Medical University of South Carolina

MEDICA

1982

The Relationship between Socioeconomic Factors, Attitudes, and the Frequency of Pap Smears of Female Patients in a Rural Health Care Center

Kathy Ann Barnes
Medical University of South Carolina

Follow this and additional works at: https://medica-musc.researchcommons.org/theses

THE RELATIONSHIP BETWEEN SOCIOECONOMIC FACTORS, ATTITUDES,

AND THE FREQUENCY OF PAP SMEARS OF FEMALE PATIENTS IN A

RURAL HEALTH CARE CENTER

by

Kathy Ann Barnes

A research project submitted to the faculty of
the Medical University of South Carolina in partial
fulfillment of the requirements for the degree of
Master in Health Sciences in the College of Allied
Health Sciences.

Masters in Health Sciences Program

1982

Approved by:

_____
Chairman, Advisory Committee

_____

_____

KATHY ANN BARNES. The Relationship Between Socioeconomic Factors, Attitudes, and the Frequency of PAP Smears of Female Patients in a Rural Health Care Center. (Under the direction of KEN BUHMEYER)

Fifty-seven women over the age of 16, seeking care at a rural health center, completed questionnaires concerning demographic factors and health beliefs and attitudes. Correlation coefficients and Z scores were computed for the variables. There was significant positive correlation in both demographic and health belief and attitude areas. Discussed also are factors possibly contributing to the test results, as well as alternative research models.

TABLE OF CONTENTS

Chapter

Chapter 1

Introduction

In recent years there have been differing opinions regarding the efficacy of annual complete physical examinations (including laboratory and X-Ray studies) in changing the outcome of many diseases. Selective screening has been offered as an alternative. Selective screening implies that a longitudinal or lifetime screening plan has been developed, and that the plan is individualized to particular patients according to their age, sex, risk factors, and ongoing medical problems (Frame 1979).

Palmetto Health Care, a family practice group located in the rural community of Pacolet, South Carolina, has devised a data base for its patients, incorporating some of these characteristics. One item included in the data base for the adult female patient is an annual PAP smear. In order to emphasize the importance of this exam, yearly reminders are sent to women who received the exam the year before. In the course of a 12 month period, 294 notices were sent. Only 43 (14.6%) of the total responded by having an annual PAP smear.

The purpose of this study was to ascertain how health beliefs and attitudes are affected by exogenous variables such as salary, age, educational level and ethnicity; and how all of these variables affect a woman in that community needing yearly PAP smears.

Problem

Did the independent variables of family income, age, educational level, and ethnicity affect the exogenous variables of perceived health status and the health belief variables? Did any of those variables affect the women in that community's perception of needing an annual PAP smear?

Assumptions

1. The sampling of the female population who visited Palmetto Health Care during a 2 week period was representative of the population of the community as a whole.

2. The women who completed the questionnaire understood the questions and responded truthfully.

Limitations

This study was limited to:

1. Females who were seeking care at Palmetto Health Care, Pacolet, South Carolina.

2. Females over the age of 16

3. Information from the women in response to the questionnaire.

4. Patients over a 2 week period, representing a non-random sampling of the population.

Definition of Terms

PAP Smear- an exfoliative cytological procedure for the
detection and diagnosis of malignant and premalignant conditions of
the cervix. Cells have been scraped from the genital epithelium,
fixed and stained, and examined under the microscope for evidence
of pathological changes.

Cervix- the neck of the uterus, the organ in females in which
the fertilized egg becomes embedded and in which the fetus developes.

Squamous cell carcinoma- irreversable malignant lesion that
has penetrated the underlying tissue of the squamous epithelium.

Carcinoma in situ- neoplastic entity where the tumor cells
still lie within the epithelium of origin, without invasion of the
basement membrane.

Neoplasia- the progressive multiplication of cells under
conditions that would not elicit, or would cause cessation of,
multiplication of normal cells.

Epithelium- covering of internal and external surfaces of the
body. It consists of cells joined by small amounts of cementing sub-
stances.

Carcinoma- malignant new growth made up of epithelial cells
tending to infiltrate the surrounding tissues and give rise to
metastases.

