do not know

9. If yes, Can you mention 3 diseases caused by smoking?

- 1.....
- 2.....
- 3.....

10. From your own experience, does smoke harm to non- smokers exposed to it?
1. Yes
 2. No
 3. I do not know
11. Which organs of the body are damaged by smoking?
- 1.....
 - 2.....
 - 3.....
 - 4.....
12. Can you identify at least 3 components of the smoke of tobacco?
- 1.....
 - 2.....
 - 3.....
13. Can tobacco damage the nervous system, reduce attention and therefore affect academic performance?
1. Yes
 2. No
 3. I do not know
14. Does smoke from tobacco cause environmental pollution?
1. Yes
 2. No
15. Have you heard any advertisements for tobacco usage?
1. Yes
 2. No
16. Are you aware of regulations about smoking that might exist in campus rules?
1. Yes
 2. No
17. Are you aware of some strategies regarding how to quit smoking?
1. Yes
 2. No

III. Practices of smoking

18. Do you presently smoke?
1. Yes
 2. No
19. If yes, For how long have you been smoking?
1. 0-11 months
 2. 1-5 years
 3. More than 6 years
20. Have you ever tried to smoke?
1. Yes
 2. No
21. If yes, how old were you?
1. Less than 10 years
 2. 11-13 years
 3. 14-16 years
 4. 17-19 years
 5. over 10 years

22. Do you live with one or more regular smokers at your home?

- 1. Yes
- 2. No

23. If yes, who are those people?

- 1. Both parents
- 2. My mother only
- 3. My father only
- 4. My sister
- 5. My brother
- 6. My girl/boy friend
- 7. Other relatives

24. From whom did you receive the first tobacco?

- 1. From one of my parents
- 2. From one of my siblings
- 3. From my boy/girl friend
- 4. Other relatives

25. When did you or do you most often smoke?

- 1. Morning
- 2. Noon
- 3. Evening
- 4. Anytime

26. Where did you or do you most often smoke?

- 1. In my bedroom
- 2. Outside lecture venues
- 3. Anywhere

27. Why did you or do you actually consume tobacco?

- 1. Diminish anxiety
- 2. Pleasure
- 3. Absolute need
- 4. I'm not sure
- 5. Other responses:.....
.....
.....

28. Which type of tobacco did you or do you smoke?

- 1. Cigarette
- 2. Pipe
- 3. Marijuana
- 4. Other (precise):.....
.....

29. If possible can you estimate the number of cigarettes that you smoke (d) per day?

- 1. 1-5 cigarettes
- 2. 6-10 cigarettes
- 4. 11-15 cigarettes
- 5. 16-20 cigarettes
- 6. More than 20 cigarettes

30. Can you estimate the cost in rands of the tobacco you consume (d) per day?

R ...

31. Have you tried or do you want to quit smoking?

- 1. Yes
- 2. No

32. If yes, how long have you been trying to quit smoking (write the number)

- 1. Weeks
- 2. Months
- 3. Years

33. Have you succeeded in quitting smoking?

- 1. Yes
- 2. No

34. If not, what could be the reasons for your failing?

- 1.
- 2.
- 3.
- 4.

35. How many times have you tried to quit smoking?

- 1. Once
- 2. Twice
- 3. Several times

36. Have you ever asked for help?

- 1. Yes
- 2. No

37. If yes, what kind of assistance/ medication/ did you use?

.....
.....
.....

38. Did it help you?

- 1. Yes
- 2. No

39. How long have you been tempted to smoke after you decided to quit smoking?

(Write the number)

- 1. Weeks
- 2. Months
- 3. Years

Thank you very much.

SCHOOL OF NURSING
University of Natal
Durban
4041
Tel. 073-1660-888
260-2499

8th October, 2001

The Director of Student Residences
UND Campus

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH ON THE
KNOWLEDGE AND PRACTICES OF SMOKING AMONG STUDENTS OF
THE UNIVERSITY OF NATAL IN DURBAN CAMPUS RESIDENCES.**

I am a Masters student, registered at the University of Natal in the year 2001.

Permission is hereby requested that students in UND residences complete the questionnaire used for the above quoted research. A copy of the questionnaire is attached.

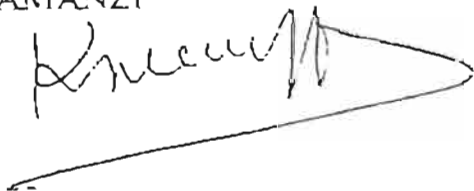
I have already presented my research proposal and it has been accepted. I am now at the stage of collecting data as part of the study requirements. This will take place as soon as I get a positive response from you.

I hope that my request will receive your favourable attention.

Thank you

Sincerely,

Desiré KAMANZI

A handwritten signature in black ink, appearing to read 'Desiré Kamanzi', written over a horizontal line that extends across the page.

Student Housing Office

Durban 4041 South Africa

Telephone +27 (0)31 260 1444

Facsimile +27 (0)31 260 1333

e-mail: dludla@studaff.und.ac.za

9 October 2001

TO WHOM IT MAY CONCERNDesire Kamanzi, Student No. 201508530**REQUEST FOR PERMISSION TO CONDUCT RESEARCH ON THE
KNOWLEDGE AND PRACTICES OF SMOKING AMONG STUDENTS OF
THE UNIVERSITY OF NATAL DURBAN CAMPUS RESIDENCES.**

This note serves to confirm that permission is hereby granted, as requested, to conduct research for your academic programme, in Residences, University of Natal Durban Campus. Please note however that no students in residences shall be compelled to participate in this research. Kindly report to the Residence Assistant, when you need to enter a residence building. You will individually be held responsible for any inconvenience, loss or damages, that may occur due to you conducting research in Residences.

Sincerely



Sibuso Dlodla
Manager :
Student Housing

RESEARCH ETHICS COMMITTEE

Student: Desiré - G - KAMANZI

Research Title: KNOWLEDGE AND PRACTICES OF SMOKING AMONG STUDENTS OF UND CAMPUS RESIDENCES (YEAR 2001)

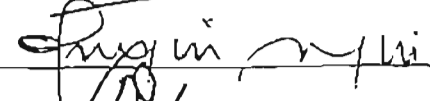
A. The proposal meets the professional code of ethics of the Researcher:

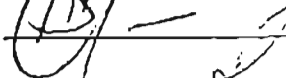
YES NO

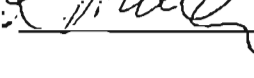
B. The proposal also meets the following ethical requirements:

	YES	NO
1. Provision has been made to obtain informed consent of the participants.	✓	
2. Potential psychological and physical risks have been considered and minimised.	✓	
3. Provision has been made to avoid undue intrusion with regard to participants and community.	✓	
4. Rights of participants will be safe-guarded in relation to:		
4.1 Measures for the protection of anonymity and the maintenance of confidentiality.	✓	
4.2 Access to research information and findings.	✓	
4.3 Termination of involvement without compromise.	✓	
4.4 Misleading promises regarding benefits of the research.	✓	1

Signature of Student:  Date: 19/09/2001

Signature of Supervisor:  Date: 19/09/2001
 P.S. M. M. M.

Signature of Head of School:  Date: 5/11/2001

Signature of Chairperson of the Committee:  Date: 18/11/2001
 (Professor S P Henzi)