RATING OF AUTONOMY IN ADOLESCENCE AND THEIR DECISION TO INITIATE SMOKING

By

Michael L. Keith, RN, BSN

This clinical project submitted in partial fulfillment of the requirements for the degree of MASTER OF NURSING

WASHINGTON STATE UNIVERSITY
Intercollegiate Center for Nursing Education
May 1997
To the Faculty of Washington State University

The members of the committee appointed to examine the clinical project of MICHAEL LEWIS KEITH find it satisfactory and recommend that it be accepted.

Chair

Marian Shegic

Mary Armstrong
ACKNOWLEDGMENTS

I would like to express my sincere appreciation to the members of my thesis committee for their expertise, support, encouragement. I especially would like to thank Gail Synoground, chairperson, for her kindness, reassurance and availability during the entire project.
RATING OF AUTONOMY IN ADOLESCENCE AND THEIR DECISION TO INITIATE SMOKING

Abstract

by Michael Lewis Keith
Washington State University
May 1997

Chair: Gail Synoground

Every year thousands of adolescents and teenagers join the ranks of smokers. Preventing the initiation of smoking in young adolescents is a worthwhile goal. Knowledge of national trends in smoking behavior of adolescents is necessary in order to design programs that are targeted for the adolescent market. Programs that stress social skills and designed to increase self-esteem in the adolescent have had the best success rate in the prevention of smoking. This study will examine autonomy, using an autonomy scale designed to measure self-help and self-determination in conflict resolution.
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Chapter One

Introduction

Every year thousands of adolescents and teenagers join the ranks of smokers. It is estimated by the Centers for Disease Control and Prevention that an additional 600,000 adolescents began smoking during 1985-1989 (Centers for Disease Control, 1995). A 1996 report from the Centers for Disease Control and Prevention (CDC) estimates that one out of three of these children will die from a tobacco related illness (Centers for Disease Control, 1995). In developing countries it is estimated that of those adolescents who continue to smoke regularly, approximately 50 percent will die from smoking attributable diseases (Centers for Disease Control, 1995). This makes smoking a major health care concern. In addition, the cost to the health care system from tobacco related illnesses is a major drain on the available financial resources.

Statement of the Problem

Preventing the use of smoking tobacco is an effective measure to reduce illness and assist in controlling health care cost. Knowledge of national trends in the prevalence of smoking in adolescents is important in determining the effectiveness of existing programs, predicting the need for
further interventions and for predicting the future burden on the health care system. It is through peer groups that adolescents accomplish many of their developmental tasks. When peer pressure is applied the adolescent may seek conformity at all cost, even if the behavior is contrary to the basic belief system of the adolescent (Chow, Durand, Feldman, & Mills, 1994). Adolescence is a time when smoking or non-smoking behaviors are more likely to be established. Despite a national campaign against cigarette smoking, a vast number of adolescents still experiment with smoking. Of persons aged 30 through 39 years who smoked cigarettes on a daily basis 89% reported that they first began smoking before the age of 18 years (Nelson, & Giovino, 1995). Typically smoking experimentation begins around the seventh grade for both boys and girls (Pomrehn, Jones, Fergusan, & Decker, 1995). While 25% of boys experimented with cigarettes before the seventh grade, girls tend to begin experimentation later. By the twelfth grade boys and girls are smoking at approximately the same rate. If the current trend in smoking among adolescents continues at its present rate, the goal of Healthy People 2000, that no more than 15% of youth become regular smokers by age 20, will not be able to be achieved (USDHHS, 1991).

As children mature they increasingly look outside the family for validation of self. Derek Miller (1974) suggested a description of adolescence which corresponded to the ages
of 11 through 20 as three stages; early, middle and late adolescence (Chow et al., 1994). These stages encompassed five factors; physiologic, emotional control, self-esteem, activities, and relationships. During the early stage (age 11-14), characterized by turmoil, adolescents become overtly defiant of parents and other authority figures and seek affirmation of their activities from peers. During the early adolescent period close friendships develop and the transition from social isolation to peer acceptance is initiated. This study will focus on the early stage of adolescence.

Statement of the Purpose

The purpose of this study is to evaluate the impact of peers who smoke on the decision of adolescents (age 12-13) to begin smoking. The goal of the study is to look at autonomy as a factor that affects the decision to smoke.

Conceptual Framework

Neuman’s holistic concept of people is based on stress and the individual’s reaction to the stress (Neuman, 1984). The uniqueness of each person is emphasized in Neuman’s model but at the same time it recognizes that individuals have shared characteristics. Individuals’ response to any given stimuli is dependant upon their past experiences and behaviors. People are open systems exchanging energy across boundaries. Neuman views individuals as a core surrounded by their hypothetical boundaries: line of resistance, normal
line of defense, and flexible line of response (Figure one).

The line of resistance constitutes the individuals’ ultimate defense. If these are not effective, the core becomes exposed and vulnerable. The normal line of defense represents "What the individual has become over time, or his so-called 'normal' or usual state" (Neuman, 1984). This line comprises the usual coping, problem solving behaviors the individual normally evokes when confronted with a threatening stimulus. The flexible line of defense has the maximum potential of change, it can be extended to protect the
Figure 1.

ADAPTATION <------------------> MALADAPTATION
wellness            illness
Penetration of Stressor= Illness (Smoking)

Resistance to Stressor (Peer Pressure)

Non penetration of Stressor= Wellness (Non-Smoking)

Flexible line of Defense

NEUMAN MODEL
individual by the learning of new behaviors. Surrounding each person is the environment. Stressors in the environment, such as peer relationships or the need for belonging to a peer group, exert strong pressure for conformity in the adolescent (Thibodeau, 1983).

