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# ILLNESS BEHAVIOR AND HELP-SEEKING BEHAVIOR AMONG ARAB-AMERICANS

by

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DISSERTATION

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ABSTRACT

# ILLNESS BEHAVIOR AND HELP-SEEKING BEHAVIOR AMONG ARAB-AMERICANS

This retrospective study of 102 Arab-Americans seeking health care at two large urban hospitals was conducted to determine their illness and help-seeking behaviors. The conceptual framework was derived from the health belief model and Kleinman's explanatory model. Data were collected in Arabic through interviewing and administering the Cornell Medical Index, Koos' List of Symptoms, and a demographic data questionnaire.

The main complaints of the study subjects were pain in chest, stomach, shoulder, and back. Pain was described by metaphor and analogy. The subjects identified chest pain, blood in urine, and lump in breast as needing immediate medical attention. Injuries, cold weather, weather changes, and physical and mental stress were believed to be causes of disease; illness was viewed as interfering with social and work activities.

Arab-Americans reported more symptoms related to the digestive, cardiovascular, and respiratory systems. They were hypersensitive and had feelings of inadequacy. Age ($r = .43$, $p < .001$), level of education

($r = -31$, $p < .01$), type of occupation ($F = 4.34$, $p < .001$), and country of origin ($F = 3.09$, $p < .05$) demonstrated significant relationships with CMI (A-L) scores.

Sixty-three (63.7%) (Group I) sought lay help (spouses, parents, and children) and practiced home remedies before seeking professional health care. The rest sought professional help directly. Occupation was found to affect help-seeking behavior; major professionals tended to seek professional help directly ($X^2 = 14.39$, $p = .04$). However, CMI (A-L) score was the only variable discriminating between lay and professional help-seekers ($F = 6.04$, $p < .05$).

Alice Reizian, Author

Afaf I. Meleis, Chair
Dissertation Committee

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# CHAPTER I

## INTRODUCTION

There is a significant variation in the way people perceive, evaluate, and respond to the symptoms of disease (Mechanic, 1978). Some, for instance, would not label a body ailment as a symptom until the ailment became persistent and more severe, or until it caused some form of incapacitation (Zola, 1983). Others, upon the perception of a symptom, might have an explanation for its causation and not seek health care. Others still may react to it by taking some health actions (Kasl & Cobb, 1966).

This variation in response is known as illness behavior. It is defined as "any activity undertaken by a person who feels ill to define the state of his health and to discover a suitable remedy" (Kasl & Cobb, 1966). Mechanic (1962) has pointed out that "the realm of illness behavior falls logically and chronologically between two major traditional concerns of medical science: etiology and therapy" (p. 189). Illness behavior can be said to include the stages people go through from the time of onset of symptoms until they decide to seek professional health care (Suchman, 1965b).

The ways in which a person deals with the problems of illness are heavily influenced by the social and cultural factors affecting the group to which that person belongs (Segall, 1976a). Because illness

behavior is a product of cultural values and beliefs, it can vary considerably from one cultural group to another. One such ethnic group is the focus of this study.

Arab-Americans comprise a major ethnic group in the United States, and their number has increased considerably during the past few years (Meleis, 1981). A review of the literature shows little information on their health and illness practices as compared to many other ethnic groups, such as Jews, Italians, Irish, Mexican-Americans, and Black-Americans, that have been studied by researchers interested in cultural diversity in health and illness. As a result, there is a considerable gap in the knowledge pertaining to Arab-Americans' adjustment patterns, health beliefs, and health and illness behaviors, nor is the extent to which their folk beliefs and practices influence behavior with respect to health and illness clear.

Arab-Americans usually wait for four to five days after the onset of a symptom before seeking health care (Lipson, Reizian, & Meleis, 1983). Only when the condition has become more serious, the pain more severe, and there is interference with the activities of daily living do Arab-Americans consider their symptoms to be severe. Further study of Arab-American groups in the area of health and illness is needed, however, to discover the impact of their cultural beliefs on illness behavior and help-seeking behavior, perceptions of symptoms and reactions to symptoms of illness, lay consultation, and different actions taken for relief.

## Purpose of the Study

Because cultural beliefs and values have an impact on the process of perception and response to symptoms of illness and the subsequent course of action taken, illness behavior varies from one cultural group to another. Arab-Americans form one of numerous ethnic groups in the United States and, although their cultural beliefs and concepts influence their illness behavior, the nature of such a relationship has not been adequately explored or understood. Descriptive information is needed in the area of disease and illness among Arab-Americans precisely on their symptom perceptions and reactions, illness and help-seeking behaviors, lay consultation, and actions taken from the time of the onset of a symptom until they decide to seek health care.

The purpose of this study is to describe the illness and help-seeking behaviors of Arab-Americans in terms of their culturally-based system of health beliefs. In addition, this study characterizes their perceptions of serious symptoms of illness and underlines the reactions and actions taken at the time of onset, which includes lay consultation in terms of help and advice from significant others and home remedies practiced until such time as they decide to visit a health care service for professional intervention.

## Significance of the Study for Nursing

Comprehensive health care, to be effectively delivered, has to include the cultural beliefs, values, and practices affecting a client of any designated culture. Nursing's holistic view of the patient has led nurses to include psychological and social needs in care plans (Brown, 1948). More recently, there has been a movement in the nursing

profession to add a cultural dimension to nursing. This view has been emphasized by Leininger (1978) who asserted that culture should be an integral part of holistic nursing practice. Understanding and respecting the culture of others is therefore of major importance for nurses and other health care professionals (Leininger, 1970). Accordingly, the Western Council of Higher Education in Nursing (WCHEN) has emphasized the importance of cultural diversity in nursing and developed a project to define immediate research priorities, set the groundwork to increase the number of nurse researchers studying ethnic problems, and substantially increased research on nursing problems of ethnic patients (Elliot, Krueger, & Kearns, 1980). In addition, the American Nurses' Association Commission on Nursing Research has set research priorities for the 1980s to ensure that the care needs of particularly vulnerable groups such as Black-Americans, Mexican-Americans, and other minority groups are met by providing more effective care and enhancing their care (ANA, 1981).

The relevance of the cultural dimension in nursing practice is important because nurses come increasingly in contact with clients from different cultural backgrounds (Leininger, 1978). This is particularly true of the large number of Arab clientele who visit numerous health care facilities. Information derived from this study should provide some useful insights for health professionals, particularly nurses, as to the extent to which psychosocial and cultural factors affect the illness behavior of this particular group (Leininger, 1970). By becoming more knowledgeable in respect to the different perceptions and interpretations of symptoms and reaction to illness, the symptoms perceived as important, kinds of complaints presented, patterns of

description of complaints, and different home remedies practiced, health care professionals will be more aware of the ideas of illness causation and expectations about treatment that patients bring with them in seeking health care.

This identification of the Arab-American's health beliefs should in turn foster a better understanding of the patients' health care needs and help in the delivery of comprehensive and culture-specific professional care (Leininger, 1980). Such an understanding will also minimize the difficulties and insecurities of nurses and other health care providers caring for patients from different cultural backgrounds (Leininger, 1978).

## Organization of the Study

This dissertation is organized into seven chapters. Chapter I, Introduction, presents an introduction to the problem area of the study, its significance, and a general overview of the purpose.

Chapter II, Literature Review, addresses the review of the literature in two major parts: the culture of Arab-Americans, with an emphasis on concepts of health and illness, and a review of previous research related to illness behavior.

Chapter III, Conceptual Framework, addresses the health belief model and Kleinman's explanatory model and describes how these two models have been used in the investigation. A presentation of the study's research questions and operational definitions comprises the remainder of the chapter.

Chapter IV, Methods of Data Collection and Data Analysis, consists of a description and explanation of the overall design of the study,

which includes the translation of tools into Arabic and the establishment of their validity and reliability. The characteristics of the sample population are also discussed. In addition, quantitative and qualitative analyses are presented.

Chapter V, Results, contains a profile of the study subjects, an overview of scores, a presentation of the findings for each research question, and a discussion of the content analysis of the initial interview questions.

Chapter VI, Discussion, reviews the significant findings of the study, explores their meaning, and discusses their implications in regard to prior research.

Chapter VII, Conclusions, consists of an overview of the study and its findings, the limitations of the study, implications of the findings, and suggestions for further research.

# CHAPTER II

## REVIEW OF THE LITERATURE

The first part of this chapter addresses the literature and previous research related to Arab-Americans, their immigration to the United States, cultural heritage, and concepts of health and illness. The second part addresses the concept of illness behavior in general, perceptions of and responses to symptoms of illness, lay consultation, and different actions taken for relief (help-seeking).

### Arab-Americans

Arab-Americans form part of the United State's mosaic of ethnic peoples whose number has increased during the past few years. Arab-Americans are Arabic-speaking people, usually of Semitic origin, who were born in an Arab country and migrated to the United States, or whose parents were born in an Arab country and who therefore consider themselves of Arabic origin (Lipson & Meleis, 1983).

The Arab world extends over two continents and includes Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, the People's Democratic Republic of Yemen, Qatar, Saudi Arabia, Syria, Tunisia, the United Arab Emirates, and the Yemen Arab Republic. The population of this area exceeds 150 million (Racy, 1970; Terry, 1981).

There are an estimated two to three million Arab-Americans in the United States, 90 percent Christian and 10 percent Moslem. Over half of them are well-assimilated third- and fourth-generation descendants of immigrants who arrived between 1875 and 1948 (Naff, 1980). Most Arab-Americans are descendants of Lebanese-Syrian immigrants who established themselves in the United States in the 19th century (Abraham, 1981). The first immigrants to arrive in the United States were merchants who attended the Philadelphia Centennial Exposition in 1875 and decided to stay (Naff, 1983).

Abraham (1981) has characterized immigration as taking place in three major waves. The first wave began in the mid-19th century and continued until just before World War I. Its prevalent motive was economic and political - to improve their economic situation and avoid induction in the Ottoman army. These first immigrants were single men without their families. Typically, they were illiterate and worked as unskilled laborers. These immigrants were predominantly from Greater Syria, what is today Lebanon, Syria, and Transjordania, but was then under the rule of the Ottoman Empire.

A second wave of Arab immigration to the U.S. began after World War II. The prevalent motive of this phase was political and religious. Syrians, Lebanese, Yemenites, and a large number of Palestinians, displaced after the 1948 Palestine partition, comprised the greater part of these immigrants (Abraham, 1981). In addition, there were a number of students and professionals from Palestine, Iraq, Egypt, Syria, and Lebanon who arrived in the U.S. to study and preferred to stay (El-Kholy, 1969).

A final wave of immigration occurred in the years after the 1967 Arab-Israeli war and because of the critical political situation in Lebanon in the 1970s. Unlike earlier Arab immigrants, these more recent ones are largely unacculturated and unassimilated into the mainstream of American society (Abraham & Abraham, 1983). The first immigrants established themselves as peddlers and traders, operating private businesses such as grocery stores, bars, and wholesale and retail businesses (Abraham, 1981; Naff, 1980). They settled predominantly in the northeastern and midwestern states, particularly in New York, Massachusetts, Michigan, and Ohio. Large Arab communities have since developed in Los Angeles, New York, and San Francisco, although Detroit is still home to the largest Arab-American community in the U.S. (Abraham & Abraham, 1983).

The Arab-American population is heterogeneous in composition and differs in terms of religion, country of origin, and socioeconomic background, representing the migrant worker as well as the very sophisticated professional. The single most important unifying factor for this diverse group is the Arabic language. In addition to language, common bonds of cultural heritage, history, and religion are also evident (Terry, 1981). As an ethnic group, Arab-Americans are a self-perceived group of people who hold in common a set of traditions not shared by the others with whom they come in contact. Such traditions typically include "folk" religious beliefs and practices, language, a sense of historical continuity, and common ancestry or place of origin (DeVos, 1975).

Arab-Americans and Their Cultural Heritage

Arab culture is portrayed by three important major aspects: the family and its kinship ties, the Arabic language, and other traits that represent the Arab personality.

Family and kinship ties. In Arab communities, the family is the most important and most prominent social unit; therefore loyalty to the family is highly valued. Racy (1970) has described this kinship system as the central, most durable, and most influential social institution in the Middle East. It is the basic unit of all social relations and is found everywhere in its patriarchal type (Rodinson, 1981). Grouped in an economic unit around the father, who is the leader, are his male descendants and their wives and children, living together in several nuclear families. Within the extended family, uncles, aunts, and cousins, as well as immediate family members, usually live in proximity to one another and maintain close ties. Affiliation follows the male line, and women settle with the families of their husbands. This structure is characterized by masculine authority and subordination of women. This extended family recently has tended to give way to the nuclear family, which has made for increased individual autonomy and a more positive role for women (Rodinson, 1981).

Although individual differences and variations exist from one country to another, early arranged marriages, preferably to cousins so as to strengthen family ties, with an emphasis on the production of male children, is very favorably regarded in Middle-Eastern society. Because of very strong kinship ties and affiliation needs, one turns to a member of the family for assistance in almost any area, whether it be questions

of health, financial need, the quest for a wife, or employment (Abu-Laban, 1980).

Arabic language. Arabic is the common language spoken in the Arab world. Although the dialects from Morocco to Yemen to Iraq differ, the classical written language is the same throughout the Arab world (Terry, 1981). Arabic is a rich language, particularly apt for affective and descriptive expression but not as suitable for precise or objective delineation. There is a tendency to overemphasis, hyperbole, and exaggeration, if not in the language itself, then in its expression (Racy, 1970). Arabs are forced to overassert and exaggerate in almost all types of communication to avoid the risk of being misunderstood (Shouby, 1951).

Arab personality. The most prominent aspects of the Arab personality are the following: a strong affectivity, a deep narcissism (Djait, 1974), an anxious search for the approval of others, aggressiveness directed toward different objects and expressed in a variety of ways, hospitality toward strangers, loyalty to one's group, and obedience to its leader (Racy, 1970).

## Concepts of Health and Illness

Every culture of the world possesses its own philosophy, concepts, and practices in curative and preventive medicine. Within the Arab world there exists a vast body of beliefs and practices that are shared by different Arabic communities. In Egypt and other Middle-Eastern countries, it is commonly believed that a person is healthy as long as he functions normally, that is, as long as a person can go to work, live independently, and meet personal and family needs. A person goes to a

physician only when these responsibilities can no longer be performed effectively. Health is classified with good luck and wealth, whereas disease is associated with poverty and bad luck. A physically robust person is considered healthy compared to one who is thin (Pillsbury, 1978)

It is commonly believed that illness has been sent from God as a punishment for sins. It is often regarded as the will of God, who is the afflictor as well as the healer (Maloof, 1979; Pillsbury, 1978). This attitude gives people a fatalistic acceptance of disease (Nassib, el Maktoub - destiny, subjecting oneself to God's will, His judgment and justice), which often inhibits their seeking help. An example of this attitude is the death of a young person, which is interpreted as God's choice to spare him unexpected suffering in the future. People are likely to say, "This is his destiny" or "God wanted it this way".

Another example of illness behavior is that whenever patients seek health care, they consider injections superior to medicine in liquid or tablet form. Injections are thought to go directly to the blood and "kill the disease", whereas liquids are quickly eliminated from the body. Also, there is a preference for pills or tablets which are colored as opposed to plain uncolored ones (Meleis, 1981).

Egyptians place great emphasis on matters related to death and dying (Meleis, 1981). The last thing a sick person wants to do is go to the hospital, as this is considered a place of misfortune where one goes only to die. A family member who is hospitalized for a terminal illness and is about to die will often be discharged at the request of the family, who prefers that the person live the few hours left in an environment surrounded by loved ones (Reizian, 1981). It is believed

that "to die without issue or kin is the greatest defeat. To die surrounded by one's children and relatives is a great solace." (Racy, 1969, p. 874)

Causes of illness. Many folk beliefs and practices are still retained in Middle-Eastern communities. Causation is attributed to both natural and supernatural causes (Pillsbury, 1978; Shiloh, 1958). Illness is believed to be caused by many causes, not only by germs. Two of the most common beliefs associated with disease causality are exposure to hot and cold and the evil eye. The effect of cold and humidity, such as exposure to cold late night weather or early morning weather, is believed to cause illnesses such as gastrointestinal problems and body aches. Patients often seek care complaining of dampness in their bones (routouba). Also, drinking ice water when warm and sweating, exposure to drafts after bathing, and exposure to too much sun are other factors thought to be related to disease causality (Reizian, 1981).

Many people believe that the evil eye (Ein el Hassoud or et Ein el Wehshah) causes disease and that envy (Hassad) is the prime cause of being subjected to the evil eye. It is believed that most people die as victims of the evil eye. Illness is thought to be caused when a person looks admiringly, but enviously, at another (Meleis, 1981; Shiloh, 1968). A healthy, attractive child is susceptible to envy, as are male children and pregnant women. The vehicle of the evil eye is an outsider who is often an unmarried or sterile woman, a beggar, or a person with blue or green eyes (Pillsbury, 1978). As a preventive measure and to distract the evil eye, mothers hang blue beads from the hair down onto the child's forehead. Also, the use of incense, amulets, and the emblem

of five fingers of the outstretched hand are believed defense from the evil eye (Pillsbury, 1978).

