SMOKING: HABITS AND EXPRESSED OPINIONS OF 543 STUDENT NURSES

by

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INTRODUCTION

Introduction to the Problem

Scientific knowledge leaves no doubt about the harmful effects of cigarette smoking. Most people, since the publication of The Surgeon General's Report on Smoking and Health in 1964, now know about the health hazards involved with the cigarette habit. This knowledge, however, has not significantly changed the smoking behavior of people. (21) About 52 per cent of the males and 39 per cent of the females over 18 smoke cigarettes at the present time. The 1,500,000 new smokers who join the ranks each year more than fill the gap left by the 1,000,000 who quit smoking each year due to poor health or other reasons. (7)

The United States Public Health Service estimates that there are from 250,000 to 300,000 premature deaths caused by cigarette smoking each year. This means that every one hundred and five seconds at least one person in this country dies prematurely because of cigarette smoking. (26)

Statement of the Problem

The extent of the cigarette smoking problem among nurses is unknown, either for graduates or students. To date there have been no studies published to determine the scope of the problem, but a casual observation in a classroom, hospital cafeteria, convention hall or other smoked filled rooms where nurses meet is enough to convince one that a problem exists. Regardless of the number however, for the individual nurse who smokes, the health hazards are as great as for any other person who smokes.

Purpose of the Study

This descriptive study was undertaken to obtain information concerning the smoking habits of student nurses, and to ascertain if their expressed opinions regarding the health hazards were related to their personal smoking habits. It also considered responses toward a request made by the American Cancer Society that the American Nurses' Association endorse a recommendation to do everything possible to reduce further cigarette smoking both by example and advice.

It will test the null hypothesis:

> There will be no differences in the expressed opinions regarding the health hazards involved with smoking between those student nurses who smoke, those who have tried to stop smoking, those who onced smoke, and those who report they do not smoke.

Limitations

This study includes only the information obtained through the use of the survey form distributed to the target population. No attempt was made to validate the statements made by the respondents. The results of this study apply only to the target population at the time of data collection.

Assumptions

For the purposes of this study, it was assumed that:

1. All of the student nurses participating in the study were aware of the health hazards involved with cigarette smoking. This awareness is due to the intensive and extensive public education program since The Surgeon General's Report on Smoking and Health.
2. No unusual factors were operating within the setting at the time the questionnaire was answered to exert an unusual influence upon individuals responding.

Significance of the Problem

The nurse who smokes must, like any other individual, balance the risks against the pleasures derived from smoking. However, for the nurse who smokes the problem is two-fold. As a member of the health profession her behavior may be more

influential than her words. Cigarette smoking has been called a "health hazard of the first magnitude" (7) and as such demands some commitment from those in the health professions even at the expense of some personal freedom.

Procedure of the Study

The steps involved in the development of this study are as follows:

1. A general survey of the literature was made concerning the cigarette smoking problem among members of the health professions. From this literature it was anticipated that a frame of reference would be established.
2. The problem was defined.
3. The purpose and scope of the study were formulated.
4. The limitations and assumptions were determined.
5. Hypothesis formulated.
6. The data-gathering instrument used by S. Spense Meighan, M. D. and Morris Weitman, PhD., for their study of smoking habits and beliefs of Oregon physicians was found to be applicable, with slight modification, for this study. Permission was requested and granted by Dr. Meighan to use the instrument. At the suggestion of Dr. Meighan one question regarding The Surgeon General's Report on

Smoking and Health, was omitted. The Oregon physicians either did not answer it or answered it in such a way that the data could not be used. Decision was also made to delete the sections of the original instrument concerning the use of cigars and pipes as it was felt they would not be appropriate for this study.

7. One question concerning a recommendation made by the American Cancer Society to the American Nurses Association that nurses help combat further cigarette smoking both by example and advice, was added to the data-gathering instrument.

8. A pilot study was carried out using ten unselected students from a school of nursing near Portland. The pilot study consisted of a test-retest, carried out one week apart, for the purpose of determining reliability, gaining experience in administration of survey questionnaire, and estimating the time needed to complete the form. The correlation was found to be +0.99. The results were analyzed and no further modifications than those previously mentioned were needed.

9. Letters of introduction were sent to the directors of nursing at each of the six schools of nursing in the Portland area. The letter stated the purpose of the study, and the

possible length of time it would require for the students to complete the form. The letter bore the signature of the these adviser. A sample of this letter is included in Appendix A.

10. Replies were received from all of the directors of nursing. Four indicated their willingness to have their students participate in the study, the other two were unable to do so due to vacation schedules of students.
11. By telephone, or in person, mutually agreeable dates were arranged for the questionnaire to be administered by the investigator.
12. After completion, the unsigned questionnaires were placed in an envelope and sealed before collection. It was assumed that by guaranteeing anonymity the respondents would be frank.
13. The data were tabulated and interpreted.
14. The findings were summarized, conclusions drawn, and recommendations were made for further study.

Overview of the Study

This study is presented in four chapters. Chapter I presents an introduction to the broad problem, defines the purposes of the study and describes the procedure plan. Chapter II presents a

review of the related literature. Chapter III describes the study with analysis and interpretration of the data received. Chapter IV presents a summary of the study, the conclusions, and recommendations for further study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Tobacco has had both firm friends and bitter enemies since it was first introduced to the Old World from the New World, but seldom, except for financial reasons, have people remained neutral. (6) Until 1964 it was questioned: "Is the use of tobacco bad or good for health, or devoid of effects on health?" After the publication of the Advisory Committee's Report to the Surgeon General on Smoking and Health that question was answered. It was the judgment of the Committee that cigarette smoking is a health hazard of sufficient importance to warrant appropriate remedial action. (25)

To get people to accept the idea that smoking causes them personal harm is no easy task. The tremendous economic investment in the production and promotion of cigarettes and the traditional apathy of human beings to accept and act on new information are major obstacles to the solution of the problem. (26) Can individuals or groups, interested in just the health aspects,

succeed where Church, Crown and every type of government in the Old World failed. (6) This is the key question.

The literature, to date, has been searched in an attempt to establish the role of the nurse, including the student nurse, either as a partaker of the habit or as a participant in an anti-smoking program. Virginia Barckley, remarked in an Editorial for Nursing Outlook, "We (nurses) have quickly identified our role in other programs--from mental retardation to suicide prevention but not in smoking." (3) This could change however as the American Cancer Society has recommended that the American Nurses Association join forces with other groups, interested in health, to help combat cigarette smoking. Opinions of student nurses regarding this recommendation is part of this study and will be discussed in Chapter III.