Literature Review

Reports by the National Institutes of Health (NIH) and the Office of Smoking and Health, U.S. Department of Health and Human Services (USDHHS 1991,1994) recognize the positive results that school based programs have on the reduction of adolescent smoking. Programs that stressed social influences showed positive effects in reducing the initiation of smoking in adolescents by 6.2 per cent (Glynn, Anderson, & Schwartz, 1991).

In a longitudinal smoking prevention study, the Iowa Program Against Smoking (I-PAS), the interventions included a tobacco use prevention curriculum presented to students at the beginning of the seventh grade in three small Iowa towns. A behavior competition between schools was fostered. Each fall from 1984 to 1989, the entire seventh grade class was interviewed, measuring tobacco use; intention to smoke; beliefs and attitudes about tobacco; attachment to family, friends and school; and family and friends tobacco use. The seventh graders were followed through to the twelfth grade
and found that the rates of smoking grew continually through the years, with boys smoking weekly at a rate only slightly higher than girls (Pomrehn, 1995). Peer relationships were found to be a significant predictor of the initiation of smoking and continuing to smoke on a weekly basis in both males and females.

Adolescents who are more likely to engage in smoking are those that are at high risk for engaging in other behaviors that put their health at risk. These adolescents are displaced, dropouts, homeless, runaways and those termed "throwaway" (Glynn, et al, 1991).

Research Question

Is there a relationship between autonomy and smoking behavior of young adolescents?

Definition of Terms

In this study the terms will be defined as follows:

**Smoking behavior:** An individual who currently uses cigarettes.

**Autonomy:** degree of independence from group pressure and conformity for the sake of belonging.

**Young adolescent:** a person between the ages of 12 and 14 years.

Significance to Nursing

Health maintenance and health promotion are consistent with the goals of nursing. Smoking is a known detriment to the health and well being of the population. Nurses have
access to adolescents in clinics, schools, and hospitals and have a unique opportunity to impact the health maintenance decisions made by their clients. Through the promotion of knowledge to prevent the initiation of smoking, nurses can impact the future health of their communities. To determine those factors that impact on the decision to smoke or not to smoke, nurses can direct their teaching efforts in a direction to curb the increasing rate of smoking among adolescence by enhancing the development of autonomy.
Chapter Two

Design

The research design is a cross-sectional two group comparative study of adolescent smokers and non-smokers. A questionnaire to determine the degree of autonomy present at the time of the study.

Setting

The groups will be assembled in a school auditorium and on a single occasion and administered a twenty-eight item test.

Sample

The study population will consist of male and female students in the seventh grade attending an urban middle school. The subjects will consist of a convenience sample and self selected to enter the study. The subjects will be given an explanation of the purpose of the study, no names or any means of identification of the subject, except by age and grade, will be obtained. No report will be made to school officials or parents.

Parental consent will be obtained prior to the study by providing a permission to participate letter that must be signed by the parent.

Instruments
The Children’s Autonomy Questionnaire (MC-3), developed by Ron Shouval of Tel-Aviv University, will be used. The instrument consist of 28 questions consisting of a question stem and presents conflicts that have three possible choices as the answer. The answers reflect conflict resolution using either self-help or self-determination or by seeking help or yielding to pressure of others. The instrument yields four independent factors, two focusing on autonomy from specific socializing agents, peers and parents, and two focusing on autonomy in specific situations, anxiety and task completion.

Procedure

The subjects will be given an explanation of the questionnaire and how it is to be answered. No time limit will be given for test taking and the students will be provided all equipment necessary for taking the test. The questionnaires are to be numbered and shuffled as to randomize the numbering system. The questionnaires are to be placed on a desk top face down prior to subjects entering the room. Subjects will be asked to seat themselves at any available desk with a test sheet on it. A box will be used to collect the test. After completing the questionnaire, it will be placed in a large box and the student may exit the room. Students who do not wish to answer the questionnaire will be asked to place the blank questionnaire in the box as they leave the room. Students will be informed that they may stop at any time and at any question. Blank or unfinished
questionnaires will be discarded.

**Human Subject Considerations**

Subjects will be neither coerced nor rewarded for participation in the study. Before the study is started, the researcher will send a letter home to the parents explaining the purpose of the research. The parents will be asked to sign the letter, giving permission for their child to participate if the child desires. The parents will be informed that they will not be notified if their child chooses to participate. Data will be entered into a computer by the researcher by test number. No method of student identification will be present on the questionnaire. Only the researcher will access to the data.

**Data Analysis**

The survey will be divided into two groups, smokers and non-smokers. The survey will be scored to determine the degree of autonomy of each group. A t-test will be used to compare the two groups. The t-test is used because there is nominal data, the participants are either smokers or non-smokers. The subjects will be ranked on an interval scale to determine the degree of autonomy noted by their answers on the survey.
References


APPENDIX A
Dear Director

I am conducting a research study in partial fulfillment for the degree of Masters in Nursing from Washington State University. This study focuses on autonomy and decision to smoke cigarette in adolescent age 12 and 13. I request your permission to use the 7th grade students at Jones Secondary School for this purpose.

The study will be a survey developed by Ron Shouval of Tel-Aviv University. It consist of twenty-eight questions and should take approximately 30 minutes. No supplies will be needed from your facility. A room, to be available for approximately 45 minutes after the normal school day, will be necessary.

A parental consent letter must be presented by each student who volunteers for the survey. The survey will be anonymous, and strict confidentiality will be maintained. If you have any questions please contact me at (509)624-2937.

