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COMMUNITY AWARENESS OF SOCIAL CHANGES WHICH AFFECT NUTRITION AND HEALTH BEHAVIORS IN A PREDOMINANTLY AFRO-AMERICAN COMMUNITY

by

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THESIS

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE

in

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of the

UNIVERSITY OF CALIFORNIA

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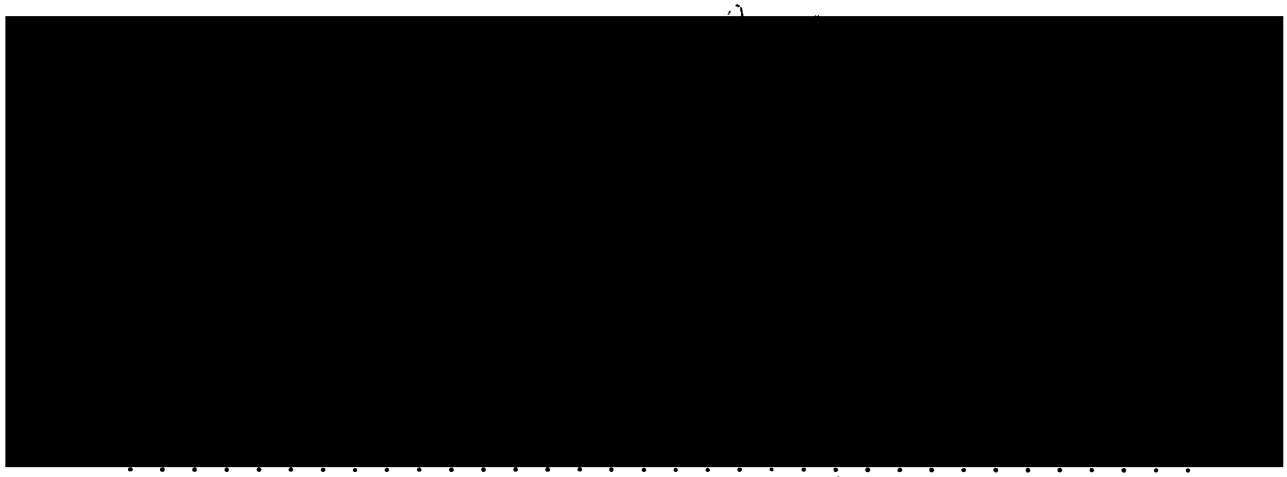

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ABSTRACT

COMMUNITY AWARENESS OF SOCIAL CHANGES WHICH AFFECT NUTRITION AND HEALTH BEHAVIORS IN A PREDOMINANTLY AFRO-AMERICAN COMMUNITY

This descriptive study investigated a community's nutrition-related health practices. The hypothesis of the of the study was: Community residents do not have access to and knowledge of adequate food sources which enable them to maintain and promote good nutrition and health behaviors. Four types of data were collected from 24 respondents: health and data were dietary patterns, urine analyses, weight and blood pressure measurements. Follow-up interviews on three respondents provided some additional information and qualitative data. Health status and seven health behaviors were measured and specific relationships were examined. The findings from this study did not statistically support an association between health status and positive health behaviors, nor any intercorrelations. The clinical significance of the findings are consistent with those of Belloc's (1973) study, which examined the same behaviors: exercise, regular meals, avoidance of alcohol, smoking, stable weight, sleep and stress. Supplemental qualitative data analysis from the three case studies partially supported the hypothesis.

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CHAPTER I

INTRODUCTION

The U.S. Department of Health and Human Services' Public Health Service (1986) established 226 health objectives in 1980, which were designed to improve the nation's health status and reduce mortality and morbidity through health-related behaviors. The objectives were organized into three strategy groups and collectively entitled: The 1990 Health Objectives for the Nation.

Health promotion for population groups is one of the health strategy targets. Nutrition is prioritized as a separate area of concern and focus within the health promotion category. The role of nutrition in health promotion and illness prevention has been a poorly understood and an under-researched subject (Moore, Guenter, & Bender, 1986; U.S. Department of Health and Human Services, 1986). Recent data however, support increasing evidence for the linkage of diet to chronic illness (Gutierrez & May, 1988; U.S. Department of Agriculture, 1986). Since 1972, six of the ten leading causes of death, in the United states, are related to nutrition (coronary heart disease, cardiovascular disease, diabetes, cancer, cerebrovascular disease and cirrhosis of the liver) (U.S. Congress, Senate, 1975).

Several reports and studies at the national and regional levels as well as independent research have

documented a positive relationship between socioeconomic status and race, and increased morbidity (Cassel, 1976; Gottlieb & Green, 1987; Haan, Kaplan & Camacho, 1987; Kaplan, Hann, Syme, Minkler & Winkleby, 1987; Syme & Berkman, 1976). These and other investigations have demonstrated a higher incidence of obesity, diabetes, hypertension, teen pregnancy and drug abuse in all low income minority communities, however the associated morbidity is highest among the Afro-Americans; descendants of American bondage.

The Research Setting

Census Tract 1290 is a predominantly Afro-American community whose 1980 census documented approximately 1800 residents (Marin County Planning Department, 1980). This insular community's county Health and Human Resources Service Department (Public Health) supervises several organized services and providers of primary community resources for the diseases and/or conditions of hypertension, diabetes, obesity, alcoholism, teen-age pregnancy and unemployment (R. Ellison, personal communication, April 8, 1986). Although the available health services are utilized, it is important to note that the recipients of these services voiced their feelings about nutrition and food needs which were not being met.

The community's residents span the full range of age groups--infants to very old age (greater than 75 years old) and have diverse socioeconomic backgrounds. The majority

of the residents are blue collar workers with traditional nuclear family units consisting of the biological parents and their immediate offspring. Single-parent and female heads-of- households units, often multigenerational (i.e. grandmother, daughter and grandchildren) comprise the next largest type of family unit (Marin County Planning Department, 1980). Health care for the Afro-American males under the age of 40 years usually involves emergency services for either work-related accidents or injuries sustained during social disputes. Typical female health care for this age group would be the services from pediatricians, obstetricians, and gynecologists (R. Ellison, personal communication, April 8, 1986).

A small sample of residents who were queried identified that the community's greatest health care need was to have a local grocery and some teaching about good nutrition. Prior to the late 1950's urban renewal, Census Tract 1290 was a racially integrated community with its own retail establishments (grocery stores, post office, etc.). The community has slowly evolved into a racially and economically segregated locality of 2500 residents, 1700 of whom are Afro-Americans, the remainder being the affluent condominia housed Caucasians (Williams, 1986, May). William and Cotter (1984) hypothesized that changes in a community's social activity patterns, especially for the older people, could also affect their social identities

and psychological well-being.

If the residents of Census Tract 1290 continue to feel social disruption, might not their nutrition and health status also be compromised? The nation as a whole continues to increase its sedentary lifestyle and prevalence of obese citizens. Census Tract 1290 residents have previously been documented as a high risk group for obesity and other nutrition-related conditions.

This community is an aggregate of individuals with varying degrees of cultural influences and orientation to health and education. It presents a challenging opportunity for community health care workers who wish to provide culturally appropriate services, and health promotion by teaching sound nutritional practices.