In a study conducted on an urban and rural population, Alemi and Mohseni (1978) found that traditional beliefs such as luck and religion were related to locality and age. The urban literate community put less emphasis than the illiterate rural population on such beliefs of disease causality. Older people and those living in rural areas tended to believe in an evil eye as a cause of disease. A small percentage believed in the germ theory of disease, primarily caused by flies and other insects.

It is believed that exposure to sudden fear causes illness, as in the case of receiving bad news or witnessing an accident (Reizian, 1981). Heating the blood (Fawaran el dam) usually occurs when someone gets very angry and suffers a stroke or a heart attack (Reizian, 1981). Illness is put on someone willfully by another person by means of a hex (el aamal). The hex may be put on someone through food or by means of an object that belongs to the victim or through a picture of the victim. The person who is hexed may experience a variety of symptoms. In its severest form, a hex causes a person to behave strangely because of the spell put on him.

In rural communities, when people become sick they practice different treatment methods which range from self-treatment, folk-healers, and the Western health-care system. The majority of people consult indigenous health practitioners, depending on the type and perceived severity of illness. These health practitioners usually are village health barbers (Halak el Seha) who prescribe and administer folk cures, perform cautery, dress wounds, and perform male circumcision;

traditional midwives (Daya); holy sheikhs; and herbalists (Attar) who sell herbs, spices, and other goods and act as counselor on health matters and prescribe folk cures (Pillsbury, 1978).

Folk health practices. It is common in rural communities for people to treat themselves when they become sick. Also, self-administration of medication is common and is either initiated by the patient or friends and neighbors, or by the druggist or pharmacist (Pillsbury, 1978).

Heat cautery of skin (Kawye) over diseased organs or parts of the body is a well-known method of treatment in rural communities, especially in chronic conditions. This method sometimes works well in alleviating pain by acting as a counter-irritant. However, these temporary results make people believe in and accept cautery as a magic treatment for all chronic conditions which cause either pain or edema, for example in cases of ascitis caused by bilharziasis, a major disease afflicting the Fellahin (Egyptian villagers) (Gadalla, 1962).

Another form of healing practice is known as Zar parties, which are sessions in which groups of drummers play special songs to which patients move and dance, often ending in convulsions and fainting. The people who join such parties believe that the ill person has a genie or a spirit who inhabits the body and that the music and singing please the "jinn", who then releases the patient. Such parties are now considered by the westernized Egyptian elite to be only an ignorant practice of the lower-class (Pillsbury, 1978).

A common and widely accepted practice is to dress children who have measles in red clothes in the belief that the color red enhances the

spread of the rash and hastens a cure. Other folk practices include the use of charms against the evil eye.

Doll charm treatment. A piece of paper is cut into the shape of a doll, which is then pierced twice with a pin, symbolic of piercing the evil eye. The names of everyone, whether relatives, friends, or strangers, who looked at the person "without praying for the Prophet" are mentioned. The doll is passed several times over the head of the person while reciting some verses from the Koran and then burned. The belief is that all the evil eyes are burned with it (Gadalla, 1962).

Alum charms. In this type of treatment, a piece of alum is burned in a container placed on the floor, and the patient is asked to cross the fire from one side to the other seven times. The burning alum forms different shapes which are believed to be the face and eyes of the "evil eye". Also, the sound made by the burning alum is symbolic of an eye burning. Amulets also are made of paper folded in a triangle on which different sayings and verses from the Koran are written (Gadalla, 1962; Pillsbury, 1978).

Although many of these practices and beliefs are still very current among the rural and urban poor (and certain of the beliefs, in particular, even among the urban elite), Western medicine is becoming more accepted. Of course, people who fail to find relief under one type of remedy will often try another (Pillsbury, 1978).

## Culture

To better understand the relationship between behavioral factors determined by culture and the health-related outcome of those behaviors, it is important to define the concept of "culture". According to

Tylor's classic statement, culture is "that complex whole which includes knowledge, belief, art, morals, laws, customs, and any other capabilities and habits acquired by a man as a member of society" (cited in Voget, 1973, p. 2). It has also been defined as a set of learned beliefs, values, and behaviors shared by the members of a society and transmitted from one generation to the other (Ember & Ember, 1973). Since cultures are not all the same, beliefs, morals, values, customs, and other perceptions vary from group to group just as they vary from one individual to another. The development of perceptions, interpretations, and behaviors of an individual are largely a function of the cultural context and the social milieu in which that person lives. Perceptions, interpretations, and responses, therefore, are affected and shaped by social and cultural forces that influence what is sought by the individual, interpreted, and responded to. But despite individual variations, there is still a degree of conformity and continuity among group members because of the shared body of culture.

## Illness Behavior

Mechanic (1978) referred to illness behavior as the way in which given symptoms can be perceived, evaluated, and acted upon in different ways by different individuals. To understand the process of illness behavior, it is necessary to consider what transpires before a person sees a doctor or some other health care provider.

According to Wu (1973) and Mechanic (1978), help-seeking behavior is one of many facets within the larger area of illness behavior. Once a symptom is perceived and evaluated, people can select from a variety of behavior resources in connection with their illness, for example,

decreasing activity, resting in bed, using nonprescription drugs, and/or consulting the lay network. These patterns of behavior determine whether diagnosis and treatment should begin or if the individual should delay or reconsider any action directed toward the perceived symptoms (Mechanic, 1978). Thus the study of illness behavior begins with and involves the study of attentiveness to symptomatology and the perception of symptoms of illness.

Perception of symptoms of illness. In different cultures, certain health-related behaviors are accepted and others are not. In some cultures (i.e. Mexican-Americans, Black-Americans, Filipino-Americans) it is considered inappropriate to seek medical attention unless the individual is seriously ill, with the result that many people delay seeking preventive or early detection measures until their symptoms are pronounced and incapacitating. Common cultural beliefs held about health are determined by whether a person can go to work, live independently, and meet personal and family needs. This perception of health and illness can be considered valid cross-culturally. It is true in Middle-Eastern communities, where a person is considered healthy as long as his functional ability is not altered. People usually tend to underemphasize the importance of symptoms that are perceived as neither serious nor incapacitating, especially if these symptoms do not interfere with their public and private lives (Suchman, 1964, 1965a).

Persons are more likely to take action for symptoms that disrupt their usual functioning (Hennes, 1972). Persons experiencing such changes then engage in attempts to make sense of their experience and test various hypotheses about the seriousness and possible causes of those symptoms (Mechanic, 1972). Mechanic (1978) has suggested that ten

factors characterize reactions to illness and further influence the likelihood that a person will seek help for a health problem. These factors are:

> 1) visibility, recognizability, or perceptual salience of deviant signs and symptoms, 2) the tolerance threshold of those who are exposed to and who evaluate the deviant signs and symptoms, 3) the extent to which symptoms disrupt family, work, and other social activities, 4) the frequency of the appearance of the deviant signs or symptoms, their persistence, or their frequency of recurrence, 5) the extent to which the symptoms are perceived as serious, i.e., the person's estimate of the present and future probabilities of danger, 6) available information, knowledge, and cultural assumptions and understandings of the evaluator, 7) basic needs that lead to denial, 8) needs competing with illness responses, 9) competing possible interpretations that can be assigned to the symptoms once they are recognized, and 10) availability of treatment resources, physical proximity, and psychological and monetary costs of taking action (included are not only physical distance and costs of time, money, and effort, but also such costs as stigma, social distance, and feelings of humiliation). (pp. 268-269)

Furthermore, Zola (1966) has suggested that there are at least two ways in which symptoms usually defined as indicative of illness in one population can be ignored in another. First, an estimate of the prevalence of a condition may be misleading, especially if the corresponding symptoms are so common within a population that they are not considered symptomatic. Second, the form taken by the illness may depend on the dominant value orientation of the culture. In regions where a disease is endemic, for example, phenomena considered to be symptomatic of a disease may be reported as a sign of health or without medical significance (Lieban, 1973). Among the Thonga of Africa, infestation with intestinal worms is so endemic that people have adapted to it and even consider it to be necessary for digestion (Ackerknecht, 1946). Pinta (dyschronic spirochetosis) is so common among North-Amazonian Indians that the anatomically sick and disfigured are

regarded as normal while the few normals, in the biological sense, are regarded as pathological to the point of being excluded from marriage (Ackerknecht, 1946). The same is true of Yap Islanders (Lieban, 1973; Saunders, 1954). Some Mayan Indians in Guatemala regard worm infestation as a fairly normal condition, recognizing it as a problem only when the worms cause vomiting or choking (Lieban, 1973). Schistosomiasis has been endemic in the Nile Valley for centuries (Adams, 1953). Since Egyptian villagers believe that illness is associated with pain, bilharziasis and certain other parasitic infections are not considered to be illnesses or to require treatment (Lieban, 1973; Read, 1966).

Similar variations are present in other groups and cultural contexts. For example, Clark (1959) has described how Mexican-Americans view various life situations and symptoms as health problems in contrast to physicians, who do not regard these problems with similar seriousness and alarm. On the other hand, health problems which are ignored and undefined often are seen by physicians as serious. For example, a child with "sad eyes" or one who "didn't sleep enough" may be taken for medical treatment whereas one with diarrhea, a common condition in the population, might not be considered particularly ill.

Perceived seriousness of symptoms is an important determinant of the form of illness behavior. In a study by Koos (1954), respondents representing three social class levels were asked to indicate whether each of a selected list of readily recognizable symptoms was significant and should be called to the attention of a doctor. Recognition of the importance of the symptoms was uniformly high among the upper-class (Class I) respondents. Middle-class (Class II) respondents in general

showed a marked indifference to most symptoms. For example, Koos found that although lower back pain was an almost universal condition among lower-class (Class III) women, it was not recognized as symptomatic of a disorder but was accepted as part of their everyday existence.

In a 1960 study, Apple interviewed a sample of 60 lay persons living in the Boston metropolitan area regarding a series of brief descriptions of health problems. The participants were asked whether they thought the person depicted in each description was sick and what action should be taken to resolve the health problem. She reported that the kind of health problem which respondents considered to be illness were those of recent onset and those which interfered with usual activities (Apple, 1960).

Banks and Keller (1971), in a study examining symptom perception and reactions to symptoms, presented respondents who were residents of metropolitan areas of Columbus, Ohio with a list of 29 symptoms. The highest health concern scores were for symptoms such as loss of blood, together with symptoms known to have an association with specific diseases, such as a lump in the breast or pain in the chest.

Andersen, Anderson, and Smedby (1968) compared samples in Sweden and the United States to determine responses to 15 symptoms of disease. They reported that the proportion seeing a doctor for these health conditions tended to increase as family income, education, and occupational rank increased.

Mitchell (1983), in a study of concepts of disease in Jamaica, also reported that bleeding and pain were two signs invariably interpreted as indications of disease. Anderson (1983) reported that Filipinos often do not react to symptoms of illness until they have become quite

advanced and the patient is suffering severe pain or falls unconscious. Suchman (1965a), selecting a subsample from a larger survey done in New York City, reported that pain was clearly the most important initial sign that something was wrong and was mentioned by two-thirds of the respondents. Considerably less important were fever and chills and shortness of breath. Symptoms reported were usually severe, continuous, incapacitating, and unalleviated.

These reports emphasize that the individual's reaction to illness depends on the type of symptom and its severity. In other words, the more the symptoms appear to be serious and interfere with the individual's ability to carry on usual activities, the more likely it is that the individual experiencing these symptoms will become concerned about their presence and take action for relief.

Reaction to symptoms of illness. The nature and quality of symptoms play an important role in an individual's perception of the seriousness of the disease and also in the individual's readiness to take action in response to the perceived symptoms. Another major influence in this area is the impact of cultural beliefs. Cultural influences can be seen clearly in studies in which ethnic origin has been found to be highly related to the perception and interpretation of symptoms, to the corresponding reaction, and to the context of disorder.

Zborowski's classic study (1952) investigating ethnic reactions to pain in a New York City hospital showed that, while Jewish and Italian patients responded to pain in an emotional fashion and tended to exaggerate pain experiences, "old Americans" were more stoic and objective and the Irish more frequently denied pain. Zborowski also noted a difference in the attitudes underlying Italian and Jewish

concerns about pain. While the Italian subjects primarily sought relief from pain and were relatively satisfied when such relief was obtained, the Jewish subjects were mainly concerned with the meaning and significance of their pain and the consequences of pain for their future welfare and health.

Sternback and Tursky (1965) studied the degree to which tolerance of electric shock in female subjects depended upon ethnic status. They found that women of old American origin had the highest threshold, followed by subjects of Jewish, Irish, and Italian background, respectively. This psychophysical and autonomic difference was explained by attitudinal differences among the four groups. Americans tended to have a matter-of-fact attitude toward pain while the Italians showed a present-time orientation and focused on its immediacy. The Jewish were future-oriented and thus resembled the American and Irish groups in their attitudinal reactions to pain.

Zola (1966) studied the complaints presented by Italian and Irish patients in an outpatient clinic. Focusing on a limited set of medical diagnoses, he found that Italians presented a significantly more elaborate description of their symptoms and had more somatic complaints than did the Irish. Furthermore, while the Irish denied that their symptoms had any effect on their relations with other people, the Italians characteristically reported the disruption of interpersonal relations and more physical debility as a major part of their complaints.

Croog (1961), using the Cornell Medical Index, analyzed the responses of U.S. Army inductees in terms of their ethnic origin. He reported that soldiers of Italian or Jewish background recorded the

highest median numbers of total symptoms and that their scores were significantly higher than those of inductees of Irish, British, or German origin. Furthermore, Suchman (1964), in a study comparing Black, Puerto Rican, and White ethnic groups, found significant variations in knowledge about disease, attitudes toward medical care, and behavior during illness and interpreted these differences as being related to the form of social organization found within the ethnic group.

Pilowsky and Spence (1977) compared three ethnic groups in Australia: Greeks, Anglo-Greeks (first-generation Greeks), and Anglo-Saxons. Responses to an illness behavior questionnaire indicated that the Greeks showed greater hypochondriacal concerns, were more likely to suspect the presence of serious physical disease, and regarded illness more somatically. Anglo-Greeks were more similar to Greeks in their hypochondriacal attitudes and less similar in their psychological perception of illness. The study also showed that relationships observed between ethnicity and illness behavior were, to some extent, dependent upon age and sex.

Saunders (1954) has described the differences between Anglos and Spanish-speaking persons in the American Southwest in attitudes and responses toward illness and in the use of medical facilities. Whereas the Anglos preferred modern medical science and hospitalization for many illnesses, the Spanish-speaking people relied on self-treatment and on an extensive lay referral system, seeking advice from family members and neighbors, family care, and support before seeking professional medical care (whether folk or cosmopolitan).

Action taken: Help-seeking and importance of lay consultation. Taking action is an aspect of illness behavior that includes such

activities as self-treatment, lay consultation (seeking advice and information from family and friends), and actual help from professionals. It is an activity directed toward the relief of the signs and symptoms perceived important by the individual. In other words, it is the process that persons take along various paths while seeking help (Mechanic, 1978). However, very little is known about the ways people use their friends and acquaintances in attempting to cope with distress.

Friedson (1960, 1961) has pointed out that patient behavior involves many different behaviors and attempts to deal with the condition. This whole process of seeking help involves a network of potential consultants, from the informal contacts within the nuclear family or significant others to the professional. The person may first try home remedies, casually discuss the problem with family, neighbors, friends, and fellow workers, and then explore various alternative explanations for the way he is feeling. The point is to determine whether or not one actually is ill and what to do about it. These networks are termed the lay referral structure. The form and content of such a network is an important determinant of whether an individual is encouraged or discouraged from seeking professional health care.

Weaver (1970) described a general pattern among Spanish-Americans of the Southwestern United States which illustrates the use of lay referral. When illness occurs, members of the nuclear family of the afflicted individual are the first to perceive, evaluate, and validate the situation. After that, if the symptoms are severe and/or persistent, the family turns for consultation and minor medication first to the kin group, then to neighbors and important persons within the

community, and finally to an indigenous healer or scientifically trained practitioner.

Blackwell (1967) asked healthy upper-middle-class adults about their responses to a symptom such as rectal bleeding. The most common response given was that they would first attempt to find the cause of the symptom and attempt to relieve it on their own. If this failed, they would then seek professional intervention. In addition, Blackwell reported that the major precipitating factor for seeking help was the unknown quality of something perceived to be abnormal, that most respondents indicated that the time elapsed before seeking professional care was less than one week, and that the person mentioned the condition to another, who was usually the spouse.