Thank you

Sincerely

Michael L. Keith, RN, BSN

Gail Synoground, RN, EdD
Thesis Chair.

Permission to use Jones Secondary School for the above stated purpose on a one time basis is authorized.

_________________________________________ Date_________

Title________________________________________________________


Parental Consent Form

Dear Parent(s)

I am conducting a research study in partial fulfillment for the degree of Masters of Nursing from Washington State University. This research study focus on autonomy and decision making in adolescents between the ages of 11 and 14 years. I request your consent for your child to take part in this research.

An anonymous questionnaire will be given to your child consisting of twenty eight questions. It will take approximately 30 minutes of your childs time. It will be administered in the school auditorium after school. There will be no compensation such as money or extra credit given by the school.

Your permission does not require that your child take part in the survey. Your child may choose to take part if he/she so desires. If your child desires to take part he/she will not be required to identify themselves in any manner. The child may choose to stop at any time during the session.

There will be no follow-up survey and no report will be made to any agency. Your child will remain anonymous. Only the researcher will have access to the data. Consent will be implied by signing and returning this letter in the enclosed envelope. Your child, should he/she elect to participate, need only present the envelope at the time of the survey. If you have any questions regarding the study, please contact me at (509) 624-2937.

Thank you for your consideration

Sincerely

Michael L. Keith, RN, BSN

Gail Synoground, RN, EdD
Thesis Chair

Signature of
Parent/Guardian_________________________Date________________

Letter of Permission
INFORMED CONSENT

A. Invitation to participate

You are invited by Michael L. Keith, Graduate Student at the Intercollegiate Center For Nursing Education (ICNE) to take part in a research study about Autonomy in adolescents and their decision to initiate smoking. Your agreement to take part in this study is voluntary and of your own free will.

The ICNE and Washington State University Institutional Review Board (IRB) have approved the use of human subjects for this study.

B. Purpose of the study

This study is examining autonomy, the ability to make decisions on your own, in adolescents and its effect on decision making in regards to smoking. You are requested to participate because you are a member of the student body. If you agree to take part and be a subject in this study, you will be helping to determine the factors that cause adolescents to begin smoking.

C. Explanation of protocol

After agreeing to take part in this study, you will need to sign this consent form. You will be given a questionnaire/survey and asked to answer the questions. Your survey will be numbered and you will in no way be identified by this number. You will place your completed answer sheet and survey in a box located by the exit. This will take about thirty minutes of your time. You will be asked if you smoke cigarettes. You do not need to be a smoker to take part in the survey. In addition, you are being asked to answer questions on a survey about your decision making in various situations.

D. Potential risks and discomforts

You may become uncomfortable because of some of the questions you are asked. The risks and discomforts are decreased by having obtained permission and answering the questions truthfully.

Subject Initials ______

You may also become uneasy about telling me about your smoking. I have made every effort to provide complete confidentiality and privacy so no one will know you have taken part in this study. All of your personal information is protected by giving you with a study number. Your name and study number are kept in separate files, and are
available only to myself and the research team as needed. All research information and personal identifying information will be kept in locked files that can be opened only by myself (and the research team).

If you do have any questions or concerns that would need immediate attention, then you may contact me 624-2937.

You may choose not to continue at any time during the study. Your choice not to continue will not affect your relationship as a member of the study. You may choose to answer as many or as few of the questions as you choose. You may stop or withdraw at any time.

E. Potential benefits

You will benefit by assisting providing information regarding factors that may contribute to the further understanding reason why people choose to smoke.

F. Assurance of confidentiality

Information obtained as part of this study will be strictly private and confidential. The information will be used only for research. The number code with your name will be available only to myself and research team. The completed information taken from subjects will be kept in a locked file and destroyed at the end of this study. At no time, will your study number and personal information be available to anyone but the research team. Study results will be reported only as part of a larger group. ACCORDING TO WASHINGTON STATE LAW, IF AT ANY TIME, YOU INDICATE THAT YOU MAY BE A RISK OR DANGER TO YOURSELF OR OTHERS, THIS INFORMATION WILL NOT BE KEPT CONFIDENTIAL AND WILL BE REPORTED TO THE APPROPRIATE AUTHORITIES OR HEALTH PROFESSIONALS.

G. Withdrawal from the study

Your agreement to take part in this study is voluntary. If you agree to take part, you may choose to stop and withdraw your consent at any time.

Subject Initials _____

H. Informed consent

1. I, as shown by my signature below, fully understand the study goals, procedures and risks that go along with taking part in with this study.
2. I, as shown by my signature below, understand that taking part in this study is of my own free will and that I may stop at any time.
3. I, as shown by my signature below, give permission to
Michael L. Keith to use and get rid of the information and findings from this study. I understand that the investigator and other professionals who work with the investigator agree to protect the privacy and confidentiality of the information gathered during this study within the limits of Washington State Law.

I have read and understand the above conditions. I have had the chance to ask questions about the study and the methods used to collect the study information. These questions have been answered to my satisfaction. I have read and understand the study and have received a copy of this form.

I may contact Michael L. Keith at the ICNE, 509-326-7270 to get information or ask questions I may have about this study at anytime.