Review of Literature

That all women should have a PAP smear every year is an idea ingrained in the public consciousness. The PAP smear, which is aimed at detecting cervical cancer in its early curable stages, has been heavily promoted, especially by the American Cancer Society, as a safe and effective way to save lives. American women clearly have accepted that view. In 1974, more than 56 million women over the age of 17 had PAP smears, according to data compiled by the National Center for Health Statistics. About 35 million had waited 1 year or less since their previous test, with another 13.5 million having waited 1 to 2 years (Marx 1979).

Although these statistics seem to uphold the feeling that the PAP smear is beyond reproach, it turns out that this is not the case. Many authorities disagree over its effectiveness and the frequency with which it should be repeated. Foltz and Kelsey point out that cervical cancer is not a major cause of death among women in the Western countries. It is only eighth on the list of cancers causing the most deaths in U.S. women, trailing behind the leaders: cancers of the breast, colon and rectum, and lung (Marx 1979).

These studies that were done looking at the cost-effectiveness of the procedure have brought about a re-evaluation of who should receive PAP smears and how often. Now, instead of recommending "annual" PAP smears, the American Cancer Society advises "regular" exams, with the decision as to what constitutes "regular" left to the

woman and her physician.

The decision of the American Cancer Society to recommend less frequent than annual PAP smears was upheld by the report of a task force commissioned by the Canadian government to evaluate the use of screening for cervical cancer and make recommendations on how to best implement a screening program. The report, entitled the "Walton Report", concluded that the development of invasive cervical cancer is slower than previously thought.

They found that the progression from the early stages, in which the cancer cells are localized to the outer layer of cells lining the uterine cervix, to the late stage, in which the cancer cells have invaded the underlying, muscular layers of the uterus, takes up to 35 years (Marx 1979). Since spread to other tissues is not likely before the invasive stage is reached, the Canadian Task Force concluded that annual exams to detect this slowly developing condition were not necessary for low risk women.

In July 1980, a Consensus Development Conference on cervical screening by PAP smear was held at the National Institutes of Health. The purpose of this conference was to examine the scientific basis for screening for cervical cancer and to make recommendations for the medical community and the public on the use of the PAP smear as a screening tool. This group found that there was evidence to suggest that there is a falling incidence of invasive squamous cell carcinoma and a decreasing mortality from cervical carcinoma. At the same time, they found that carcinoma in situ is being detected with increased

screening for cervical carcinoma and is probably related to early histological diagnosis of cervical neoplasia in verification of the results of cytologic screening (NIH Summary 1981).

The panel felt that the PAP smear should be used as a routine screening procedure for detecting cervical cancer. The following criteria were outlined for screening asymptomatic women:

- Virgins need not be screened for cervical cancer.
- All women who have had sexual intercourse should be screened for cervical cancer.
- Screening should be initiated soon after the beginning of sexual activity.
- If the first and second smears are satisfactory and negative, rescreening of a majority of healthy women should be repeated at regular intervals of one to three years (NIH Summary 1981).

There was no agreement on how frequently these examinations should be repeated for healthy women of different ages. For healthy women with different assessed risks of cervical cancer, it was not believed that the level of risk would determine the frequency of screening. The factors determining high risk are (1) first intercourse before 18 years of age (2) a variety of sexual partners, and (3) low socioeconomic status. The factor determining low risk is life-long abstinence from sexual intercourse.

The last of the recommendations from the National Institutes of Health concerning screening for cervical cancer were outlined as follows:

- If two negative PAP smears are obtained after a woman reaches the age of 60, further screening for the detection of cervical cancer appears to be unrewarding.
- A woman whose PAP smear reveals significant epithelial abnormality should be referred for diagnostic evaluation.

- Unscreened women at risk should be recruited into screening programs. Recruitment could be aimed at all points of contact with medical care.
- A randomized clinical trial to determine optimal screening intervals is not recommended (NIH Summary 1981).