Scope of the Investigation

A pilot survey study was conducted with the residents of Census Tract 1290. The primary goal was to have the subjects identify what nutritional behaviors help them to promote and maintain optimal health. A second goal was to identify the residents' knowledge of, access to, and utilization of currently available resources. Identifying if there is a need for more nutritional education, information, or services for this community was the third goal.

The specific aim of the pilot study was to explore and describe the residents' perceptions of social elements, either physical or psychological that would aid and/or

enhance their beneficial nutritional practices.

Research Questions

In order to investigate this community's health status and needs, several questions were explored: 1) Do the Census Tract 1290 residents have an awareness of community nutritional impairment or change?, 2) What nutrition-related behaviors do the residents perceive as beneficial for optimal health?, 3) What information is needed by the community that would help to improve nutritional and health well-being?, and 4) What social interactions related to nutrition contribute to or distract from its meaningfulness?

Null Hypothesis

Census Tract 1290 residents have access to and knowledge of adequate food sources which enable them to maintain and promote good nutrition and health behaviors.

Definition of Terms

For the purpose of this study, nutrition-related health behaviors are: regular meal patterns without evidence of inadequate or excessive intake, stable weight, avoiding cigarettes and consumption of alcohol, adequate exercise, and adequate periods of rest and sleep. The measure of stable weight used here was body mass index (BMI), the ratio of weight to height squared, as reported for current age and at age 25 years old. The use of this index is preferable because it can provide a measure of

weight (or obesity) controlled for height; unlike some insurance weight scales, it is valid and reliable for all populations at all ages (Albanes, Jones, Micozzi, & Mattson, 1987; Keys, Fidanza, Karvonen, Kimura, & Taylor, 1972).

CHAPTER II

REVIEW OF LITERATURE

Health Behavior

The relationship between physical health and psychological well-being has been examined and documented by several researchers from varied disciplines (nursing, anthropology, public health, and social science). Health behaviors which are viewed as good practices (adequate sleep, physical activity, regularity of meals, stable weight, and avoiding cigarette and alcohol use) are shown to be associated with positive health outcomes (Belloc & Breslow, 1972; Belloc, 1973).

Social Support

The literature abounds with examples of studies that have demonstrated how social support has a positive effect upon individual health. In the presence of adequate social support, morbidity and associated mortality rates decrease as health and well-being increase (Cobb, 1976; Norbeck, 1981). Langlie (1977), and Muhlenkamp and Sayles (1986) reported how social support has a positive effect upon individuals' beneficial health practices. These researchers were able to demonstrate an interrelationship between social support, self-esteem and positive health practices. Prior to the 1986 study, little empirical evidence was available to support the importance of these interrelationships in nursing's holistic intervention perspective which include the

client's family as an integral part of the acute and restorative aspects of illness and health.

Public Health

Socioeconomic status has been demonstrated to impact the individual's ability to avoid or resist sickness and illness (Cassel, 1976; Slater & Carlton, 1985; Syme & Berkman, 1976). A few researchers found a positive relationship between health risks and disease conditions amongst subjects with low socioeconomic status (Blendon, Aiken, Freeman & Corey, 1989; Bonham & Brock, 1985; Gottlieb & Green, 1987). Low income Blacks and Hispanics are the groups in which repeated epidemiological investigations have shown a disproportionate prevalence of obesity and diabetes (Kaplan, Hann, Syme, Minkler & Winkleby, 1987).

Several public health practitioners examined health behaviors and their relationship to health status and mortality (Belloc & Breslow, 1972; Belloc, 1973; Breslow & Enstrom, 1980). These researchers, using the same population sample, not only a found positive relationship between good health practices and positive health outcomes but also a significant reduction in mortality rates. Becker (1977), in his review of the literature, reports that the subject's attitudes are the prevailing variable that determines individual or group decisions concerning health habits.

Sociology of Food Patterns

A scan of the literature on the sociology of food

patterns was explored for key studies whose approaches and findings were relevant and/or generalizable to an Afro-American community.

Analysis of the relevant reports indicated that social and environmental factors play a significant role in the development of a community's attitudes, beliefs and practices related to health and nutrition. Studies of the buying and consumption patterns of Blacks in predominantly low socioeconomic communities whose residents have had changes in geographical conditions (e.g. relocation from a rural to an urban area), or changing demographic factors (e.g. living circumstances or social situation) found that the subjects also exhibited changes in their choice of nutrients and meal patterns (Jerome, 1969; Jones & Rice, 1987; Kerr, Amante, Decker, & Callen, 1983).

Erosive Health

Hamilton (1986) developed the concept of erosive health. This concept described a state or condition in which the individual's (or community's) mental, spiritual, emotional, physical, social and environmental forces are in complete decline. The life-style examples and definitions related to this concept were confirmed by the previously cited literature.

Afro-Americans are at risk for the development of health problems because of their situational and/or chosen life-style. The present study was designed to assess an Afro-American community's nutrition-related health behaviors which

have been associated with illness states. These behaviors or variables are: meal patterns (excessive or inadequate), smoking, alcohol consumption, exercise, stable weight, sleep and stress.

Theoretical Framework

The literature review more than adequately demonstrates that there is a multiplicity of interacting factors which influence and direct an individual's (or a community's) health seeking behaviors. Early studies such as Kasl and Cobb (1966) conceptualized health, illness and sick role behaviors as a function of the influences of threat or attractiveness to the individual's role performance. The foundation of this concept is the health/disease continuum of the medical model which by definition excludes health promoting objectives.

Pender's (1982) health promotion model is based upon the idea that preventive and maintenance behaviors are equally necessary for an individual's personal development and self-actualization. Although a good deal has been written about the health promotion model and the health behavior model (Kasl & Cobb, 1966), the point of reference of the present study was not just these behaviors but the individual's (community's) perception of these behaviors in relation to his/her social environment.

Health belief and health value.

The Health Belief Model as depicted by Rosenstock (1966) best demonstrated the importance of the relationship between

health behaviors, social and situational conditions, and personal (communal) belief/value systems. This model, developed and used by researchers whose particular study interest was the influence of social and psychological factors on health behavior, was selected as the theoretical guide for this study (Brown, Muhlenkamp, Fox, & Osborn, 1983; Hochbaum, 1970; Mikhail, 1981).