Subject’s Signature _______________________________ Date __________

Investigator’s Signature _______________________________ Date __________

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APPENDIX D
WASHINGTON STATE UNIVERSITY HUMAN SUBJECT REVIEW SUMMARY FORM

University procedures require Institutional Review Board (IRB) and approval of research involving human subjects. If a project is exempt, a completed copy of the first two pages of the Human Subject Review Summary Form must be submitted to the OGRD. No research can be initiated until approval has been obtained from the IRB. If the project is not exempt, 18 copies of this entire form must be filed with the OGRD (Phone 335-9661; Zip 3140). The IRB approval must be kept on research data for THREE YEARS after completion of the research. This form is available at OGRD on 3.5" disk. (Revised 2/95)

Principal Investigator Michael L. Keith, Academic Title Graduate Student

Department/Division Nursing

Project Title Rating of Autonomy in Adolescence and Their Decision To Initiate Smoking

Anticipated Starting Date 3/25/97 Anticipated Termination Date 3/30/97

Is the project seeking Funds? YES NO X

Granting Agency Principal Investigator on Grant

RESEARCH QUALIFYING FOR EXEMPTION FROM FEDERAL REGULATIONS FOR THE PROTECTION OF HUMAN SUBJECTS (Quoted from the Code of Federal Regulations, Title 45, part 46.101)

I. Check the type of exemption application to the project.

O. No exemption
1. Research conducted in established or commonly accepted education settings involving normal education practices, such as (1) research on regular and special education instructional strategies, or (ii) research on effectiveness of or on the comparison among instructional techniques, curricula, or classroom management methods.

2. Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observations of public behavior unless (1) information obtained is recorded in such a manner that the human subjects can be identified, directly or through identifiers linked to subjects; and (ii) any disclosure of the subjects; responses outside the research could reasonable place the subjects at risk of criminal or civil liability or be damaging to the subjects; financial standing, employability or reputation.

3. Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observations of public behavior that is not exempt under paragraph (2) of this section, if: (1) The human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

4. Research involving the collection or study of existing
data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

5. Research and demonstration projects which are conducted by or subject to the approval of the department or agency heads, and which are designed to study, evaluate or otherwise examine: (1) Public benefit or service programs; (ii) Procedures for obtaining benefits or services under those programs, (iii) possible changes in or alternatives to those programs or procedures or (iv) possible changes in methods or levels of payment for benefits or services under those programs.

6. Taste and food quality evaluation and consumer acceptance studies. (1) if wholesome foods without additives or (ii) if a food is consumed that contains a food ingredient at or below the level of and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U. S. Department of Agriculture.

II. Abstract:

A. Briefly describe the purpose, procedures and research design (be sure to include what the subjects will do) (use the back side if necessary.) The purpose of this study is to evaluate the impact of autonomy on the decision
of young adolescents (age 12-13) to begin smoking cigarettes. The adolescents will volunteer to take a survey which will be identified by number only. They will not be required to give their names or any other identification. Permissions will be given by signing a authorization but the will be no matching test numbers to individuals. The subjects will answers questions, put the survey in a box and leave the area. No follow up will be made nor attempt to validate the answers given on the survey. The survey will be scored and autonomy ranking will be compared to self identified smoking or non smoking behavior.

B. Check the method to be used. 1. Survey (Submit a copy) "Check how administered:Self X Telephone_ Personal_ 
Interview_ Other_
2. Observational _ Public Record_ Taste Evaluation _
Pathological or Diagnostic Specimens_.
3. Experimental_
4. Other _ Describe_

C. Is data anonymous _ or confidential X (See page 4)
Describe how anonymity or confidentiality will be maintained (e.g. coded to a master list and separated from data, locked cabinet, office, restricted computer, etc.)? Who will have access to the data? The only time the subjects name is used on the Informed Consent. No matching of the survey to the informed consent will be done.

D. Nature of the data collected ? Yes NO
Subjects under 18 years of age? \(\text{X}\) --
Subjects confined in a correctional or detention facility? \(\text{X}\) --
Is pregnancy a prerequisite for serving as a subject? \(\text{X}\) --
Are fetuses in utero subjects in this research? \(\text{X}\) --
Subjects presumed to be not legally competent? \(\text{X}\) --
Are personal records (Medical, academic, etc.) used without written consent? \(\text{X}\) --
Are data from subjects (responses, information, specimens) directly or indirectly identifiable? and place subject at risk (criminal or civil liability) or damaging to subjects financial standing, employability or reputation?
Will specimens obtained from an autopsy used in the research? \(\text{X}\) --
Will subjects be asked sensitive questions about sexual experiences? \(\text{X}\) --
Will questions be asked about alcohol or drug use? \(\text{X}\) --
Will alcohol or drugs be administered? \(\text{X}\) --
Will blood/body fluids be drawn? \(\text{X}\) --
If yes to any of the above, please explain rationale: The measurement is on autonomy in young adolescents ages 12 and
13 years and their smoking behavior. Studies have demonstrated that it is in early adolescence when most people begin to experiment with smoking.

E. Will any ethnic group or gender be excluded from the study pool? If yes please explain. YES__ NO X

Conducted in accordance with applicable Federal, State and University regulations.
Signature________________________Date______

Faculty Sponsor (If principal investigator is a student): The research is in accordance with applicable Federal, State and University regulations.
Signature________________________Date______

Chair, Director, or Dean: The research is in accordance with applicable Federal, State, and University regulations.
Signature________________________Date______

Institutional Review Board: This project has been properly filed as required by Federal, State, and University Procedures.
Signature________________________Date______

III. DESCRIPTION OF POPULATION

A. Approximate number _50_

B. Age range 12 and 13 years

C. How will subjects be selected or recruited? Request for smoking/nonsmoking adolescents will be given to a seventh grade class. Participation will be voluntary after school.

D. Will the subjects be compensated ( include extra
credit)? **NO IF yes,** how much, when and how. Must they complete the project to be paid?