Once the significance of a medical procedure has been established, health care providers and researchers begin looking at the types of people who seek out the care and the factors that motivate their behavior. During the past 10 to 15 years, a number of conceptual models have been proposed to attempt an explanation of individual health-related behaviors. The model which has received the most direct attention and study is the "Health Belief Model"(HBM). A literature review in 1974 summarized the empirical support available for the HBM from studies of preventive health, illness, and sick role behaviors.

Marshall Becker, one of the foremost spokesmen for the use of the Health Belief Model in the area of compliance behavior, observed that the studies showed that "noncompliance is commonly found among patients of all demographic, personality, and social types" (Counte 1981). Therefore, he contends that there is no predictable "noncomplier" in the general population. Becker, instead, suggested that health beliefs and enabling factors underlie patterns of compliance.

Elements of the Health Belief Model that are used to study compliance include some elements from the original model as well as some new ones (Counte 1981). The first element in this group is health motivations and concerns which pertain to the perceived

importance of health in relation to an individual's other interests and goals. A second element is the perceived threat of the illness which includes the perceptions of general vulnerability to illness and the seriousness of an illness based on the estimates of its potential organic and social impacts. The third belief or attitude concerned is the perceived likelihood that participation in the treatment will reduce the threat of the problem. This includes the attitude that the person can exert control over what happens to him. These three elements (health motivation, threat of illness, and evaluation of treatment) are considered to be the primary reasons identified for people who do or do not comply with health recommendations.

The second group of factors known as enabling factors exists in five different types. One, demographic factors, such as age or educational level, may be influential. Two, structural attributes of the treatment plan, such as its cost and duration, may serve as moderators. Three, patient satisfaction, also influences compliance. Four, characteristics of patient/clinician interaction may help to shape the effects of the health beliefs on compliance behavior. Five, relevant prior experiences and social influences, may influence behavior.

Becker and his colleagues have proposed that even if a person's health beliefs were supportive of complying with the request of a health professional, the modifying and enabling factors could either enhance or suppress the ultimate effects of those health beliefs on

a person's compliance behavior (Counte 1981).

In 1977, the University of Michigan Health Services Research Center combined the demographic factors and the Health Belief Model variables (i.e. perceived susceptibility to disease, perceived severity of disease, and perceived efficacy of preventive physician visits) to study their effect on the use of physician visits for preventive care (Rundall 1979). The findings revealed that in general, females, whites, and the well educated are more likely to use preventive health care than males, nonwhites, and those with less education. Although the picture with regard to the role of age is less clear; it appears that from middle adulthood, physician visits for preventive care increases with age.

This study also hypothesized that higher educational levels were associated with high family income, the perception of good health, and heightened perceptions of susceptibility to illness, severity of illness, and efficacy of preventive care. In taking a closer look at the impact family income has on seeking preventive care, the researchers found that there were barriers present that tended to funnel the poor into a health care system that did not encourage preventive care.

In the process of determining the total effect of income, Rundall and Wheeler discovered that the strongest indirect effect of income on preventive use observed in the Model was through perceived health status. Low income individuals tend to perceive themselves to be in relatively poor health. Poor health is associated positively with preventive visits. This result also supports the findings that

the poor have a greater need for care than the nonpoor.

In seeking to find areas of correlation between demographic factors and health belief attitudes, researchers have also sought means to alter these attitudes. It has been found that attitudes consist of cognitive, evaluative, and behavioral components.

Cognitive consistency researchers propose that "the attitude change process is one of rationalization, and that people are motivated to be and appear consistent" (Counte 1981). When people are experiencing inconsistency, they will alter their environment in such a way as to achieve consistency. In this process of preventing or eliminating inconsistency, the person forms and changes attitudes.

In following this approach, the question is asked "How can a state of dissonance be created so that a person is amenable to altering his attitude?" There are four major ways to prompt such action. First, inconsistent cognitions may be aroused. Such an inconsistency may be reflected when a person uses the word "but" rather than "and" to describe the relationship between an attitude and a behavior. A second form of inconsistency develops when a person engages in a form of behavior that violates social norms. The third form is when a person experiences an event that conflicts with his or her past experience. Fourth, inconsistency may occur when a specific obser- vation conflicts with expectations based on a general rule. Therefore, the basis for this theory states that when inconsistency arises, the person feels uncomfortable, and the stage is set for attitudinal change.