Suchman (1965b) found that three-quarters of his respondents reported that they discussed their symptoms with some other person (usually a relative) before seeking care. Suchman believed that such discussions resulted in "provisional validation" for the sick person, which permitted release from responsibilities and permission to seek medical care.

In a study involving a sample of 100 middle-income Anglo-American patients, Hautman and Harrison (1982) reported that self-treatment for common health problems was prevalent for conditions such as constipation, headaches, piles or hemorrhoids, sore throat, and runny nose. In contrast, conditions for which individuals tended not to self-treat were high blood pressure, lumps, and unexplained weight loss of ten pounds or more. Vincent (1963) observed that people often see a doctor too late or without reason, largely because of the ways in which

their symptoms were originally perceived and evaluated by the unafflicted family members or friends.

Summary

The literature review focused on sociological and anthropological studies that described the relationship between sociocultural factors and selected aspects of illness behavior, including (a) the perception and reporting of symptoms, (b) knowledge about the causes of various diseases, (c) different actions taken, (d) lay consultation and help-seeking, and (e) willingness to consult a health professional. It also covered different reactions to pain, the style of pain expression, and the meaning attached to the sensation of pain in samples representing different ethnic groups.

These studies used different methodological approaches, for example, quantitative assessment and comparative responses of health calendars and diaries, hypothetical situations, participant observation, and interviews.

The review of the literature also portrayed what different cultures thought of illness, the symptoms they perceived as serious, how they reacted to the symptoms of their illnesses, what type of actions they took in the process of their help-seeking, and how they decided to seek medical treatment. Findings correlated class, education, ethnicity, and other social factors to illness responses. The significance of cultural differences among patients was also emphasized. The literature suggests considerable variation in illness behavior among ethnic groups.

Although many different ethnic groups have been the subject of investigation by different researchers, Arab-Americans and other

Middle-Eastern ethnic groups have not been given as much attention in relation to their health and illness patterns. There is little or no research literature on the health beliefs of Arabs or Arab-Americans. Needed in this area is research that investigates the extent to which their cultural patterns and beliefs influence health and illness behaviors.

The present study was conducted to describe the illness behavior of Arab-American patients, their perceptions and responses to symptoms of illness, and their help-seeking behavior. The study further examined their own explanatory models in relation to illnesses, beliefs about causation, and decisions to seek help. To carry out the purpose of this study, a conceptual framework was needed that explains the relationships between sociodemographic and illness characteristics, symptom perception, health beliefs, explanatory models, and action taken from a cultural perspective. This conceptual framework was viewed as the primary means by which conceptual linkages would be identified and the means by which findings could be explained in a broader theoretical perspective.

# CHAPTER III

## THEORETICAL FRAMEWORK

This chapter discusses and presents the theoretical basis of the study and delineates the research questions. The conceptual framework derives from the health belief model and Kleinman's explanatory model. It addresses major concepts in illness behavior and help-seeking behavior from a cultural perspective.

The literature reviewed in the previous chapter showed that how an individual deals with illness is heavily influenced by social and cultural factors affecting the group to which the person belongs (Kleinman, Eisenberg, & Good, 1978). These factors include cultural beliefs about health (Fabrega, 1972; Friedson, 1970; Mechanic, 1962, 1978. Mechanic and Volkart (1961), Rosenstock (1966), Suchman (1964, 1965b), and Zola (1964, 1966) identified different components of illness behavior. They were perception of symptoms, which is influenced by the frequency of an illness in a given population and the extent to which symptoms are salient, recognizable, and persistent; evaluation of symptoms, in which the person addresses the amount of threat likely to result from the illness as well as the predictability of the outcome of the illness; and action taken, the different alternatives including use of health services, self-treatment, and lay consultation. Because group pressures or expectations may lead a person to deny some symptoms or to

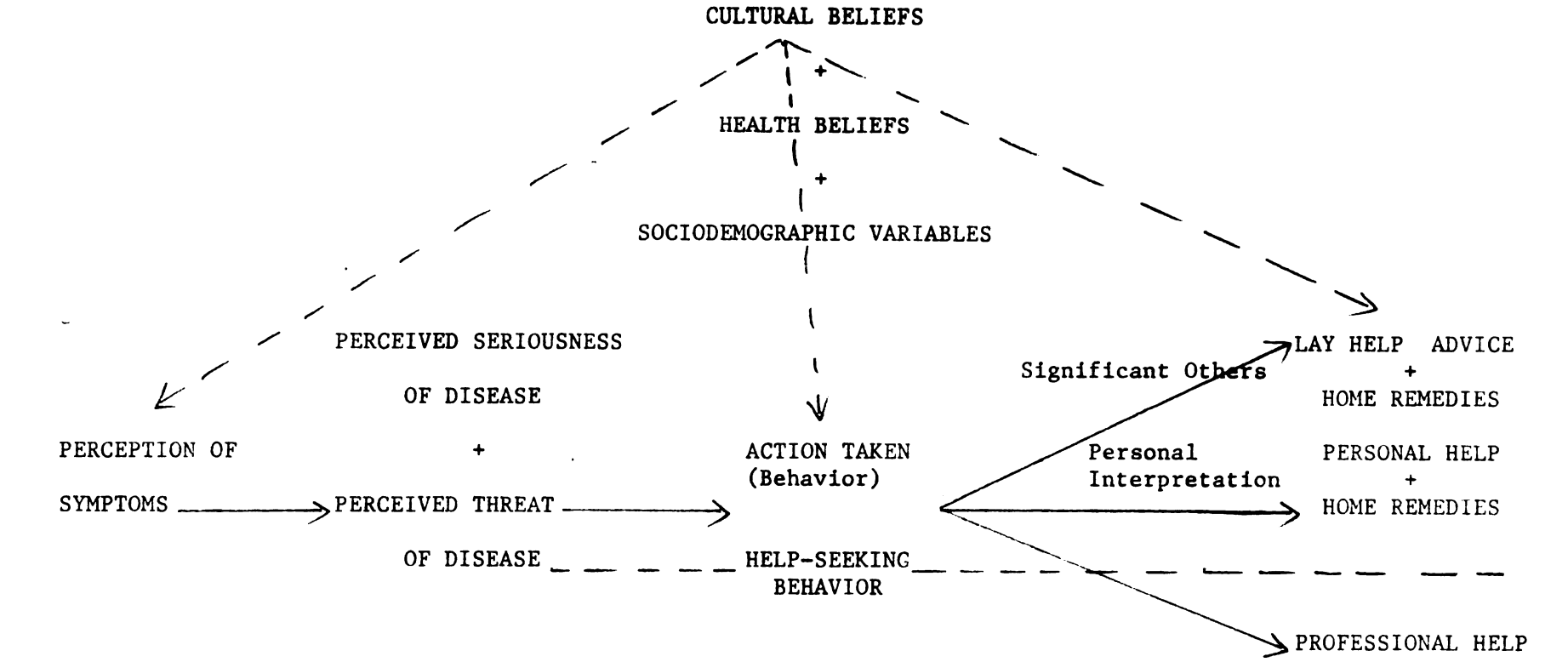
seek immediate treatment for others (McKinlay, 1972), a study of illness behavior must begin with perception of symptoms and reactions to them. Such a study should describe the process by which an individual decides that a series of bodily discomforts labeled symptoms is worthy of attention and for which action should be taken by seeking lay and/or professional help.

The purpose of this study was to describe the illness and help-seeking behavior of Arab-Americans in terms of their culturally-based system of health beliefs. Such a cultural emphasis accents the perceptions of serious symptoms of illness and underlines reactions and actions taken at the time of onset of these symptoms, which includes lay consultation (help and advice from significant others) and home remedies practiced until such time that professional help is sought.

In order to investigate these variables among Arab-Americans, a theoretical framework interrelating these concepts from a cultural perspective was needed. After careful review of the social-psychological models that explain illness and help-seeking behavior, the health belief model and Kleinman's explanatory model were found to be most relevant. They were chosen as the framework for this study. Concepts were derived from these two models, and an eclectic model of illness and help-seeking behavior was constructed (Figure 1). This model's presentation will follow the presentation and description of both the health belief model and the explanatory model.

## The Health Belief Model

The health belief model (HBM) was formulated between 1950 and 1960 by Hochbaum, Kegeles, Leventhal, and Rosenstock, a group of social




MODEL EXPLAINING ILLNESS BEHAVIOR AND HELP-SEEKING BEHAVIOR
FROM A CULTURAL PERSPECTIVE

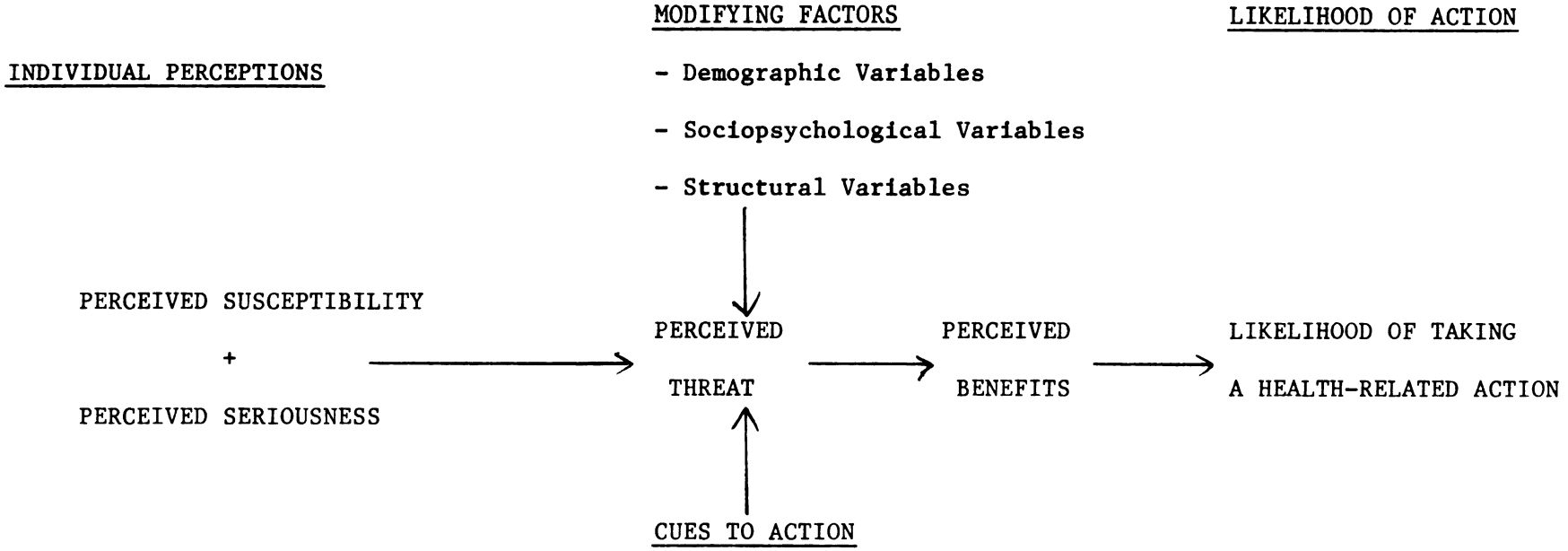
FIGURE 1

psychologists attempting to deal with public health problems from the perspective of prevention rather than the disease itself (Rosenstock, 1966). The HBM relates psychological theories of decision making (which attempt to explain action in a choice situation) to an individual's decision about alternative health behaviors (Maiman & Becker, 1974). Rosenstock (1966) has attributed the origins of behavior motivation theory that underly the HBM to Lewinian theory of goal setting. This theory hypothesized that behavior depends mainly upon two variables: 1) the value placed by an individual on a particular outcome and 2) the individual's estimate of the likelihood that a given action will result in that outcome. This behavior depends totally on the perceiver's own subjective estimate of the likelihood of success or failure, which in turn determines what will be done (Kirscht, 1974).

The HBM explains why and under what conditions people take actions to prevent, detect, and diagnose disease (Rosenstock, 1966). The elements of the traditional HBM are displayed in Figure 2. They include the individual's perceptions of susceptibility to a disease, the severity of the disease, and the benefits and costs associated with paths of action that could be taken to prevent the disease (Becker, 1974).

The HBM explains that in order for an individual to initiate a specific health behavior to avoid a disease, the following must be believed:

1. One is susceptible to a condition when he perceives the risk of contracting an illness (perceived susceptibility).
2. The occurrence of the disease would moderately affect some component of one's life (perceived seriousness). It is the




ORIGINAL FORMULATION OF THE HEALTH BELIEF MODEL

FIGURE 2

individual's perception of the severity of the illness or related complications and the impact of its effects on his life. The degree of seriousness can be judged both by the degree of emotional arousal created by the thought of a disease as well as by the kinds of difficulty the individual believes a given health condition will create (Robbins, 1962).

3. Taking a particular action would in fact be beneficial in reducing susceptibility to the condition or, if the disease does occur, by reducing its severity. Such action should not involve important psychological barriers such as cost, inconvenience, pain, or embarrassment (perceived benefits of taking action and barriers to taking action).

These perceptions are affected by diverse demographic, structural, and sociopsychological variables (modifying variables), and vary from individual to individual. In addition, a "cue" or triggering mechanism is necessary for initiating the appropriate health behavior. This cue can be internal (e.g. perception of a symptom) or external (e.g. interpersonal interaction). The intensity of a cue required to lead to action is presumed to vary with the level of psychological readiness to act (Davidhizar, 1983) Demographic, sociopsychological, and structural variables are also considered to be important as they affect both individual perceptions and the perceived benefits of preventive actions (Rosenstock, 1974).

Since its development, certain modifications of the HBM have been made, which include a health motivation component and indication of some of the presumed relationships among health beliefs and other sociodemographic determinants of health behavior (Weisenberg, Kegeles, &

Lund, 1980). Health motivation refers to an individual's degree of interest in and concern about health matters. One dimension of such motivation is the desire to attain or maintain a positive state of health and to avoid a state of illness (Mikhail, 1981). Although the model originally was formulated to explain preventive health behavior, it has been expanded to explain illness (Becker, 1979; Kirscht, 1974), sick-role (Becker, 1974), and compliance (Becker, Drachman, & Kirscht, 1972) behaviors.

The HBM has served as a framework for a significant number of studies. In the area of preventive health behavior it has provided theoretical justification for the use of penicillin as prophylaxis for heart disease (Heinzelman, 1962), vaccination against flu (Leventhal, Hochbaum, & Rosenstock, 1960), seeking dental care (Gochman, 1971; Kegeles, 1963a, 1963b), obtaining Pap smears (Kegeles, 1969), and performing a variety of other preventive health activities (Aho, 1977; Hallal, 1982; Harris & Guten, 1979; Langlie, 1977; Leavitt, 1979; Weisenberg, Kegeles, & Lund, 1980). In the area of sick-role behavior, it has been applied to medication compliance (Becker, Drachman, & Kirscht, 1974; Hershey, Morton, & Davis, 1980; Taylor, 1979), weight loss (Becker, Maiman, Kirscht, Haefner, & Drachman, 1977), and asthma (Becker, Radius, Rosenstock, Drachman, Schuberth, & Teets, 1978).

The different researchers that investigated the relationship between the major concepts of the HBM and a health-behavior outcome, whether preventive, illness, or sick role, showed that a particular action (e.g. chest X-ray for the detection of tuberculosis) was a function of perceived susceptibility and perceived benefits among adults (Hochbaum, 1956). Presence of symptoms and mothers' beliefs about the

threat caused by disease and beliefs about the benefits of medical care were found to interact with situational demands and constraints in relation to actions taken by mothers who brought their children for treatment (Kirscht, Becker, & Eveland, 1976). Also, the mothers' general health beliefs were correlated to their tendency to seek care for their symptomatic child as compared to other dimensions of the HBM (Becker et al., 1972). Perceived severity proved to be an important factor in seeking pediatric emergency service (Kahn, Anderson, & Perkoff, 1973). A fear-arousal cue had a marked effect on mothers' notions of perceived susceptibility, seriousness, and benefits of compliance for their children (Becker et al., 1977).

The findings of these studies generally support the importance of the concepts which form the HBM (perceived susceptibility, perceived seriousness, perceived benefits of taking action, barriers to taking action, and health-related behaviors). While none of the studies confirm the interaction of all of the components explaining and predicting certain health-related outcomes, each of those components, individually, has produced consistent findings in the predicted direction which, when considered together, provide strong support for the model (Becker, 1979).

As already indicated, the HBM is a major theoretical approach to health beliefs. The perceived seriousness, susceptibility, and personal threat of the illness and perceived therapeutic value of the treatment are primary variables in predicting readiness to engage in health-related behavior (Rosenstock, 1966). The HBM depends mainly upon the individual's perception of threat and value of treatment. However, it fails to identify cultural health beliefs (Kasl, 1974). For example,

how does a person evaluate the perceived threat of illness or its perceived seriousness based on his cultural beliefs and background (Binn, 1980)? In this area, the explanatory model accentuates the importance of the cultural components of health beliefs.