History

The use of pleasantly scented, slow burning material such as incense, has been used since ancient time, and in all parts of the world as part of religious ceremonies, but the smoking of tobacco seems to have originated with the Mayan Indians. Columbus, on his first voyage, as chance would have it, happened to land in the Antilles, the very center of the area where the finest tobacco was grown and where its use had been extensively

developed. It is reported that one of the first gifts to him by the Indians was a bundle of tobacco leaves. (6)

In 1560 Jean Nicot, the French ambassador to Portugal, introduced tobacco to France as an herb with marvelous curative powers. The plant was given the botanical name of Nicotiana, in his honor. (32) In the United States, as late as 1856, it was recommended as a poultice for extreme cases of lock-jaw, and it was likewise said to be very good for colic, and in the form of an ointment, it was used for croup, obstinate ulcers and painful tumors. (33)

King James I issued his famous "Counterblaste to Tobacco" in 1604 shortly after tobacco had been introduced to England by Sir Walter Raleigh, who was first to recognize its great commercial value. In his pamphlet the King reminded his countrymen that the fabulous properties ascribed to tobacco were entirely non-existant. But, the King explained, supposing it to be a medicine, no healthy man ought to take it; because to employ medicine when one is not ill was not only impious, but actually injurious. In conclusion the King wrote: "A custome lothsome to the eye, hateful to the nose, harmful to the braine, dangerous to the Lungs, and in the black stinking fume thereof, nearest resembling the horrible Stigian smoke of the pit that is bottomelesse." The King's subjects read the pamphlet, some praised it, others made

feeble protest, but things went on as before, and the consumption of tobacco from Virginia soared to new heights. (6)

An obscure French physician, M. Bouisson, deserves the credit for the first well-documented clinical study of linking smoking tobacco to cancer in 1859. He noticed that cancer of the buccal cavity occurred more often among pipe smokers, and especially in those who smokes short-stemmed pipes. He suggested that the cancer resulted from irritation caused by the tobacco and the heat. (11)

Two New Orleans surgeons, Alton Ochsner and Michael E. DeBakey, in 1936, observed that nearly all of their lung cancer patients were cigarette smokers. They suggested a casual relationship between the two. Raymond Pearl, a noted medical statistician from Johns Hopkins University, reported a far shorter life expectancy for those who smoked. The difference in death rates was so great that smoking must be associated with diseases other than cancer. After World War II there was a renewed interest in the subject due partly to trends in tobacco consumption and partly due to trends in the death rates. (11)

The Surgeon General's Report

The United States Public Health Service first became engaged in the appraisal of available data on smoking and health in 1956.

A scientific Study Group with members from National Cancer Institute, the National Heart Institute, the American Cancer Society, and the American Heart Association appraised 16 studies from 5 countries, which had been carried out over a period of 18 years. This group concluded that there is a casual relationship between smoking of cigarettes and lung cancer. Two statements were issued to that effect, one in 1957 stated: "The Public Health Service feels the weight of the evidence is increasingly pointing in one direction; that excessive smoking is one of the causative factors in lung cancer" and one in 1959 stated: "The weight of evidence at present implicates smoking as a principal factor in the increased incidence of lung cancer." (25) This led the Surgeon General, Luther L. Terry, in 1962, to appoint a committee of scientists from a number of different disciplines to review and evaluate all available information on the effects of smoking to the health and well-being of those who smoke. This was a formidable assignment as by that time (1962) there had been over 6,000 articles written in over 1,200 journals, 29 retrospective studies for lung cancer alone, as well as seven very large prospective studies and much unpublished research material to study and evaluate. (25)

The project culminated in the publication in January, 1964 of Smoking and Health: A Report of the Advisory Committee to the

Surgeon General of the Public Health Service. Some of the conclusions of the committee were that cigarette smoking is causally related to lung cancer in men, and where data were available for women, mortality ratios for comparable levels of smoking appeared to be similar to those for men but somewhat lower. Cigarette smoking is the most important cause of bronchitis in the United States, and that for the bulk of the population, the importance of cigarette smoking as a cause of bronchopulmonary disease is much greater than that of atmospheric pollution or occupational exposures. Cigarette smoking is associated with a 70 percent increase in the age-specific death rates of males. The Advisory Committee considered that "cigarette smoking is a health hazard of sufficient importance in the United States to warrant remedial action." (25) The Report received full or partial coverage from all types of mass communication media. Shortly after The Report was published the consumption of cigarettes went down by about 23 percent but this effect was of short duation, and one year later the consumption had returned to pre-report levels, and continued to climb. (30)

Changes in Tobacco and the Smoking Habit

It is well to remember that the tobacco smoked by the Indians and introduced to the Old World was not the same botanically as

that in common usage today. The harsh and disagreeable Nicotiana rustica, has been replaced by the milder form, Nicotiana tabacum, although the former is still produced in the U.S.S.R. and parts of Asia. (11) The effects of smoking tobacco are not the same either. Some of the experiences recorded in A History of Smoking, were more like "states of drunkeness" or the "stupor and unconsciousness" one might expect of a narcotic. There are stories told of whole towns being burned to the ground as a result of smokers going to sleep with pipes in their mouths. (6)

The changing pattern and the extent of the use of tobacco are also pertinent aspects of the tobacco-health problem. Nearly 70 million people in the United States use some form of tobacco. Over 48 million use cigarettes. The consumption of cigarettes has increased from 49 per person, per year in 1900 to 3,986 per person, 15 years and older, per year in 1961. (25) It is not surprising that cigarettes are rapidly replacing other types of tobacco for eshetic reasons alone. Chewing tobacco requires a spittoon and a good aim, pipes require constant attention to keep them lit, and both cigars and pipes have heavy and objectionable aromas.

Cultural factors undoubtedly play a large part in smoking. Different ways of enjoying tobacco (snuff, chewing, pipe, cigars, cigarettes, narghile) are found in different countries. (24) But the problem today is cigarette smoking. It is the only form of

tobacco used that does damage to the individual. (34) Cigarette smoke is mild and relatively neutral and is inhaled easily, whereas smoke from pipes and cigars is heavy, and few people can inhale it without becoming dizzy or nauseated. It is the inhalation of smoke more than the actual over-all consumption of tobacco that is more significant. (12) The Report states: "The relation of inhalation to mortality appears quite marked; for instance, non-inhalers who smoke 20-39 cigarettes daily have mortality ratios no higher than moderate or deep inhalers who smoke 1-9 cigarettes daily." (25) In one of the seven large population studies evaluated by the Advisory Committee and brought up-to-date in 1967, only 6 percent of cigarette smokers reported they did not inhale, 14 percent inhaled slightly, 56 percent moderately, and 24 percent deeply. Many factors besides the number of cigarettes smoked per day should enter into the over-all exposure such as age at beginning of smoking, inhalation of smoke, and the years the individual has been smoking. (12)

Psycho-Social Aspects

Although only a few pages of The Report were devoted to the psycho-social aspects of smoking there implied a call for more research in this area as:

> The overwhelming evidence points to the conclusion that smoking - its beginning, habituation, and occasional discontinuation - is to a large extent psychologically and socially determined. This does not rule out psychological factors, especially in respect to habituation, nor the existance of predisposing constitutional factors. (25)

At the National Research Conference on Smoking Behavior held in 1966 those present agreed that more knowledge is needed to achieve a better understanding of the habits, attitudes and beliefs of the public related to smoking. What are the personal and social forces that instigate the habit, or which may be used to encourage people to stop smoking or to smoke less? What way do we have to help those who want to give up the habit? How can we encourage teenagers not to take up the habit? These are but a few of the questions that must be answered if the problem is to be solved. (34)

There are many factors influencing the youth to take up smoking, such as parents who smoke, teachers who smoke, and peer groups who smoke. (28) However, one of the greatest factors in the social milieu is the unrestrained advertising, and especially that seen on television. The tobacco companies spend over two hundred and fifty million dollars each year to portray smoking as the fun-loving, normal thing to do, and over 4,000 young people join the smoking ranks daily. (7)

The cigarette industry, Business Week observed in 1954, is a classic example of how a mass production industry is built on

advertising. "Unfortunately the cigarette companies achieved this remarkable result by screaming at the top of their lungs about nicotine, cigarette hang-overs, smoker's cough, mildness and kindred subjects." (5) In one way or another the health theme has been at the very center of the advertising business from the very beginning. Recall the slogans, "More Doctors Smoke Camels than any other Cigarette" or "Not a Cough in a Carload of Old Golds!"

