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# Patients' Perceptions of Physicians' Role in Smoking Cessation by Age and Readiness to Stop Smoking

Chris Van Ryn  
*Grand Valley State University*

Joel Wetzel  
*Grand Valley State University*

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**PATIENTS' PERCEPTIONS OF PHYSICIANS'  
ROLE IN SMOKING CESSATION  
BY AGE AND READINESS TO STOP SMOKING**

By

Chris Van Ryn  
Joel Wetzel

**THESIS**

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# **PATIENTS' PERCEPTIONS OF PHYSICIANS' ROLE IN SMOKING CESSATION BY AGE AND READINESS TO STOP SMOKING**

## **ABSTRACT**

It is imperative for health care providers to initiate an individually tailored program to counsel smokers in a more effectively. Finding patients' perceptions of their physicians' role in smoking cessation is critical to aid healthcare providers to design an individualized plan to get patients to quit smoking. 68 smokers who presented to their family practice clinics in the rural area of Hastings, Michigan completed self-administered questionnaires. The questionnaires assessed patients' perceptions of their physicians' role according to the 4 A's protocol (asking, advising, assisting, and arranging), with a focus on age groups (18-29, 30-49, and  $\geq 50$ ) and stage of readiness to quit smoking (precontemplation, contemplation, and preparation). The results showed a positive relationship in the more advanced stage of readiness to quit smoking and the endorsement of physician arranging follow up. Multiple logistic regressions found that smokers in the two younger age groups were more likely to endorse a physician arranging follow up on smoking status than the group aged  $\geq 50$ . The results of this study support the conclusions found in a similar study done in metropolitan Chicago. Both studies support differences exist in endorsement of the four A's in age groups as well as different stages of readiness to quit. Health care providers should screen patients for their age as well as their stage of readiness to stop smoking in order to provide the most effective treatment plan.

## **Acknowledgments**

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# **Chapter #1 Introduction**

## **Background to the Problem**

Cigarette smoking is the leading cause of preventable premature death in the United States. It kills an estimated 434,000 people a year, and more than 1000 a day (41). Tobacco causes 20% of all deaths and illnesses in the United States, and quitting is associated with a decreased risk of lung cancer and several other potentially life threatening diseases (21, 23, 44). Despite benefits associated with smoking cessation, it has been estimated that approximately 25% of the total U.S. population (48 million people) smoke cigarettes on a daily basis (1, 40). Considering a reduction in health risks associated with smoking occurs fairly soon after quitting and the prevalence of smoking, cessation should clearly be a top priority among health care professionals across the country (7).

Research shows that more than 70% of smokers visit a physician annually, demonstrating that physicians are in a position to help a large percentage of smokers to quit (9, 38). This makes it the responsibility of health care to initiate when possible, and intervene when necessary, in an attempt to help the patient quit successfully.

To help reduce the risk of smoke related diseases, physicians have shown that they express a desire for their patients to quit smoking, and several studies have demonstrated that physician intervention will increase the number of individuals who quit smoking (4, 19, 20, 27, 42, 45, 47). Despite this, research shows the rate at which physicians claimed that smoking cessation advice was



provided differed significantly from the rate which patients recalled their doctor's advice (15, 22, 24, 38). Fewer than half of all smokers visiting a physician in the last year ever recalls receiving advice to quit smoking (1, 13). This difference could be attributed to both the memory recall of the patient and to the effectiveness of the doctor to sufficiently communicate the importance of smoking cessation. These discrepancies between the physician and patient perceptions of smoking cessation advice signify the importance for implementing specific intervention programs to not only assist physicians in an effective way to reach their patients, but also to leave the patient with a lasting impression.

Physician-based cessation programs, proven effective in the past, raise the question as to how to personalize such programs to the needs of the individual patient. In an attempt to direct physicians, the National Cancer Institute suggests the employment of a "4 A's protocol" (discussed in methodology) in order to classify the different levels at which physicians should intervene (14). Practical clinical guidelines were formed out of the 4's protocol by the Agency for Health Care Policy and Research in an attempt to encourage physicians to "take advantage of repeated opportunities to advise and assist patients to quit smoking, to reinforce maintenance of abstinence, and to encourage recycling among those who try to quit but fail" (11, 22).

### Problem Statement

It is imperative for primary care practices to initiate an individually specific program to aid the physician in counseling smokers. As research has indicated,

there is a discrepancy between the physician's view of advice given to smokers and the smoker's view of advice received (22, 24, 25, 38). This points out the need for a better understanding of the patient's expectations and needs for smoking cessation advice.

### Purpose of the Study

The purpose of this study is to apply the work of Dr. Kvis et al to rural medicine. It is our goal to look at patient's perceptions of the role they feel doctors should play in smoking cessation. A better perspective as to the most effective way to approach the smoking patient can be gained. By integrating this information into clinical practice, it is our desire that the results will be useful to primary care physicians in the development of an individually tailored smoking cessation strategy.

### Significance of Problem to Medicine

Medicine is not only devoted to saving lives, but also to the improvement and sustainment of quality of life. The estimated smoking-attributable for medical was \$50 billion, and the cost of lost productivity due to smoke-related disability is an estimated \$47 billion annually (14). Also considering the many health benefits associated with smoking cessation, it would be both economically and medically ludicrous for a physician to treat a patient and ignore his/her smoking status.

## Research Questions

The question this study is trying to answer is how much intervention patients expect from their physicians, based on their level of desire to quit smoking. The answer will hopefully aid the physician in approaching the patient, and guide them down the most suitable road to quit smoking successfully.

## **Chapter #2**

### **Review of Literature and Conceptual Framework**

#### Introduction to the Literature Review

To help reduce the risk of smoke related illnesses, physicians have shown that they express a desire for their patients to quit smoking (45), and several clinical trials have demonstrated that a physician's advice to stop smoking will increase the number of individuals who will stop smoking (4, 20, 42, 47). However, research shows evidence that fewer than half of all smokers who have visited a physician within the past year recall ever receiving advice to quit smoking (1, 4, 13, 15). This literature will review several proposed reasons why physician interaction appears to be lacking, and several possible ways to increase the prevalence of behavior modification of smokers. To help personalize the approach by the practitioner toward the patient, the "Four A's Protocol" for smoking cessation will also be described (Appendix A) as recommended by the National Cancer Institute.

#### Literature Review

As previously stated, less than half of all smokers that have seen their physician in the last year report having been counseled about smoking. According to a cross-sectional study conducted by Frank and colleagues in California, data was collected from five cross-sectional, population based surveys of randomly sampled households, including all residents aged 12 to 74 years during a 10-year period, from 1979/1980 to 1989/1990. Results showed less than half (48%) of smokers who had seen their physician in the last year stated that their physicians had advised them to smoke less or stop smoking. Results showed that only 52% of those could recall ever receiving advice from a

physician to quit (13). Anda and colleagues analyzed data from surveys of Michigan adults in 1980 through 1983, and reported that of smokers who had seen a physician in the previous year, only 44% reported that they had ever been told to quit smoking (1).