## The Explanatory Model

An individual's health beliefs, perceptions, and expectations of an illness are complex. They are shaped by cultural beliefs and social factors. In terms of illness, the impact of cultural beliefs and values can influence an individual's ethnomedical perceptions of illness and the resultant illness and help-seeking behaviors.

Kleinman, Eisenberg, and Good (1978) referred to this influencing process as the construction of clinical reality. Within a clinical reality, the patient's cognitive content (a particular view of what is wrong together with feelings, values, and expectations about the type and style of treatment and goals for effective care) is organized to form what the authors identify as an Explanatory Model (EM) of illness.

The EM contains explanations of any or all of five issues: (a) etiology, which deals with the exact cause of the sickness or knowledge regarding the cause, (b) time and mode of onset of symptoms in the form of changes noted in a person's condition, (c) pathophysiology, which includes a description of the nature of the sickness or how it affects the functional and structural parts of the body, (d) course of sickness, which includes type and degree of severity, and (e) treatment, which is the type of management and care a person needs to combat the sickness (Kleinman et al., 1978). In order to elicit a patient's EM, a

questionnaire was developed by Kleinman and colleagues (1978). It included the following questions:

1. How did you decide that this was a health-related problem?
2. What do you think caused it?
3. What did you think might happen if you did nothing about it?
4. How would you describe the effect of this problem on (a) your body, (b) your usual activity?
5. Where did you go for help and why?
6. Why did you choose this particular treatment?
7. How effective do you think the treatment was?

Kleinman (1978) suggested that each member of a culture carries an EM of illness that is typical of the culture and defines the nature of the illness, its appropriate treatment, and the kind of relationship within which treatment can take place. The EM describes the mechanisms by which culture influences decisions about treatment and evaluations of it. The model further suggests that patients come to the treatment setting with their own system for classifying and understanding diseases.

The EM sheds light on the influence of cultural values on perception, labeling, and presentation of symptoms, health-seeking behavior, doctor/patient communication, and lay evaluations of therapeutic outcomes. In other words, the ethnomedical perceptions of illness and the resultant behavior are clarified by the model (Kleinman et al., 1978).

Furthermore, an ethnomedical EM plays a major role in illness and help-seeking behavior by which patients, in the context of family or social network, decide among available treatment alternatives (Kleinman,

1978). The EM also helps determine adherence to the medical regimen and subsequent use of alternative health services. It also may influence patients' evaluations of treatment and may produce situations in which lay and professional evaluations conflict (Cay, Philip, Small, Nielson, & Henderson, 1975).

## A Model Explaining Illness Behavior and Help-seeking Behavior from a Cultural Perspective

In this model, inclusion of some of the concepts of the HBM as well as the EM is appropriate. Illness behavior is viewed as an emergent of the interacting beliefs that form the HBM. It is defined as the way in which a person deals with pain, discomfort, or other signs of organic malfunctioning (Wu, 1973). Unlike health behavior, it is triggered by a sign of illness (presence of symptom, symptom perception) rather than by anticipation of perceived susceptibility (Becker, 1979; Kirscht, 1974; Wu, 1973). Illness behavior, therefore, begins with the individual's perception of an altered state. Since the eclectic model provides a way of describing illness and help-seeking behavior which is initiated by the presence of a symptom, its perception heightens the perceived seriousness, which is a threat to the individual based on the type and severity of symptoms experienced.

The perceived benefits can be integrated into actions which can be further extended into help-seeking such as lay help in the form of advice and home remedies, personal help (home remedies), and/or professional help. Consequently, a decision to take an action in the presence of symptoms depends on three areas of patient illness beliefs: (a) the perception of the presence of symptoms (perceived susceptibility

to disease), (b) belief that the symptom(s) is serious (perceived threat of disease), and (c) belief that one will benefit from taking action.

Although symptoms occur in people all the time, diverse demographic, personal, structural, and social factors will affect interpretations, which varies widely by age, sex, race, ethnic group, level of education, and socioeconomic status. These factors, in turn, are assumed to affect the individual's health motivations and perceptions, although they are not considered direct causes of health actions (Banks & Keller, 1971; Becker, 1979; Mechanic, 1972).

Hochbaum's study (1956) showed that socioeconomic status (education and income) and the combination of beliefs in susceptibility and benefits were associated independently with having taken voluntary chest X-rays in the absence of symptoms. Also, there is some evidence that health is more important to individuals with higher social status than those with lower socioeconomic status. Koos (1954) reported that the lower the social class, the less likely a specified symptom was seen as requiring medical attention. Also, according to McBroom (1970), members of the lower class are more likely to suffer a variety of symptoms than those with higher status. In addition, according to Rosenstock & Kirscht (1979), people low on the economic scale tend to use more lay referral systems and use them more frequently than professional referral. Based on these findings, these might be influenced in a way by the kind of living arrangement and the presence of significant others who might be of help to the individual.

This investigator believed it was necessary to examine the relationship which exists between each component of the sociodemographic variables (age, sex, level of education, number of years in the U.S.,

country of origin, and religion) and illness characteristics (type and duration of disease) and perception of symptoms. It was also important to examine the relationships which exists between the same socio-demographic variables and type of action taken (help-seeking: lay help, personal help, and professional help). In addition, it was considered important to investigate the relationship between country of origin, type of occupation, living arrangements, and type of action taken.

A number of studies have emphasized the association between ethnic origin and perception and interpretation of symptoms (Croog, 1961; Zborowski, 1952; Zola, 1966). Many others demonstrated similar variations across different cultures and ethnic groups (Clark, 1959; Croog, 1961; Saunders, 1954; Suchman, 1964).

Illness behavior is a normative experience governed by cultural rules (Segall, 1976b). Therefore, in addition to individual beliefs about the perception of symptoms experienced, the individual's cultural beliefs, approved ways of being ill, explanatory model of clinical reality, and how one's illness situation is perceived and explained will activate or enhance the individual's perception of symptoms and, consequently, the actions taken toward the alleviation of the symptoms experienced. Unfortunately the HBM, despite identifying race and ethnicity as modifying factors, does not focus precisely on the cultural component and cross-cultural variations in how disorders are defined and dealt with.

This research considered the cultural influences on common concepts of illness among Arab-Americans and the culturally-based system of health beliefs which underlies their strategies for decision-making and assists them with labeling, evaluating, and managing an illness and the

problems created by it. In this respect, the patient's explanatory model of clinical reality was needed to amplify the missing cultural component in the HBM. This helped to explain the reasons a patient may have had for different behaviors related to illness and also was useful in understanding the ways in which people make sense of illness in cultural terms.

The final factor and outcome variables of this study (action taken and help-seeking behavior) were examined in light of the patient's own explanatory model of clinical reality in terms of causes of illness, perception of the effects of illness by Arab-Americans, most prominent complaints presented by Arab-American population, description of complaints, type of advice received, and home remedies practiced for treatment to manage problems created by an illness situation.

## Research Questions

Based upon the rationale presented above, the following research questions have been formulated.

### Major research question

What is the illness behavior and help-seeking behavior of Arab-Americans?

### Subquestions

1. Which symptoms are perceived as important and needing medical attention by Arab-American patients?

2. What are the most prominent complaints presented by the Arab-American population?

3. How would Arab-Americans describe their complaints?

4. What are their cultural beliefs regarding the causes of their illnesses?

5. How do Arab-Americans perceive the effects of their illnesses?

6. What are the different actions taken by Arab-Americans in response to symptoms perceived to be important?

7. What are the types of home remedies practiced for treatment to manage problems created by an illness situation?

8. Who do Arab-Americans contact for advice and consultation in case of illness?

9. Is there a relationship between age, sex, level of education, number of years in the United States, country of origin, religion, type and duration of disease, and symptom perception?

10. Is there a relationship between country of origin, type of occupation, living arrangements, and action taken?

11. What subset of independent variables discriminates the patient who seeks advice (lay consultation) and practices self-treatment and home remedies (Group 1) and the patient who does not (Group 2) before seeking professional help?

## Operational Definitions

Arab-Americans: Those persons with an Arabic name who were born in an Arab country and migrated to the U.S., or whose parents were born in an Arab country and who consider themselves of Arabic origin (Lipson & Meleis, 1983).

Illness behavior: Those processes by which symptoms are recognized and help-seeking initiated; the ways in which given symptoms may be differentially perceived and interpreted, evaluated, and acted

upon by individuals, including the activities taken to find relief (Kasl & Cobb, 1966; Mechanic, 1978).

Symptom perception: The ability to discriminate the perceived severity of a medical symptom in terms of requiring medical attention.

Help-seeking: The course of health action taken in order to find relief for the symptoms experienced.

Lay consultation: The interactions with significant others for consultation and advice in relation to symptom perception and its relief.

Thus the purpose of this study was to examine the relationships that exist among sociodemographic variables, illness characteristics, and perception of symptoms, and consequently the type of action taken among Arab-Americans. Based on the conceptual framework, the research questions were derived and the operational definitions, methods of data collection, and data analysis were determined.

# CHAPTER IV

## METHODS OF DATA COLLECTION AND DATA ANALYSIS

The purpose of this chapter is to describe the research design utilized for the study, the characteristics and nature of the sample selected, the research instruments used and their translation into Arabic, and the approaches for data gathering and data analysis.

### Design

This study was conducted utilizing a retrospective descriptive survey approach. Its main objective was to identify and describe the perceptions and responses to symptoms of illness of Arab Americans who visit a health care facility. The study further described the patients' own explanatory models in relation to their illness episodes, their beliefs about etiology, onset of symptoms, and pathophysiology, and their culturally influenced decisions about treatment. This information was derived from actions taken during the course of the illness, e.g. self-treatment, advice and help from significant others, and the actual decision to utilize professional health care services.

Because no research exists on the illness behavior of Arab Americans, a collection of descriptive empirical data which describe events and relationships as they exist naturally (Polit & Hungler, 1983) would add to the existing body of knowledge. No attempts were made to

introduce something new or to manipulate, modify, or control the situations being studied (Isaac & Michael, 1980).

Setting

The subjects were obtained between September 1982 and September 1983 from outpatient and inpatient settings at San Francisco General Hospital (a city and county hospital) and University of California Hospitals and Clinics (two acute care hospitals and an ambulatory care center). These two health care facilities were selected because they both serve a large Arab-American clientele.

An approximation of the total percentage of the Arab population visiting the health care centers was estimated through the 1982 statistics of University of California Hospitals and Clinics and through a meeting with the Director of Medical Records Service at the University of California Hospital and Clinics. The estimated number of patients admitted to Moffitt and Long Hospitals (1982 statistics) in 1982 was 19,500. The total number of patients visiting the ambulatory care center at the University of California, San Francisco was estimated to be 193,193. Statistical data on hospital admissions showed that 73 percent were classified as White, 8.51 percent were classified as Black, 6.87 percent were classified as Hispanic, 5.09 percent were classified as Asians, .23 percent were classified as Native Americans/ Eskimos, 4.15 percent were classified as Others, and 2.11 percent were classified as unknown.

The percentage of Arab-Americans being admitted to the inpatient setting of the University of California hospitals would fall between the classification of Others and Unknown (6.36%), which is very close to the

Hispanic population. According to the number of subjects accessed for this study, the estimated percentage of Arab-Americans being admitted to the hospitals is approximately .1 percent.

According to another source of information covering statistical estimates for 1982, comprising the total population of patients (both inpatients and outpatients) cared for at San Francisco General Hospital and outpatient clinics of the University of California, San Francisco Hospitals and Clinics, the total population number was estimated to be 461,000. The number of Arab-American patients obtained through the list of names as potential subjects was 1800, .4 percent of the total population. This percentage did not include pediatric, obstetric, or gynecological patients or patients visiting other speciality clinics.

The outpatient settings comprised several different clinics: gastrointestinal, infectious diseases, tropical medicine, ear nose and throat, orthopedics, cardiac, chest, ophthalmology, surgery, medical, diabetic, hypertension, medical screening, dermatology, allergy. The inpatient settings comprised neurosurgery, kidney transplant, medical, orthopedics, and surgical units.

## Characteristics of the Sample

Criteria for subject selection. Patients with Arabic last names seeking health care in the various outpatient and inpatient settings of the two facilities characterized the sample.

The following criteria were considered in recruiting subjects for the study:

1. Arab origin and residing in the United States for at least six months
2. 18 years of age or older
3. Receiving care in either the outpatient clinics or inpatient settings of San Francisco General Hospital or the University of California, San Francisco
4. Arabic or English speaking.

As these clinics do not identify patients by ethnic or national origin, it was important to check the names of all patients who were attending the clinics or were admitted to the hospitals, sort out those names denoting Arab affiliation, and further locate the patients with Arabic last names in the various clinics. The patients selected were identified as Arab-Americans by the researcher.

Subjects obtained. A total of 120 patients were located and approached for possible inclusion in the study. Two patients dropped out after one-half hour at the start of the interview. These patients were in a hurry to leave and had other commitments. Sixteen other patients who were recognized as being Arab-Americans, judging from their Arabic last names, were later found to be of different nationalities when approached by the researcher. These patients were from Iran, Pakistan, India, Afghanistan, Fiji Islands, and Ethiopia.

One hundred two patients were interviewed for this study. These patients had chronic or acute conditions. Of these, 16 (15.7%) were inpatients and were hospitalized in the following units: kidney transplant, medical, surgery, neurosurgery, and orthopedic. Eighty-six (84.3%) were outpatients being treated in the following clinics: cardiac, chest and allergy, gastrointestinal, ear, nose and throat,

dermatology, hypertension, surgery, orthopedic, urology, medical screening, general medicine, infectious diseases, and ophthalmology.

Demographic characteristics. The 102 patients interviewed in this study ranged in age from 18 to 82 years, with a mean age of 40.5 and a standard deviation of 15.17. Table 1 shows that 84 (82.4%) of the subjects were outpatients. The subjects were evenly distributed among the age categories, with a slight majority in the 26-33 year group. Of the patients, 67 (65.7%) were male; 69 (67%) were married.

Table 2 shows that 59 (57.8%) were Christian and 40 (39.2%) Moslem. Of the Christians, 29 (49.1%) were Catholic and 26 (44.1%) were Orthodox. The majority of patients were from Palestine (n = 42, 41.2%); six (5.8%) were born in the United States.

The primary reason for coming to the United States was immigration (n = 45, 44.1%). The length of time in the United States ranged from 0 to 69 years, with a mean of 8.5 years and a standard deviation of 9.5. The majority of subjects lived in San Francisco (n = 78, 76.4%); three (2.9%) lived in the valley. The rest lived in the East Bay and on the San Mateo peninsula.

Table 3 shows that educational level of the sample ranged from no education to a doctoral degree. Twenty-seven (26.47%) completed high school and three (2.9%) has a doctoral degree. The major occupation reported by the subjects in this study was that of housewife (n = 24, 23.5%). Sixteen (15.6%) were students, 16 (15.6%) were in skilled, semi-skilled, or unskilled labor, and six (5.5%) were major professionals.