The major problem that arises with this approach is that it

is difficult to construct such dissonance-arousing situations in a natural setting. Also, attitudes are important ingredients of a person's life-style, and people change life-style patterns slowly, if at all.

Although the consistency strategies emphasize cognitive structures and processes, the functional type of approach is more of a psychoanalytic or psychodynamic explanation of attitude change (Counte 1981). The basic idea underlying this type of approach is that every attitude a person possesses serves a purpose. Only when the individual feels that this usefulness has ended, or that a change may be more useful, will the attitude be likely to change.

There are four types of functions that attitudes may provide (Counte 1981). They may serve an adjustive function in order to help people achieve a desired goal. Secondly, attitudes may function as an ego-defense. This type attitude helps people protect themselves from unpleasant truths about themselves. Thirdly, certain attitudes fulfill a knowledge function and help people understand their environment and react to events. Fourthly, attitudes may serve a value-expressive function.

Thus, in the functional approach to understanding attitude change, modification occurs whenever current attitudes are no longer "doing the job" because of new information, new needs, or new contingencies in a person's behavioral environment (Counte 1981). Although little research has been done in this area, it still offers interesting insights into attitude change.

Counte stated, "As McGuire has observed, a given attitude may be based on factors that have very little to do with the object toward which it is expressed " (1981). A person's fear of some phenomenon, such as a chronic disorder like cancer, may have more to do with certain self-based beliefs and attitudes than with the realities of the disease and its treatment.

With attitudes and beliefs so deeply seated in a person's psychological make-up, health practitioners can only hope to play the role of a stimulus that may result in some small change in attitude. Regardless of the ability of behavioral scientists and health care professionals to modify attitudes and beliefs, it must be acknowledged that "any optimism or pessimism about our chances of changing life styles must be weighed against the relative strengths of the force at work (Counte 1981). There are a variety of social and economic considerations, not within the control of the change agents, that complicate attempts to alter health beliefs of the general population.

This study investigated the effects of salary, age, educational level, and ethnicity on these health beliefs and attitudes of female patients needing PAP smears in a rural community.

Chapter 2

Methods and Procedures

Methodology

The purpose of this study was to compare the effect of salary, age, educational level, and ethnicity on health beliefs and attitudes. These correlations were done on the basis of replies to a questionnaire by the female patients over the age of 16 surveyed at Palmetto Health Care, Pacolet, South Carolina.

Design

This study was a nonexperimental analytic study. The purpose of an analytic study is to find associations or relationships between variables. This study attempted to show a relationship between salary, age, educational level, ethnicity and health beliefs and attitudes.

Subjects

The population surveyed was females over the age of 16. All women meeting the age requirement were asked to complete a one page questionnaire (See Appendix A). The nonrandom sampling was done during a 2 week period.

Variables

The independent variables were age, salary, educational level, and ethnicity. The dependent variables were health beliefs and attitudes.

Procedure

The data for the research were collected by the use of a 10 item questionnaire (See Appendix B). The questionnaire was given to female patients over the age of 16 who were seen at Palmetto Health Care during a 2 week period. They were asked to fill out the questionnaire while they were at the Center and return it to the reception desk before they left.

The questionnaire was divided into 2 parts. Part 1 included questions concerning demographic data pertaining to the subject. Part 2 was concerned with health attitudes and beliefs outlined in the Health Belief Model. Questions applying to this area were answered on a scale of 1 to 9.

Measures of central tendancy and standard deviations for each question were computed and displayed in a table. These results were used to calculate a correlation coefficient for each variable. Z scores for the coefficients were computed and tested at the 95% level of significance. These results were displayed in a correlation matrix.

Results

The purpose of this nonexperimental analytic study was to investigate the effects of salary, age, educational level, and ethnicity on health beliefs and attitudes of female patients needing PAP smears in the rural community of Pacolet, South Carolina.