This review will examine different explanations that have been proposed for the insufficient intervention provided by health care practitioners in assisting their patients in smoking cessation. It will include lack of physician training, limited time of physicians for counseling, physician's forgetfulness, lack of patient recall, and physicians targeting only those ideal patients who would benefit the most.

#### Limited Training

Many physicians feel that their lack of training in smoking cessation methods may be a barrier in helping smokers quit. Few medical schools and residency programs currently offer training about smoking cessation (8). According to the Jelly and Prochazka survey of Tulsa physicians, only 14% reported any previous training in counseling technique (18). This lack of training may contribute to practitioners' belief that they are not very effective at helping smokers quit (8). In a different survey of 400 primary care physicians, only 58% felt they were prepared to counsel patients in smoking cessation, and only 3% expressed confidence that they were fairly successful with counseling efforts (45).

To increase their self confidence and thus the efficacy of counseling, training programs must be implemented into physician training. When training programs exist, they substantially increase physicians' perceptions of their ability to counsel and in turn increase the amount of time spent on counseling (21). The training and counseling recommended need not be extensive. A study by Cohen

et al found that simply making nicotine gum available in the clinic or labeling charts of smokers after a brief training session enables physicians to increase their success rates two- to six-fold in helping patients quit smoking (4).

Cornuz and colleagues showed how little time was needed for residents to improve their smoking cessation counseling skill (5). Fifteen internal medicine physicians participated in a 1 1/2-hour training session that presented the medical consequences of smoking, the benefits of quitting, and evidence that physicians' advice can be effective in helping patients to quit smoking. Within the next week, each resident attended a 30-minute individual teaching session that reviewed the obstacles encountered by smokers who try to quit. Each resident also received a booklet explaining a technique known as the four A's protocol (Appendix A) and the benefits of quitting smoking. These 2 hours of interventional training were sufficient to improve their behavioral counseling for smoking cessation, resulting in benefits to their patients. The smokers who were seen after the intervention were more likely to have made an attempt to quit than those seen before the intervention training program (5).

However, the patients in this study who were seen after the physician training program were no more likely to *stop* smoking after one year follow up, so possibly more intervention was indicated. Another limitation was that the group of residents were only included in the final results if their counseling skills improved within the first four weeks of the intervention. Therefore, more research is needed to show the definitive benefits of short term training programs for physicians in behavioral modification of smokers.

#### Limited Time

A common misconception is that health care practitioners do not have enough time to effectively counsel smokers. According to the study by Cohen

and colleagues, *patients* reported that less than half of physicians spent more than two minutes counseling patients about smoking (4). In another study over half of the *physicians* reported spending less than two minutes counseling smokers, which could even be an overestimate of their actual time spent since physicians know the importance of counseling intervention and are likely to exaggerate their efforts (8).

However, despite the lack of time physicians have to counsel, a study by Folsom and Grimm supported the idea that even a small amount of time spent counseling patients (less than two minutes) about smoking could be beneficial (12). An intervention group of randomly assigned HMO patients reported significantly more attempts to quit and/or cut down smoking after an individualized message from the practitioner which indicated that smoking is a major cause of ill health and that the participant should quit. The results showed an increase number of non-smokers after the first three critical months as compared to those who did not receive the intervention. However, this is only a short-term follow up, and long term follow-up consequences of the intervention were not given.

In a different study by Janz and associates, smokers were between two and three times more likely to quit at a 6 month follow-up, after even a minimal intervention than a usual care control group (17). The "minimal intervention" consisted of the practitioner giving some brief advise to quit, then giving the patient a self-help manual explaining the benefits of smoking cessation, self-monitoring system form number of cigarettes smoking, and daily advice on different techniques to quit. Despite the belief that a limited amount of time may be a barrier in providing effective intervention, these studies support the efficiency of a minimal counseling session.

### **Physician Forgetfulness**

**Forgetting to counsel may also be an important barrier to helping patients quit smoking. One study found that reminders of smoking status were rarely used, that notations about smoking are limited to recording patients' smoking status in their medical charts (8). There are several easy ways to remind physicians to counsel smokers about quitting. Cohen et al found that putting simple reminders on the visit records of patients who smoke increased the time spent counseling by physicians (4).**

### **Lack of Patient Recall**

**Perhaps the main reason patients report not having received any advice about smoking cessation is the patient's lack of recall. Folsom and Grimm reported that only 60% of smokers whom received smoking cessation advice from the investigators themselves recalled receiving advice three months later (12). This would seem to show that subjects did not transmit the message into long-term storage, but instead denied its relevance. In a study by Kottke et al, only 55% of smokers could recall that they had been asked to quit smoking, even though all physicians reported they had been (20). These patients may simply underestimate the frequency of the delivery of smoking related advice.**

### **Differential Recall**

**To expand on the lack of recall by patients, differential recall bias is also a concern in the literature. For example, smokers who are in poorer health due to the effects of their smoking, or those who are considering quitting at the time the physician gave advice may be more likely to remember the advice. Smokers in the preparation stage of quitting, who are more motivated to consider smoking cessation, may be more likely to hear, accept, and retain similar messages (36).**



These smokers may be more likely to initiate conversation with their physician, therefore triggering behavior modification counseling. Health care providers may also be action oriented and provide more advice and assistance when the patient expresses a willingness to try to quit smoking.

### Physicians Target Ideal Patients

Other studies indicate that physicians may be waiting for the "right" patients to counsel. Several studies support the idea that older smokers are more likely than younger smokers to receive advice (13, 1). It is possible that physicians may not take smoking histories from younger patients as often, or that adolescents may be hesitant to admit to their physicians that they smoke. Physicians may also hold back the topic of smoking to avoid embarrassing adolescents with counseling in front of their parents. However, it is the adolescent years that cigarette smoking and addiction often begin. Since the adolescent population is the youngest and least addicted, they should be a target population to get to quit smoking before the behavioral and physical addictions are reinforced.

Perhaps physicians target the more aged because they are waiting for patient cues such as obvious or heavy cigarette use, cardiovascular disease, cerebrovascular disease, or hypertension. The study of Anda et al found that smokers who had survived a myocardial infarction or stroke were more likely to have received advice than smokers who had not suffered these events (1). Smokers were also more likely to have been advised to quit if they smoked more cigarettes per day and had smoked for a longer period of time. This may be due to more office visits per year resulting in an increased chance of the older and more ill smokers being advised to quit smoking more.