E. Are any of the subjects not competent to give consent (e.g. minors, prisoners, institutionalized)? **Yes X** **NO**?

F. Will a written consent form be obtained? **YES X** **NO**. **If yes,** please attach consent form (refer to components of a consent form included in ORGD Memo 4.) **If NO,** How will consent be obtained? Why is this method being used?

IV. Deception. If any deception (withholding of complete information) is required for the validity of this activity, explain why this is necessary and attach a briefing statement.

V. ASSESSMENT OF RISK AND BENEFITS.

A. Describe any potential risks and describe how you will minimize these risk. These include stress, social, legal, discomforts, invasion of privacy, or embarrassment and side effects.

Only volunteers will be used. Names will not be recorded on surveys and no identification as to smoking status will be made publicly.

B. In the event that any of these potential risks, occur, how will it be handled (e.g. compensation, counseling, etc.)? Students will be referred to the school counselors or school nurse.
C. Will this study interfere with any subjects' normal routine (e.g. school attendance, medical treatment, etc.)? NO

D. Describe the expected benefits to society and to the individual subjects? Subjects will benefit by providing information that may help identify adolescents at risk for smoking. Society will benefit if smoking is reduced and the health of our citizens improves.

E. If blood or other specimens will be taken? NO

Which specimens?

What are qualifications of person who will draw the specimen?

How often?

How much?

Describe the procedure for drawing the specimen.

VI. PROJECT CHECKLIST

A. Will any investigational new drug (IND) be used? NO

B. Will any other drugs be used?

C. Will alcohol be ingested by any subjects?

if yes, what type? Refer to guidelines for administration of ethyl alcohol in human experimentation available from the OGRD.

D. Will audio-visual tapes, audio tapes, or photographs be taken? YES NO X If yes, which of the above? Where will tapes or photographs be stored? When will this material be destroyed? How will confidentiality be maintained?

DEFINITION OF TERMS
Anonymous: Subjects' names are unknown to the research, not requested and not given. If the only time the researcher asks for a name is for a signature on a consent form, the researcher should attempt verbal consent of the subjects.

Confidential: Subjects' names are known to the researcher and are usually coded to a master list and/or kept separate from the data and results. This is usually used when the researcher must match the results with surveys or if there will be a follow-on survey. The researcher has a real need to know subjects' names.

Directly identifiable Data: Information obtained which has the individual's names and other information attached. Information which cannot be separated or coded. The researcher should still provide confidentiality to the subjects.
Michael L. Keith, BSN
S.2008 Bernard St.
Spokane, Wa. 99204-2040 U.S.A.

Dr. Ron Shouval
Tel-Aviv University
Psychology Department
Tel-Aviv, Israel

Dear Dr. Shouval

I am a graduate student at Washington State University and am presently conducting research on autonomy in early adolescents. I am interested in using your Children’s Autonomy Questionnaire (MC-3) in its current form to gather data for completion of my project.

Sincerely

Michael L. Keith

Permission to use the Children’s Autonomy Questionnaire without changes is granted.

_________________________________ Date________________________

(Dr. Shouval is no longer with Tel-Aviv University. I have Emailed the psychology department asking for a copy of the questionnaire or further information on Dr. Shouval.)
INSTRUCTIONS: Do not identify yourself in any way. Please circle the answer that best describes how you would react to the question. Circle only one answer for each question. There is no right or wrong answers. When finished place in the box located by the door. THANK YOU.

Before beginning please answer the following question by circling "yes" or "no".

I am currently smoke cigarettes. YES NO

1. If a button on my shirt is torn...
   * I’ll change the shirt.
   * I’ll sew it on again.
   * I’ll ask my mother to fix it.

2. If I want to go on a trip and my parents won’t let me go...
   * I try to persuade them, but if they won’t let me, I won’t go.
   * I stay home and don’t go on the trip.
   * I go on the trip without their permission.

3. If I get a small cut on my hand...
   * I put medicine on it.
   * I go to my mother.
   * I go to a nurse.

4. My friends and I went out to see a movie. I very much wanted to see a certain movie and my friends did not agree with me...
   * I tried to persuade them, but when they didn’t agree I went to the movie they wanted.
   * I went to the movie they wanted.
   * I went alone to the movie I wanted to see.
Smoking in Adolescence, Effects and Strategies for Prevention

Michael L. Keith, R.N., B.S.N.

Washington State University
Abstract

Smoking is the single most preventable cause of major illness in United States. Every year over one-half million adolescents between the ages of 12 and 18 begin the smoke. Smoking is often initiated at the ages of 12 and 13 when young adolescents begin attending middle school. Primary care Nurse Practitioners have little time to spend with each adolescent patient, however, they may see them frequently. With each visit the Nurse Practitioner has the opportunity to promote wellness by providing information that may assist the young adolescent in the decision to stop smoking. Research demonstrates that a multimodality approach on smoking is the most effective method in adults and children. Adolescents are unique in their perspective on life and the role that they play. Stressing growth and development and self-esteem is key to a successful antismoking campaign.
Smoking in Adolescence, Effects and Strategies for Prevention

Introduction

Smoking has been recognized as the single most preventable cause of major illness and death in the United States (USDHHS, 1989). In 1990 the Surgeon General of the United States indicated that approximately 50 million U.S. citizens smoke (Koop, 1990). Of the millions who smoke, the Centers for Disease Control and Prevention (CDC) estimates that 600,000 adolescents begin smoking annually. Of these, one out of three will die from a tobacco related illness (MMWR, 1995). The recognition of the health problems related to smoking is indicated by its inclusion as a priority objective for national health promotion goals in Healthy People 2000 (USDHHS, 1991).

Cigarette smoking is the single easiest, most readily available method by which adolescents gain access to nicotine and is the only source which is not currently regulated by the Food and Drug Administration (FDA). The following case history demonstrates the smoking behavior of one adolescent.