The data for this analysis were collected by means of a 10 item questionnaire. The sample was obtained during a 2 week period of sampling at Palmetto Health Care. A total of 77 questionnaires were distributed. The 57 respondents (74%) analyzed represented that portion of the sample for whom complete data was available. The categories, measures of central tendancy, and standard deviations for the variables are shown in Table 1.

Perceived susceptibility to cervical cancer, variable (X_7), reflected the respondent's answer to the question: How would you rate your chances of getting cervical cancer, using a scale of 1 to 9, where "1" means you don't think you would get it and a "9" means you think you have a good chance of getting cervical cancer.

Similarly, variable (X_8), severity of cervical cancer, reflected the answer to the question: How serious a disease do you think cervical cancer is? Use the scale of 1 to 9, "1" being not serious and "9" being very serious.

Table 1

CATEGORIES, MEASURES OF CENTRAL TENDANCY, AND STANDARD

DEVIATIONS OF THE VARIABLES OF DEMOGRAPHIC FACTORS AND

HEALTH BELIEFS AND ATTITUDES

Variable/Categories	Measure of Central Tendancy	SD
Age (X_1)	42	15.4
Education (X_2)	11	3.3
Race (X_3)	1	0.3
0 = nonwhite		
1 = white		
Family income (X_4)	3	1.2
1 = less than $5,000		
2 = $5,000 - $10,000		
3 = $10,000 - $20,000		
4 = $20,000 - $30,000		
5 = $30,000 - $40,000		
6 = $40,000 and over		
Last PAP smear (X_5)	2	1.2
1 = less than 1 year ago		
2 = 1-2 years		
3 = 2-3 years		
4 = 3-4 years		
5 = 4-5 years		
6 = more than 5 years ago		
7 = never		

Table 1
(con't)

Variables/Categories	Measure of Central Tendancy	SD
Perceived health status (X_6)	3	1.8
1 = excellent 9 = very poor		
Perceived susceptibility to cervical cancer (X_7)	3	2.1
1 = don't think would get cervical cancer 9 = good chance would get cervical cancer		
Perceived severity of cervical cancer (X_8)	8	1.3
1 = not very serious 9 = very serious		
Perceived efficacy of PAP smear (X_9)	8	1.8
1 = not effective 9 = very effective		

Finally, the efficacy of the PAP smear, variable (X_9), was measured in response to the question: How effective do you think PAP smears are in helping to prevent cervical cancer? Use the scale of 1 to 9, "1" being not effective and "9" being very effective.

The range of age of the sample was from 19 to 81 with an average age of 42. The sample population was 88% white with an average of an 11th grade education and a yearly income of between $10,000 and $20,000. The average female in the population had a PAP smear taken between 1 and 2 years ago.

The correlation matrix with Z scores for the variables is shown in Table 2. Race (.2098) and income (.1277) had the strongest correlation with having current PAP smears. The Z scores for these variables, (1.5914 and .9549, respectively) also showed that the correlations were significant when tested at the 95% confidence level. Although education level had a low correlation of .0854, the Z score of .6359 showed that it was significant enough to have an effect on the population.

Perceived health status was rated at "good" with an average value of 3. Age showed a positive correlation of .5344, but was not found to be significant with a Z score of 4.6884.

When looking at the population's perceived susceptibility to cervical cancer, 3 of the demographic variables had low correlation coefficients: age (.0511), education (.0922), and race (.0974). Although the correlations were low, these were found to be significant with Z scores of .3796, .6866, and .7259, respectively.

In looking at the relationship among the perceived severity of cervical cancer and influencing variables, the strongest correlation that was found to be significant was with educational level. The correlation coefficient was .1420 with a Z score of 1.0640. Perceived health status was also found to effect perceived severity of cervical cancer yielding a positive correlation of .0837 and a significant Z score of .6230.

Education was again an influencing factor when looking at the perceived effectiveness of PAP smears as a tool in helping to prevent cervical cancer. The correlation was .1517 with a significant Z score of 1.1385.