## Inconsistency

Perhaps another reason that physicians do not counsel smokers is the lack of a clear and consistent direction of the most effective means to reduce smoking rates (34). Many physicians do not have a clear concept of the role they should play in smoking cessation. To help standardize the method of physician interaction for smoking cessation, the National Cancer Institute developed the "Four A's Protocol." This protocol was developed to help health care practitioners develop a routine for all patients seen.

The first "A" stands for *Asking* about the smoking status of every single patient at every visit to the clinic. Non-smokers should be congratulated, especially former smokers, for their healthy behavior to reinforce the message. In people who do smoke, severity of their addiction should be assessed ("How much do you smoke?", or "How soon after waking do you have your first cigarette?"). After the smoking status of a person is known, an identifier should be prominently placed on the chart to discuss smoking at every visit.

Practitioners should then strongly *Advise* all smokers to quit and determine the patients' willingness to quit. Any patient not willing to commit to quitting should receive a motivational intervention to promote quitting. The physician should include personalized reasons for smoking cessation, such as relating smoking to their current health/illness, the social and economic costs of tobacco use, and/or the impact of smoking on children and others in the household (16). Kotte stresses the importance of practitioners providing individualized, face-to-face smoking cessation advice to patients (19).

When the patient is willing to make an attempt at quitting, primary care clinicians may *Assist* by asking the patient to set a "Quit Date". Patients who set a specific date to stop smoking are more likely to quit (7). This date should avoid high stress times, and should not be immediate in order for the patient to prepare

to stop, however the date should probably be within two weeks to continue motivation from this meeting. Kotte's study also showed that a signed written contract by the physician and the patient increases the efficacy of the quit date.

The practitioner should also recommend several important tips for successful quitting. For example, total abstinence from smoking is essential. Not even a single puff after the quit date should be allowed. Abstinence from alcohol is also important, since drinking alcohol is associated with relapse (11). Practitioners also need to recommend other smokers in the household to quit.

Another way the physician can help assist the patient is by anticipating nicotine withdrawal symptoms. Prescribing nicotine gum can reduce these symptoms. Despite the fact that many smokers never receive this medication, it has been shown to be helpful for patients, especially when given in combination with professional advice and information (4, 10, 15).

Self-help materials should be provided, and made readily available in every clinic office. These provide the patient with further information about smoking cessation, such as the symptoms and time course of withdrawal, tips about stopping, and reinforces good reasons for stopping. Patient compliance will increase when a health care practitioner reviews the material with the patients and answers questions about it.

Last, the practitioner should *Arrange* follow-up visits. Follow-up is a very important component in prolonged smoking cessation that is often lacking in many programs (15, 18). Several studies show that successful follow-up has improved patients' chances of smoking cessation (4, 19, 47). One study showed a 14 percent cessation rate among smokers who received follow-up, compared with a 5 percent cessation rate among smokers who did not receive follow-up (47). The follow-up may include a letter or a phone call from the office staff just before the quit date to reinforce the agreement between the patient and the

practitioner. According to a study by Kotte, a return visit to the clinic with the practitioner after the patient has quit is also important to the patient's ability to remain a non-smoker (19).

Follow-up visits should consist of patient progress notes, answering any patient problems, and prescription of nicotine gum. For the successful non-smoker, congratulations will reinforce their adapted behaviors. Practitioners must also remember to remind new quitters that their lungs are already beginning to heal. For a quitter who has relapsed, physicians must remember to identify the relapse as a "practice," not a "failure" and remain optimistic (33). It should be explained that a relapse could be used as a learning experience. Physicians should try to identify the trigger for relapse to prevent reoccurrence, and anticipate challenges in the immediate future. Patients should be encouraged to try again.

A second follow-up visit is also important. The quit rate improves as the number of follow-up visits increases (10, 19, 47). According to Kottke, the best smoking cessation results were related to increasing the number of contacts, rather than any specific intervention type (19). The later visits should be similar to the first visit, with the addition of tapering off the nicotine gum. A flow sheet should then be added to the chart, consisting of the present smoking status, number of quitting attempts, and how long they have lasted. This will allow for easier follow-up and reinforcement upon later visits.

In addition to using this standardized method to smoking intervention, previous research shows the need for specialized interventions that fit the needs of population subgroups (4, 6, 25, 30, 33, 46). For example, understanding quitting motives and unique barriers, and tailoring motivational strategies is critical in assisting older patients to stop smoking. Orleans and associates demonstrated that older patients are significantly more likely to underestimate the

risks of smoking and overestimate the benefits of smoking relative to their younger counterparts (33). In the survey, older patients saw themselves (or other smokers) with an "optimistic bias," and much less at risk for nine of ten proven smoking health dangers. Older adults were also more likely to see smoking as a more beneficial coping and weight control tactic.

Thus, in order to get older smokers to quit, practitioners must personalize the health harms of smoking, and the benefits of quitting with a motivational review of smoking and quitting history, smoking symptoms and illnesses. For example, physicians should point out that quitting could reduce some of their current symptoms, such as coughing, wheezing, shortness of breath, and fatigue. Several studies show that patients are more likely to follow a physicians' advice to quit if the smokers had smoke related symptoms or illness (4, 6, 46).

Practitioners must give clear advice to stop smoking, in order to reverse the misconceptions that smoking is not dangerous. Many elderly were introduced to smoking by receiving cigarettes with their C rations in WWII, or by celebrity role models like Humphrey Bogart and John Wayne, all before the negative impacts of smoking were proven. Older patients should also receive nicotine replacements to help slowly taper off the physical dependence that has built up over the prolonged period of smoking. Older patients have been shown to be more compliant with advice from a physician than younger patients, and it has been documented that stopping smoking can be beneficial at any age (13, 33).

Furthermore, recent research has found smokers' stage of readiness to quit indicative of the result of smoking cessation intervention (36). The Transtheoretical Model of smoking cessation has been divided into several stages (36, 27). First, the precontemplation stage is the time when a smoking patient is not seriously considering the idea of stopping. In this stage, the role of the physician is to advise the patient to quit, and attempt to motivate the patient

to move into the contemplation stage, when a smoker is seriously planning to stop. This patient is motivated, and may only need advice on cessation techniques. The action stage is the time when a smoker is taking the steps necessary to stop, and the maintenance is that after stopping that a smoker is avoiding relapse.

To increase the effectiveness of smoking cessation interventions, health practitioners should tailor their techniques according to personalized factors such as the smoker's age and readiness to quit. This study will assess patients' attitudes about the role of their physicians in smoking cessation related to their age and stage of readiness. This potentially will help define a more specific role health practitioners should play, and ultimately result in standardized descriptors of evaluation and interventions to develop a coordinated national strategy to expand the physicians' participation in smoking cessation.

