Smoking Cessation Knowledge and Clinical Cessation Techniques Among Medicine Residents

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A. Purpose

To study the knowledge and confidence level of smoking cessation techniques among medicine residents, and to correlate this information with clinical behavior in the AIM clinic.

Smoking-related disease is the leading cause of preventable death among adults today. With this in mind, much attention should be made to clinicians' effectiveness at motivating patients to quit smoking. Patients are more likely to quit smoking when given assistance from their physician than when they are attempting to quit on their own. Also, with the advent of nicotine replacement therapy, buproprion, and multi-disciplinary smoking cessation clinics, even higher quit rates have been achieved in randomized controlled trials. Often these techniques require a physician's intervention in order to be employed effectively. The purpose of this study is to assess the knowledge of these smoking cessation methods among medicine residents using a questionnaire, and then to study whether the residents' knowledge correlates in any way to their practices at the AIM clinic.

B. Study Design and Statistical Analysis

This is an observational study consisting of a questionnaire directed to the 135 categorical medicine residents. Residents will not be randomized and there is no "treatment" or intervention group. Power analysis anticipating 90% questionnaire return rate would be sensitive enough to detect correlation of greater than $r=0.25$. The statistical analysis that would be used is a correlation coefficient.

C. Study Procedure

A three page written questionnaire would be administered to the 135 categorical medicine residents at the beginning of noon conference on the first day of the month x 4 months, in order to increase the return rate amongst the residents. A consent for the study would be included with the questionnaire, and by returning the questionnaire, the residents would imply their consent for the study. The questionnaire would be completely anonymous. Residents would be asked to complete the questionnaire only once. A chart review would then take place analyzing the clinic population of the residents that have completed year 1, 2 or 3. Data would only be collected on patients that have been to the AIM clinic with the same provider on at least two separate occasions. Data would be collected on a variety of variables related to the patients' smoking status:

1) Percentage of smokers in the resident's clinic population
2) The presence of the documentation of "active smoking" in the patient's problem list
3) Percentage of patients that use cigarettes that are given referrals to smoking cessation clinic
4) Percentage of patients that use cigarettes that are given prescriptions for nicotine replacement therapy (gum, patch, lozenge, nasal spray, or inhaler)
5) Percentage of patients that use cigarettes that are given prescriptions for Zyban/buproprion
6) Percentage of patients that successfully quit smoking (greater than 7 days)
7) Gender of the patient

8)   Age of the patient
9)   Other comorbidities: CAD, COPD, Lung Cancer, Diabetes, HTN
10)   Presence of greater than 5 medications
11)   Number of visits to clinic

This data would be analyzed according to correlation coefficients.   The primary outcome is whether the resident's knowledge regarding smoking cessation is positively correlated with the clinical behavior of smoking cessation practices in the AIM clinic, such as being given a prescription for pharmacotherapy or a referral to the smoking cessation clinic.

Residents' participation time would be limited to the time necessary to complete the questionnaire, approximately fifteen minutes.

The duration of the study is four months for questionnaire completion and eight months for chart review, for a total of twelve months.

D. Study Drugs

Not applicable.

E. Medical Devices

Not applicable.

F. Study Questionnaires

See attached questionnaire

G. Study Subjects

All categorical medicine residents would be eligible for the study. Preliminary residents and medicine/psychiatry residents would be excluded from the study, as the study is intended for residents who plan to have a long-term doctor/physician relationship with the AIM patients.

All AIM clinic patients who had attended clinic at least twice with the same provider would be eligible for the study.

H. Recruitment of Subjects

Residents would be sent an e-mail describing the study prior to the commencement of data collection. They would then be approached at noon conference with the questionnaire.

I. Confidentiality of Study Data

The questionnaires would be stored in a secure location accessible only to investigators. The patient information via chart review would be a limited data set, and de-identified in regards to most data except for age and gender, thus not requiring the consent of the AIM clinic patients.

J. Potential Conflict of Interest

None

K. Location of the study

Questionnaires would be administered during noon conference in the first floor of the Milstein Building, Clark Conference Room.

L. Potential Risks

Risks to the medical residents would be minimal, only to the minimal time necessary to complete the survey and the possibility that their answers to the questionnaire would be observed by another resident during the process of questionnaire completion, thus interfering with confidentiality.

So long as confidentiality is maintained during chart review, there would be no potential risks to the AIM clinic patients.

M. Potential Benefits

It is anticipated that this study will provide useful information as to several potential areas of intervention which could be used to improve smoking cessation rates:
1) How knowledgeable are the medicine residents currently about smoking cessation and the clinical techniques that are available today?
2) Does increased knowledge about smoking cessation really impact the resident's clinical behavior in the AIM clinic? If so, then is there an intervention that could be provided that would provide more education about smoking cessation to those residents who need additional clinical knowledge? If not, then what are the barriers to addressing smoking cessation in the AIM clinic?
3) Patients will ultimately benefit if the study is able to identify possible areas of intervention to assist physicians in providing more effective smoking cessation treatment.

N. Alternative Therapies

Not applicable

O. Compensation

There will be no compensation offered to the residents for participation in this study.

P. Costs to subjects

There will be no costs to the subjects participating in the study.