Table 2

CORRELATION MATRIX AND (Z VALUES) FOR VARIABLES OF DEMOGRAPHIC FACTORS AND HEALTH BELIEFS AND ATTITUDES

Variable

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
Age (X_1)	-	-.5776 (-5.2475)	.0517 (.3841)*	-.5615 (-5.0327)	-.0177 (-.1315)	.5344 (4.6884)	.0511 (.3796)*	-.1379 (-1.0323)	-.1598 (-1.2006)
Education (X_2)		-	.2537 (1.9453)	.4310 (3.5425)	.0854 (.6359)*	-.3575 (-2.8386)	.0922 (.6866)*	.1420 (1.0640)*	.1517 (1.1385)*
Ethnicity (X_3)			-	.2248 (1.7106)*	.2098 (1.5914)*	-.0558 (-.4147)	.0974 (.7259)*	-.0349 (-.4079)	-.0616 (-.4575)
Family income (X_4)				-	.1277 (.9549)*	-.4360 (-3.5929)	-.0498 (-.3695)	.0003 (.0254)*	.0002 (.0011)*
Last PAP Smear (X_5)					-	-.2072 (-.2019)	.0326 (.2416)*	.0979 (.7295)*	-.0125 (-.4651)
Perceived health status (X_6)						-	.3113 (2.4294)	.0837 (.6230)*	-.0125 (-.0927)
Perceived susceptibility to cervical cancer (X_7)							-	-.0376 (-.2793)	-.2174 (-1.6519)
Perceived severity of cervical cancer (X_8)								-	.4583 (3.8241)
Perceived efficacy of PAP smear (X_9)									

* Significant at the .05 level

Chapter 4

Summary

Discussion

The nonexperimental analytic design was used to ascertain the effect of salary, age, educational level, and ethnicity on health beliefs and attitudes; and in turn, how all of these factors affect a woman needing a PAP smear. The results obtained by this study were very similar to those of the University of Michigan Health Services Research Center in their 1977 study of factors affecting preventive care visits.

Both studies indicated that demographic factors do affect a person's motivations and behaviors concerning health care. The studies showed that in general, whites with higher income are more likely to use preventive care, including as a part of that care, a PAP smear. The role of education in the Pacolet community seemed to be indirectly related to having routine PAP smears. Even though, it had a low correlation with having yearly PAP smears, education proved to have a high positive correlation with income, which correlated positively with having this routine exam. The effect of age was less clearly defined. Although previous studies have shown that from middle age preventive care visits increase with age, this study did not indicate that increased age brought an lincrease in women seeking PAP smears.

Age did play a large role in the population's perceived health status. As one would believe, the older the patient, the poorer the perceived health status. In direct relation, as the perceived health status decreased, the perceived susceptibility to cervical cancer increased. A perceived susceptibility to cervical cancer did not bring with it a perceived severity to the disease. An increased level of education had the greatest influence on believing cervical cancer to be severe. In direct relation to those findings, perceived efficacy of PAP smears was affected in the most part by education and perceived severity.

Although this study did have areas of positive correlation similar to other studies related to health beliefs and preventive care, the study was done on a small section of the 17,000 people in the service area. The size of the population that answered the questionnaire completely was a limitation to this study.

Implications

Palmetto Health Care along with other similar rural practices could use this study as an evaluation tool for the direction of patient education programs involving PAP smears. In knowing what age groups and education levels to target, the programs can become more effective. A target population is also important in the planning of special screening clinics that would be a part of the total patient education program.

In trying to reach a patient population, clinician/patient inter-action that helps shape the effects of health beliefs on compliance

behavior should not be minimized. The practitioner has a very direct effect on how a patient perceives his health care. Utilizing information such as this study provides, the clinician may be able to improve the effectiveness of his communications with patients.

Although the PAP smear is a very important part of the data base for a female patient, there are other areas of noncompliance that plague health care systems. By utilizing this type of correlation study as a model, these problem areas might be more thoroughly investigated, bringing greater insight into the effect of health beliefs on other compliance problems.

Recommendations

The study should be replicated using a much larger, randomly selected population. The population would be more representative of the rural community if the questionnaire could be mailed out as well as given out to patients who are seeking care. If the portion of the population that was not routinely seeking care was included, the results would have increased validity and give increased insight into the effect of health beliefs.