### Conclusion

Much of the past research shows the inadequacy of the current methods of physician based interventions for smoking cessation. Many different explanations have been proposed, such as limited training of physicians in counseling techniques, limited time available for physicians to counsel patients, lack of patient recall, and physician discrimination of counseling only certain patients.

Past research has also explored several techniques physicians can use to increase their effectiveness in counseling patients in smoking cessation. The techniques consist of short training programs to teach physicians how to improve counseling skills, and tagging patients charts as "smoker" or "non-smoker" to remind the physician to constantly advise the smokers to quit. In an effort to

standardize, and therefore clarify the method of physician interaction, the National Cancer Institute developed the "Four A's Protocol," which will help all practitioners develop a routine for all patients seen. The Four A's stress the practitioner's ability to provide individualized, face-to-face smoking cessation advice to patients in an attempt to increase the efficacy of the intervention.

To increase the effectiveness of intervention programs by further tailoring the intervention programs to the individual smokers, literature has examined the Transtheoretical Model of Health Behavior Change and smoker's age as they relate to smoking cessation and the Four A's Protocol. Most of the past research is based on data from physicians about their attitudes and behaviors. If the patients were involved in the literature, it has only been to determine if the physician had advised them, but not if they accepted the physician's use of the Four A's. Kviz et al considered the patients' acceptance of the Four A's in the form of a survey administered in a Chicago metropolitan area, which limited the results to that area. The purpose of this research is to use the survey of Kviz et al in a rural setting in west Michigan, to determine patients' perceptions of the Four A's Protocol based on background demographics, especially age and stage of readiness to quit.

## **Chapter #3 Methodology**

### **Setting**

For our study, we began by issuing 300 questionnaires to each of 4 different primary care offices. The offices, located in Clarksville, Nashville, Gun Lake, and Wayland, range from seeing a little under one hundred patients a week to a little over a thousand. These spots were chosen for two reasons. First, they were all primary care offices and second, they all seemed to be a good representation of the rural community. They are also all part of the Pennock Hospital system, so all the administrative portions of our study could be taken care of at one consolidated location. We chose 300 questionnaires for each clinic (1500 total) based on research that states 25% of the total population smokes. 1500 seemed like a suitable number to ensure that a minimum of 350 of the questionnaires filled out will be by people who smoke cigarettes as a part of their regular lifestyle.

### **Patient Selection**

Each institution agreed for their receptionist to ask visiting patients (over the age of 18) if they would like to be involved in a study. If the patient said yes, he/she was given a packet containing the questionnaire and a cover sheet that explained: (1) the purpose of the study and who will be conducting it; (2) how to make arrangements if sufficient time for completion was not given; (3) their answers would be treated confidentially, would only be used for research, and



would not be shared with their physician; (4) their involvement was purely anonymous and would in no way affect their medical treatment; and (5) how to contact someone if they had any questions regarding the study. Informed consent consisted of the patient filling out the questionnaire. All questionnaires were collected, but only those filled out by smokers were included in the study in the contention that the views of smokers were more important to the study than views of non-smokers, and to avoid any judgmental bias that might be placed on the study. We defined a smoker as a person that has smoked at least one cigarette a day for the last seven days.

One problem that had to be addressed was the possibility of a patient who was unable to fill out the questionnaire in the time that he/she had while waiting for the doctor. We obviously did not want to disrupt the physician's schedule, but we did not want a time constraint to inhibit someone from engaging in the study. As explained on the cover sheet, if a time problem occurred the receptionist made arrangements for the questionnaire to be dropped off at a different date. This ensured that every patient that walks in the clinic had an equal chance of taking and completing the questionnaire.

Once the 300 questionnaires were completed, the clinics contacted us to pick them up and analyze the results. Due to the differing rates of patients in the clinics, there was a time constraint on the study itself of six weeks. After that time, any questionnaires not filled out were picked up as well. The reason we chose questionnaires is we felt it would help to diminish any pressure that might be felt by the patients. This ensured that the patient could give a more honest

and anonymous answer. The receptionist, along with the informative cover sheet were enough to answer to any questions that arose, but a telephone number was supplied to contact the conductors of the study. It was our conclusion that extra time allotted and supplying means to answer any questions that may arise, as well office time being supplied for completion of the questionnaire, helped to improve the rate of return.

### Tools

The tool used in this study consisted of a questionnaire that was recently used in Chicago by Frederick J. Kvis et al (22). It had already proven itself valid and reliable, as well as having already undergone a pilot study (22). For these reasons, no further modification was required. The questionnaire broke down the amount of medical intervention into a "4 A's protocol" recommended by the National Cancer Institute. These are:

- 1.) *Asking* the patient about smoking status.
- 2.) *Advising* the patient to stop smoking.
- 3.) *Assisting* the patient in smoking cessation.
- 4.) *Arranging* follow-up visits.

The 4 A's served as our dependent variables, and was compared with various independent variables. These independent variables were broken down into two groups: background characteristics and smoking cessation attitudes.

#### **Background characteristics**

Patients were broken down into three groups based on age (18-29, 30-49,

and 50+). Quoting Kvis et al, smokers age 18-29 can generally be associated with initial smokers, those ages 30-49 as established smokers, and 50+ as long-term smokers (22). This was based on the notion that the average smoker starts as an average age of 18, and the number of years they smoke increases proportionally with increasing age.

For each person, we also obtained the gender, marital status, race, educational status, and employment status. In addition, we took into account the amount of cigarettes smoked and the quitting history of the patient. We took the results and compared how each of these affected the patient's views on their physician's responsibilities toward their smoking cessation.

#### **Smoking cessation attitudes**

These attitudes were measured by a variety of different ways, the first being by the concerns of health status by the patient. The patient was asked whether he/she had any concerns about the effects of smoking, and to what long- and short-term benefits was associated with smoking cessation. Secondly, we measured the willingness to stop smoking by inquiring as to the desire and determination of the patient to stop smoking. Lastly, we measured the confidence and expected need of support for patients if they decide to quit.

As with the study conducted by Kvis et al, we classified each patient into one of three categories, based on the patients' readiness to stop smoking.

These categories were:

- 1.) Precontemplation stage – not planning to stop smoking within the next six months.

- 2.) Contemplation stage – planning to stop smoking in the next 6 months.
- 3.) Preparation stage – planning to stop smoking within the next month  
and had stopped for at least one day in the past  
year.

### Analysis

We used the Pearson chi-squared test analysis of variance for bivariate comparisons of both background characteristics and smoking cessation attitudes based on an individual's age and readiness to stop smoking. We also used this test to compare views on the 4 A's protocol as compared to age and readiness to stop smoking. Lastly, we used a multiple logistic regression to examine different views of patients and correlated them with the phase of the 4 A's their physician has interacted with them.