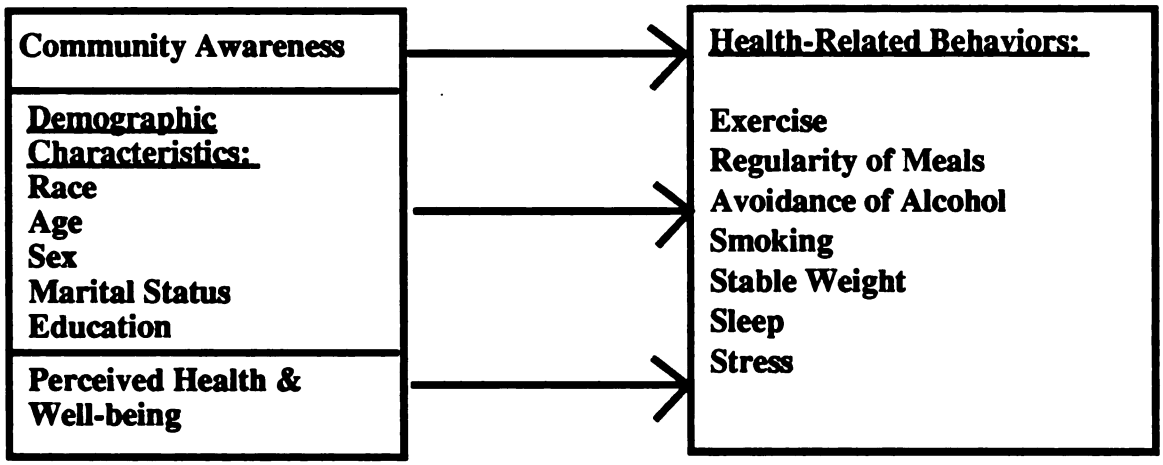
A paramount feature of the Health Belief Model (HBM) is that the degree of perceived risk or susceptibility to injury or illness is the motivating force for peoples' behavior. Health actions motivated by degrees of risk is a negative approach to health maintenance. However, part and parcel to HBM's risk factor motivators are the positive motivators of perceived benefits. These two catalysts interplay and guide the individual in his health actions.

The erosive health concept also viewed health states in relation to negative internal or external forces. Historically, Afro-Americans have had a language style that is rich in the use of proverbs and affirmations (Daniel, Smitherman-Donaldson, & Jeremiah, 1987). The proverb, "Health is wealth" was the basis for the health value concept as it was used in this study. A goal of this study was to examine the positive behaviors of Census Tract 1290 residents, therefore the element of risk as described here was not examined.

Figure 1 shows the health behavior model used in

this investigation to provide a structure within which to examine the study variables of meal patterns, smoking, alcohol, exercise, weight, sleep and stress. The supposition of this study was that personal characteristics, cultural practices, and what the individual believes or values about his/her health state determine to what degree he/she will seek and participate in the health promoting activities of his community.

Figure 1



Relationships of the Study Variables with Health Behavior of Afro-Americans

CHAPTER III

METHODOLOGY

Research Design

The project was a descriptive survey of a community's dietary practices and health behaviors which promote and maintain health. No study of the nutritional health seeking behaviors and awareness in this community has been previously conducted. The community was the population used.

Sample

A computer-assisted random sample of 200 (18-65 year olds) was drawn from an address bank of the community's 2500 total population. The Community Development Corporation of Census Tract 1290 cooperated with the investigator and provided the list of addresses (Appendix A). Inclusion criteria were that subjects be 18-65 year olds who have been continuous residents for two or more years. The residency criterion was based on the assumption that habits and community patterns would need some time to develop. The sample size of 200 was selected based on the community's history of a less than a 20% survey return rate (C. Page, personal communication, October 27, 1987). Pertinent community preparation and study arrangements conducted by the investigator are outlined below.

Procedure

In order to assure an adequate survey response rate, the investigator informed the community through three communication channels. First, the investigator attended the

community meetings of five community agencies/groups and informed the participants of the planned project, its goals and purposes, when the survey would be mailed, and to ask for the community agencies' support. Secondly, a descriptive article of the project and date of survey mailing, accompained by a photograph of the investigator, ran in the community newspaper. And lastly, residents who use the community clinic, where the investigator worked as a volunteer public health nurse, were also informed by the investigator of the project in the manner as previously stated.

Questionnaire

An abbreviated and modified National Health and Nutrition Examination Survey II (NHANES II) (National Center for Health Statistics, 1981) was mailed to the sample addresses. This instrument has been used in national surveys over the last ten years and has been proven reliable. Based on the literature review and analysis of health and nutrition behaviors, several questions on attitudes and behaviors related to six nutrition-related diseases (coronary heart disease, cardiovascular disease, diabetes, cancer, cerebrovascular disease and cirrhosis of the liver) were developed for inclusion in the questionnaire. Face and content validity of the modified tool was established by the investigator and her thesis committee. A pre-study trial of the modified tool was administered to four high school students to identify redundancies and to determine the average length of time needed to complete the

questionnaire (Appendix B).

The questionnaire consisted of 88 questions relating to the seven variables: meal patterns, smoking, alcohol, exercise, weight, sleep and stress, and other questions about illnesses and conditions common to Afro-Americans. The demographic data was purposefully placed near the last page. This was done to allow the subject to become comfortable with the survey tool and the kinds of questions being asked before addressing possibly sensitive information (e.g. income, number residing in home, etc.)(Appendix B).

The respondents were requested to return the completed survey in the provided stamped, self-addressed envelope. An information/consent form was included in the survey mailing. Signing of the consent form was not requested because some of the residents may be engaging in possible illegal activities or are of undocumented immigrant status (Appendix C). Completing the questionnaire indicated consent to participate in the survey. In addition, on the final page of the questionnaire, checking the "yes" box for personal interview indicated consent for possible contact and a follow-up interview at a later date. Confidentiality and right of privacy was protected because selection was strictly by address. A subject's address appeared only on the survey envelope, the return envelope, and in the "yes" box where he/she recorded it, if willing to be contacted. All procedures were approved by the Committee on Human Research prior to any data collection.

Interview

A semi-structured individualized interview, blood pressure measurement and urine dip stick check for sugar was conducted with approximately one-third of the surveyed respondents (subjects who had returned a completed survey and checked "yes" to be considered for an interview). Subject selection for the interviews was limited to no more than one-third of the total number of completed questionnaires (n = 24) because of time restraints for the project's completion. Prior to the interview, an information sheet covering the goals and objectives of the study, and the procedures and content to be covered during the interview session was read aloud and a copy given to the prospective interviewee (Appendix D).

The interviews provided clinical measurement and cross referenced data, both qualitative and quantitative, to support the findings and validity of the survey tool and to identify specific educational needs. For example, if a respondent's survey indicated non-use of the community garden and/or not having a weight problem, and clinical observation indicated differently, the investigator might ask, "I noticed that several of the respondents do not use the produce from the community garden, can you tell me why this happens?," "Do you think the majority of the people in the community have any problems with their weight?," or "What do you think causes illness and disease in this community?" Each interviewee was given ample opportunity to expound on their answers. The

semi-structured questions focused upon the seven variables aforementioned (Appendix E).

All interviews and clinical measurements were conducted by the investigator in the subject's home. It has been noted elsewhere that minority populations frequently prefer face-to-face interviews which are consistent with their oral traditions and preferred mode of communication.

Completed surveys were received from 23 residents, constituting a 11.5% response rate of the study sample of 200. Ten mailed surveys were returned undelivered because of incorrect address and were redistributed at the community's Tenant Council Meeting. From that redistribution, one was completed and returned, increasing the total response rate to 12%. The number of subjects who indicated an interest in having a follow-up or personalized interview was six or 25% of those surveyed. Because the resulting sample size was small, the planned inclusion criteria of community residency of more than two years, and the age limit of 65 years was eliminated. Of the six respondents who indicated having an interest in a follow-up interview, four were able to meet with investigator.