As to living arrangements, 54 (52.9%) lived with their spouse and children and only four (3.9%) lived with friends. The number in the

household ranged from 1 to more than 5 members. In 39 (38.2%) of the families the number in the household was 4 and in 16 (15.6%) the number in the household was more than 5 members (Table 3)

TABLE 1

Distribution of Status, Sex, Age, and Marital Status Among Subjects (n = 102)

| Variable | Categories | Number | Percentage |
|---|---|---|---|
| Status | Inpatient | 16 | 15.7 |
| | Outpatient | 86 | 84.3 |
| Sex | Male | 67 | 65.7 |
| | Female | 35 | 34.3 |
| Age | 18-25 | 19 | 18.6 |
| | 26-33 | 21 | 20.6 |
| | 34-41 | 15 | 14.7 |
| | 42-49 | 17 | 16.6 |
| | 50-57 | 16 | 15.7 |
| | 58-82 | 14 | 13.7 |
| Marital Status | Single | 28 | 27.4 |
| | Married | 69 | 67.0 |
| | Divorced | 3 | 2.9 |
| | Widowed | 2 | 1.9 |

TABLE 2

Distribution of Religion, Country of Origin, City of Residence, and Reason for Coming to U.S. Among Subjects (n = 102)

| Variable | Categories | Number | Percentage |
|---|---|---|---|
| Religion | Christian | 59 | 57.8 |
| | Catholic | 29 | |
| | Orthodox | 26 | |
| | Maronite | 2 | |
| | Jehovah | 1 | |
| | Baptist | 1 | |
| | Moslem | 40 | 39.2 |
| | Atheist | 3 | 2.9 |
| Country of Origin | Palestine | 42 | 41.2 |
| | Jordan | 16 | 15.7 |
| | Yemen | 12 | 11.8 |
| | Lebanon | 9 | 8.8 |
| | Saudi Arabia | 7 | 6.9 |
| | Born in U.S.A. | 6 | 5.8 |
| | Iraq | 5 | 4.9 |
| | Egypt | 4 | 3.9 |
| | Kuwait | 1 | 0.9 |
| City of Residence | San Francisco | 78 | 76.4 |
| | Peninsula | 10 | 9.8 |
| | East Bay | 7 | 6.8 |
| | Valley | 3 | 2.9 |
| | Other | 4 | 3.7 |
| Reason for Coming to U.S. | Immigration | 45 | 44.1 |
| | Work and Study | 24 | 23.5 |
| | Join Family | 14 | 13.7 |
| | Treatment | 9 | 8.8 |
| | Born in U.S.A. | 6 | 5.8 |
| | Visit | 4 | 3.9 |

TABLE 3

Distribution of Socioeconomic Variables Among Subjects
(n = 102)

| Variable | Categories | Number | Percentage |
|---|---|---|---|
| Education | No Education | 11 | 10.8 |
| | Primary School | 21 | 20.6 |
| | Junior High School | 13 | 12.7 |
| | High School | 27 | 26.5 |
| | Technical/College | 17 | 16.6 |
| | Masters Degree | 10 | 9.8 |
| | Doctoral Degree | 3 | 2.9 |
| Occupation* | Unemployed | 9 | 8.8 |
| | Housewife | 24 | 23.5 |
| | Major Professional | 6 | 5.8 |
| | Lesser Professional | 7 | 6.9 |
| | Minor Professional | 13 | 12.7 |
| | Clerical/Technical | 11 | 10.8 |
| | Skilled, Semiskilled, & Unskilled Labor | 16 | 15.6 |
| | Student | 16 | 15.6 |
| Living Arrangement | Alone | 8 | 7.8 |
| | Spouse & Children | 54 | 52.9 |
| | Extended Family | 15 | 11.7 |
| | Friends | 4 | 3.9 |
| | Relatives | 21 | 20.5 |
| Number in Household | 1 | 8 | 7.8 |
| | 2 | 12 | 11.8 |
| | 3 | 12 | 11.8 |
| | 4 | 39 | 38.2 |
| | 5 | 15 | 14.7 |
| | More than 5 | 16 | 15.6 |

* Occupational groupings were based on Hollingshead's (1965) categories.

Table 4 shows the 10 different disease conditions for which the patients sought professional care. Twenty-one (20.6%) of the patients had orthopedic conditions, 19 (18.6%) had cardiac conditions, and only 1 (0.9%) had an eye condition.

TABLE 4

Distribution of Patients According to Type of Disease Condition

| Type of Condition/ Clinics Visited | Number | Percent |
|---|---|---|
| Orthopedics | 21 | 20.5 |
| Cardiac | 19 | 18.6 |
| General Medical | 14 | 13.7 |
| Gastrointestinal | 11 | 10.8 |
| Urology, Kidney | 10 | 9.8 |
| Chest and Allergy | 8 | 7.8 |
| Ear, Nose, and Throat | 3 | 2.9 |
| Dermatology | 3 | 2.9 |
| Hypertension | 3 | 2.9 |
| Ophthalmology | 1 | .9 |
| Total | 102 | |

Instruments

Both interviewing and questionnaire administration were used.

Initial interview. Respondents were interviewed personally in Arabic by the investigator, except for six who preferred to be interviewed in English. The initial interview was structured around questions related to illness and help-seeking behavior (see Appendix B). The questions evolved from the literature related to the area (Friedson, 1961; Lieberman & Glidewell, 1978; Suchman, 1965a; Zola, 1964). These questions included a patient's attempts to seek advice and assistance from significant others about his symptoms, the different suggestions offered to the patient in the form of advice, treatment, and home remedies, and the decision to seek professional health care and professional help. The interview also included a set of questions which helped elicit the patient's explanatory model of illness and inquired specifically about the patient's beliefs about the following issues: the patient's own perception of the cause of his illness, the reasons he gives to explain the onset of symptoms, his description of the symptoms and the cause of his illness, his view of the interference of the symptoms or the disease on his daily life and daily activities, and his evaluation of his illness condition.

An interview approach was selected in order to explore and describe illness behavior as being shaped by and emerging from a culturally influenced system of health beliefs, perceptions, and reactions to symptoms of illness to clarify the personal and social meaning of the disorder as perceived by the patient, to explore and describe the kind of help the patient receives from significant others in the form of

advice and consultation, and to describe self-treatment activities carried out by the Arab-American patient.

The interview also included the three questionnaires used in the study: the demographic data questionnaire, the Cornell Medical Index (Brodman, Erdmann, Lorge, & Wolff, 1949), and Koos' list of symptoms (1954) (see Table 5). The interview approach was selected to facilitate the data gathering process and because it created more face-to-face contact between the interviewer and the respondents.

Demographic data questionnaire. The Demographic Data Questionnaire (see Appendix C) was designed by the investigator for the purpose of obtaining pertinent sociodemographic data on the subjects in this study. The demographic questionnaire asked each subject information about age, sex, marital status, occupation, level of education, country of origin, living arrangement, number of years in the United States, and reasons for coming to the United States. Occupational groupings were based on the categories described by Hollingshead (1965): major professionals, lesser professionals, minor professionals, clerical/technical, skilled labor, semi-skilled labor, and unskilled labor.

Responses were recorded by the investigator on the questionnaire. It took approximately five minutes to complete the demographic questionnaire. Reasons for administering this tool were to determine characteristics of the population studied and ways in which demographic variables correlated with perceptions of and responses to symptoms of illness.

TABLE 5

Questionnaires Utilized for Measuring the
Independent Variable and the Dependent Variable

| VARIABLE | INSTRUMENT | PURPOSE |
|---|---|---|
| Independent | | |
| Demographic: age, sex, level of education, occupation, marital status, years in US | Demographic Data Questionnaire | Descriptive data of sample studied |
| Perception of symptoms | Koos List of Symptoms | Perception of symptoms that need medical attention |
| | Cornell Medical Index | Help appraise symptoms of medical significance perceived and experienced by the particular population studied. |
| Perception of actual symptoms and illness situation | Interview | Describe in depth patient's cultural beliefs in relation to perception of symptoms of his/her actual illness situation. Onset/ causation/course of sickness/patho-physiology |
| Threat caused by illness | Interview | |
| Dependent | | |
| Actions taken<br>- personal help<br>- lay consultation & help<br>- utilization of health care services (professional help) | Interview | Describe home remedies practiced to relieve symptoms<br>Describe kinds of advice given by significant others in relation to the episode of illness<br>Decision to seek professional health care |

The Cornell Medical Index. The Cornell Medical Index (CMI) (see Appendix D), developed by Brodman and colleagues (1949) is a widely used health status questionnaire consisting of 18 sections with a total number of 195 questions. The first 12 sections (A-L) deal mainly with physiological systems. The questions in general refer to a wide variety of physical symptoms, past medical and family history, and general health and habits. The last six sections (M-R) are mainly concerned with psychological symptoms, moods, and feelings. Questions are worded so as to be understood by persons with a reading knowledge of English.

Section A (questions 1-9) refers to the eyes and ears

Section B (questions 10-27) refers to the respiratory system

Section C (questions 28-40) refers to the cardiovascular system

Section D (questions 41-63) refers to the digestive tract

Section E (questions 64-71) refers to the musculoskeletal system

Section F (questions 72-78) refers to the skin

Section G (questions 79-96) refers to the nervous system

Section H (questions 97-107) refers to the genito-urinary system

Section I (questions 108-114) refers to fatigability

Section J (questions 115-123) refers to frequency of illness

Section K (questions 124-138) refers to miscellaneous diseases

Section L (questions 139-144) refers to habits

Section M (questions 145-156) refers to feelings of inadequacy

Section N (questions 157-162) refers to depression

Section O (questions 163-171) refers to anxiety

Section P (questions 172-177) refers to sensitivity

Section Q (questions 178-186) refers to anger

Section R (questions 187-195) refers to tension.

The questionnaire has two forms, one for men and one for women. The same questions appear on each form except for Section H, which has six questions on genito-urinary symptoms. The CMI can be answered in 15-20 minutes, either orally or self-administered. The respondent is asked to read each statement and circle either a Yes or No response. Each Yes response indicates that the subject presently has, or has had, the symptoms or disorder indicated. The individual's score on each section is determined by the number of Yes responses accumulated.

Since the appearance of the CMI in 1949, the index has been given wide use and has been tested in various ways. Many studies have found this instrument to be a valid screening tool for neurotic tendencies (Brodman et al., 1949; 1952, 1954; Culpan, Davies, & Oppenheim, 1960; Lawton, 1959), a sensitive indicator of a person's overall health status (Brodman et al., 1954; Erdman, Brodman, Deutchberger, & Wolff, 1953; Lin, Tazuma, & Masuda, 1979), and an epidemiological tool to obtain health profile of a population and the amount, type, and pattern of complaint (Herbolsheimer & Ballard, 1958; Kark, Zaslany, & Ward, 1963). The CMI has also been used to measure a subject's own perception and expression of symptoms of illness and to help appraise symptoms of medical significance (Croog, 1961).

Validity of CMI. Validity and reliability data on the CMI have been reported in the literature (see Table 6). Studies conducted using the CMI have shown that high total scores and high M-R scores are associated with neuroses in both men and women (Brodman et al., 1949, 1952, 1954). A significant correlation between a high score and the presence of a clinical record of psychological disorder also has been reported (criterion validity) (Ryle & Hamilton, 1962).

Abramson and colleagues (1965) reported a moderate correlation between the physicians' ratings of emotional and overall health. The coefficient of correlation between the two ratings (criterion validity) was .52 (women) and .57 (men).

In a study by Matarazzo, Matarazzo, and Saslow (1961), the total score was found to be highly correlated (.78) with scores on the Taylor Manifest Anxiety Scale (1953) and significantly correlated (.55) with scores on the Saslow Psychosomatic Inventory (1951). This applied both to medical and psychiatric patients (concurrent validity). Further, a study of hospital patients with pulmonary diseases revealed a positive relationship (.70) between their A-L scores and their scores on the hypochondriasis scale of the Minnesota Multiphasic Personality Inventory (concurrent validity) (Tolman, 1954). The total CMI score has been found to be a valid indicator of general overall health status. Among workers in a New York factory, there was a positive correlation between the total score and the number of absences from work (.40) for men (criterion validity) (Erdman et al., 1953). Studies have shown that women of all ages have higher total CMI scores than men (Brodman et al., 1949; Scotch & Geiger, 1963-64).

The applicability of the CMI has been examined in different cultures, and it has been found to be a sensitive and valid screening tool for diverse people such as Taiwanese (Chu & Rin, 1970), Zulus (Scotch & Geiger, 1963-64), Egyptians (Morsy, 1978), Australians, (Johns, 1972), and Jews (Abramson et al., 1965). CMI scores also have been shown to be related to ethnic origin in a group of United States Army inductees, reflecting culturally dependent differences in the perception and expression of symptoms (Croog, 1961).

Reliability of CMI. With respect to the reliability of CMI, it has been demonstrated that the CMI has adequate internal consistency. Matarazzo and colleagues (1961) have reported correlations of .94 for the A-K section and .92 for the L-R section with total CMI scores.

The internal consistency of the CMI also have been described by Abramson and colleagues (1965), who found the coefficient of rank correlation between the total CMI scores and sections M-R to be .68 for women and .76 for men. Agreement has been found to exist as well between CMI items and responses to similar questions asked by an interviewer in 95 percent of the questions on the CMI (Brodman et al., 1949).

The CMI was used in this study because of its ability to screen complaints presented by the population studied, its ability to measure perception and expression of symptoms of illness, and its wide range of use in various cultures.

TABLE 6

Results of Some Studies That Have Used the Cornell Medical Index (Validity and Reliability Information)

| Article | Concept Measured | Results |
|---|---|---|
| K. Brodman, A.J. Erdman, I. Lorge, & H.G. Wolff (1949). The CMI: An adjunct to medical interview. | Patient's medical history (symptom information) (n = 179) | Congruence between CMI results and information obtained from interview |
| A. Ryle & M. Hamilton (1962). Neuroses in fifty married couples, assessed from general practice records, interviews by a psychiatric social worker, and the use of the CMI. | Neurotic tendencies (n = 50 couples) | High correlation between high scores and the presence of a clinical record of psychological disorder |

TABLE 6 (continued)

| | | |
|---|---|---|
| R.G. Matarazzo, J.D. Matarazzo, & G. Saslow (1961). The relationship between medical and psychiatric symptoms. | Neurotic tendencies (Medical & psychiatric patients) (n = 162) | Total CMI highly correlated with both of its subparts, .94 with the medical A-K and .82 with the psychiatric L-R. Also, total CMI score highly correlated with scores in the Taylor Manifest Anxiety Scale (1953) (.78). Significantly correlated with scores on the Saslow Psychosomatic inventory (1951) (.55) |
| K.H. Lin, L. Tazuma, & M. Masuda (1979). Adaptational problems of Vietnamese refugees health and mental health status. | Health and mental health status (Vietnamese refugees) (n = 152) | Phase I: Women and older men - higher M-R scores. Phase II: Women - high scores in all categories. Relatively higher scores of psychological over somatic complaints in the refugees correlated with scores in the CMI. |
| J.H. Abramson, L. Terespolsky, J.G. Brook, & S.L. Kark (1965). CMI as a health measure in epidemiological studies: A test of the validity of a health questionnaire. | Health and mental health status (Jerusalem) (n = 120) | Moderate correlation between the physicians' ratings of emotional and overall health. Coefficient of correlation between the two ratings were .52 for women and .57 for men. A moderate correlation (r=.63) between the number of key questions answered positively and the total CMI score. |
| A.J. Erdman, K. Brodman, J. Deutschberger, & H.G. Wolff (1953). Health questionnaire use in an industrial medical department. | Overall health status (Workers in a New York factory) (n = 500) | Positive correlation between total CMI scores and number of absences from work (.40 men, .26 women). |

TABLE 6 (continued)

| | | |
|---|---|---|
| R. Tolman (1954). Discussion. | Health status (Patients with pulmonary disorder) (n = 63) | Positive relationships between A-L scores and their scores on the Hypochondriasis scale of the Minnesota Multiphasic Personality Inventory (.70). |
| K. Brodman, A.J. Erdman, I. Lorge, & H.G. Wolff (1953). The CMI health questionnaire. The relation of patients' complaints to age, sex, race, and education. | Patients' complaints in relation to age, sex, race, and education (Adult outpatients, white and black) (n = 5119) | Women in all age groups expressed more complaints referring to body and feelings. Age correlated with number of body complaints among older men and women. Blacks had only a few more complaints (% not significantly different). |
| H. Herbolsheimer & B.L. Ballard (1958). Multiple screening in evaluation of entering college and university students. | Amount and type of medical complaints (n = 3523) | Foreign students scored higher than US students in emotions and feelings symptoms and in gastroenteric diseases, but in general did not have higher CMI scores. Females had high M-R scores and bodily symptom scores. |
| S.H. Croog (1961). Ethnic origins, educational level, and responses to a health questionnaire. | Perception and expression of symptoms of illness (Army inductees) (n = 1182) | Soldiers of Italian and Jewish ethnic origins received the highest median number of symptom responses as compared to scores recorded by soldiers of Irish, British, and German origins. |
| M.W. Johns (1972). Symptoms of neurotic illness in general hospital patients. Use of the CMI. | Neurotic tendencies (Medical & surgical patients) (n = 234) | High total scores found to be related to neurotic illness in both men and women. |

Koos' List of Symptoms. Symptom perception was determined by using the symptoms employed by Koos (1954) (see Appendix E). This instrument lists 17 important symptoms. Respondents are asked to indicate whether each of the symptoms on the list should be called to the attention of a doctor (i.e., recognized as symptomatic of a disorder) by scoring a Yes or No by each symptom to indicate whether it required medical attention or not. A score was obtained by adding the positive responses. The maximum score a respondent could receive is 17. There is no validity and reliability documentation in relation to this instrument.

Koos (1954) administered this checklist to a small rural community and, when comparisons were made, statistically significant differences were found in the numbers and types of significant symptoms reported by the various social classes that formed the community. It was reported that upper-class persons were more likely than lower-class persons to view themselves as ill when they had particular symptoms. Reportedly, the upper-class individuals sought professional advice for specific symptoms more frequently than did those in the lower class.

Koos' List of Symptoms also has been used by Smith and Kane (1970) in a study of a rural Kentucky county. Results of this study compared to those of Koos show a greater recognition of the need for care than was found in Koos' highest social class. The percentage of respondents in the study recognizing individual symptoms ranged from 74 (loss of appetite) to 99 (blood in the stool). The mean score was 14.8 (out of a possible 17) and the median was 15.4.

Koos' List of Symptoms has been chosen for use in this study because it helps to measure perception of severity of selected medical

symptoms, emphasizes the respondent's concern regarding the given symptoms, and has a selection of symptoms which are commonly experienced and understood and represent a fairly wide range of somatic conditions.