## **Chapter #4 RESULTS**

### **Background Characteristics by Age**

As shown in Table 1, slightly more than half of all smokers were women (61.76%), most were educated through or beyond high school, on average they perceived their health status as “good” (scale value of 3.18), and most had tried to quit smoking at least once in their lifetime (70.59%). More than two-thirds in the two older groups were married, while only slightly more than a fourth of the youngest group was married. Nearly all of the participants in the study were white, having only one nonwhite participant in the middle age group. The middle age group of smokers was more likely to have been employed at the time of the study than the younger group, which was slightly more likely to be employed than the older group.

The middle age group was more likely than the other ages to make the visit to the office for new symptoms of health problems. The number of cigarettes smoked per day was greatest in the older age group. However, even the oldest smokers were not particularly heavy smokers, in that on average they smoked just slightly more than one pack per day (22.5), compared with the younger age groups averaging about a pack per day. The oldest smokers were least likely to report that they were advised by a health professional to quit smoking during the past year, and age was positively associated with having tried to quit smoking during the past year.

### **Attitudes toward Smoking Cessation by Age**

**TABLE 1**

**Background characteristics by Age**

	Age			Total (N <sup>a</sup> = 68)	Test Statistic	p <sup>b</sup>
	18-30 (N <sup>a</sup> = 19)	30-49 (N <sup>a</sup> = 36)	≥50 (N <sup>a</sup> = 13)			
Gender (% female)	73.68	58.33	53.85	61.76	1.668	NS
Education (% > high school)	73.68	94.44	100.00	89.71	1.563	NS
Marital status (% married)	26.32	66.67	69.23	55.88	9.375	.009
Race (% white)	100.00	97.22	100.00	98.23	—	NV
Employment status (% full time)	63.16	72.22	61.54	67.65	.741	NS
Health status (mean, 4 pt. scale <sup>c</sup> )	3.16	3.00	3.38	3.18	2.190	NS
Reason for visit (% new symptoms)	15.79	27.78	15.38	22.06	1.385	NS
Cigarettes smoked (mean per day)	20.95	20.19	22.46	21.20	.262	NS
Lifetime quit attempts (% >1)	68.42	75.00	61.54	70.59	—	NV
Quit attempts last year (% >1)	26.32	25.00	0.0	20.59	—	NV
Advised to quit by health professional in last year (% yes)	63.16	58.33	53.85	58.82	.284	NS

<sup>a</sup> Number of cases varies slightly for some variables because of missing observations.

<sup>b</sup> For percentages, probabilities are for the Pearson  $\chi^2$  test; for means, probabilities are for the F ratio in analysis of variance; NS, not statistically significant at  $\alpha = 0.005$ ; NV, not statistically valid.

<sup>c</sup> The 4 pt. scale is values based on the patient's ability to perform ADL's, ranging from 1 (no problem) to 4 (unable to perform).

As shown in Table 2, smokers of all age groups reported fairly high levels of concern about health effects of smoking cigarettes, and both immediate and long-term health benefits of quitting. However, the perceived immediate and long-term health benefits were associated negatively with age group. The desire to quit is reported the most in the group of smokers aged 30 to 49, which also reported the lowest confidence in their ability to quit. Age was negatively associated with those to report that they needed help to quit smoking, the youngest group being the most likely.

Stage of readiness to quit smoking was associated positively with age for those in the precontemplation stage, but negatively with age for those in the contemplation. Age was not associated with the group of smokers in the preparation stage. For the youngest group of smokers, about half was in the contemplation stage, but only about 10 percent were in the preparation stage. In the two older groups about one fourth of the people from that age group were in the contemplation and preparation stage.

#### Perceptions about the 4 A's

As shown in Table 3, only about one-third of all smokers said their physician should ask about their smoking status, with the highest percentage in the youngest group. However, more than two-thirds in each group believed their physician should advise them to stop smoking, and more than three-quarters of the smokers in each group reported their physician should assist them to stop smoking. Both of the two younger groups believed their physician should arrange follow up on smoking status. The older aged group was the least likely to

**TABLE 2**

**Smoking Cessation Attitudes by Age**

	Age			Total (N <sup>a</sup> = 68)	Test Statistic	p <sup>b</sup>
	18-30 (N <sup>a</sup> = 19)	30-49 (N <sup>a</sup> = 36)	≥50 (N <sup>a</sup> = 13)			
Concern of health effects of smoking (mean; 3-point scale <sup>c</sup> )	2.16	2.14	2.15	2.15	.009	NS
Immediate health benefits of quitting (mean, 5-point scale <sup>c</sup> )	4.47	3.97	3.46	4.01	3.585	.033
Long-term health benefits of quitting (mean; 5-point scale <sup>c</sup> )	4.74	4.17	4.00	4.30	2.364	NS
Desire to quit (mean; 4-point scale <sup>c</sup> )	2.63	2.80	2.77	2.75	.167	NS
Determination to quit (mean; 4-point scale <sup>c</sup> )	2.53	2.36	2.70	2.47	.484	NS
Confidence in ability to quit (mean; 4-point scale <sup>c</sup> )	2.53	2.28	3.08	2.49	3.635	.032
Need help to quit (mean; 3-point scale <sup>c</sup> )	2.16	2.00	1.92	2.03	.628	NS
Stage of readiness to quit						
% Precontemplation	36.84	44.44	46.15	42.65		
%Contemplation	52.63	27.78	23.08	33.82		
%Preparation	10.53	25.00	23.08	20.59		

<sup>a</sup> Number of cases varies slightly for some variables because of missing observations.

<sup>b</sup> For percentages, probabilities are for the Pearson  $\chi^2$  test; for means, probabilities are for the F ratio in analysis of variance; NS, not statistically significant at  $\alpha = 0.005$ ; NV, not statistically valid.

<sup>c</sup> For all pt. scales, the higher the number, the stronger the patient feels toward the question asked.



**TABLE 3****Attitudes toward Physicians Performing the 4A's of Clinical Smoking Cessation Practice by Age**

	<i>Age</i>			Total (N <sup>a</sup> = 68)	Test Statistic	$\rho^b$
	18-30 (N <sup>a</sup> = 19)	30-49 (N <sup>a</sup> = 36)	$\geq 50$ (N <sup>a</sup> = 13)			
Asking (% yes)	36.8	27.8	30.8	30.88	.479	NS
Advising (% agree/st. agree)	84.2	83.3	69.2	80.88	1.417	NS
Assisting (% both)	94.7	94.4	76.9	91.17	---	NV
Arranging (% yes)	63.2	62.9	30.8	55.88	4.424	NS

<sup>a</sup> Number of cases varies slightly for some variables because of missing observations.