Case History

M. T. is a 17 year old female being seen in the clinic for a sprain of her right ankle that occurred during physical education class at school.

As part of data gathering, clients are asked if they smoke
or if they are subjected to environmental smoke. Previously, M. T. has answered "no" to both questions. During this visit, it is noted they she has indicated that she does smoke but is not subjected to environmental smoke.

With further data gathering, M. T. admits to having started smoking with her friends in the 8th grade at age thirteen. M. T.’s parents do not smoke and are apparently unaware of her smoking habits.

Her cigarette consumption history is approximately 6 cigarettes per day during the school week. On weekends, when away from home, the number of cigarettes varies from "just a few" to a "pack a day" when she is "just hanging out" with friends. Additional data the Nurse Practitioner needs to gather is: does M. T. crave a cigarette in the mornings and whether, if she were allowed to smoke at home, she would smoke within 30 minutes of getting up in the morning. Do all of her friends smoke? If not, does she smoke only with her smoking friends? How does she feel about smoking? How does smoking make her feel? What is her knowledge level about smoking and her potential health risk?

This paper will consider the effects of smoking on the adolescent and strategies the Nurse Practitioner can implement to assist the adolescent in smoking prevention and/or smoking cessation.

Effects of Smoking on Adolescents
Physiological

While research on adolescents presents ethical problems, research on the use of nicotine in adults has been conducted. The effects of nicotine in adolescence is generally similar to the effects in adults (Gillespie, Lowe, & Hunter, 1995).

The Central nervous system and respiratory centers are stimulated by low doses of nicotine. Chronic use of nicotine may result in psychologic and physical dependence, and tolerance to some of the pharmacologic effects (Henningfield & Kennen, 1993).

Nicotine stimulates the cerebral cortex and improves alertness and cognitive performance at low doses. Higher doses of nicotine do not increase the benefits (Benowitz, 1988).

Withdrawal from nicotine produces craving, anxiety, irritability, hunger, restlessness, decreased concentration, drowsiness, and sleep disturbances. These symptoms are usually self reported and generally occur during the first one to two weeks of abstaining from tobacco products (Hughes & Hatsukami, 1986).

Adolescents may not smoke as much or as frequent as the adult smoker, but quitting may be just as difficult. A weak and unreliable correlation exist between prequitting nicotine levels and the presence of objective and subjective symptoms (Gritz, Carr, & Marcus, 1991). Suggesting that the amount that the adolescent smokes may not be a reliable predictor of the ease at
which they may be able to quit.

Objectively, changes in the electroencephalogram attributed to nicotine have been recorded (Knott & Venables, 1987). Psychomotor performance increases, as does heart rate, blood pressure and plasma epinephrine levels (Benowitz, 1988). Cigarette smoking is the major cause of chronic bronchitis in otherwise healthy individuals. The airways are irritated by the smoke and there is dyspnea and airway obstruction. The obstruction is often reversible and may be intermittent or continuously present. As with any age group, chronic illness can cause decrease in appetite, weaken the immune system, and potentially effect growth and development in the adolescent.

Psychosocial

Psychosocial factors that lead to smoking is demonstrated in one study which reported that children described female smokers as more healthy, better looking, better at school, more obedient, and appearing older than their male counterparts. Males were only rated as being tougher appearing (Barton, Chassin, Presson, & Sherman, 1982). Females are the largest segment of cigarette users in adolescence (Bachman et al., 1991).

Adolescents who have low self-esteem have higher rates of smoking than do their peers who do not smoke (Bonaguro & Bonaguro, 1987). Smoking rates for adolescents who are not planning on attending college are twice those of adolescents who
plan on higher education. The smoking rate of high school drop
outs exceeds both the college and non college bond rates
(USDHHS, 1989).

Adolescents who smoke have a misconception about the
frequency of smoking in their age group. Among students
surveyed, estimates of how many of their peers smoked were
approximately twice the measured rate (Leventhal, Glynn, &
Fleming, 1987). To assess the effects of smoking on adolescents
and determining appropriate interventions, Pender’s Health
Promotion model will be applied to M. T.’s situation.

Application of the Health Promotion Model

Pender’s health promotion model (figure 1) takes into
account the individuals characteristics and experiences. These
include prior related behavior and personal factors such as
biological, sociocultural and psychological (Pender, 1987). The
behavior specific cognitive and affective area of the model is
where the client begins to decide that health practices must
change. Such areas as benefit, barrier to change, perceived
self efficacy and activity related behaviors are interrelated.
Once the person has committed to make a change the person will
engage in health promotion behavior.

Adolescents and young adults, the primary targets of
tobacco advertisement, represent the primary age group for
initiation of smoking and tobacco use (USDHHS, 1989). Our
client is typical, having started in middle school and smoking as a social function with peers.

Role of the Nurse Practitioner Nurse Practitioners recognize that smoking is a major health concern. Due to the pressures of providing care in limited time allotments and perhaps due to lack of skills or knowledge in effecting change, information about smoking cessation may be overlooked during a clinic visit (Winkelstein, 1992). Assisting the client to process through the health promotion model can
Figure one

Individual Characteristics and Experiences

Prior related behavior

Personal factors: biological psychological sociocultural

Behavior-Specific Cognitions and Affect

Perceived benefits of action

Perceived barriers to action

Perceived self-efficacy

Activity-related affect

Interpersonal influences (family, peers, providers): norms, support, models

Situational influences: options demand characteristics aesthetics

Immediate competing demands (low control) and preferences (high control)

Commitment to a plan of action

Health promoting behavior

Behavioral Outcome

Health Promotion Model, Pender, 1997
be successfully accomplished during routine clinic visits.