Data Analysis

Data analyses were done on a microcomputer using the Crunch Statistical Program (1985). Descriptive and inferential statistics were used in analyzing demographic and other survey data. The descriptive statistics consisted

frequency distributions and measures of central tendency and variability.

Inferential statistical analyses used to examine the data were Student's t-test and Kendall's correlations. The t-test was applied to paired samples to determine if the means of the two groups were significantly different and if the researcher should reject or accept the null hypothesis (H_o) as true. Kendall's tau correlation coefficient, a non-parametric measure of association, was used to examine relationships among the studied behavioral variables. Level of significance was set at $P = 0.01$ in order to minimize the probability of a β or Type II error in an exploratory descriptive study. Correlations do not answer causal questions about variables but can reveal relationships that could guide future study design and inquiry.

Three case studies (interviewees) are presented to provide qualitative data for review and evaluation. The case study method of data collection is appropriate for nursing investigations and promotes in depth learning and understanding of client problems (Meier & Pugh, 1986). The results of the analyses are presented and discussed in the following chapters.

CHAPTER IV

RESULTS

This chapter present the findings of the study and will begin with descriptive statistical data, followed by the three case studies. The results presented in this chapter will provide a framework for discussion in chapter 5.

The sample ranged from 25-84 years old, with 58% being 45 years old or less. The majority of respondents were females who comprised 67% of the sample. Thirty-eight percent were currently married; 25% of the sample were single or classified themselves in the "other" category. Most of the respondents had some college level education; 46% reported having one to three years of post high school education.

The sample demographics are illustrated in Table 1. These findings are similar to the frequencies found in the general population characteristics of Census Tract 1290. Census data (1980) for Census Tract 1290 records 76.4% Blacks and 20.2% Caucasians; the study sample was 62.5% and 37.5% respectively. Although not recorded in Table 1, the sample raw data showed the median income to be between $ 25,000-27,499 which is slightly higher than the county-wide median income of $ 24,554 (U.S. Bureau of Census, 1988). The other variables of age, education and marital status were comparable to the larger population.

The null hypothesis proposed a positive relationship between knowledge of and the maintenance and promotion of

Table 1

Demographic Characteristics of Study Sample (n=24)

	Frequency (N)	Frequency (%)
Age		
25 - 45 years	14	58.3
46 - 64 years	5	20.8
64 - 84 years	5	20.8
Total	24	99.9*
Sex		
Female	16	66.7
Male	8	33.3
Total	24	100.0
Marital Status		
Single	5	20.8
Married	9	37.5
Divorced	5	20.8
Widowed	3	12.5
Steady Relationship	1	4.2
Other	1	4.2
Total	24	100.0
Race		
Black/Afro-American	15	62.5
Caucasian	9	37.5
Total	24	100.0
Education		
1 - 6 years	1	4.2
7 -12 years	4	16.7
13 - 15 years	11	45.8
16 years or more	6	25.0
M.S. degree	1	4.2
Ph.D degree	1	4.2
Total	24	100.1*

* Due to rounding off

good nutrition and health behaviors. A majority of the survey respondents (88%) indicated that they believed themselves to have good to excellent health status. Their responses regarding regularity of their daily meals was varied. Breakfast was regularly taken by 41% of respondents, lunch and dinner or evening meals were regularly taken by 55% and 91% of the respondents respectively. Having a good appetite was reported by 78% and the positive health habit of not adding salt to one's food was recorded by 71% of the respondents. A summary of selected health-related behaviors about which the respondents were queried is listed in Table 2. The footnoted information below the table indicates the questions asked and/or criteria for the given behavior. The questions about sleep and headaches were designed to assess the absence or presence of tension and stress. Weight status was based on body mass index (calculated from self-reported weight and height [see Table 2, footnote b]).

A scanning of Table 2 shows that most of the respondents reported good health habits. Only 12.5% of the subjects reported having a current smoking habit; 65.2% of the subjects had been smokers in the past. Adding salt to foods, which was mentioned above, was currently practiced by only 29% of respondents.

Adequate sleep, which was equal to or greater than seven hours per night, was only reported by 29% of the

TABLE 2

Selected health-related behaviors of survey respondents

(n = 24)

	Percent of Total
Previous diagnosis (dx) of HTN (a)	25.0%
Previous dx of diabetes	8.0
Overweight (b)	37.5
Consider self healthy (c)	87.5
Add salt to food	29.0
Adequate sleep (d) (n=22)	29.0
Headaches (n=23)	39.1

a) Assessed by the question, "Have you ever been told by a doctor or other health professional that you have. . .?"

b) Body Mass Index (wt/ht^2) $\geq$ 27.8 for males, $\geq$ 27.3 for females.

c) Answering good to excellent to the question, "Would you say your health in general is excellent, very good, good, fair, or poor?"

d) $\geq$ seven hours of sleep per night.

e) Assessed by the questions, "Have you smoked at least 100 cigarettes?", "Do you smoke cigarettes now?"

subjects. The percent of subjects reporting having headaches was 39%. These findings suggest that a stressful lifestyle may have been characteristic of nearly one-third of all respondents.

Hypertension (HTN), diabetes (DM) and obesity have been reported elsewhere as prevalent health problems common to the Afro-American community. The current study reveled a low incidence of reported DM (8%) and HTN (25%) described by the subjects. No statistical correlations were found between reported poor health status and incidence of HTN, DM or stress factors. Daily consumption of alcohol in quantities of 2-5 glasses or cans was reported by 70% of the subjects. The health habit of walking one mile daily outside of work activities, either sometimes or frequently, was reported by 62.5%.

Kendall's correlations statistic was applied to health in relation to six of the seven examined nutrition-related health behaviors. No significant correlations were found for self-reported health status in association with alcohol consumption, exercise, headaches, smoking, hours of sleep or drug use. Kendall's tau was used to analyze these variables because the responses/measurements were all ordinal.

Overweight or obesity which was determined by a BMI equaled to or greater than 27.8 for males, and 27.3 for females, occurred in 37.5% of the study's subjects. A one-tailed t-test for paired samples was applied to the

subjects' current computed BMI and their BMI computed for age twenty-five. Because the BMI's were ratio measurements for the variable, stable weight, Kendall's correlations could not be used. The difference in mean BMI indices indicated that the two sets of scores did differ ($t = 3.127$, $P = 0.005$). The null hypothesis (the study hypothesis stated in reverse) which indicated that the residents of Census Tract 1290 would maintain a stable weight was not supported by the data and is rejected (Wilson, 1985).

As in the Belloc (1973) study, health habits were not intercorrelated; those respondents who reported themselves as healthy also practiced four or more of the seven nutrition-related health behaviors. There were four healthy subjects who reported practicing four or greater positive health habits who did not maintain a stable weight.

Qualitative data were obtained from three case studies, which are described below. They were selected to illustrate the generalized statistical findings discussed above.