<sup>b</sup> For percentages, probabilities are for the Pearson  $\chi^2$  test; NS, not statistically significant at  $\alpha = 0.005$ ; NV, not statistically valid.

report their physician should advise, assist smoking cessation, or follow up (arrange) on their smoking behavior.

The group of smokers who reported their physician should ask about their smoking status was associated negatively with their progressive stage of readiness to quit (Table 4). All of the smokers in the preparation stage said their physician should advise them to stop smoking, while nearly three-fourths of those in the precontemplation and contemplation stages said their physician should provide this advice. The majority of smokers in each stage of readiness said their physician should advise them to stop smoking. Those smokers who said their physician should assist in quitting smoking and arrange follow-up on smoking behavior was associated positively with their progressive stage of readiness to quit.

Table 5 presents the results of multiple logistic regression of patients' perceptions of their physician's role in smoking cessation. Table 5 shows odds ratios and 95% confidence intervals for each independent variable of the 4 A's, according to the final logistic model. Therefore, not all reported odds ratios are statistically significant.

#### **Asking and Advising**

Due to the limited sample composition, a significantly useful model for asking and advising smoking cessation attitudes could not be obtained from the background information given.

#### **Assisting**

**TABLE 4****Attitudes toward Physicians Performing the 4 A's of Clinical Smoking Cessation Practice by Stage of Readiness to Quit**

	Stage of readiness to quit			Total (N <sup>a</sup> = 65)	Test Statistics	p <sup>b</sup>
	Precontemplation (N <sup>a</sup> = 28)	Contemplation (N <sup>a</sup> = 23)	Preparation (N <sup>a</sup> = 14)			
Asking (% yes)	39.29	30.4	14.3	30.77	2.500	NS
Advising (% agree/st. agree)	78.57	78.3	100.0	83.08	3.998	NS
Assisting (% both)	39.29	65.22	78.57	56.92	—	NV
Arranging (% yes)	39.29	65.2	78.6	56.92	6.873	.032

<sup>a</sup> Number of cases varies slightly for some variables because of missing observations.

<sup>b</sup> Probabilities are for the Pearson  $\chi^2$  test; NS, not statistically significant at  $\alpha = 0.005$ ; NV, not statistically valid.

**TABLE 5**

**Backward Stepwise Logistic Regression of Endorsement of the 4 A's of Smoking Cessation Practice on Smokers' Background Characteristics and Smoking Cessation Attitudes (Odds Ratios and 95% Conf. Intervals for Final Models)**

Characteristic/attitude	<u>Asking (N=68)</u>		<u>Advising (N=68)</u>		<u>Assisting (N=68)</u>		<u>Arranging (N=67)</u>	
	OR	95% CI	OR	95%CI	OR	95% CI	OR	95% CI
Age								
18-29 vs ≥50							3.74	(.67, 20.81)
30-49 vs ≥50							7.45	(1.42, 39.15)
Stage of readiness to quit								
Precont. vs Prep.								
Cont. vs Prep.								
Education (≥HS vs <HS)								
Race (white vs nonwhite)								
Employment (full-time vs other)								
Health status								
Cigarettes smoked per day								
Advised to quit								
Long-term health benefits			1.59	(.97, 2.61)	2.11	(1.02, 4.37)	2.77	(1.24, 6.19)
Desire to quit								
Determination to quit	.61	(.37, 1.01)					1.72	(.94, 3.17)
Confidence in ability to quit								
Need help to quit								
Own vs not sure					6.83	(.49, 96.08)		
Need help vs not sure					21.19	(1.73, 259.07)		
Model $\chi^2$ <sup>a</sup>	8.45	(df=3)	3.29	(df=1)	11.78	(df=3)	21.50	(df=4)

<sup>a</sup> For each model  $\chi^2$   $p < 0.01$

**\*\*Note:** Due to limited sample composition, a useful (significant) model for asking and advising smoking cessation attitudes could not be obtained with background information (Asking,  $p = 0.0567$ ; Advising,  $p = 0.0699$ ).

Smokers who believed they were more likely to benefit from long-term health benefits were more likely to endorse a physician assisting them to stop smoking. Interestingly, those who felt they could quit on their own were more likely to support the belief that physicians should assist smokers to stopping, than those who were not sure if they could quit on their own. However, those who felt they needed help were about 21 times as likely to endorse a physician assisting them to stop smoking.

#### Arranging

Smokers aged 18 to 29 and 30 to 49 were more likely than those 50 or older to say that their physician should follow up (arrange) on their smoking behavior, with the middle age group being the most likely. Arranging follow up was more likely to be endorsed by those with higher ratings of long term health benefits of quitting, as well as those with a stronger determination to quit. Overall, the findings in Table 5 show that the most important correlate of smokers' endorsement of the 4 A's was ranking of the long term health benefits of quitting smoking. These beliefs were statistically significant for two of the four practices. No other patient characteristic was significantly associated in more than one attitude of the 4A's.

## **Chapter #5 Discussion/Conclusion**

From 1992-1995, Kviz et al surveyed smokers at 16 clinical offices in the Chicago metropolitan area, to determine their feelings regarding their physician's smoking cessation responsibilities. Our study focused on smokers who filled out the same questionnaire in rural family practice offices. It is the purpose of this discussion to briefly review Kviz's findings, to review ours, and to see if any clinical implications can be made.

First, Kviz found that asking, advising, and arranging were generally "well accepted, but only about half of the patients endorsed the prospect of their physician assisting them to stop smoking", implying that a more "proactive orientation toward smoking cessation" should be implemented by a physician (22). Our study supports this and shows that the endorsers of physician assisted smoking cessation were those that felt they could quit on their own or those that believed they needed help quitting. Those who were unsure of their ability to quit autonomously were less likely to endorse a physician's assistance. Clinically, this points to the need for a "proactive" physician in rural medicine, while suggesting the road to effective cessation is paved with a clinician's ability to evaluate a patient's perceptions' individually and willingness to adjust a treatment plan accordingly.

Second, Kviz et al found that age was "an important correlate of a patient's endorsement of physician smoking cessation practices", noting the younger a patient was, the more this held true (22). The rural medicine study also supported this. We found that younger smokers aged less than 30 years old

believed more immediate and long-term health benefits could be obtained by smoking cessation. This supports the conclusion of Kviz et al that "younger patients may be more familiar with and more receptive to health promotion interventions by physicians" (22). Perhaps more education about the benefits of smoking cessation should be performed to smokers 50 and older, as they were the least likely group to believe in immediate and long-term health benefits.

Our findings also suggest that older patients express more confidence in their ability to quit and also are more receptive to physician assisted smoking cessation. This suggests that the older rural patient might be most receptive to an intensive personal cessation program (as compared to ages 30-49 in urban findings), supporting the need for an age-tailored cessation strategy. However, more information about the association between age and readiness to quit is important to further the development of age-tailored smoking cessation strategies.