A great deal has been said and written about the taking up of the cigarette habit and the difficulties of giving up the habit but almost thing has been said about how hard it is for a child growing up in our society today not to become a smoker. (15) He is living in an all -pervading climate of acceptability for cigarette smoking. There have been a number of studies done about smoking and children and teenagers, and although the methods vary of obtaining data they agree on the following conclusions. There are few smokers before age ten or twelve years of age, but exploratory smoking increases rapidly in the junior high school and fairly regular smoking begins in the 8th and 9th grades. During high school there is a large increase in the proportion of regular smokers and by the senior year half of the teenagers smoke on a fairly regular basis. (28)

One newsman was prompted to say the reason the campaign against cigarettes failed was because it was based on the

assumption that people will refrain from doing what is bad for them. He explained, "What successful advertising men understand clearly is that people will in fact do what is bad for them in the long run if offered a reward that can be collected in the short run." He suggested that if the anti-smoking forces were ever given equal time on television they would refrain from saying that smoking is harmful, "After all the cigarette makers have never tried to argue that smoking makes good sense. Why try to fight them by arguing that it doesn't." (2) At best, the whole smoking-health issue must seem out of focus for a young person coming of age in the United States today.

Conference on Smoking Behavior

At the first National Research Conference on Smoking Behavior, held in 1965, some early trends in the research that had been undertaken since the publication of Surgeon General's Report on Smoking and Health were noted. It was noted that mass public education programs are only transitory. As previously stated the decline in smoking lasted less than one year after The Report was made public. It was agreed that the public should be alerted to the dangers but that changes in behavior rarely result from such information. In fact, no good way is now known to change smoking habits. Some early findings, which have helped to up-date our

understanding of the problem are:

1. All but a very few Americans now know about the health hazards of smoking.
2. Cigarette smokers are particularly well informed, but their knowledge has not significantly changed their smoking habits. (21)

It was also noted that although research had shown some difference between smokers and non-smokers there does not seem to be one factor alone or in combination that plays an essential part in the decision to smoke or to change smoking behavior. (21)

Hochbaum has stated that, "The continuous correlational data is not... the road... to the understanding of the psychosocial dymamics related to smoking." He also pointed out that in smoking studies the research variables have not been defined adequately; poor sampling techniques have been used; self-reporting is not reliable, yet this has been the chief variable used in establishing smoking levels; and conclusions have thus been drawn from inadequate data. (14)

Smoking Behaviors

Tomkins has presented a theoretical model of smoking behavior in an attempt to understand smoking behavior. He defined four types of smoking behavior, a summary of which follows:

In habitual smoking the individual originally may have smoked to reduce negative affect or experience positive affect but has long since ceased to do so. He is not aware that he has a cigarette in his mouth.

The second type is positive affect smoking behavior. Here he gives two types, (1) smoking as a stimulant to experience the positive affect of excitement and (2) smoking to experience the positive affect of enjoyment. It was also suggested that there is another type of positive affect smoking--that associated with the sensori-motor aspects of smoking, i.e., what one does with one's hands about watching the smoke as it leaves their lips.

The third type is negative affect smoking behavior in which the individual uses smoking to reduce his feelings of stress, fear, shame, or disgust or any combination of these. He is trying to sedate himself rather than to stimulate himself. There are two sub-types of the sedative smoker - the partial sedative and the complete sedative. The first uses smoking to reduce negative feelings enough so that he can face his problems and solve them. The complete sedative smoker uses smoking to reduce negative affect to the point where there is no confrontation with the source of his suffering.

> In the fourth, the addictive type of smoker there is both smoking for positive affect and for the reduction of negative affect organized in such a way that there is psychological addiction. (27)

After an extensive review of the significant literature on all parameters of smoking behavior, Pflaum developed a theory of his own. His personal view is that smoking represents an attempt to master emotions by creating regularity and predictability. He hypothesized that there is a "strong need for a predictable anchor in an otherwise unstable social and emotional environment," and that those most susceptible to inconsistencies in the emotional and environmental spheres are most likely to smoke and to smoke heavily. (23)

Another theory is that smoking is a pause by which a threatening impulse is avoided. Smoking is a postponing time which can be made almost anywyere, at any time, under almost any circumstances. Being cool and mild in social interaction is a cultural virtue often achieved by smoking through a moment's crisis. (23) Interestingly, Chancellor Bismark recommended smoking a cigar for about the same reasons in 1871 when he said, "When a man begins a discussion which may easily lead to heated argument, or even a show of temper, it is always better to smoke while one is talking..as the blue smoke curls upward the eye involuntarily

follows it; the effect is soothing, one is better tempered." (6)

Along this same idea, Barron wondered if we are not missing some of the deeper, mythical significance to smoking. He reminds us that smoking began with the Indians and that they invested it with a philosophical significance . With them it was a way of life, a tradition, a means of invoking the higher powers, a ceremonial that had considerable import for the resolution of life's problems. It was not a time for burning paper or nervous fidgeting but a time for meditation and deep philosophic detachment. The American Indians, however, were wise in their management of smoking. They had social restrictions and rules defining who should smoke, when he should smoke and just how smoking was to be done. (34)

Habit or Addition

Smoking is so widespread that it has been called "the universal habit," although each individual might give a different reason for his smoking. It is thought that smoking at least partially satisfies some common human need, ". . . . . but evidence pointing to any such specific need, or demonstrating unsatisfied need in those who have never smoked has not been found." (24)

The Surgeon General's Report on Smoking and Health states that the use of tobacco is to be considered habituating rather than

addicting, and that the evidence indicated the dependence to be psychogenic in origin related primarily to psychological and social drives, reinforced and perpetuated by the pharmacological actions of nicotine on the central nervous system. (25) While evidence for a biological addiction is not conclusive there is some reason to believe that behaviorally speaking, heavy smoking can become a learned addiction. As Hockhaum has pointed out that by the time a smoker, who at first smoked only if he wanted, becomes a habitual smoker he no longer possesses full control over the urge to smoke. With continuous repetition - a one-pack-a-day smoker goes through the act of lighting a cigarette 7,000 times a year - he has soon created a deeply ingrained habit. (14)

Benefits of Smoking

The Advisory Committee stated that it was not possible to reach a simple and reasonable conclusion regarding the mental health aspects of the habit as:

> Medical perspective requires recognition of significant beneficial effects of smoking primarily in the area of mental health.
>
> These benefits originate in a psychogenic search for contentment and are measureable only in terms of individual behavior. Since no means of quantitating these benefits is apparent the Committee finds no basis for a judgment which would weigh benefits versus hazards of smoking as it may apply to the general population. (25)

David R. Hardy, LL.B., special consultant to the Chairman of the Board of the Phillip Morris Tobacco Company, was a guest speaker at the National Research Conference on Smoking and Health held in 1967. He reminded those present that the Tobacco Industry Research Committee has supported a variety of research over the years, and that grant awards totaling nearly 10 million dollars have been made from 1955 to 1966. The Tobacco Industry supports a research program administered by the American Medical Association.