Q. Minors

Minor subjects will not be participating in the study.

R. Radiation

Not applicable.

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Columbia – Presbyterian Medical Center
Medical Resident Survey
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Section 1: Demographics

1. Current year of residency: PGY_____
2. Age _____
3. Gender   M   F
4. Race/Ethnicity: (circle all that apply)
    African-American/Black
    Asian-American/Pacific Islander
    Caucasian/White
    Hispanic
    Native American/Alaskan Native
    Other _____

Section 2: Tobacco Use History and Current Behavior

5. Have you smoked at least 100 cigarettes in your entire life?
    _____Yes
    _____No (SKIP to SECTION 3)
    _____Not Sure

6. How many days do you smoke even 1 cigarette?
    _____Every day
    _____Some days
    _____Not at all (SKIP to SECTION 3)

7. In the last year, have you ever tried to stop using tobacco products for at least 1 day?
    _____Yes   _____No

8. Approximately how many times in your life have you tried to stop smoking?
    _____times

9. Which of the following statements best describes your current intentions with regard to using tobacco
    products: (choose only one)
    _____I will continue to use tobacco for now
    _____I want to quit using tobacco, but am not ready to try now
    _____I am seriously considering stopping tobacco use within the next 6 months
    _____I am planning to stop using tobacco within the next 30 days

Section 3: Knowledge and Attitudes

Please state whether each statement is True (T) or False (F) by circling the correct response.

10	A patient's chances of quitting smoking are doubled if a health professional advises him/her to quit.	T	F
11.	Nicotine replacement therapies are contraindicated for people with cardiovascular disease.	T	F
12.	Smokers who quit smoking at any age reduce their risk of premature death.	T	F
13.	Nicotine is as addictive as other drugs such as heroin or cocaine.	T	F
14.	More than 2/3 of current smokers began smoking at <18 years of age.	T	F

15. How well prepared do you believe you are today in counseling your patients to quit smoking? (circle one)

Not at all prepared   Somewhat prepared   Adequately prepared   Very well prepared

For questions 16-19, please circle the one best response.

16. What is the percentage closest to the percent of the US adult population (18+) who smokes?
15%   25%   35%   50%

17. What is the overall percentage of smokers in the United States who report they want to quit smoking completely?
<40%   40-60%   60-80%   80-100%

18. Approximately how many people per year who try to quit on their own (without any assistance from a physician or OTC nicotine replacement therapy) are expected to successfully quit smoking?
5%   10%   15%   20%

19.   With brief counseling by a physician and use of pharmacotherapies (nicotine replacement or buproprion), approximately how many people are expected to quit smoking?
5%   10%   15%   20%

Please check the appropriate box to designate whether you think cigarette smoking is a risk factor for any of the following health conditions:

	Greatly increases risk	Slightly increases risk	Does not affect risk	Do Not Know
20. Asthma				
21. Bladder Ca				
22. Bone Ca				
23. COPD				
24. Colon Ca				
25. Lung Ca				
26. Oral Ca				
27. Erectile Dysfunction				
28. Peripheral Vascular Disease				
29. Testicular Cancer				

Please check the appropriate box for whether you believe that **second-hand smoke** greatly increases the risk, slightly increases risk or does not affect a non-smoker's risk for the following health conditions:

	Greatly increases risk	Slightly increases risk	Does not affect risk	Do not know
30. Arthritis				
31. Asthma				
32. CAD				
33. COPD				
34. Lung Ca				
35. SIDS – sudden infant death syndrome				

How effective is the approximate quit rate (% of patients who quit per year) of the following interventions in helping smokers quit: (Circle the "quit rate" for each method)

36. "Cold-turkey"
       5%   10%   15%   20%   30%

37. Counseling alone
       5%   10%   15%   20%   30%

38. Nicotine replacement therapy (patch, gum, inhaler, nasal spray, lozenge)
       5%   10%   15%   20%   30%

39. Buproprion alone
       5%   10%   15%   20%   30%

40. Buproprion + Nicotine replacement therapy
       5%   10%   15%   20%   30%

41. Prozac/Fluoxetine
       5%   10%   15%   20%   30%

42. Hypnosis
    5%   10%   15%   20%   30%

43. Please write out the two doses of nicotine gum: _____   _____

44. What is the maximum length of time that Medicaid will reimburse for Zyban/buproprion? _____ months

45. The most common side effect of the nicotine replacement patch is:
    _____heart palpitations
    _____nightmares
    _____local skin irritation
    _____nausea and vomiting

46. If someone gives up smoking completely, how long do you think it will take for their risk of developing CAD to return to baseline?   _____

47. If someone gives up smoking completely, how long do you think it will take for their risk of developing lung cancer to return to baseline?   _____

48. What is the average number of quit attempts in a smoker's life before they quit for good? _____

49. What is the added percentage survival benefit to quitting cigarettes in a currently smoking patient with lung cancer? _____

50. What pharmacological therapy do you feel most comfortable in prescribing:
    _____Patch
    _____Gum
    _____Inhaler
    _____Nasal Spray
    _____Lozenge
    _____Zyban/buproprion

Thank you for taking the time to complete this survey!