Case 1

F.M. is an 83 year old male who appears younger than his stated years. He is divorced with adult children, and a self-educated auto mechanic who once owned and operated a cafeteria. He has been a resident of Census Tract 1290 for 45 years and is known as the community's official cook. He has cooked for others most of his life; he cooked for his brothers and sisters, and for his wife while married. F.M.

complained of not being able to be alone but invites any and everyone to his "open house" any hour of the day or night. He sleeps only four hours daily and frequently has visitors until 3:00 AM. To gain privacy and solitude, he seeks anonymity amongst the noisy crowds at the race track. F.M. states that he does not stay in unhealthy situations very long. He does not overeat and had stopped alcohol use and smoking years ago. He does work that he loves and takes daily walks and does leg exercises before bedtime. He denies having headaches or other ailments, although he had a history of violence when a younger man. F.M. readily admits that he likes sweets and does not take his blood pressure pill daily as ordered. His lab stix urine analysis read 1% sugar, and his blood pressure (B/P) was 180/80 on the right arm, and 160/80 on the left arm. Throughout the interview, F.M. was interrupted by knocks at the door or phone calls from inquiring neighbors asking "what's for dinner". F.M. feels that the community is "drug sick". He also believes that the community is generally overweight and that too many people overeat. His own diet includes some meat, cooked vegetables and desserts. His interview responses were consistent with those on his survey.

Case 2

Subject M.A. is a 44 year old female who was raised in Census Tract 1290, moved away at marriage and then returned 20 years later. She is divorced with three college aged

children. She had attended LVN school but dropped out to begin working as a Nurse's Aide in order to support herself and children. She left her husband because "he was into drugs and we lost our four bedroom house in Southern California". M.A. wears glasses, has a noticeable bilateral nystagmus, and is overweight. Her diet has changed from fried foods, heavy salt use and desserts several times weekly to one of low consumption of red meats, fats, dairy products, and more use of fresh fruits and vegetables, and nuts and dried fruits as desserts or snacks. This change was brought about by a diagnosis of breast CA with surgical and chemical treatments over the past year. M.A. has a very physically active job and does not do any additional exercise; she drives her car rather than walks. She has a familial history of HTN and tries to remember to take her blood pressure medication twice a day; she does not use alcohol and stopped smoking 12 years ago. Her lab stix urine analysis was unremarkable, and her B/P was 150/90 on the right arm, and 140/98 on the left arm. This subject thinks that the main causes of illness and disease in this community are drugs and their usage. She sees a lot of cancer here lately and weight loss problems associated with drug usage, but does not see many people with obesity problems generally. M.A. believes that diabetes and HTN can be helped by changing one's diet but does not think that the community knows or understands this. She thinks that healthy nutrition needs to

actively promoted in the community.

Case 3

This 80 year old female (F.L.) is in apparently good physical health. She has a small, thin stature and appears younger than her stated years. Widowed six years ago, F.L. has lived in this community for 40 years. She has no biological children but raised her husband's daughter. F.L. reads a lot of nutritional literature and tries to practice what she learns. Her main meal is late afternoon around 3:00 PM, consisting of cooked vegetables, rice and small amounts of meat. She occasionally has a can of Ensure with her meals and has a light snack before bed time. When raising her family, her meals were heavier and the large meal was eaten around 6:00 PM for her husband. F.L. supports the community garden, the brown bag senior lunch program and Meals-on-Wheels twice weekly; she uses the Food Bank and the Tenant's Council Food program twice monthly to help maintain community eligibility. Unlike her neighbors and friends, who have excess weight problems, F.L. is trying to gain ten pounds. She walks daily about one mile, and is a member of the seniors' exercise class each Wednesday. She does not use tobacco or alcohol and uses prunes and bran for bowel regulation. F.L. had a previous history of migraines for 12 years during "stressful times"; she gets sick easily in cold winds, drafts and air conditioned rooms. To protect herself, F.L. places cotton balls in her nostrils when subjected to

these conditions. Her urine analysis and other assessments were unremarkable. She identifies drugs as the community's main health problem for it "shortens young peoples' lives". All of F.L.'s answers to interview questions matched her survey.

CHAPTER V

DISCUSSION

This chapter presents a discussion of the study findings and limitations due to sampling and methodology. Summary, conclusions and the implications for nursing practice and research are also discussed.

The present study has attempted to document relationships between health status and health behaviors. The health behaviors have previously been identified as being associated with nutrition-related illnesses, many of which are common to the Afro-American population (U.S. Congress, Senate, 1975). Therefore, the major focus of the methodology involved nutritional status assessments. Four different types of data were needed: dietary intake patterns, biochemical tests, measurements of weight/height, and clinical assessments (NCHS, 1981).

No statistically significant correlations were found between health status and the health-related behaviors of exercise, regularity of meals, avoidance of alcohol, avoidance of cigarette smoking, sleep, stable weight, and absence of stress. The hypothesis states that differences would be found in these behaviors. The validity of this assumption was partially demonstrated by the significant t-test for the stable weight variable. This finding provides preliminary evidence for the proposed relationship between health status and health behavior. The evidence in

the literature indicated that individuals with higher levels of health do practice positive health-related behaviors that will promote and maintain continued health.

Some clinically significant interpretations of this study support the findings of similar studies using health behavior or health value models (Slater & Carlton, 1985; Haan et at., 1987). In further interpreting the results, it may be stated that those individuals who continue positive health habits such as those examined in this study are more likely to maintain a good health status into old age.

Associations between the sets of variables were not significant as expected but clinical relationships were evident within the limitations of the study. Other variables such as personal characteristics, cultural influences, and previous health education, which were not examined, may have an affect on the relationships (Hazuda, Stern, Gaskill, Haffner, & Gardner, 1983; Hubbard, Muhlenkamp, & Brown, 1984; Muhlenkamp & Sayles, 1986). Although no causal associations or relationships can be specified between the variables, it is apparent from the clinical findings that there are is a notable relationship between health and healthy behaviors as supported in the literature.

Null Hypothesis

The null hypothesis stated that the Census Tract 1290 residents had access and knowledge which enable them to

maintain and promote good nutrition and health behaviors was rejected with caution. Although the literature supports rejection based upon the results of other study groups, very limited statistical significance was found in this study. The following discussions were based upon the clinically significant findings of this investigation as they relate to the research questions.

A high percentage (87.5%) of the subjects reported that they considered themselves to have good to excellent health status. This finding suggests several things. First, the sample group does value health. Second, how individuals view their health and illness states is culturally defined. If individuals are able to fully participate in their activities of daily living, then they see themselves as healthy (Kleinman, Eisenberg, & Good, 1978; Zola, 1973). And third, it is not known to what degree, if any, that an Hawthorne effect was operating during the self-reporting survey or that people were presenting themselves as healthier than they actually were.

Twenty-five percent of the sample reported having hypertension, while 29% of the sample continue to use salt to season their food. Approximately 38% of the sample (using the computed BMI ratios) were obese, and 33% reported weighing self at least once weekly. Fifteen of the subjects (62.5%) marked walking one mile as daily exercise, either sometimes or frequently. Clearly, these findings

indicate that a substantial number of the sample population population though reportedly healthy, are not, and do not effectively practice those health behaviors that would be most beneficial for their health and longevity. The literature abounds with evidence that substantiates an increased morbidity among Afro-Americans who are obese and/or hypertensive (Gottlieb & Green, 1987; Haan et al., 1987; Kaplan et al., 1987). The self-reported findings here are similar to and confirm what has consistently been shown in larger investigations of this type. Research question 2 regarding what the residents perceived as healthy nutrition-related activities is still unclear and needs further investigation.