Mr. Hardy stated that he did not exonerate cigarettes from suspicion as a possible health hazard, nor did he know of any responsible person who did, but the case against cigarettes has not been scientifically proved and there remains "gigantic areas for exploration." He said further that it was perhaps ironic that the Surgeon General's committee attempted to demonstrate a high degree of specificity in the statistical association between lung cancer and cigarette smoking by saying that most other diseases statistically associated were not significanly associated; others have used these same insignificant statistical associations to try to convince people that cigarette smoking causes such other diseases. That these same statistics can be interpreted so differently and be used to reach directly opposite conclusions confirms once again that one can prove anything by the use of statistics. He commented,

"It has even been said in some circles that it has now been proved beyond a doubt that smoking is the major cause of statistics."

He concluded his remarks by referring to the statement from The Surgeon General's Report on Smoking and Health, quoted earlier in this section and reminded those present that psychologists and sociologists would probably agree that man's search for contentment is a reasonable human goal, and that one should hesitate in agreeing with the proposition that a smoking man is an irrational man. (13)

Responsibility of the Health Professions

Although there may be no means of evaluating the benefits of cigarette smoking on the mental health of the user, it would be difficult for those in the health professions to deny the hazards to physical health. Smoking has been called "an individual problem and a collective responsibility" for all members of the "health community." (19) The problems involved with cigarette smoking are considered different than those posed by the infectious diseases, for example, and since smoking is a problem with many psychological and social factors, a smoker might react differently than a nonsmoker in the doctor-patient or the nurse-patient relationship.

Dr. Judith S. Mausner's interest in the attitudes,

information, and smoking habits of medical students and law students arose from a belief, later tested in another study, that physicians could exert a significant impact on the smoking behavior of patients. She wondered if medical students were being prepared to be activists in the control of smoking. She also hoped to test the significance of a medical education on students as opposed to another area of professional training, such as law, where the students were comparable in age and level of achievement.

Approximately eight months after the release of The Surgeon General's Report on Smoking and Health written questionnaires were distributed to 1957 medical students in four of the medical schools in Philadelphia, and 343 law students from the same city. The questions related to attitudes about smoking, the student's opinions of whether or not various diseases are associated with smoking and the students' own smoking habits. The questionnaire also listed fourteen diseases as associated or not associated with smoking. Ten of them actually were, and four were not. The freshman students in both groups responded similarly to all of the items. The second year medical students answered more items correctly than the second year law students.

The results indicated that one third of each group were current smokers. The medical students had fewer heavy smokers

than the law students, 40 percent had never smoked compared to 30 percent of the law students. The difference in smoking between the groups however, did not appear to be correlated with attendance at medical school, nor was there a change in smoking behavior by class in school, for either the medical or law students.

When asked about their opinion of the evidence linking smoking and disease, 75 percent of the medical students and 69 percent of the law students regarded the evidence as strongly or incontrovertibly convincing. Virtually no one in either group, 3 percent of the medical students and 2 percent of the law students, found that evidence to be completely unconvincing.

In response to questions about how doctors should advise four hypothetical types of patients on smoking, a large majority of the medical students said that a doctor should strongly advise against smoking for a man with coronary disease or one with chronic bronchitis. Forty-two percent of both the medical and the law students thought smoking should be discouraged for the pregnant female and 26 percent of the medical students and 22 percent of the law students thought it should be discouraged among health young men. The medical and law students resembled each other on their recommendations for the healthy patients, but the medical students urged a stronger recommendation against smoking for the sick patients.

Mausner concluded from the findings that the medical students who participated were making judgments in terms of the presence or absence of disease in individual patients rather than viewing smoking as an etiologic factor capable of damaging healthy as well as sick individuals. She further stated that the results of the study indicated a need for intensified efforts to disseminate information on the preventive role the medical profession could play in regard to smoking. (17)

Meighan and Weitman conducted a study among members of the Oregon Medical Association four months after the release of The Surgeon General's Report on Smoking and Health, to ascertain if their habits had undergone any change, and if their opinions concerning the hazards of smoking were related to their personal smoking habits. A questionnaire was mailed to all members of the Oregon Medical Association and from the 1,996 physicians a total of 1,794 useable returns were received. Out of this number 428 (23.9%) were smoking cigarettes and 276 (15.4%) were smoking cigars and pipes and 1,090 (60%) were not smoking at all. Their previous habits were, 952 (53%) smoked cigarettes, 237 (13.2%) smoked cigars or pipes and 605 (33%) did not smoke.

Reasons for cessation of smoking differed according to when stopping occurred. Until 1962 the most frequent reason given for stopping was the occurrence of symptoms, and since that time,

and until 1964, when the study was done, the most frequent reason given for stopping was scientific reasons.

There were some inconsistencies in some physician's habits and beliefs with regards to smoking, however, as 14 percent of those who reported they smoked regularly considered smoking a severe hazard. The authors considered this apparent contradiction between belief and habit in accord with expectations if one considers that there are many reasons why individuals start to smoke and that these same individuals often have different reasons for continuing to smoke.

The findings from this study also indicated that physicians who smoke were less likely to cite cancer as a hazard of smoking than those physicians who do not smoke. The authors concluded that a physician's acceptance of certain illnesses is influenced considerably by his own smoking practices.

The authors stated that the behavior and beliefs of members of the medical profession are particularly important. First, by training and experience they should be more aware of the hazards to health caused by cigarette smoking, second, doctors occupy a specially advantageous position from which to influence the opinions and attitudes of the general public toward many health-related subjects, including cigarette smoking. (18)

There are 55 percent fewer physicians who now smoke than

did ten years ago, according to Dr. Horn. He attributes this to the diminished acceptability of smoking among this group. He further concluded that since acceptability of smoking is a social phenomenon it can be changed, and a similar reduction in smoking among the general population might have the same bandwagon effect it had among physicians if smoking is made less acceptable by all health workers. (15)

Two researchers, Ford and Ederer, from the National Heart Institute, attributed the slow but constant reduction in smoking among physicians to the fact that as a group they have had a longer exposure to the reports on the health hazards of smoking. The success of the physicians in giving up smoking gives support to the concept that people can be persuaded to stop smoking, if the hazards of cigarettes are presented convincingly and persistently over long periods of time. (9)

Summary

Serious, scientific concern over the health hazards of cigarette smoking began after World War II. After the publication of The Surgeon General's Report on Smoking and Health there was a brief decline in the use of cigarettes. All but a few people now know about the health hazards, but the generally acceptability and massive advertising are strong counter-influences. All members

of the health professions have a responsibility to be activists in the control of smoking.

CHAPTER III

REPORT OF THE STUDY

Introduction

In recent years a large amount of scientific evidence has been accumulated linking cigarette smoking with various medical disorders. This evidence was collected and evaluated by the Advisory Committee and published in 1964 as The Surgeon General's Report on Smoking and Health. This report was brought up-to-date in January, 1968 with the publication of The Health Consequences of Smoking, which evaluated an additional 2,000 articles and reports of research completed since 1964. This new evidence further strengthened the Advisory Committee's statement that: "Cigarette smoking is a health hazard of sufficient importance in the United States to warrant remedial action."