Instrument Translation and Validation

The interview, demographic questionnaire, the CMI, and Koos' List of Symptoms were all translated into Arabic (Appendix G). The construct validity and reliability of the translated instruments were tested during and after the translation process.

To check the clarity and suitability of the Arabic terms, the translated forms of both the CMI and Koos' List of Symptoms were given to two graduate nursing students who were fluent in both Arabic and English. After revision, the forms were then given to a physician and a nursing faculty member who were also fluent in Arabic and English. These persons were asked to compare the translated forms to the original English questionnaires and to revise them according to semantics and the clarity of Arabic terms. The persons examining the instruments, who were experts in the field of nursing and medicine, agreed that the Arabic forms did measure the same relevant traits described in the English questionnaires.

In the translation process, particular emphasis was put on using classical Arabic words while keeping them simple enough to be understood even by those who might speak different dialects.

The final revised form of the CMI and Koos' List of Symptoms were then tested for reliability. The reliability of an instrument refers to the degree of consistency with which an instrument measures what it is supposed to measure (Polit & Hungler, 1983, p. 385) or the degree of

repeatability (Nunnally, 1967, p. 172). The reliability of the Arabic form of both the CMI and Koos' List of Symptoms was estimated in terms of internal consistency and stability.

Both the CMI and Koos' List of Symptoms were subjected to a pilot study. Twenty Arab-American patients responded to the translated Arabic forms. Data collected were subjected to a Kuder-Richardson formula 20 test to estimate internal consistency and reliability.

Internal Consistency of the Arabic Forms of the CMI. As the CMI is divided into two major categories - A-L (physical symptoms) and M-R (moods and feelings) - the coefficient alpha-20 was calculated for the overall test (A-R) and for the different subcategories of the CMI. Items A-L (physical symptoms) had a coefficient alpha-20 of .91, items M-R (moods and feelings) .92, and the overall A-R .94.

The following coefficient alpha-20s were found for the different sections of the CMI:

Section A: Eyes and Ears (.82)

Section C: Cardiovascular System (.73)

Section D: Digestive Tract (.77)

Section E: Musculoskeletal System (.72)

Section F: Skin (.74)

Section G: Nervous System (.44)

Section H: Genito-urinary System - (.57 for men; .47 for women)

Section I: Fatigability (.79)

Section J: Frequency of Illness (.83)

Section M: Inadequacy (.80)

Section N: Depression (1.0)

Section O: Anxiety (.81)

Section P: Sensitivity (.69)

Section Q: Anger (.82)

Section R: Tension (.76)

The rest of the sections had a nonsignificant correlation; these were:

Section B: Respiratory System

Section K: Miscellaneous Diseases

Section L: Habits.

Except for three subcategories on the CMI (Sections B, K, and L), the calculated alpha coefficients showed moderate to high internal consistency for the Arabic form of the CMI.

Internal Consistency of the Arabic Form of Koos' List of Symptoms. The coefficient alpha-20 for Koos' List of Symptoms was .84. The calculated alpha coefficients showed moderate to high internal consistency for the Arabic form of Koos' List of Symptoms.

Test-retest reliability of the Arabic form of the CMI and Koos' List of Symptoms. The Arabic form of both the CMI and Koos' List of Symptoms were given to 10 subjects fluent in Arabic. They were asked to answer the questionnaires twice, with a 10-day interval between the two responses so as to minimize recall of the first test (Allen & Yen, 1979, p. 76).

A test-retest procedure was used to examine the extent to which the same results were obtained with repeated administrations of the instrument (Polit & Hungler, 1983, p. 387). Test-retest reliability was assessed by the Spearman correlation coefficient. The results yielded statistically significant ($p < .05$) correlations: for the CMI, Items A-L, $r = .98$, Items M-R, $r = .94$, Total Items A-R, $r = .98$; for Koos' List of Symptoms, $r = .90$.

In addition, the Arabic and English forms of both the CMI and Koos' List of Symptoms were given to 10 different subjects fluent in both Arabic and English. The subjects completed the English version of both instruments and, ten days later, completed the Arabic version. This procedure was used to examine the extent to which the results obtained from the English questionnaires and their translated Arabic forms were congruent and had corresponding results. The results obtained for the correlation coefficient for the CMI were: Items A-L, $r = .81$, Items M-R, $r = .75$, Total Items A-R, $r = .80$; for Koos' List of Symptoms, $r = .95$.

The results of the test-retest procedure showed a significant consistency of results over a given period of time and a significant congruence between the results obtained from the translated Arabic form and the original English form of the CMI and Koos' List of Symptoms.

Procedure for Collection of Data

Following approval of the study protocol by the UCSF Committee on Human Research, a convenience sample of 102 Arab-American patients were interviewed. The same procedure for data gathering was followed at the two health care facilities. After locating patients in the clinics, based on their clinic appointments, they were approached individually before or after their visit to the clinic. A brief explanation of the study was given. The investigator presented herself as a graduate student at the School of Nursing, University of California, San Francisco who was conducting a study to find out more about how Arab-American patients perceive symptoms of illness, how they view their

illness, and what actions they take before coming to a health care center.

Patients were told that if they agreed to participate in the study they would be interviewed for about 1½ hours and that the interview would be recorded in writing, but the answers would be kept confidential. Furthermore, the patients were told that their participation in the study was strictly voluntary and that they could refuse to participate or withdraw at any time. Whenever a patient agreed to participate, an information sheet was read and, after obtaining the patient's verbal approval, the interview began. In both health care facilities, the interview was conducted in a room adjoining the clinic or in a secluded part of the clinic waiting room. Particular attention was paid to not interfere with subjects' clinical appointments.

Almost the same procedure was followed for hospitalized patients. After locating the patients in the hospital, they were visited by the researcher in their hospital rooms. She introduced herself and briefly explained the research. If they agreed to participate, the subjects were either interviewed on the same day or at another time set by the patient and the researcher.

The interviews were conducted in Arabic, except for six subjects who were American born and found it easier to speak in English. Each subject was interviewed solely by the investigator and asked to verbally respond to the questions on the initial interview, the demographic questionnaire, the CMI, and Koos' List of Symptoms. The interviews lasted from 1 to 2½ hours.

Each subject's responses were recorded on the appropriate questionnaire by the investigator. Questions which were not answered before the patient was called by the physician were completed after the subject had returned from the physician's office. At the end of the interview the subject was thanked for cooperating with the study.

Respondents expressed particular interest in participating in the study and were enthusiastic about communicating with the researcher in their own tongue. In some cases the researcher was asked by the patients and their families for personal help and advice. For example, a patient might request that the researcher act as an interpreter, as a resource person for patients undergoing certain diagnostic procedures, or to help with referral and counseling. Many patients also asked for advice in relation to their condition and requested more reinforcement about treatment plans, medications prescribed, or information about dietary regimens.

## Method of Data Analysis

Descriptive statistics, inferential statistics, and content analysis were used to analyze data obtained from this study. The descriptive statistics consisted of frequency distributions, measures of central tendency, and measures of variability. Data gathered from the CMI, Koos' List of Symptoms, and sociodemographic questionnaires were analyzed using descriptive statistics. The inferential statistical analyses employed to examine the data were analysis of variance, analysis of covariance, Chi-square tests, correlations, regressions, and discriminant analysis.

In this study there was a total of 15 variables: age, sex, religion, marital status, living arrangements, number in the household, level of education, occupation, number of years in the U.S., country of origin, perception of seriousness of symptoms, time of onset of disease symptoms, time of actual visit for professional help, perceived threat of disease, and actions taken (advice and lay help, home remedies, personal help, and/or professional help). Correlations were determined between some of the independent variables, particularly sociodemographic variables such as sex, age, level of education, country of origin, number of year in the U.S., and total CMI and Koos' List of Symptoms scores.

A discriminant analysis - a regression equation with a dependent variable that represents group membership - was conducted to decide which combination of a number of important variables provided the best discriminator between two defined populations (Kleinbaum & Kupper, 1978). The purpose of this analysis is to discriminate groups from one another on the basis of sets of measures or variables.

The approach used was to construct in an optimal way a linear combination of the mutually correlated random variables which were then used for classification purposes (Kerlinger, 1973). As a multivariate approach, discriminant analysis would explain the influence of a set of variables (sociodemographic variables such as age, sex, religion, marital status, living arrangement, number in household, country of origin, number of years in the U.S., level of education, occupation, type of disease, duration of disease, perception of symptoms) on the dependent variable (actions taken prior to seeking professional care: nothing, advice and lay consultation, and self-care). Discriminant

analysis also aids in discriminating between those people with symptoms of illness who do seek advice or practice self-care and home remedies before seeking professional health care and those who do not seek advice or practice self-care and home remedies, but only seek professional health care.

Information from the initial interview was used to furnish an in-depth view of how individuals perceived the meaning of their own illness. Content analysis is a method used to obtain an objective, systematic, and quantitative description of communication (Polit & Hungler, 1983). A variant of content analysis was used to classify responses on the basis of the subjects' responses to the interview, with consideration of the questions in the interview to which certain responses were made (Berelson, 1954).

The unit of content analysis selected for this study was the theme, e.g. a sentence, proposition, or paragraph embodying ideas or making an assertion about a topic (Kerlinger, 1973; Polit & Hungler, 1983). The next step was the development of a category system for classifying units of content. Then the categories were coded and their occurrences counted during the analysis process. Parts of the qualitative data were transformed into quantitative data and coded as such. The last step involved interpretation of the content analyzed.

The results of the content analyses, the correlations, discriminant analysis, and the descriptive analyses served as the basis for describing this study's data. These results are presented and discussed in the following chapter.

# CHAPTER V

# RESULTS

This chapter comprises a presentation of the findings for each research question and a presentation of the results of the content analysis conducted on the questions from the initial interview. Results of the data presented in this chapter provide background for the analysis discussion presented in the following chapter.

Descriptive, inferential, and qualitative analysis were used to analyze data collected through the questionnaires and the initial interview. Research questions 1, 4, 6, and 8 were examined using descriptive statistics. Research questions 2, 3, 5, and 9 were evaluated using qualitative analysis. Research questions 7, 10, and 11 were addressed by using the following inferential statistics techniques: analysis of variance, analysis of covariance, Chi-square tests, correlations, regressions, and discriminant analysis.*

---

* Data were analyzed with the Statistical Package for the Social Sciences (SPSS) using the IBM VM/CMS Version M, Release 1.0 at the UCSF Computer Center. Computer time was provided by the UCSF instructional use of computer funds. Mark Hudes and Don Chambers served as the statistical consultants.

Research Question #1 asked: Which symptoms are perceived as important and needing medical attention by Arab-American patients?

To answer this question, subjects were asked to respond to a list of symptoms, designed by Koos (see Appendix E). Analysis showed that 98 percent of the respondents identified the following symptoms as needing medical attention: pain in chest, lump in breast, and lump in abdomen. The symptoms recognized by 97 percent of the respondents as needing medical attention were fainting spells and blood in urine. Continuous coughing and persistent joint or muscle pain were recognized as important and needing medical attention by 84 percent of the respondents. Persistent headaches were recognized by 71 percent of the respondents, and bleeding gums by 72 percent of the respondents. The symptom, chronic fatigue, was recognized as important by 73 percent of the respondents.

Symptoms which scored low and were specified as needing medical attention by a small percentage of the respondents were loss of weight (44%) and loss of appetite (59%).

Table 7 shows the percentage of respondents identifying specified symptoms as needing medical attention in the present study (1984), in Koos' original study (1954) with the results comparing three social classes - Class I (high), Class II (middle), and Class III (low) - in a small rural community, and in Smith and Kane's study (1970) with a sample from a rural Kentucky county.

When comparing percentages, the results obtained from the present study were very similar to Smith and Kane (1970). Symptoms reported by over 90 percent of the respondents fell in the same level of importance as needing medical attention, e.g. blood in stool, blood in urine,

excessive vaginal bleeding, lump in breast, lump in abdomen, fainting spells, and pain in the chest. In addition, Arab-Americans considered also shortness of breath as an important symptom. Koos' study identified the importance of nearly the same symptoms but by a lesser percentage of respondents and only for Class I subjects.

On the other hand, Chi-square tests performed for each of the 17 symptoms in Table 7 to determine if responding to the particular symptom was independent of the three groups - Koos (Classes I, II, and III combined), Smith and Kane, and the present study. Results were statistically significant for each group ($p < .001$), that is, the proportions selecting each item were significantly different among the three groups. Pairwise Chi-square tests were also performed between the present study and each of the two other groups. Results were statistically significant ($p < .001$) for each of the 16 symptoms for Koos (I, II, and III combined) and the present study (Table 8). Only one symptom - loss of weight - was not statistically significantly different for these two groups.

Chi-square test results performed comparing the present study and Smith and Kane's study (Table 9) showed no statistically significant differences between these two groups for the following ten symptoms: persistent backache, persistent joint and muscle pain, blood in stool, blood in urine, excessive vaginal bleeding, swelling of ankles, shortness of breath, fainting spells, pain in chest, and lump in breast.

TABLE 7

Percentage of Respondents Recognizing Specified Symptoms as Needing Medical Attention

| Symptoms | Koos (1954) Class I (n=51) | Koos (1954) Class II (n=335) | Koos (1954) Class III (n=128) | Smith & Kane (1970) (n=157) | Present Study (1984) (n=102) |
|---|---|---|---|---|---|
| Loss of appetite | 57 | 50 | 20 | 74 | 59 |
| Persistent backache | 53 | 44 | 19 | 75 | 83 |
| Continuous coughing | 77 | 78 | 23 | 93 | 84 |
| Persistent joint and muscle pain | 80 | 47 | 19 | 76 | 84 |
| Blood in stool | 98 | 89 | 60 | 99 | 95 |
| Blood in urine | 100 | 83 | 69 | 98 | 97 |
| Excessive vaginal bleeding | 92 | 83 | 54 | 98 | 96 |
| Swelling of ankles | 77 | 76 | 23 | 82 | 80 |
| Loss of weight | 80 | 51 | 21 | 75 | 44 |
| Bleeding gums | 79 | 51 | 20 | 83 | 72 |
| Chronic fatigue | 80 | 53 | 19 | 83 | 73 |
| Shortness of breath | 77 | 55 | 21 | 88 | 95 |
| Persistent headaches | 80 | 56 | 22 | 84 | 71 |
| Fainting spells | 80 | 51 | 33 | 95 | 97 |
| Pain in chest | 80 | 51 | 31 | 93 | 98 |
| Lump in breast | 94 | 71 | 44 | 97 | 98 |
| Lump in abdomen | 92 | 65 | 34 | 92 | 98 |

TABLE 8

Pairwise Chi-square Test Results for 17 Symptoms on Koos' List between Present Study and Koos (Classes I, II, & III combined)

| Symptoms | $X^2$ | df | p |
|---|---|---|---|
| Loss of Appetite | 8.17 | 1 | .001 |
| Persistent Backache | 68.82 | 1 | .001 |
| Continuous Coughing | 15.96 | 1 | .001 |
| Persistent Joint and Muscle Pain | 57.57 | 1 | .001 |
| Blood in Stool | 10.14 | 1 | .001 |
| Blood in Urine | 15.88 | 1 | .001 |
| Excessive Vaginal Bleeding | 19.97 | 1 | .001 |
| Swelling in Ankles | 19.55 | 1 | .001 |
| Loss of Weight | .19 | 1 | ns |
| Bleeding Gums | 22.07 | 1 | .001 |
| Chronic Fatigue | 21.76 | 1 | .001 |
| Shortness of Breath | 74.68 | 1 | .001 |
| Persistent Headaches | 14.50 | 1 | .001 |
| Fainting Spells | 78.96 | 1 | .001 |
| Pain in Chest | 83.48 | 1 | .001 |
| Lump in Breast | 41.67 | 1 | .001 |
| Lump in Abdomen | 51.05 | 1 | .001 |

ns = Not statistically significant

TABLE 9

Pairwise Chi-square Test Results for 17 Symptoms on Koos' List between Present Study and Smith and Kane Study

| Symptoms | $X^2$ | df | p |
|---|---|---|---|
| Loss of Appetite | 6.44 | 1 | .001 |
| Persistent Backache | 2.44 | 1 | ns |
| Continuous Coughing | 4.99 | 1 | .001 |
| Persistent Joint and Muscle Pain | 2.72 | 1 | ns |
| Blood in Stool | 3.09 | 1 | ns |
| Blood in Urine | .29 | 1 | ns |
| Excessive Vaginal Bleeding | .95 | 1 | ns |
| Swelling in Ankles | .13 | 1 | ns |
| Loss of Weight | 25.54 | 1 | .001 |
| Bleeding Gums | 4.60 | 1 | .001 |
| Chronic Fatigue | 3.89 | 1 | .001 |
| Shortness of Breath | 3.81 | 1 | ns |
| Persistent Headaches | 6.73 | 1 | .001 |
| Fainting Spells | .71 | 1 | ns |
| Pain in Chest | 3.30 | 1 | ns |
| Lump in Breast | .35 | 1 | ns |
| Lump in Abdomen | 4.53 | 1 | .001 |