Data related to the remaining three research questions were obtained from the follow-up interviews. Research question 1 asked if Census Tract 1290 residents had an awareness of community nutritional problems or changes. The residents were very cognizant of the multiple changes within their community. The most frequently mentioned were the unhealthy and malnourished drug abusers and people who overeat and are overweight. When asked question 4 about social elements that may be detrimental to sound community nutrition and health, the unanimous response was "drug sickness". To the residents, the drug epidemic is the culprit for the majority of the community's ills. The subjects indicated that the community is seeing more high

school "drop-outs", more crime and violence, and more malnutrition because children were not being cared for properly by their substance abusing parents.

The study data show that even with acknowledgement of the enormous impact that "drug sickness" has on this community, optimal health levels are maintained by many residents. Each of the case study respondents was a longterm resident of the community and through various lifestyle changes, self-education and individual choice, practice at least five of the seven health-related behaviors. According to Belloc (1973) and Belloc and Breslow (1972), those individuals who routinely observed the health behaviors being examined, had significantly reduced morbidity.

Research question 3 asked what information the community needed to help the residents improve their physical and nutritional health. The answer was clear from each of the modes of data collection. Nutritionally focused health education was sorely needed and according the interviewees, welcomed. Suggestions for methods and ways to introduce and/or teach nutrition-related health will be discussed later.

Theoretical Framework and Study Results

The health belief model (HBM) as practiced by Rosenstock (1966) was useful in developing and organizing the health value model used in this study. The health value model was useful in considering the variables related to the Afro-Americans of this study. The findings showed

clinically significant relationships between health status (perceived health and well-being) and excessive or inappropriate eating, health status and exercise, and community awareness and health-related behaviors. This adapted version of the HBM should prove helpful in guiding the researcher in future inquiry of how these variables and others impact the health and well-being of Afro-Americans. Further refinement of the HBM and its application to the understanding of health-related behavior would benefit the client populations served by nursing professionals. (Mikhail, 1981). The hypothesized relationship between the study variables is shown in Figure 1.

Limitations

The sample for this study was small and included mainly married females (n = 9). Most of the respondents were under 46 years of age (n = 14). Problematic features of survey research are low completion rates and response bias. Subjects who may have had limited education and/or literacy problems and others who for other reasons may have been inadvertently excluded from the sample. These individuals as a group may have answered the questions differently from those who did return the survey, and could cause the results of the study to be not generalizable to the larger population. The resultant sample was similar in composition to the census reports for the larger community for sex, marital status, racial mix, and education (Marin, 1980).

Only the age ranges differed; in the community, there was a larger proportion of residents 46-64 years of age. Because the sample demographics were so similar otherwise, the researcher concluded that limited application of the findings to the larger population was acceptable.

The measures of health behaviors were limited to the health practices of exercise, regularity of meals, avoidance of alcohol consumption, avoidance of cigarette smoking, stable weight, adequate sleep and absence of stress. There may have been additional health behaviors used by the subjects that were not considered and therefore not examined. The researcher tried to use a variety of methods to collect the data on health behaviors, health status and knowledge. According to Jones (1987), triangulation methods which use both qualitative and quantitative methodologies could enhance the validity of findings. There were benefits and limitations with each method which are outlined below.

The self-reported measures from the mailed surveys did not allow the researcher to clarify any possible ambiguities or unclear questions that the subjects may have had. Space was allowed for written comments to some of the questions, but the majority of the questions required the subject to select from the available choices only. Some of those choices were limited to yes and no answers.

The clinical, biomedical, weight and qualitative data were not obtain at the same time as the self-reported data.

This difference in time of data collection threatens the internal validity of the study because of probable changes in the subject (maturation). The semi-structured interview format added depth and richness to the self-reported data. Through the interviews, actual educational needs for the community were clearly identified and recommended to the researcher. Detailed information on the eating habits, health needs of the community, and use of present health resources was obtained. The interviewing allowed for additional data collection through observation. Subjects were able to express their thoughts and opinions freely as well as ask for more information if questions put to them were not clear. The interviews were time consuming and difficult to schedule, however, the quality of the data obtained handsomely off set the inconveniences (LeCompte & Goetz, 1982).

In summary, the identified limitations of small survey sample, and small interview sample coupled with varied measurement scales produced non-significant findings. These limitations restrict and greatly affect the degree of generalization, and application that can be inferred from the study findings.

Recommendations for Further Research

Suggestions for future research would begin with refinement of the survey tool. Testing the tool for sensitivity to a predominantly Afro-American community needs to be conducted. Many of the instrument's questions related

to the regularity of meals did not adequately provide measurable information. Some of the diet-related questions may not have been applicable or appropriate to the life-styles, habits and working timetable of the respondents. Although the NHANES II Survey tool has been extensively used, and shown to be reliable, it has also been criticized for its multistage survey design and multilevel measurement scales. The measurement scales for the study variables were not consistent, therefore, correlation coefficients could not be applied equally. Gartside (1988) argued that the survey's design inhibited the use of simple statistical methods for examining associations and/or hypothesis testing. Redesigning and unifying the measurement scales would allow easier statistical manipulation of the data.

Belloc and Breslow (1972),in their health behavior study, used ridit analysis to evaluate her findings. The ridit method is a practical tool that is applicable to response variables which are considered "borderline" between dichotomous items and higher level measurement scales (Bross, 1958). Although this analysis was developed more than 30 years ago the simplicity of its technique would rival many of the new microcomputer statistical packages that can be very time consuming to prime with the data. Use of this of this quick method of analysis is recommended for future investigation of the health behaviors.

The next suggestion for future study of the health

behavior variables is to increase the sample size. It has been noted elsewhere in the literature that face-to-face interviewing is a subject-preferred method for data collection, especially in minority communities. Face-to-face interviews are opportunities for the researcher to obtain in depth information about health behavior. One could pursue the local churches for their assistance with subject selection and compliance with mailed surveys.

The major shortcoming of the present study is small sample size. Increasing the size of the sample will allow for greater application of the study findings and generally will provide more meaningful information about peoples' health practices. Further explanation and understanding of the relationship of health status to other variables that were not examined or appropriately measured here need to be conducted.

Implications for Nursing Practice and Research

Sensitivity to cultural factors is often lacking in cross-cultural studies. Continued use and adaptation of the HBM is workable for cross-cultural type of research and inquiry (Mikhail, 1981). Cross-cultural qualitative studies and projects are ideal for research nursing and can generate applicable findings to teaching and clinical settings.

Nurses are best equipped to address issues of value systems and moral stages of development of a community under investigation then others (Davis, 1980). To incorporate these needs into the study design while maintaining ethical

principles of research is within the domain of nursing (Cassell, 1980; Davis, 1980). By so doing, the nurse researcher helps to develop and design studies which focus on the client populations' belief system and uses the methods/techniques that are culturally acceptable (Tripp-Reimer & Dougherty, 1985).