Nurses, along with other members of the health professions, are in a favorable position to help combat cigarette smoking because of their extensive contact with the general public and the high esteem in which their opinion on health matters is held. However, very little is known about the smoking habits and opinions of the health

hazards involved with smoking of this segment of the population. Research is needed, not only to determine the extent of the cigarette smoking problem, but more important the opinions and attitudes of nurses toward their role in the prevention of this public health problem.

Findings from research undertaken since 1964 indicate that all but a very few Americans now know about the health hazards of smoking, and that cigarette smokers are particularly well informed, but their knowledge has not significantly changed their smoking habits. (21) Therefore, for this study it was hypothesized:

> There will be no difference in the expressed opinions regarding the health hazards involved with cigarette smoking between those student nurses who smoke, those who have tried to stop smoking, those who once smoked, and those who report they have never smoked.

Purpose of the Study

This descriptive study was undertaken to obtain information concerning the smoking habits of an unselected group of student nurses from the Portland area, and to ascertain if their expressed opinions regarding the health hazards were related to their personal smoking habits. It also considered responses toward a request made by the American Cancer Society that the American Nurses' Association endorse a recommendation to do everything possible to reduce

further cigarette smoking both by example and advice. In May, 1968, subsequent to initiating this study, this recommendation was endorsed, in part, by both the American Nurses' Association and The National Student Nurses' Association.

The Data-Gathering Instrument

It was found from the review of the literature of the cigarette smoking problem among members of the health professions that the data-gathering instrument used by S. Spense Meighan, M. D. and Morris Weitman, Ph. D., for their study of Oregon physicians would be applicable, with slight modification, for this study.

A conference was held with Dr. Meighan and permission to use the instrument was granted. The original, a two-page paper and pencil survey form, consisted of eleven questions. At Dr. Meighan's suggestion question number 9, concerning The Surgeon General's Report on Smoking and Health was deleted. The Oregon physicians did not answer it or answered it in such a way that the data could not be used.

It was not apparent from the original data-gathering instrument how the tool was tested for reliability and validity; therefore, a conference was sought with one of the researchers to obtain this information. The original questions were gathered from other research studies done among members of the health professions, and

from the literature concerning the cigarette habit. The questions were discussed with physicians and revised and refined until an agreement was reached between the two researchers.

Questions number 7 and 8 consisted of three sections, one for cigarette smokers, one for pipe smokers and one for cigar smokers. Those sections concerning pipes and cigars were deleted as it was felt they would not be appropriate for this study.

One question, number 11, was added to the data-gathering instrument. This item was concerned with a recommendation made to the American Nurses' Association by the American Cancer Society: "That physicians, dentists, nurses and other medical personnel do everything possible to reduce further cigarette smoking both by example and by advice concerning the health hazards of smoking." The respondents were asked if they felt the American Nurses' Association should take a firm stand on the issue and endorse the recommendation, and to give the reason for their "yes" or "no" answer.

A pilot study was carried out using ten unselected students from a school of nursing near Portland. The pilot study consisted of a test-retest, one week apart, in order to determine reliability, gain experience in administration of the survey questionnaire, and to estimate the time needed to complete the form. The results were analyzed and no further modifications, than those previously mentioned, were needed. The test results were composed; the

correlation was found to be +0.99.

Findings of the Study

The questionnaire was administered to 543 unselected student nurses in the Portland area during May and June, 1968.

The participants were requested to circle Fr., Soph., Jr., Sr., to indicate their classification in the school. This information was requested because it was assumed that the more advanced the student, the greater the amount of health information the student possessed. For some reason 104 students did not circle their class. The findings of this part of the study are shown below. (Table 1)

Table 1. Distribution of 543 Participants According to School Class

Class (1)	Number Responding (2)
Freshman	31
Sophomore	234
Junior	103
Senior	71
No Class Given	104
Total	543

Meighan and Weitman, in their study of smoking habits of Oregon physicians expressed regret that there was no acceptable definition, among researchers in the field, of who should be counted as a smoker. The definition used for their study was also used in

part for this study: "At least one cigarette, cigar or pipe nearly every day for at least one year." (18)

At the time of the study 443 students reported that they had never smoked regularly, and 100 reported they were smoking or had smoked at one time. The participants were then queried regarding present smoking habits; the findings are shown in Table 2.

Table 2. Distribution of the Smoking Habit of 543 Participants at the Time of the Study.

Habit	Number Responding	Percent Responding
(1)	(2)	(3)
Smoking at time of study	85	15.6
Once smoked	15	2.8
Never smoked regularly	443	81.5
Total	543	99.9

The respondents were requested to give the approximate date they last smoked and the reason for stopping. This information was requested to determine if reasons differed according to when stopping occurred. The length of time ranged from one to more than five years; two did not indicate a time. Since the responses involved only 15 persons, no inferences can be drawn. The reasons given for cessation of smoking were either health related (e.g. pregnancy,

bad for health), or self-determined such as, "Too much trouble and mess to be worth it." The findings of this part of the study are shown in Table 3.

Table 3. Responses of 15 Participants Regarding Approximate Number of Years Stopped Smoking and Reasons for Stopping.

Approximate Number of Years	Health Reasons	Self-Determined Reasons	No Reason Given
(1)	(2)	(3)	(4)
1	2	2	
2	2	1	
3	2	1	
4		2	
Over 5			1
No Date Given	2		
Total	8	6	1

There are few smokers before the age of 10 or 12 years, but the number increases rapidly until about 18 years when according to the literature, about half of the teenagers smoke on a fairly regular basis. (28) There were two respondents in this study who reported they started to smoke in the 10-14 year age group and a little over one-half of the smokers reported they started to smoke during the 15-19 year age group as shown in Table 4.

Table 4. Responses of 100 Participants Regarding Age at Which Smoking Began.

Age Group (1)	Number Responding (2)
10-14	2
15-19	54
20-24	41
25-29	3
30+	0
Total	100

Eight respondents reported smoking for 10 years or more, but 65 per cent had been smoking a relatively short period of time, one to three years, as shown in Table 5.

Table 5. Responses of 100 Participants Regarding Number of Years as a Regular Smoker.

Number of Years (1)	Number Responding (2)
1-3	65
4-5	20
6-7	5
8-9	2
10+	8
Total	100

As previously mentioned 104 student nurses failed to circle their class standing making it impossible to determine if there had been a change in cigarette smoking due to attendance in a school of

nursing. Mausner, in her study of smoking habits of medical students, found there was no decrease or increase in smoking by class in medical school. (16)

Findings of this study indicated that over half of the smokers reported they had stopped smoking for over one month on one or more occasions; 48 reported that they had never stopped for more than one month since starting to smoke. The data are reported in Table 6.

Table 6. Responses of 100 Participants Regarding Number of Times Stopped Smoking for More than One Month.

Number of Times Stopped (1)	Respondents (2)
1	20
2	16
3	6
4	3
5	7
Never Stopped	48

Ninety-one of the respondents reported that they had changed their habit of smoking, such as reducing their consumption, for more than one month. Nine did not respond to this question. The data are reported in Table 7.