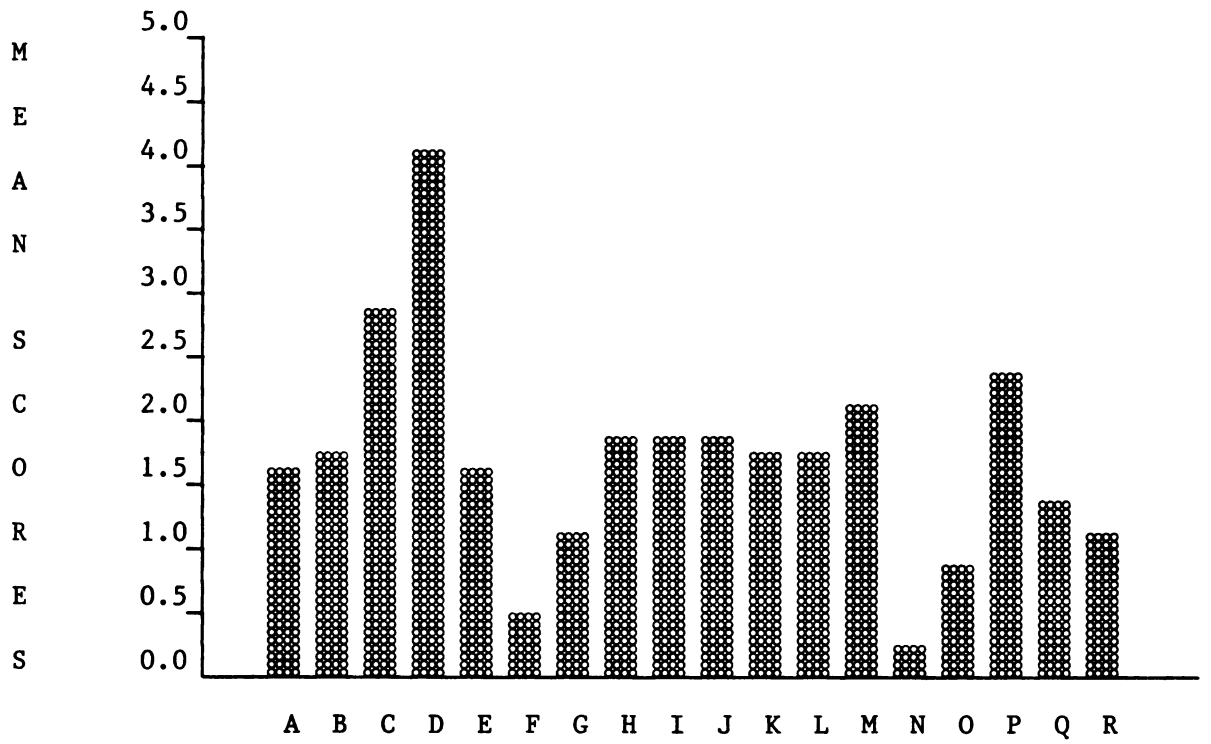
ns = Not statistically significant

Research Question #2 asked: What are the most prominent complaints presented by the Arab-American patients?

The findings showed that the category of complaints in sections A-L of the CMI scored as highest by the subjects was (D) symptoms related to the digestive system, followed by (C) symptoms related to the cardiovascular system and (B) symptoms related to the respiratory system (Figure 3). (Table F-1 in Appendix F shows the different symptoms in sections D, C, and B which were scored high [19-44 Yes responses]. Tables F-2, F-3, and F-4 in Appendix F show the total Yes responses and percentage of respondents with affirmative answers on individual items of sections D, B, and C of the CMI questionnaire.)

As for sections M-R of the CMI, category P symptoms, related to sensitivity, got the highest scores, followed by category M, inadequacy (Figure 3). (Table F-5 in Appendix F shows the different symptoms in sections P and M which were scored high [16-68 Yes responses]. Tables F-6 and F-7 in Appendix F show the total Yes responses and percentage of respondents with affirmative answers on individual items of sections P and M of the CMI questionnaire.)

Categories that scored lowest in sections A-L and M-R were categories F (symptoms related to the skin) and N (symptoms related to depression) (Figure 3). (Table F-8 in Appendix F shows the different symptoms in sections F and N which were scored low [3-18 Yes responses]. Tables F-9 and F-10 in Appendix F show the total Yes responses and percentage of respondents with affirmative answers on individual items of sections F and N of the CMI questionnaire.)




MEAN TOTAL CORNELL MEDICAL INDEX SCORES
(ACCORDING TO SECTIONS)
IN THE STUDY SAMPLE

FIGURE 3

Figures 4-8 show the percentage of respondents who scored Yes on the individual items on section D (digestive tract), section C (cardiovascular system), section B (respiratory system), section P (sensitivity), and section M (inadequacy) - the top ranking categories.

Figures 9 and 10 show the percentage of respondents who scored Yes on the individual items of section F (symptoms related to the skin) and section N (symptoms related to depression) - the two lowest ranking categories.

The CMI responses were scored in the following way: the number of Yes responses were counted separately and added for sections A-L and M-R. Each patient therefore had an A-L (physiological) score, an M-R (psychological) score, and a total A-R score. There was a wide range of scores; the highest total score was 98 out of a possible 195 and the lowest score was 4.

The frequency distributions of total CMI scores (A-R) for the total number of patients are shown in Figure 11. Of the total subjects, 49.9 percent had 30 or more "Yes" answers for the whole questionnaire. As a general rule, the cut-off score for the whole questionnaire is 30 (Brodman et al., 1952). A total of 30 or more symptoms out of a possible 195 reported on the CMI is usually indicative of significant medical problems associated with psychological distress or is suggestive of significant emotional problems, as Matarazzo and colleagues (1961) found, or indicates a tendency to focus too much attention on bodily symptoms (Hinkle & Wolff, 1957).

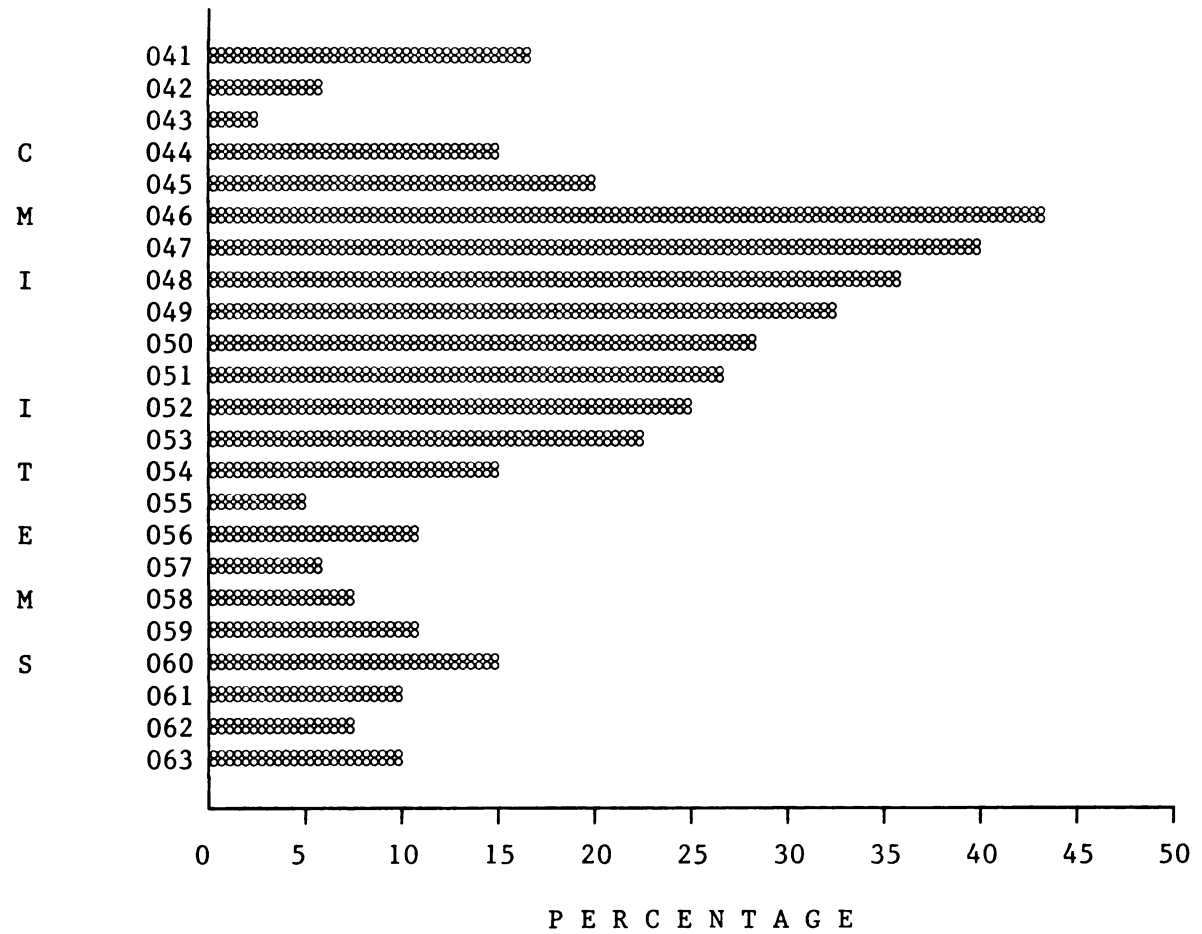
Available CMI data on normal and ill populations according to the 18 different sections of the CMI are scarce, but the mean scores and the median scores of sections A-R and M-R are sometimes reported in a few of the research studies.

Items Scored High

046 Do you always eat sweets or other food between meals? (43.1%)
047 Do you always gulp your food in a hurry? (40.1%)
048 Do you often suffer from an upset stomach? (36.2%)

Items Scored Low

043 Have you often had severe toothaches? (2.9%)
055 Does stomach trouble run in your family? (4.9%)
057 Do you suffer from frequent loose bowel movements? (5.8%)




THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO THE DIGESTIVE TRACT
(SECTION D)

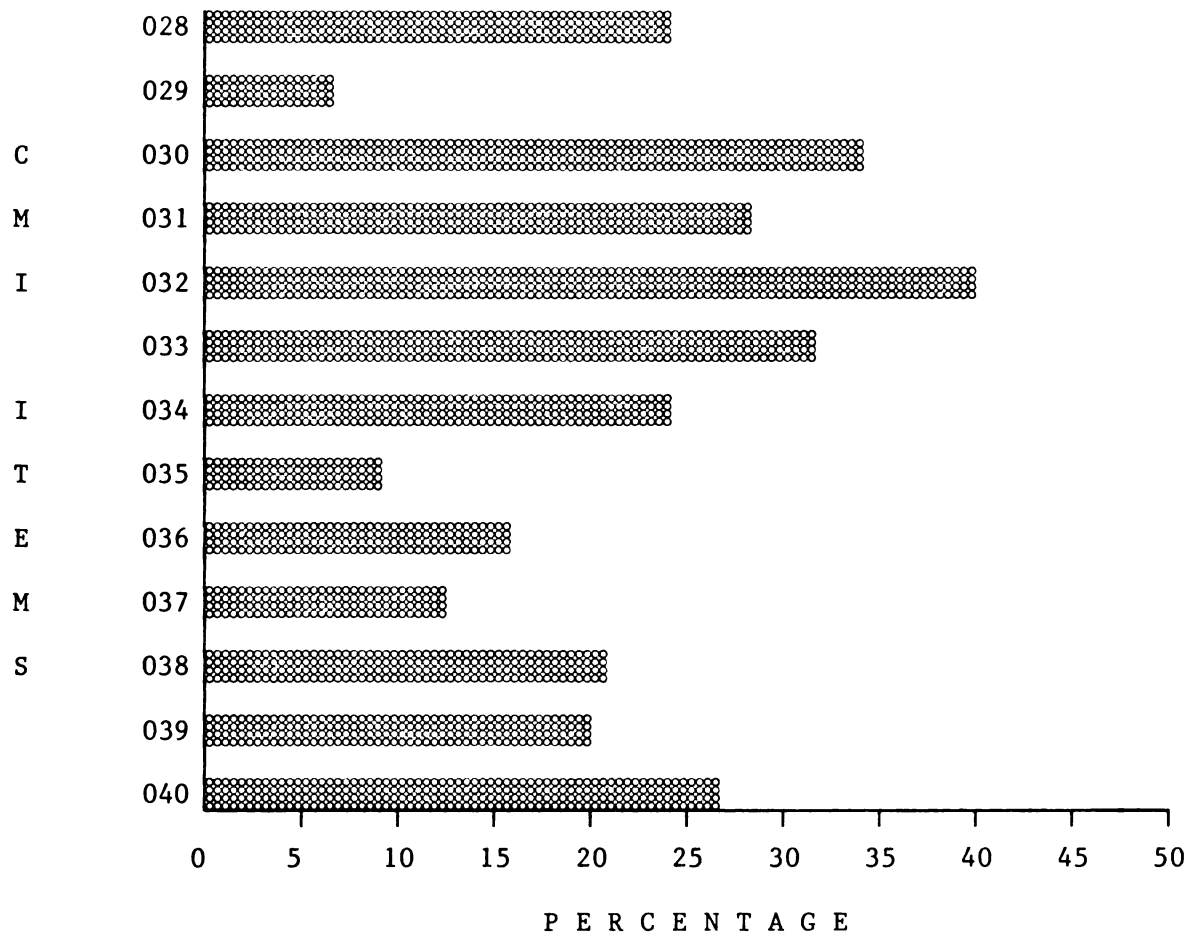
FIGURE 4

Items Scored High

030 Do you have pains in the heart or chest? (34.3%)
032 Does you heart often race like mad? (40.1%)
033 Do you often have difficulty in breathing? (31.3%)

Items Scored Low

029 Has a doctor ever said your blood pressure was too low? (6.9%)
035 Do you sometimes get out of breath just sitting still? (8.8%)
037 Do cold hands or feet trouble you even in hot weather? (12.7%)



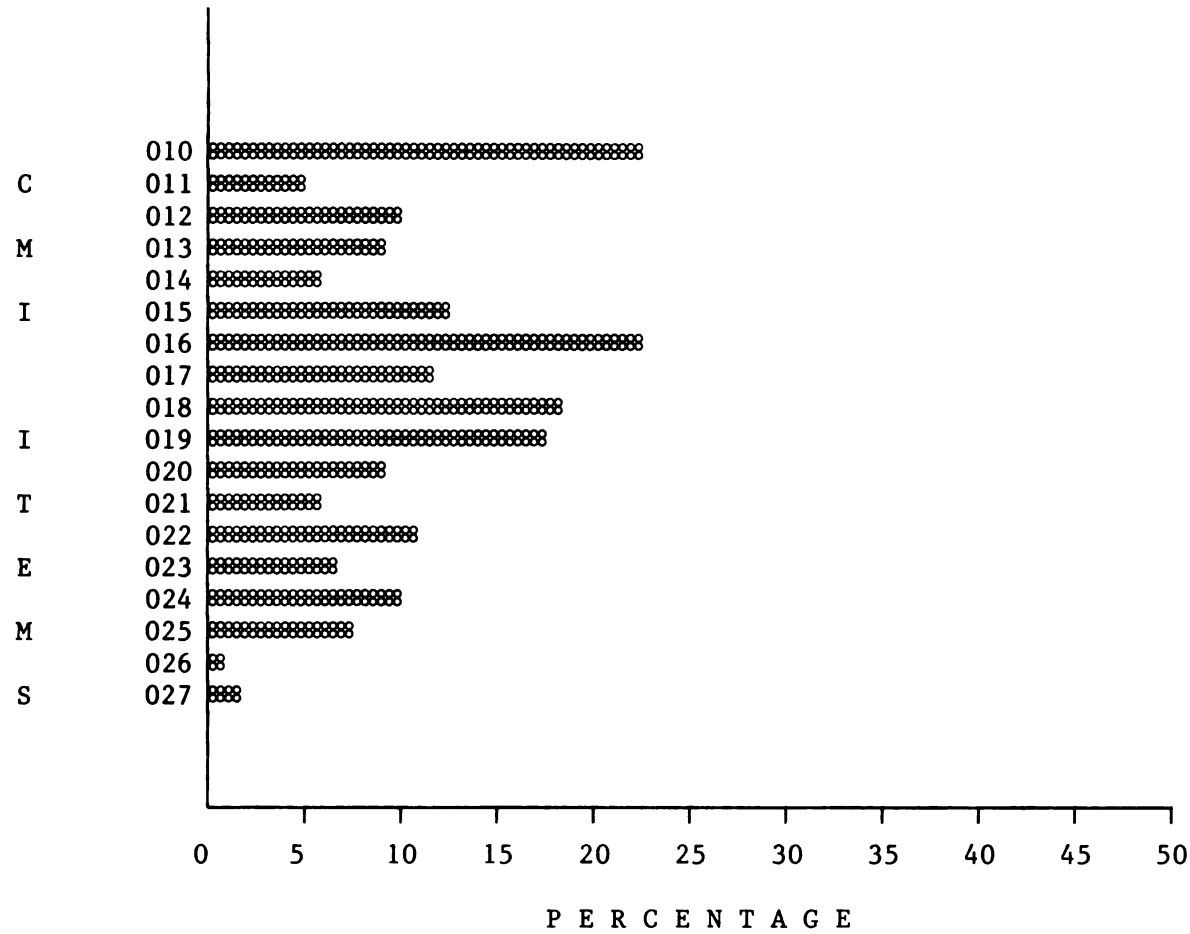

THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO THE CARDIOVASCULAR SYSTEM
(SECTION C)
FIGURE 5

## Items Scored High

010 Do you have to clear you throat frequently? (22.5%)
016 Do you often catch severe colds? (22.5%)
018 When you catch a cold, do you always have to go to bed? (18.6%)