Using Pender’s model, consider the case history of M. T. Factors to consider from the model are; Individual behavioral characteristics and experiences, Behavior-specific cognitions and affect and Behavior outcome.

Behavioral Characteristics and Experience

The practitioner knows that adolescents are prone to initiate smoking. Adolescents of lower socioeconomic status are at a greater risk. In a study of low economic status smokers, the rate at which the smokers quit was found to be 18 per cent. The same program in a higher socioeconomic group the quit rate was 23 per cent (Bachman et al., 1991). Determining the family socioeconomic status of the M.T.’s family can provide the practitioner with additional insight into the client’s behavior.

Smoking by parents, siblings or peers increases the risk of smoking by adolescents. M. T.’s parents are not smokers. Peers are a major factor in influencing the adolescent’s decision to smoke. M. T.’s peer group smokes, and her smoking was initiated when "hanging out" with her friends. Approval of tobacco by peers increases the use of tobacco.

Often the excuse, "everybody smokes" is given. The Nurse Practitioner should let the adolescent know that most
adolescents do not smoke.

Determining school performance is of paramount importance. The Nurse Practitioner should assess M. T.‘s present performance and compare it her past performance, a trend in academic behavior can be established. The client may show a decline in academics or a decrease in participation in school athletics or clubs.

By exploring the clients attitudes about self and self-esteem, the Nurse Practitioner can better understand the behavior exhibited. Factors implicated in adolescent smoking are increased stress, decreased self-esteem and inadequate coping skills (Winkelstein, 1992).

Culturally, it has been found that smoking is least prevalent in black adolescents and most prevalent in Native Americans, followed by Caucasian, with females more prominent in both groups (Bachman et al., 1991). M. T., a caucasian female, falls into the group with the highest prevalence of smoking.

Assessment

To begin the move to non-smoker, there must be perceived benefits. The majority of physical effects are delayed in cigarette smoking. In one study, 98% of adolescents responded that they were aware of the health risk, while 47% believed they would not become ill (Leventhal et al., 1987). More immediate effects, such as staining of teeth, bad breath, odor of hair and clothing are more likely to be of meaning to the adolescent.
Effects of smoking even one cigarette on the heart, lungs, and blood pressure should be included in the discussion of tobacco.

The adolescent’s attitude in regards to smoking is important. Explore how the client feels about smoking. If smoking is seen as a method to relieve tension, discuss alternatives such as reading, exercising, or taking part in sports or group activities.

Explore with the client activities which foster her smoking. M. T. smokes when activities are unstructured and purely social. Triggers in the interactions may be identified. Smoking associated with drinking alcohol is common. In a study a pattern arose supporting the belief that clients must work on barriers and self-efficacy (the belief they could carry out behaviors associated with smoking). Drinking a cup of coffee, for example, is often associated with smoking (Glynn & Manley, 1990). The study found that once the client was able to carry out this activity without smoking, the level of confidence increased. Continuing to work with these clients and identifying stress associated with cessation behavior may be of some benefit. If associated behaviors can be identified, encourage M. T. to attempt to delay smoking. Over coming the activity providers her with the feeling of ownership of her body.

A questionnaire, such as the Fagerstrom Tolerance Test, is designed to identify dependance on nicotine and determine if the client is ready to make a commitment to change their behavior.
(Glynn and Manley, 1990). By emphasizing the addictive nature of tobacco, the client may be encouraged to regain her independence.

Once the practitioner is aware of the client’s behavior, as in the case of M. T., documentation in the medical record problem list should follow. The practitioner must discern how often the client smokes, whether they inhale, whether they smoke the cigarette down to the filter, and whether they use filtered products. By giving M. T. a questionnaire, much of this information can be obtained prior to her appointment time. The practitioner should determine other behaviors M. T. engages in while smoking; movies, parties, or drinking. Discuss with the client her feelings when engaged in these activities. Any interventions and plans for follow-up must be documented.

Practitioners must ask about behaviors that the adolescent enjoys that might be incompatible with smoking, such as family outings, sports or engaging with friends who do not smoke. By focusing on positive perceptions of herself as a non-smoker, quitting may be fostered (Gillespie et al., 1995).

Focusing on control is vital. Adolescents are beginning to express a need for autonomy and freedom to make choices. Addictive substances rob them of the choice to engage in these behavior.

Referring to the database, early morning smoking and craving for a cigarette are indicators of addictive behavior.
The client is postponing smoking until school and is eradicate in her consumption. This lack of craving is a positive sign that she may be able to quit with fewer side effects. Advice about the dangers of smoking is essential but must also include age appropriate information. Adolescents see themselves as less vulnerable to disease. Long term effects, such as emphysema and lung cancer, seem remote to them and combined with a youthful feeling of invincibility, may not carry significant meaning. For the new smoker, suggesting the ease at which they may quit now versus later in life is more appropriate.

Behavior Outcome

When M. T. indicates a sincere desire to stop, the practitioner should assist by negotiating a "quit date." Setting a date within four weeks, results in a higher rate than when the date is delayed (Cummings et al., 1989).

In adolescence, quit smoking programs that focus on developing skills to enhance self-esteem and resist peer pressure have been successful (Johnson, Hanson, Collins, & Graham, 1986). These programs use a variety of techniques such as role play, discussions, debates and peer counseling. The programs focus on building self-esteem, improving communication skills and clarifying value systems (Johnson et al., 1986).