Table 7. Responses of 100 Respondents Regarding Changes in Smoking Habit, Such as Reducing Consumption

Number of Times Changed	Respondents
(1)	(2)
1	44
2	9
3	20
4	3
5	15
No answer	9

Many factors besides the number of cigarettes smoked per day enter into the over-all exposure to the hazards of smoking, such as age at beginning, inhalation of smoke, and the number of years the individual has been smoking. (12) The Surgeon General's Report on Smoking and Health stated that the mortality rate for those who smoke 1-9 cigarettes a day and inhale deeply is as great as for those who smoke 20-39 cigarettes a day but do not inhale; however, most smokers inhale to some degree. (25) If just the number of cigarettes smoked per day determined the degree of exposure the respondents in this study would generally be considered light smokers, as only 10 reported they smoked over one pack per day, and about half of the smokers reported they smoked from 1 to 9 cigarettes per day as shown in Table 8.

Table 8. Responses of 100 Participants Regarding Cigarette Smoking Patterns, Previous and at the Time of the Study.

Cigarettes Smoked Per Day	Pattern at Time of Study	Previous Pattern
(1)	(2)	(3)
None	15	
1 - 9	44	54
10 - 19	27	31
20 - 29	10	9
30 - 39	2	1
40+		1
No answer	2	4

In order to test the hypothesis of no difference between the expressed opinions regarding the health hazards involved with smoking and the smoking habit the respondents were placed into four categories. Those who had never stopped smoking for more than one month since beginning to smoke were placed in (A) "never stopped" group; those who smoked at the time of the study but who had stopped smoking for more than one month on one or more occasions were placed in (B) "tried stopping"; those who had once smoked but not at the time of the study, (C) "once smoked"; and those who reported that they had never smoked regularly were placed in group (D) "never smoked."

The respondents were requested to state how they considered cigarette smoking as a health hazard: (1) none, (2) mild, (3) moderate, or (4) severe. They were also requested to list what they

considered to be the main hazards. Responses to this question were classified into five groups of disease entities: (1) lung cancer; (2) cancer, other than lung; (3) emphysema and chronic bronchitis; (4) cardio-vascular diseases; (5) other diseases, such as peptic ulcer. There was also one category for other hazards, such as fire and air pollution, which will be mentioned later, as it was not used in the following computation.

The mean was computed for the degree of health hazard from (1) none to (4) severe for the number of types of diseases considered ascribed to cigarette smoking for the four smoking habit groups, A, B, C, and D. An inferential procedure, the Analysis of Variance, was used to test the null hypotheses of no difference among the means of the four groups, Table 9, Sections I and II.

Table 9. Smoking Habits and Expressed Opinions of Health Hazards Involved.

Section I

Cigarette Smoking Habit	Mean Ascribed Hazard (1) none to (4) severe
A. Never Stopped	3.18
B. Tried Stopping	3.27
C. Once Smoked	3.40
D. Never Smoked	3.43

ANALYSIS OF VARIANCE

Sources of Variation	df	Sum of Squares	Mean Square	F
"Between" Groups	3	751	250	.011*
"Within" Groups	539	1,186,858	2,134	
Total	542	1,187,609		

*Not significant.

Section II

Cigarette Smoking Habit	Mean Number of Diseases Ascribed to Smoking
A. Never Stopped	2.06
B. Tried Stopping	1.78
C. Once Smoked	2.33
D. Never Smoked	2.07

ANALYSIS OF VARIANCE

Sources of Variation	df	Sum of Squares	Mean Square	F
"Between" Groups	3	601	200	
"Within" Groups	539	270,433	502	.04*
Total	542	271,034		

*Not significant.

The null hypothesis was accepted as there was no statistical difference between the group means of either ascribed hazards or of the number of types of diseases imputed to smoking.

The mention of cancer and emphysema, as well as cardiovascular diseases as the main health hazards ascribed to cigarette smoking was as likely to be offered by those who smoke as by those who do not smoke. A chi square test was used to test this relationship. The critical value for a 4 x 3 table with 6 degrees of freedom is 12.59. The chi square value is 5.34; therefore, there is no statistical difference between the kinds of illnesses cited and the smoking habits of the respondents. (Table 10) Each group cited the same disease entities, a finding that could well be expected as all but a very few Americans now know about the health hazards of smoking. (21) The null hypothesis was accepted.

In addition to the diseases mentioned as a hazard attributed to smoking, 60 respondents mentioned other hazards such as fire and air pollution.

The student nurses, in the study group, would generally favor endorsement of the American Cancer Society's recommendation that the American Nurses' Association help combat cigarette smoking both by example and advice. There were 408 who stated "yes" and 132 who stated "no", and there were three who stated they were undecided. The plan of the study did not provide categories for the

Table 10. Smoking Habits and Diseases Ascribed to Smoking.

Variety of Diseases Cited	A Never stopped N = 48		B Tried stopping N = 37		C Once smoked N = 15		D Never smoked N = 443	
(1)	(2)		(3)		(4)		(5)	
	N	%	N	%	N	%	N	%
Cancer of all types	36	37.1	38	42.5	15	43.0	360	39.4
Emphysema, and chronic bronchitis	40	41.2	29	44.0	10	28.5	358	39.2
Cardio-vascular, and other diseases	21	21.7	9	13.5	10	28.5	197	21.4
Totals	97	100.0	76	100.0	35	100.0	915	100.0

$\chi^2 = 5.34$ p = n. s.

responses, or reasons, for a "yes" or "no" answer to the question, "Do you feel the American Nurses' Association should take a firm stand on this issue and endorse the recommendation?" However, the responses fell into three categories and were tabulated and given the caption of the most frequent reason cited by the respondents in that category.

Category 1. "If nurses can't--who will?" was considered to be a favorable response.

Category 2. "Infringement on personal freedom" and

Category 3. "Good idea--won't work, too many nurses smoke." were considered not favorable.

Category 4. No reason given.

In reference to Table 11 the following question was raised concerning the data collected: Did those respondents who smoke give unfavorable responses and those who reported they do not smoke give favorable responses? A chi square test was used to test this relationship. The critical value for a 2 x 2 table with 1 degree of freedom is 3.84. The chi square is 21.37; therefore, there is a statistical difference between the responses made to the American Cancer Society's recommendation and the smoking habits of the respondents. In other words, there was no relationship between the responses and the personal smoking habits of the respondents.

Those in Category 1 expressed the feeling that as nurses they should set an example of good health practices. One student

Table 11. Responses According to Smoking Habit Groups to the American Cancer Society's Recommendation

Smoking Habit Groups	Category 1 "If nurses can't --who will?" N = 378			Category 2 "Infringement on personal freedom" N = 93			Category 3 "Good idea--won't work, too many nurses smoke" N = 52			Category 4 No reason given N = 20		
(1)	(2)			(3)			(4)			(5)		
	Yes	No	NR*	Yes	No	NR	Yes	No	NR	Yes	No	NR
A. Never stopped	21			1	12		4	7		1	2	
B. Tried stopping	20			2	7	1	2	3		1	1	
C. Once smoked	10									5		
D. Never smoked	320	6	1	2	68		13	23		6	3	1
Totals	371	6	1	5	87	1	19	33		13	6	1

*NR = No Response $\chi^2 = 21.37$ $p < .05$

commented, "Even while back in grade school I remember hearing doctors and nurses who spoke against smoking, did experiments, etc., then went out for a smoke. I was unimpressed by their findings. Example of these professions is strong." Another stated, "I think many nurses like me are ready to give up smoking and endorsements such as this might give the boost necessary to quit."