The third conclusion that Kviz et al made, based on their findings, was to support "the recommendations of others to employ stage-based intervention strategies" (22). Family practice health clinics have been shown to have a large number of smokers in the precontemplation and contemplation stages (2, 22). The research by Kviz and associates and our research both support the concept that most smokers are not in the preparation stage. In the survey of a nationally representative sample of current smokers in the United States performed by Clark and associates, there were only 7% of smokers in the Preparation stage

(2). Our study showed a higher percentage of 19.8, reiterating the importance of considering stage of readiness when designing cessation techniques.

The study by Kviz et al found statistically significant associations between patients' stage of readiness to stop smoking and endorsement of physician interactions. Their study found patients in the contemplation and preparation stages were more likely to endorse advising, assisting, and arranging. Our analysis found that more smokers in the contemplation and preparation stages were likely to endorse assisting and arranging, however, those in precontemplation and contemplation stages were likely to have similar attitudes toward asking and advising. Due to the limited number of participants in our study, the only statistically significant relationship seen was between the stage of readiness to quit smoking and the endorsement of physician arranging following. It might be implied that the more advanced stage of readiness to quit, the more likely physician intervention will be welcomed.

These findings suggest health screens used in a clinical setting need to inquire about patients' stage of readiness to quit smoking, then use the 4 A's protocol to move smokers to the next possible stage of quitting. For example, it appears that asking and advising are recommended by those in the precontemplation and contemplation stage to move them into the preparation stage. Assisting and arranging follow up should be emphasized to help patients in the preparation stage move into the action and maintenance stages (2, 22, 36)



However, when other variables were controlled in multiple logistic regression analyses, both the studies by Kvis et al and our rural study found that factors such as perceived long-term benefits should also be considered (22).

### Limitations

The limitations to this study are many, the first and most important is that of population size. Our ability to obtain statistically significant associations between many of the mentioned variables was limited by the poor return rate of <10%. This overstated the significance of answers because there was not a true representation of the population. The poor return rate could be attributed to several factors, including survey size, time constraints, and lack of enthusiasm of the involved clinics. Whatever the reason, a small population made it difficult for inferences on the population and comparisons with the previous results in an urban setting (Kviz) to be made.

Another limitation to the study was the way in which the data was gathered. Not having the luxury of our own clinic to conduct the research at, we found ourselves at the mercy of the people who agreed to participate in the study. It seemed that some were enthusiastic about the idea of a research project, but were unable or unwilling to provide the amount of information that was agreed upon at the beginning of the project.

A more subtle shortcoming to the research design lies in patients overstating their endorsements of the 4 A's protocol because of self-motivation to comply with clinical expectations. In this, the limitation previously described becomes one of its strengths. Self-taken questionnaires, no interaction between

participants and researchers, and the option of exemption from the study were all attempts to minimize this limitation. Furthermore, it was a concern that health care providers, being an influential smoking cessation source for older patients, could cause a compliance response bias. One would expect, if such a bias was present, that patients (particularly older ones) would overstate the endorsement of the 4 A's protocol. According to Table 3, however, the reverse is true and younger patients were more likely than older ones to endorse the 4 A's protocol. This would lead one to view that such a bias does not exist. Another possible compliance bias is that some patients may have overestimated their stage of readiness to quit smoking. Our results show that out of the total sample population (N=68), 20.59% of people in the preparation was lower than previously researched populations (24.8% by Kviz et al). Contemplation stage at 33.82% is also lower than was expected (46.7% by Kviz et al). These values indicate that such a bias was not present.

The final limitation to our research involves the questionnaire itself. To obtain the information necessary it needed to be quite lengthy, making it difficult for some patients to finish in the allotted time. If one decides to further this research in a rural setting, a questionnaire that is more "user-friendly" would be a good idea.

#### Application to Medicine

Smoking affects medicine to the tune of approximately \$50 billion a year. Not to mention the 20% of all deaths and illnesses attributed to smoking. These two figures alone scream the importance of physician intervention. Combined

with the 1000 deaths a day caused by smoking, these statistics prove that every minute spent on smoking cessation intervention is invaluable to both the patient and the provider.

#### Suggestions for further research/modifications

The majority of these suggestions stem from the weaknesses we found in our own project. The first deals with the amount of people involved in the study. A larger, more diverse project is needed that has the resources for large enough groups to obtain some statistical significance. The amount of time needed for this type of undertaking was more than we could afford, a longer and more extensive look at rural medicine and this subject is still needed.

As previously discussed, it was difficult to use the questionnaire as an effective tool in the population we chose. A more concise survey written at an easier reading level would be important.

Lastly, as more research should be done in a more diverse population should be done, the wise would exercise caution when interpreting the results. This is particularly important when looking at the older population. A fair amount of smokers who are motivated toward smoking cessation would hypothetically have quit by the time they have reached that age bracket. This would leave a bracket of smokers less motivated and less willing to quit. When coupled with the amount of morbidity associated with a life-long smoking habit, one must use caution when interpreting the results.

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## **APPENDIX A**

### **"The 4 A's Protocol"**

1. ***Asking.*** The physician is held responsible for inquiring about the patient's smoking status.
2. ***Advising.*** The physician is held responsible for offering advice as to the most effective route to smoking cessation.
3. ***Assisting.*** The physician is held responsible for any assistance needed by the patient to quit smoking.
4. ***Arranging.*** The physician is held responsible for the arrangement of counseling, treatment programs, etc. for the patient's smoking cessation.

**Dear Potential Participant,**

**A study is being conducted by Christopher K. Van Ryn and Joel A. Wetzel, graduate students in the Physician Assistant Program at Grand Valley State University. The purpose of this study is to determine what you think doctors should do to help people quit smoking.**

**If you agree to participate in this study, fill out the attached questionnaire and return it to the receptionist. The questionnaire should take about 15 minutes. If it takes longer than expected, and you would still like to participate in the study, feel free to hand it in to the receptionist within the next week.**

**By completing and returning the questionnaire you will be consenting to participate in the study. Please note that your involvement in the study is purely anonymous, and will in no way affect your medical records or treatment. If you do not complete the questionnaire, fail to hand it in, or withdraw from the study, there will be no penalty of any kind.**

**Results from this study will not report individual findings, only group findings.**

**The results from this study are expected to be completed by January of 1999. For a copy of the results or if you have any questions, please call (616) 538-3992. If you have any questions concerning your rights as a participant in the study, contact Professor Paul Huizenga, chair of the research review committee at GVSU, 895-2472.**

**Thank you for your participation.**



5. How old were you when you started regularly smoking 1 or more cigarettes a day, or at least 7 cigarettes a week? ..... \_\_\_\_\_  
(age)