In order to gain information on the type of patient visits (acute care/health maintenance), it would be useful to include a question in the questionnaire on why the patient was at the Health Center. This might be a possible area of comparison in order to ascertain if patients consider PAP smears as a part of their preventive care.

Another interesting comparison to be made by repeating this study would be to run parallel studies at the Cowpens and Boiling Springs offices of Palmetto Health Care. This would enable a comparison among the communities in the areas of demographic information and health belief attitudes. It is often easy to judge populations as being "rural", but it could be that these communities would have very significant differences that are not readily observable; but which would greatly effect their attitudes toward the health care system.

Appendix A

In order to assure the right to privacy

and anonymity, any individual who completes

this questionnaire will not be identified

by name or number. The results of the

survey will be displayed as group data,

and no individual results will be singled

out in the report.

Your assistance in completing this research

is greatly appreciated.

Kathy Barnes, MT(ASCP)

Health Questionnaire

1. Age _____

2. Number of people in your family _____

3. What grade did you finish? (Circle one)

    1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

4. Race _____

5. How much money does your family make a year? (Check one)

    () 0-$5,000   () $5,000-$10,000   () $10,000-$20,000

    () $20,000-$30,000   () $30,000-$40,000   () over $40,000

6. Approximate date of last PAP smear _____

7. How would you describe your present health? (Circle one)

    1   2   3   4   5   6   7   8   9
    Excellent   Very poor

8. How would you rate your chances of getting cervical cancer? (Circle one)

    1   2   3   4   5   6   7   8   9
    I don't think   I have a good
    I would get   chance of getting
    cervical cancer   cervical cancer

9. How serious a disease do you think cervical cancer is? (Circle one)

    1   2   3   4   5   6   7   8   9
    Not serious   Very serious

10. How effective do you think PAP smears are in helping to prevent cervical

    cancer? (Circle one)

    1   2   3   4   5   6   7   8   9
    Not effective   Very effective

List of References

Andrews, Geoffrey S. and Margaret Davies. "Relfections of a Cytology Screening Service." Tumori 66 (April 30,1980): 159-171.

Annas, George J. "PAP Smears: Physicians Must Disclose Risk of Refusal." Nursing Law Ethics 2 (Jaunary 1981): 3.

Becker, Marshall H., et.al. "Health Belief Model and Prediction of Dietary Compliance: A Field Experiment." Journal of Health and Social Behavior 18 (December 1977): 348-364.

Clarke, E. Aileen and Terence W. Anderson. "Does Screening by 'PAP' Smears Help Prevent Cervical Cancer?" Lancet 2 (July 7, 1979): 1-4.

Counte, Michael A., PhD. and Luther P. Christman, RN,PhD. Interpersonal Behavior and Health Care. Westview Press, Inc., 1981.

Frame, Paul S,. MD. "Periodic Health Screening in a Rural Private Practice." The Journal of Family Practice 9 (July 1979): 57-64.

Gunby, Phil. "Compromise Reached on Suggested Intervals Between PAP Tests." JAMA 244 (September 26, 1980): 1411-1413.

Kane, Robert L., Josephine M. Kasteler, and Robert M. Gray (eds.). The Health Gap- Medical Services and the Poor. Springer Publishing Company, Inc., 1976.

Koss, Leopold G. "The Attack on the Annual 'PAP' Smear." ACTA Cytologica 24 (May-June 1980): 181-183.

Marx, Jean L. "The Annual PAP Smear: An Idea Whose Time Has Gone." Science 205 (July 13, 1979): 177-178.

"NIH Consensus Development Panel Summary, Cervical Cancer Screening: The PAP Smear." South Medical Journal 74 (January 1981); 87-88.

Richart, Richard M., MD. "Current Concepts in Obstetrics and Gynecology: The Patient with an Abnormal PAP Smear- Screening Techniques and Management." The New England Journal of Medicine 302 (February 7, 1980): 332-334.

Rundall, Thomas G. and John C. Wheeler. "The Effect of Income on Use of Preventive Care: An Evaluation of Alternative Explanations." Journal of Health and Social Behavior 20 (December 1970): 397-407.