The respondents in Category 2 stressed their concern for the rights of the individual and his freedom to choose to smoke or not to smoke. Several students stated, in one way or another, that to them endorsement was synonymous with enforcement; for example, one student stated, "Just because you have chosen a particular profession it does not give the profession the right to infringe on your personal life. During the time one is on the floor is the only time they should have the right to voice their opinions." One simply stated, "No, don't endorse--I like to smoke." And another put it this way, "Please, let nursing at least represent a moderate freedom of choice."

The students in Category 3 expressed the feeling that the recommendation was a good idea but doubted if it would work. Quoting from one student, "I think this would be impossible since 50-60 per cent of the girls here smoke. One-half of the doctors seem to, too" and another stated, "I think they should back the issue but too many of the professional nurses smoke (and it is doubtful if they

would quit) that the "example" part of this program, would prove to be rather hypocritical when they try to advise others." There were 67 similar comments regarding the extent of the smoking habit among student nurses.

It is beyond the scope of this study to ascertain why the student comments indicated that 50-60 per cent of the students smoke, but only 100 of the 543 students in this study admitted to being smokers. Perhaps one explanation, mentioned earlier, is the lack of an adequate definition of who is counted as a smoker. This varies from study to study and Meighan and Weitman stated this prevents an adequate assessment of smoking habits, as well as making it impossible to compare one group with another. Another explanation found from other studies bearing on smoking behavior, is that self-reporting is not reliable in assessing the extent of the cigarette smoking problem. (14)

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This descriptive study was undertaken to obtain information concerning the smoking habits of an unselected group of student nurses, and to ascertain if their expressed opinions regarding the health hazards involved with cigarette smoking were related to their personal smoking habits and to consider responses to the American Cancer Society's recommendation to the American Nurses' Association.

The literature was searched to establish a frame of reference. The problem was delineated and limitations established. It was then hypothesized that:

> There will be no differences in the expressed opinions regarding the health hazards involved with smoking between those student nurses who smoke, those who have tried to stop smoking, those who once smoked, and those who report they do not smoke.

A data-collecting tool was located and modified and data were collected using the tool submitted to 543 student nurses during May and June 1968.

Findings

The findings of this study related to the information received from the 543 student nurses are as follows:

1. Four hundred forty-three indicated they had never smoked regularly, that is, at least one cigarette nearly every day for at least one year.
2. Eighty-five respondents reported they were smoking at the the time of the study and fifteen reported they had once smoked.
3. The null hypothesis was accepted because findings from this study indicated that the expressed opinions regarding the health hazards involved with smoking were not related to the personal smoking habits of the students who reported they smoked.
4. Most student nurses in the study would favor endorsement of the American Cancer Society's recommendation to the American Nurses' Association that nurses combat cigarette smoking by example and advice.
5. There was no relationship between the smoking habits of the respondents and their responses to the recommendation to the American Cancer Society that nurses combat cigarette smoking by example and advice.

6. There were inconsistencies indicated in the study. From the responses of the student nurses to the American Cancer Society's recommendation there were 67 comments regarding the extensiveness of the smoking habit among student nurses such as: "More nurses smoke here than any place I've ever been", or "Over 50-60 per cent of the students here smoke", and "Most nurses smoke." There were only 100 students in the study who reported they were smokers or had been smokers.

Conclusions

It is recognized that a study of this size cannot lead to generalizations. The findings, however, do infer that

1. There are inconsistencies in self-reporting as has been determined in numerous previous studies.
2. There is similarity in the findings of this study and those done with medical students to the effect that knowledge of health hazards does not result in change of personal habits. (Specifically smoking habits)
3. The data gathering instrument was not truly useful in ascertaining the extent of the smoking problem among student nurses. Information was obtained but certain free responses in portions of the questionnaire negated the findings from other items. It is not known whether the weaknesses of the instrument are due to the format or the nature of

the study.

Recommendations for Further Studies

1. Study the smoking patterns among nurses in view of exploring the effect, if any, of the relationship between the patterns and the stresses of varying fields of nursing. The findings of such a study could have implications for the curriculum or for changing personnel policies.
2. Explore the opinions of nurses regarding their role and their responsibility in the prevention of the cigarette smoking problem.

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APPENDICES

APPENDIX A

Cover Letter

2332 S. W. Kanan Street
Portland, Oregon
May 9, 1968

Director of School of Nursing
Name
Address

Dear

In partial fulfillment of requirements for a Master of Science Degree at the University of Oregon School of Nursing, I am undertaking a study, "Smoking: Habits and Expressed Opinions of Nursing Students in the Portland Area." The School of Nursing students are invited to participate. It will involve completing a simple questionnaire. A self-addressed post card is enclosed for your convenience indicating your willingness to assist with the study. A mutually satisfactory date will be arranged for coming to your school of nursing to administer the questionnaire which can be completed in 3-4 minutes.

Yours sincerely,

Coba Rasmussen

Coba Rasmussen is a regularly enrolled graduate student at the University of Oregon School of Nursing. Any assistance you can offer Mrs. Rasmussen will be greatly appreciated.

Lucile Gregerson
Thesis Adviser

APPENDIX B

Survey Form

This is a study of *"Smoking: Habits and Opinions of Student Nurses in the Portland Area"*. You are invited to participate by answering this short questionnaire. Do not sign your name. This study is completely anonymous. Seal the envelope before returning the questionnaire.

QUESTIONNAIRE

Circle: Fr. Soph. Jr. Sr.

1. Have you ever smoked regularly? (That is at least one cigarette nearly every day for at least one year.) Yes [ ] No [ ]

   If No, skip to Question No. 9.

2. Do you smoke now? Yes [ ] No [ ] If not, the approximate day you last smoked was _____.

   Why did you stop? _____

   _____

3. At what age did you begin to smoke regularly?

   10-14 [ ] 15-19 [ ] 20-24 [ ] 25-29 [ ] 30- [ ]

4. Indicate number of years during which you smoked regularly?

   1-3 [ ] 4-5 [ ] 6-7 [ ] 8-9 [ ] 10- [ ]

5. How many times in the past have stopped smoking completely for more than one month?

   1 [ ] 2 [ ] 3 [ ] 4 [ ] 5- [ ] never stopped [ ]

6. How many times have you changed your habit of smoking for more than a month? (Such as reducing your consumption.)

   1 [ ] 2 [ ] 3 [ ] 4 [ ] 5- [ ]

7. What is your smoking pattern now? Check one.

   Cigarettes smoked:

None	[ ]	10-19	[ ]	30-39	[ ]
1-9	[ ]	20-29	[ ]	40-	[ ]

8. Please indicate your previous regular smoking habit.

   Cigarettes smoked:

None	[ ]	10-19	[ ]	30-39	[ ]
1-9	[ ]	20-29	[ ]	40-	[ ]

9. How would you describe cigarette smoking as a hazard to health?

   A. None [ ]
   B. Mild [ ]
   C. Moderate [ ]
   D. Severe [ ]

10. What do you consider to be the main hazards?

11. The American Cancer Society has made the following recommendation, *"That physicians, dentists, nurses and other medical personnel do everything possible to reduce further cigarette smoking both by example and by advice concerning the health hazards of smoking".*

    Do you feel the American Nurses' Association should take a firm stand on this issue and endorse the recommendation?
    Yes [ ] No [ ]

    Give the reasons for your answer.