6a. How many times in your life have you ever really tried to stop smoking cigarettes, that is when you did not even smoke one puff for at least 24 hours? \_\_\_\_\_ times  
(If "None" record 0, then SKIP to Q. 8)

- b. When was the last time you intentionally tried to stop smoking and you did not smoke even one puff for at least 24 hours?
- Within the last 30 days ..... 1
  - 1 to 6 months ago ..... 2
  - 7 to 12 months ago ..... 3
  - More than 1 year ago ..... 4 (SKIP to Q.8)
  - Never ..... 5 (SKIP to Q.8)

7a. During the last year, how many times did you really try to stop smoking cigarettes, when you did not smoke even one puff for at least 24 hours? \_\_\_\_\_ times  
(If "None" record 0, then SKIP to Q. 8)

- b. What was the longest period of time during the last year for which you stopped smoking cigarettes, when you did not smoke even one puff for at least 24 hours?
- Less than 1 week ..... 1
  - 1 week to 1 month ..... 2
  - 2 to 3 months ..... 3
  - 4 to 6 months ..... 4
  - 7 months to 1 year ..... 5
  - More than 1 year ..... 6
-

12. The following are some statements about how doctors might deal with patients who smoke cigarettes. For each statement, please indicate if you strongly disagree, disagree, agree, or strongly agree.

	<b>Strongly <u>Disagree</u></b>	<b><u>Disagree</u></b>	<b><u>Agree</u></b>	<b>Strongly <u>Agree</u></b>
a. My doctor should <u>advise</u> me to stop smoking . . . . .	1	2	3	4
b. My doctor should <u>teach</u> me <u>how</u> to stop smoking . . . . .	1	2	3	4
c. Unless I have a smoking related health problem, it is none of my doctor's business if I smoke . . . .	1	2	3	4

13. How concerned are you about the effects of smoking cigarettes on your health?

Not concerned at all . . . . .	1
Somewhat concerned . . . . .	2
Very concerned . . . . .	3

14. How concerned are you about the effects of your smoking cigarettes on the health of other people you live with?

Not concerned at all . . . . .	1
Somewhat concerned . . . . .	2
Very concerned . . . . .	3
Do not live with anyone else . . . . .	4

15. If 1 is not important and 5 is very important, how important do you think the immediate health benefits are for someone your age who stops smoking cigarettes?

<b>Not <u>Important</u></b>					<b>Very <u>Important</u></b>
1	2	3	4		5

20. How likely do you think it is that each of the following symptoms would be caused by smoking cigarettes?

	<b>Not likely <u>at all</u></b>	<b>Somewhat <u>Likely</u></b>	<b>Very <u>Likely</u></b>
a. Tiredness .....	1	2	3
b. Stuffy nose/congestion .....	1	2	3
c. Lack of energy .....	1	2	3
d. Weakness .....	1	2	3
e. Coughing .....	1	2	3
f. Forgetfulness .....	1	2	3
g. Sleeplessness .....	1	2	3

21. How likely do you think it is that each of the following symptoms would be caused by aging?

	<b>Not likely <u>at all</u></b>	<b>Somewhat <u>Likely</u></b>	<b>Very <u>Likely</u></b>
a. Tiredness .....	1	2	3
b. Stuffy nose/congestion .....	1	2	3
c. Lack of energy .....	1	2	3
d. Weakness .....	1	2	3
e. Coughing .....	1	2	3
f. Forgetfulness .....	1	2	3
g. Sleeplessness .....	1	2	3

25. How much do the people who are closest to you want you to . . .

	<u>None</u>	<u>A Little</u>	<u>Some</u>	<u>Very Much</u>
a. Stop smoking completely? . . . . .	1	2	3	4
b. Cut down to smoking half as many cigarettes? . . . . .	1	2	3	4

26. How much determination do you have to . . .

	<u>None</u>	<u>A Little</u>	<u>Some</u>	<u>Very Much</u>
a. Stop smoking completely? . . . . .	1	2	3	4
b. Cut down to smoking half as many cigarettes? . . . . .	1	2	3	4

27a. Are you seriously considering stopping smoking within the next 6 months?

- Yes . . . . . 1
- No . . . . . 2 (SKIP to Q. 28)

**If Yes**

b. Are you seriously considering stopping smoking within the next month?

- Yes . . . . . 1
- No . . . . . 2

28. Are you seriously considering cutting down to smoking half as many cigarettes within the next 6 months?

- Yes . . . . . 1
- No . . . . . 2

35a. What is your current employment status?

- Employed full time ..... 1
- Employed part time ..... 2
- Not employed ..... 3

**If not employed**

b. Are you retired?

- Yes ..... 1
- No ..... 2

36. What is your racial background?

- Asian/Pacific Islander ..... 1
- Black/Negro/African-American ..... 2
- Hispanic (Mex-American, Puerto Rican, Latin) ..... 3
- White/Caucasian ..... 4
- Other ..... 5

(Please Specify) \_\_\_\_\_

**THANK YOU VERY MUCH FOR YOUR COOPERATION**

**UIC** The University of Illinois  
at Chicago

Community Health Sciences (M C 923)  
School of Public Health  
2035 West Taylor Street  
Chicago, Illinois 60612-7259  
(312) 996-8866 Fax: (312) 996-3551


October 2, 1997

Joel Wetzel  
1926 R.W. Berends Dr SW  
Apt. #11  
Wyoming, MI 49509

Dear Mr. Wetzel:

Enclosed is a copy of the questionnaire that was used for the study of patients' perceptions about their provider's role in smoking cessation, per your request. As I mentioned in my e-mail note, you may use the instrument in your research as you deem fitting, with appropriate citation. I wish you well with your research.

Sincerely yours,

  
Frederick J. Kriz, Ph.D.  
Professor



1 CAMPUS DRIVE • ALLENDALE MICHIGAN 49401-9403 • 616/895-6611

January 7, 1998

Chris VanRyn and Joel Wetzel  
1926 R.W. Berends Dr. SW Apt. #11  
Wyoming, MI 49509

Dear Chris and Joel:

Your proposed project entitled "*Patients' Perceptions of Their Physician's Role in Smoking Cessation*" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

  
Paul Huizenga, Chair  
Human Research Review Committee

12-3-97

To whom it may concern:

I, MATT Thompson, being a representative of the Pennock Hospital System with affiliations at Wayland, Nashville, Clarksville, and Gun Lake Family Medicine Clinics, agree to participate in the research project conducted by Joel Wetzel and Chris Van Ryn. The project, "Patients' Perceptions of their Physician's Role in Smoking Cessation." will be conducted at the above sites consisting of a survey to be filled out by voluntary patients.

x 

Please send fax to: (616) 895-3350.