Survey research with indepth interviews are an excellent study design for examining cross-cultural issues and behaviors. Health examination surveys which are culture-specific and demonstrated high sensitivity, coupled with case-control studies, can be carried out simultaneously to health screen urban communities and obtain prevalence estimates (White,1985).

Several studies and articles have addressed the self-care or self-help history among ethnic minorities (Height, 1989, July; Steiger & Lipson, 1985). Others have developed strategies for promoting health and wellness practices in these communities (Damberg, 1986); Lancaster, Venkatesan, & Kendall, 1986; Riggs & Noland, 1984). These studies are based upon the community's health promotion priorities (Braithwaite & Lythott, 1989).

From the present study, the subjects identified nutrition related education, overweight issues and "drug sickness" as the needs of the community. The "drug sickness" is a specialized problem with its own set of influencing factors, and will not be further explored at this time.

According to Schutte (1988) blacks are twice as likely to be overweight then their white counterparts. He indicates that lack of exercise is the most common cause of obesity. Therefore, in honoring the wishes of the study subjects, an afternoon exercise class with a nutrition instructor is just what the community wants. Nurses are equal to the challenge to intervene and develop an appealing project for this community.

Few studies have explored the role of community awareness of social changes and its impact on nutrition, health promotion nd disease prevention. Even fewer studies of this subject have been investigated by nurse researchers. Nurses frequently function as culture brokers by mediating information between unlike parties. In the case of this exploratory descriptive study, gathering information, generating theories and designing programs surrounding the health beliefs, practices and culture of people in the era of rapid social changes is crucial to the science of nursing. The limited findings of this study will be summarized and submitted to those community agencies which are currently active in developing, and maintaining programs for health problems in Census Tract 1290.

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APPENDIX A

CENSUS TRACT 1290 PUBLIC HOUSING
(a sample list)

SMITH STREET

1
5
11
25
37
44
52
66
70
76

LOCKS AVENUE

109
123
133
147
151
161
171
185
207
221
233
237
243
257
269

APPENDIX B

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Study of Eating Practices and Health

Salamah Locks, R.N., PHN and graduate student at the University of California, San Francisco is conducting a survey study to learn about the eating practices of the residents of Marin City and how these practices promote their health. The results of the survey will assist health care providers (nurses) in identifying peoples' (a) nutritional practices which maintain and promote good health, (b) awareness and use of currently available resources, and (c) if there is a need for more nutritional education, information or services.

If you agree to participate in this study, you will be asked to fill out a questionnaire that asks about you and your household (age, any children, how much schooling), and questions about health and nutrition. Sending back the questionnaire indicates your agreement to participate. Your responses will be kept confidential. Please do not write your name on any page of the questionnaire. The questionnaire should take less than 30 minutes to complete.

Salamah will select people from the questionnaires (by address) for a personal interview at a later date.

(OVER)

This interview will include a blood pressure check and a urine check for sugar (you check for yourself). This interview should take about 30 minutes. If you want Salamah to contact you for a personal interview, please check (✓) the YES box and other information on the last page of the questionnaire. There will be no direct benefits or payment to you except for the information given to you about your blood pressure measurement and if any sugar is in your urine.

If you have any questions or concerns, you may call me at home at 499-0614. If you have any concerns about this study that you can not discuss with me directly, please contact the Committee on Human Research at the University of California at 476-1814.

Thank you for your help and cooperation.

Salamah Locks, R.N.

QUESTIONNAIRE

PLEASE COMPLETE THE QUESTIONS BELOW BY FILLING IN THE BLANKS OR CHECKING (✓) THE ANSWERS THAT APPLY TO YOU AND YOUR HOUSEHOLD. PLEASE DO NOT SIGN YOUR NAME.

1) How many people live with you? _____ (number of)

____ spouse? ____ sisters? ____ brothers?

____ daughters? ____ sons? ____ grandchildren?

____ other relatives?

2) How long have you lived in Marin City?

____ less than 2 years ____ 2-5 years ____ 6-10 years

____ 10-20 years ____ more than 21 years

____ continuous since your birth

3) Where do you usually get your food supplies?

____ Hayden's ____ Big G ____ Safeway ____ other

4) How far from your home is this store? _____

5) How many shopping trips do you make each week? _____

6) Do you pay by _____ cash or _____ credit?

7) What transportation do you use to get there? _____

8) Do you shop alone? ____ yes ____ no

If no, with whom? _____

9) Have you always shopped at this store? ____ yes ____ no

If no, where did you shop before and when? _____

_____

10) Are there any food programs available to Marin City residents? ____ yes ____ no

11) If yes, how many food programs are there?

____ 1-2 ____ 3-4 ____ 5-6 ____ 7-8

12) Please check (✓) the following food programs that you regularly use.

____ WIC ____ Food Stamps ____ USDA Surplus

____ Food Bank ____ Tenant's Council Food Project

____ Meals on Wheels ____ Community Garden ____ other

13) Do you feel that you have adequate storage space for food in your home? ____ yes ____ no

14) Do you feel that you have adequate cooking facilities in your home? ____ yes ____ no

15) Do you feel that you have adequate refrigeration? ____ yes ____ no

16) Which meals do you eat at regular times each day?
a morning meal _____
a midday meal _____
an evening meal _____

17) Do you eat snacks in the
morning? _____
midafternoon? _____
evening? _____

18) Where do you usually eat your meal?
morning _____
midday _____
evening _____

19) With whom do you usually eat?
morning _____
midday _____
evening _____

20) How many times a week do you usually eat away from home? _____

21) Are you on a special diet? _____ yes _____ no

If yes, what kind? _____

22) Would you say that your appetite is
____ good? ____ fair? ____ poor?

23) Do you add salt to your foods before eating?
____ yes ____ no

24) Are there foods that you don't eat but would like to?
_____

25) Do you have trouble chewing your food?
____ yes ____ no

26) Do you eat anything usually not considered food, like clay or starch? ____ yes ____ no
If yes, what? _____

27) Ordinarily, how fast do you eat?
____ I'm usually the first one finished
____ I eat a little faster than average
____ I eat at about the same speed as most people
____ I eat more slowly than most people

28) In your job (or housework), how much time do you spend sitting down?
____ most of the time ____ some of the time
____ hardly ever or never

29) How much of the time do you have to use lots of arm, leg, or back muscles in lifting, pulling, carrying, digging and so on?
____ most of the time ____ some of the time
____ hardly ever or never

30) Outside of your job or work around the house, how often do you walk as much as a mile (5-9 blocks) a day in getting to and from work, stores and so on?
____ frequently ____ sometimes ____ hardly ever

32) Do you take hikes or walks in good weather?
____ frequently ____ sometimes ____ hardly ever

33) Do you take part in activities which require a lot of body movement or energy, like ball games, bicycling, dancing, weight lifting, and so on?
____ frequently ____ sometimes ____ hardly ever

34) Do you have to stop for breath when walking at your own pace?
____ yes ____ no

35) Do you get short of breath when walking with other people at an ordinary pace on level ground?
____ yes ____ no

36) Do you drink coffee or tea?
____ yes ____no

37) On the average, how many cups/glasses of coffee or tea a day do you drink?
_____ cups/glasses ____ less than 1 per day

38) Do you drink beer, wine or alcohol?
____ yes ____no

39) On the average, how many glasses/cans a day do you drink?
_____ glasses/cans ____ less than 1 per day

40) Have you ever been advised by a doctor or other health professional to stop drinking any of the following? Please check (✓).
____ coffee/tea ____ beer ____ wine ____ alcohol

41) Do you take any drugs or medications?
____ yes ____ no

If yes, are the drugs
____ prescribed ____ recreational/prohibited?