Client compliance is often frustrating when dealing with addictive behavior. The failure rate is high, and failure often leads to frustration in both the client and the provider.
Smoking cessation is often a process of quitting and relapsing. Relapses, seen as an opportunity to explore behavior that preceded the relapse, offer insight into the smoking pattern. Strategies to intervene may subsequently be developed.

Strategies

Adolescents are under tremendous peer pressure to experiment with cigarettes. Nurse Practitioners, in primary care settings, have little opportunity to impact large groups. Individual counseling should be offered to all clients who smoke.

To quit smoking, the adolescent must face the barriers to quitting. Often a barrier is peer pressure and the need of belonging to the group continues to foster the behavior. Low self-esteem may be present and smoking may enhance the feeling of self-worth through acceptance in the group. Adolescence is a stressful time, mentally and physiologically. As social pressures mount and body image changes, adolescents must learn to cope with their new identities. Smoking is often a coping mechanism for stress and stopping represents a stressful situation (Winkelstein, 1992). Smoking cessation and prevention information should be readily available to the adolescent.

Pamphlets and video tapes in the waiting areas and examine rooms, designed for the adolescent, can be effective in providing information in a concise, easy to understand format.

Discussing the impact on health during each clinic visit
reinforces the practitioner's commitment and concern about the client's overall health. Suggesting small changes in behavior that are obtainable can be useful in fostering change. Having the client agree to decrease cigarette use by just one or two cigarettes per day is a worthwhile endeavor. Success in a small step may lead to expanded desire to change the client's smoking habits.

To initiate smoking cessation in the primary care arena there are four A's; Ask, Advise, Assist, and Arrange. These interventions are; Ask your client if they smoke, Advise them to stop, Assist them in their efforts with material, suggestion and pharmacological assistance, if indicated, and arrange for follow-up (Glynn & Manley, 1990).

Advise regarding premature aging of the skin associated with tobacco use can be effective with females. Weight gain is often cited by young females as a major concern in their decision to stop smoking. Suggest low caloric snacks and increasing physical activity to prevent weight gain associated with smoking cessation.

The potential for saving money has been shown to be one of the most prevalent reasons quitting among young smokers (Gillespie et al., 1995). Explore how much M. T. is spending per month on cigarettes, relating this to funds that could be available for other pleasurable experiences may enhance a desire to quit.
The approach to assisting the adolescent to quit has been similar to the approach assisting the adult client. Relatively little attention has been given to consulting adolescents on the process of quitting (Gillespie et al., 1995).

A brief encounter with the provider near the "quit date" serves to reinforce the decision to quit and the provider's commitment to assist in the endeavor (Kenneford et al., 1993). Providing for continued follow up with the office staff is an effective way to utilize the whole team. Office staff can make calls to clients to discuss their progress and offer appropriate interventions. By anticipating failures in cessation, the staff can be prepared to explore behaviors that lead to the failure, discuss feelings about failure and promote avoidance of situations in the future.

Community resources are available for smoking cessation and support. Multimodality sessions using alternative nicotine delivery systems, support, education and counseling are available and have demonstrated varying success rates (Fiore, Novotny, & Piere, 1990).

Three alternative ways in which nicotine can be received include transdermal patches, chewing gum, and most recently a nasal spray. Unlike tobacco products, all of the alternative nicotine delivery methods are regulated by the FDA and are available either over the counter or by prescription only. The purpose of an alternate delivery systems is to allow for the
cessation of smoking while alleviating the symptoms of withdrawal. Nicotine replacement therapy has been shown to be effective in relieving the symptoms of nicotine withdrawal (Hughes & Hatsukami, 1986).

Nicotine gum has been shown to increase the long term quitting rates when combined with behavior modification (Fagerstrom, 1988). The manufacturers of nicotine polacrilex gum (Nicorette, SK Beecham, Philadelphia, Pa.), which is an over-the-counter product, recommends that "adults" age 12-18 use the gum under medical supervision.

Chewing gum has the advantage of being used when the smoker wishes. The smoker can vary the amount of nicotine received, and chewing may be of some therapeutic value (Kupecz & Prochajka, 1996). The gums' over-the-counter availability and lack of federal or state controls makes it a potential legal source of nicotine for adolescents.

Conflicting data exist on the use of the nicotine patch. Nicotine patches have demonstrated effective quit rates, but more so in the short term (12 weeks), when used without support or behavior modification. The patches did show some improvement in length of quitting when combined with counseling (Westerman, Levin, & Rose, 1993).

The newer system, nasal spray, is similar to the gum in its intermittent delivery and self dosing. The spray may be more
socially acceptable than gum chewing in some situations. According to the manufacturer (McNeil Laboratories, Springhouse, Pa), the spray can cause nasal irritation but does not have the gastrointestinal side effects of the chewing gum.

Predicting the success of smoking cessation has been difficult due to the nature of addictive behavior. While rates of success will vary between programs and between individuals in programs, combining health information with techniques to improve socialization and increase assertiveness, better results can be achieved (Fiore et al., 1990).

Conclusion

Every client encounter has the opportunity to introduce health promotion. By providing clients with the opportunity to identify potential risk, Nurse Practitioners can intervene during scheduled appointment times. The client’s health status can be improved when provided with information, guidance and continued support. As part of an acute visit or health maintenance examination, adolescents need to be given the opportunity to discuss smoking or any other risk taking behaviors with providers and interventions discussed and planned. Research needs to be conducted on the physical effects of nicotine and smoking in the adolescent population.

Adolescents often engage in smoking behavior as an expression of low self-esteem and a need to belong. Further studies in the methods by which self-esteem can be fostered in
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children, prior to the adolescent years, needs to be conducted.

References


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