Thank you for participating in this study,

Coba Rasmussen

APPENDIX C

Summary of Data

SUMMARY OF DATA

N = 543 Fr. = 31 Soph = 234 Jr. = 103 Sr. = 71

No class given = 104

1. Have you ever smoked regularly? (That is at least one cigarette nearly every day for at least one year.)

   Yes 100 No 443

2. Do you smoke now?

   Yes 85 No 15

   If not, the approximate day you last smoked was

One year	2	Four years	2
Two years	2	Over Five years	4
Three years	3	No date	2

   Why did you stop?

Health reasons	6
Self-determined reasons	8
No reason given	1

3. At what age did you begin to smoke regularly?

   10-14 2 15-19 54 20-24 41 25-29 3 30- 0

4. Indicate number of years during which you smoked regularly?

   1-3 65 4-5 20 6-7 5 8-9 2 10- 8

5. How many times in the past have stopped smoking completely for more than one month?

   1 20 2 16 3 6 4 3 5- 7 never stopped 48

6. How many times have you changed your habit of smoking for more than a month? (Such as reducing your consumption?

   1 44 2 9 3 20 4 3 5 15 no answer 9

7. What is your smoking pattern now? Check one.
Cigarettes smoked:

None 15 1-9 44 10-19 27 20-29 10 30-39 2 40 0

No answer 2

8. Please indicate your previous regular smoking habit.
Cigarettes smoked:

None 0 1-9 54 10-19 31 20-29 9 30-39 1 40 1

No answer 4

9. How would you describe cigarette smoking as a hazard to health?

A. None 19 B. Mild 17 C. Moderate 236 D. Severe 271

10. What do you consider to be the main hazards?

1. Cancer, lung	287
2. Cancer, other types	152
3. Emphysema and chronic bronchitis	437
4. Cardio-vascular	132
5. Other diseases, such as peptic ulcer	130
6. Other hazards, such as fire and air pollution	62

11. The American Cancer Society has made the following recommendation, "That physicians, dentists, nurses and other medical personnel do everything possible to reduce further cigarette smoking both by example and by advice concerning the health hazards of smoking".
Do you feel the American Nurses' Association should take a firm stand on this issue and endorse the recommendation?

Yes 408 No 132 No answer 3

Give the reasons for your answer.

Group 1: "If nurses can't--who will?"	378
Group 2: "Infringement on personal freedom"	93
Group 3: "Good idea--won't work, too many nurses smoke."	52
Group 4: "No reason given"	20

Summary of Data for Questions Number 9 and 10 Concerning the Health Hazards of Smoking

9. How would you describe cigarette smoking as a hazard to health?

Never stopped		Tried stopping	
None	2	None	1
Mild	3	Mild	3
Moderate	27	Moderate	18
Severe	16	Severe	15
Once smoked		**Never smoked**	
None	1	None	3
Mild	1	Mild	7
Moderate	3	Moderate	188
Severe	10	Severe	230

10. What do you consider to be the main hazards?

Never smoked

1. Lung cancer	23
2. Cancer, other than lung	13
3. Emphysema and chronic bronchitis	40
4. Diseases of cardio-vascular system	15
5. Other diseases, such as peptic ulcer	10
6. Other hazards, such as fire, air pollution	7

Tried stopping

1. Lung cancer	23
2. Cancer, other than lung	5
3. Emphysema and chronic bronchitis	29
4. Diseases of cardio-vascular system	8
5. Other diseases, such as peptic ulcer	1
6. Other hazards, such as fire, air pollution	0

10. What do you consider the main hazards? (Continued)

Once smoked

1. Lung cancer	7
2. Cancer, other than lung	8
3. Emphysema and chronic bronchitis	10
4. Diseases of cardio-vascular system	3
5. Other diseases, such as peptic ulcer	7
6. Other hazards, such as fire, air pollution	5

Never smoked

1. Lung cancer	234
2. Cancer, other than lung	126
3. Emphysema and chronic bronchitis	358
4. Diseases of cardio-vascular system	106
5. Other diseases, such as peptic ulcer	112
6. Other hazards, such as fire, air pollution	50

Number of illnesses cited per respondent

Never stopped	Tried stopping
10 cited 1	17 cited 1
25 cited 2	10 cited 2
11 cited 3	7 cited 3
2 cited 4	2 cited 4
0 cited 5	0 cited 5

Once smoked	Never smoked
4 cited 1	107 cited 1
6 cited 2	200 cited 2
2 cited 3	94 cited 3
2 cited 4	23 cited 4
1 cited 5	5 cited 5

Typed by Barbara Glenn

AN ABSTRACT OF THE THESIS OF

COBA CAFFALL RASMUSSEN

For the MASTER OF SCIENCE in NURSING EDUCATION

Date of receiving this degree: June 12, 1969

Title: SMOKING: HABITS AND EXPRESSED OPINIONS OF 543 STUDENT NURSES

Approved: [redacted]
(Associate Professor in Charge of Thesis)

Summary

This descriptive study was undertaken to obtain information concerning the smoking habits of an unselected group of student nurses, and to ascertain if their expressed opinions regarding the health hazards involved with cigarette smoking were related to their personal smoking habits and to consider responses to the American Cancer Society's recommendation to the American Nurses' Association.

For this study it was hypothesized that there will be no differences in the expressed opinions regarding the health hazards

involved with cigarette smoking between those student nurses who smoke, those who have tried to stop smoking, those who once smoked, and those who report they have never smoked.

Findings

The findings of this study related to the information received from the 543 student nurses are as follows:

1. Four hundred forty-three indicated they had never smoked regularly, that is, at least one cigarette nearly every day for at least one year.
2. Eighty-five respondents reported they were smoking at the time of the study and fifteen reported they had once smoked.
3. The null hypothesis was accepted because findings from this study indicated that the expressed opinions regarding the health hazards involved with smoking were not related to the personal smoking habits of the students who reported they smoked.
4. Most student nurses in the study would favor endorsement of the American Cancer Society's recommendation to the American Nurses' Association that nurses combat cigarette smoking by example and advice.
5. There was no relationship between the smoking habits of the respondents and their responses to the recommendation

of the American Cancer Society that nurses combat cigarette smoking by example and advice.

6. There were inconsistencies indicated in the study. From the responses of the student nurses to the American Cancer Society's recommendation there were statements such as "More nurses smoke here than any place I've ever been," or "Over 50-60 per cent of the students here smoke," and "Most nurses smoke." There were only 100 students in the study who reported they were smokers or had been smokers.

Conclusions

It is recognized that a study of this size cannot lead to generalizations. The findings, however, do infer that

1. There are inconsistencies in self-reporting as has been determined in numerous previous studies.
2. There is similarity in the findings of this study and those done with medical students to the effect that knowledge of health hazards does not result in change of personal habits. (Specifically, smoking habits)
3. The data gathering instrument was not truly useful in ascertaining the extent of the smoking problem among student nurses. Information was obtained but certain free

responses in portions of the questionnaire negated the findings from other items. It is not known whether the weaknesses of the instrument are due to the format or the nature of the study.

Recommendations for Further Studies

1. Study the smoking patterns among nurses in view of exploring the effect, if any, of the relationship between the patterns and the stresses of varying fields of nursing. The findings of such a study could have implications for the curriculum, or for changing personnel policies.
2. Explore the opinions of nurses regarding their role and their responsibility in the prevention of the cigarette smoking problem.