42) Do you have headaches or neck pains?
____ yes ____ no

43) Do you avoid eating any of the following foods? Please (✓).
____ milk/cheese ____ fats or fried foods ____ meat
____ sea food ____ green vegetables ____ fruit
____ chicken ____ fish ____ nuts ____ other _____

44) Would you say your health in general is . . .
____ excellent ____ very good ____ good ____ fair
____ poor

45) Do you have any health problems that you would like to talk to a doctor about?
____ yes ____ no

46) Do you have an illness or condition which interferes with your eating, digestion or appetite?
____ yes ____ no

47) What is the illness or condition?

_____

48) Has a doctor ever told you that you had . . .
Please (✓).
____ heart failure or any other heart trouble
____ hardening of the arteries
____ ulcer
____ recurrent or chronic enteritis
____ ulcerative colitis
____ spastic colon
____ gall stones
____ hepatitis
____ yellow jaundice
____ chronic cough
____ low blood pressure
____ high blood pressure
____ glaucoma
____ thyroid disease
____ hiatal hernia
____ goiter
____ cancer
____ benign tumor

49) Have you smoked at least 100 cigarettes during your entire life?
____ yes ____ no

50) Do you smoke cigarettes now?
____ yes ____ no

51) On the average, how many cigarettes do you smoke each day? _____

52) On the average, how many cigarettes a day were you smoking 12 months ago? _____

53) About how old were you when you first started smoking cigarettes fairly regularly? _____

54) Do you weigh yourself each week? ____ yes ____ no

55) About how much do you weigh now, without clothes or shoes? _____ pounds

56) How tall are you without shoes? _____

57) What is the most that you have ever weighed (not when pregnant)? _____ pounds

58) How old were you at that weight? _____ years old

59) What is the least that you have weighed since you were 18 years old? _____ pounds

60) How old were you then? _____ years old

61) About how much did you weigh when you were 25 years old? _____ pounds

62) During the past 6 months, have you lost any weight without trying to? ____ yes ____ no

63) About how much have you lost? _____ pounds

64) Do you sleep well at night?
____ yes ____ no

65) How many hours do you sleep? _____ hours

66) Do you have diabetes or sugar diabetes?
____ yes ____ no

67) Did a doctor tell you that you had it?
____ yes ____ no

68) Do any of your blood relatives have diabetes or sugar diabetes?
____ yes ____ no

69) Have you ever taken insulin injections?
____ yes ____ no

70) Are you now taking insulin injections?
____ yes ____ no

71) How many years have you been taking (did take) insulin?
_____ years

72) Do you know what an insulin reaction is?
____ yes ____ no

73) Have you ever taken diabetes pills?
____ yes ____ no

74) Have you ever been given a written diet for your diabetes?
____ yes ____ no

75) Do you <u>now</u> follow this diet?
____ yes ____ no

76) How many years have you been (were you) on a diet for your diabetes?
_____ years

77) Are the foods that you need for your diet locally available for you to purchase?
____ yes ____ no

78) Do you ever run out of food?
____ yes ____ no

79) Do you drive your own car to get your groceries?
____ yes ____ no

80) Your sex: ____ female ____ male

81) Your age: _____ years old

82) Your present relationship/marital status:

____ single ____ married ____ divorced ____ widowed

____ unmarried but involved in a steady relationship

____ separated ____ other

83) What is your race or ethnic group?

____ Black/Afro-American ____ Caucasian ____ Hispanic

____ Oriental ____ Southeast Asian ____ Other_____

84) Years of schooling that you have had:

____ 1-6 years ____ 7-12 years ____ 13-15 years

____ 16 years or more ____ M.S. degree ____ PhD degree

85) Are you employed? ____ yes ____ no

____ Full time? ____ Part time? ____ Temporary?

86) Your total Income in 1988

____ less than $2,500	____ $20,000 - $22,499
____ $2,500 - $4,499	____ $22,500 - $24,999
____ $5,000 - $7,499	____ $25,000 - $27,499
____ $7,500 - $9,999	____ $27,500 - $29,999
____ $10,000 - $12,499	____ $30,000 - $34,999
____ $12,500 - $14,999	____ $35,000 - $39,999
____ $15,000 - $17,499	____ $40,000 - $49,999
____ $17,500 - $19,999	____ $50,000 - $74,999
	____ $75,000 or more

☐ **Yes**
I would like a chance for a personal interview.

Your street address. _____

Best time for meeting. _____

THANK YOU FOR COMPLETING THE QUESTIONNAIRE AND INTERVIEW BOX. PLEASE PLACE THE ENTIRE FORM IN THE STAMPED ADDRESSED ENVELOPE AND MAIL TODAY.

Salamah Locks, RN

APPENDIX C
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

INFORMATION TO BE A RESEARCH SUBJECT

Study of Eating Practices and Health

Salamah Locks, R.N., PHN and graduate student at the University of California, San Francisco is conducting a study to learn about the eating practices of the residents of Marin City and how these practices promote their health. The results of the study will assist health care providers (nurses) in identifying peoples' (a) nutritional practices which maintain and promote good health, (b) awareness and use of currently available resources, and (c) if there is a need for more nutritional education, information or services.

I have agreed to participate in this interview when I checked (✓) the YES box in the questionnaire. The interview should take about 30 minutes, including taking my blood pressure and teaching me to check my urine for sugar. The interview questions will be similar to those in the questionnaire.

I volunteer to be part of this study and will not be paid for my time. My answers will be kept confidential and my name will not be connected with any of my answers. I can refuse to answer any question or stop the interview at any time. The direct benefit of my participation is receiving information about my blood pressure and urine sugar level.

If I have any comments or concerns about participation in this study, I should first talk with the investigator. If for some reason I do not wish to do this, I may contact the Committee on Human Research, which is concerned with the protection of volunteers in research projects. I may reach the committee office between 8:00 and 5:00, Monday through Friday, by calling (415) 476-1814, or writing: Committee on Human Research, Box 0616, University of California, San Francisco San Francisco, CA 94143.

Salamah Locks, R.N.
499-0614

INTERVIEW

DATE _____

B/P R_____ L_____

UA S_____ A_____ P_____ H_____

How long have you lived in Marin City? (2)

Food Programs (10-12,80)

Pica (23,24,26,27)

Exercise (29-33)

PO hydration (36,38)

Diabetes (70,74,76,79)

Contraband (41,45,46,51-53)

The San Francisco Public Library

San Francisco Public Library

FOR REFERENCE

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