## Items Scored Low

011 Do you often feel a choking lump in your throat? (4.9%)
014 Do you suffer from a constantly running nose? (5.8%)
026 Have you ever had tuberculosis? (.9%)




THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO THE RESPIRATORY SYSTEM
(SECTION B)

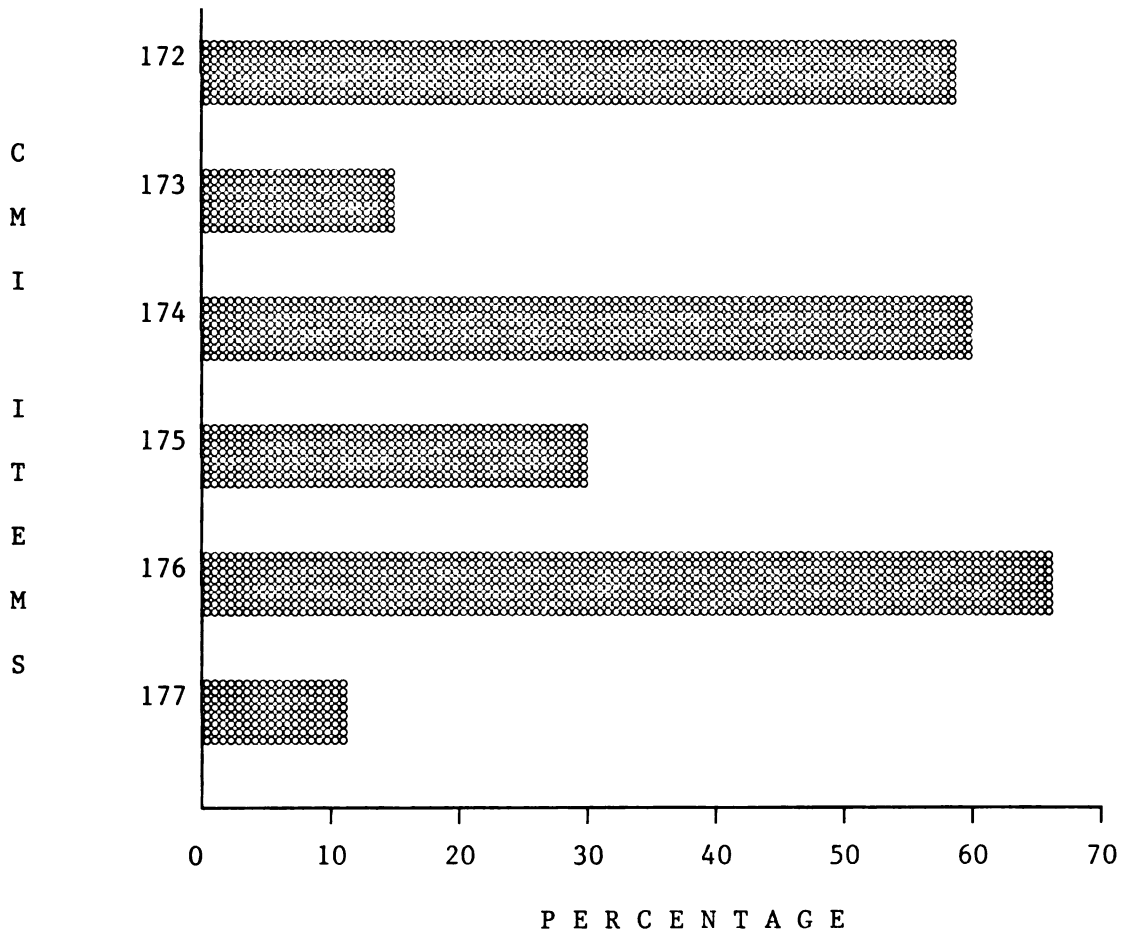
FIGURE 6

Items Scored High

172 Are you extremely shy or sensitive? (58.8%)
174 Are your feelings easily hurt? (59.8%)
176 Are you considered a touchy person? (66.6%)

Items Scored Low

173 Do you come from a shy or sensitive family? (15.6%)
175 Does criticism always upset you? (29.4%)
177 Do people usually misunderstand you? (11.7%)




THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO SENSITIVITY
(SECTION P)

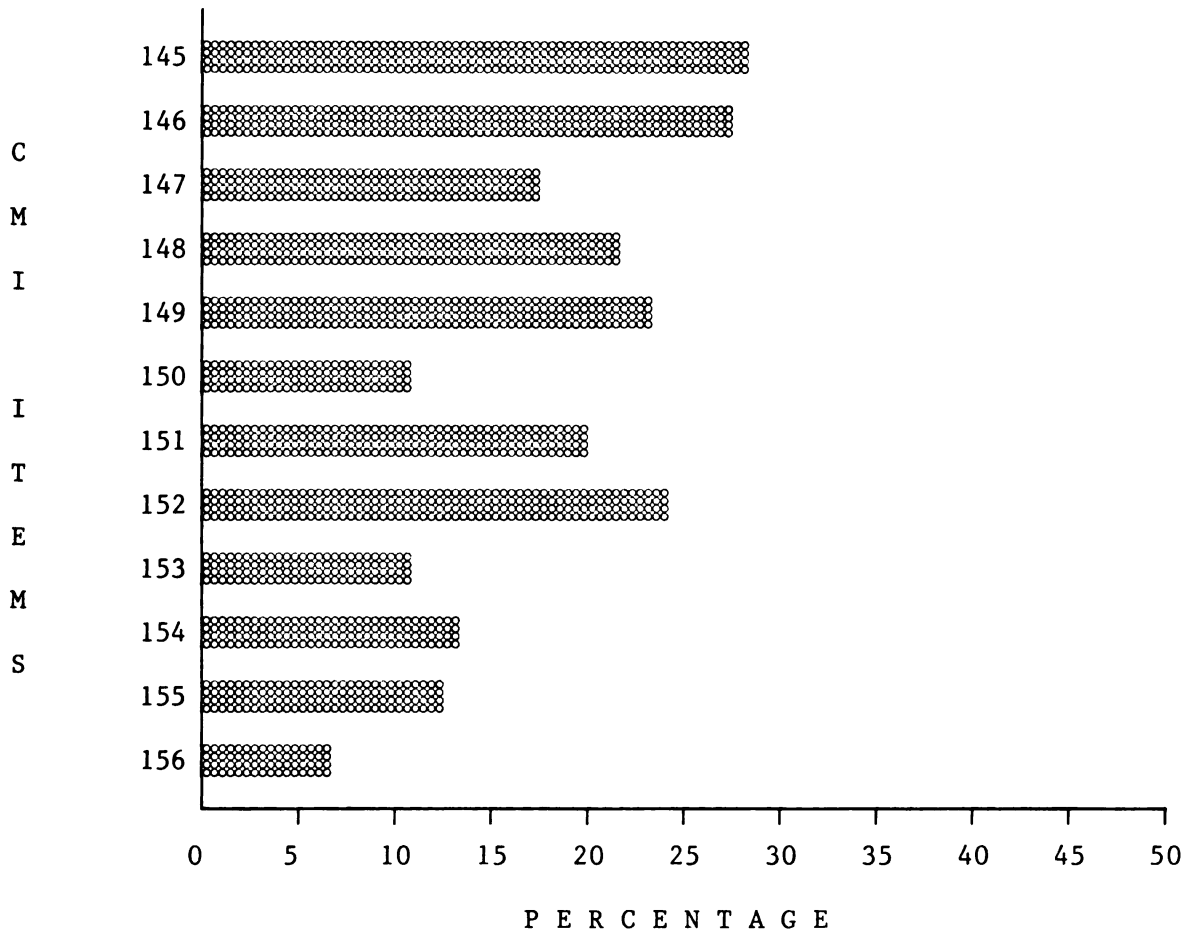
FIGURE 7

Items Scored High

145 Do you sweat or tremble a lot during examinations or questioning? (28.4%)
146 Do you get nervous and shaky when approached by a superior? (27.5%)
152 Are you scared to be alone when there are no friends around you? (24.5%)

Items Scored Low

150 Do you always get directions and orders wrong? (10.7%)
153 Is it always hard for you to make up your mind? (10.7%)
156 Does it bother you to eat anywhere except in your own home? (6.8%)




THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO INADEQUACY
(SECTION M)

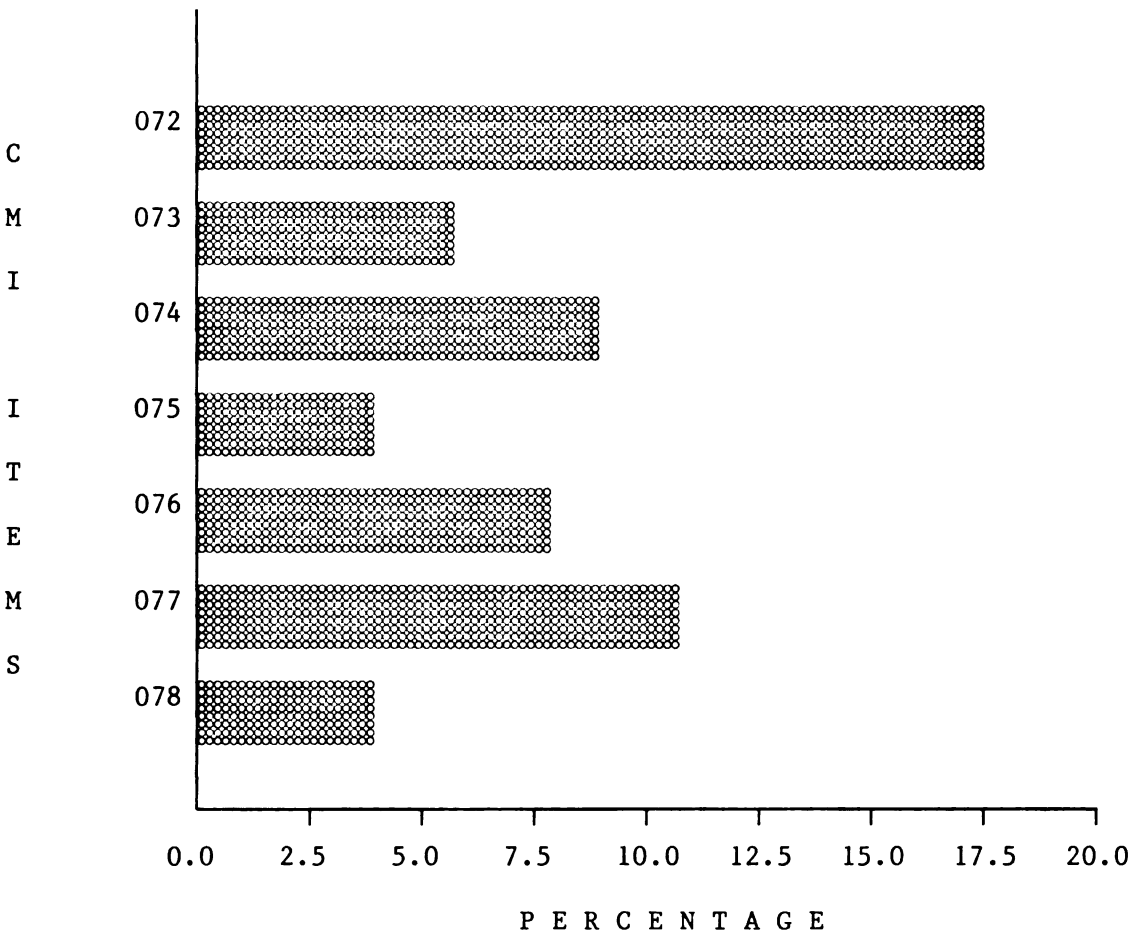
FIGURE 8

Items Scored High

072 Is your skin very sensitive and tender? (17.6%)
074 Does your face often get badly flushed? (8.8%)
077 Does your skin often break out in a rash? (10.7%)

Items Scored Low

073 Do cuts in your skin usually stay open a long time? (5.8%)
075 Do you sweat a great deal even in cold weather? (3.9%)
078 Are you often troubled by boils? (3.9%)




THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO THE SKIN
(SECTION F)

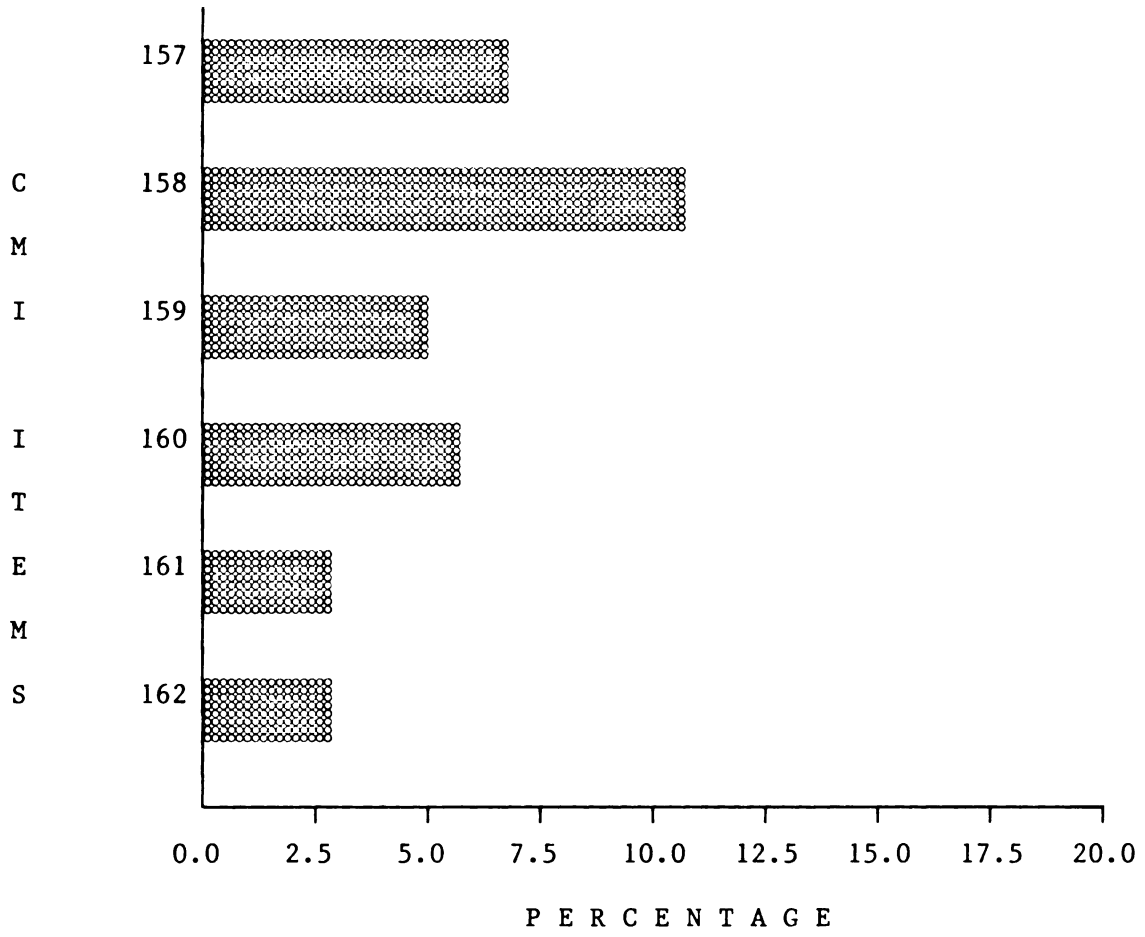
FIGURE 9

Items Scores High

157 Do you feel alone and sad at a party? (6.8%)
158 Do you usually feel unhappy and depressed? (10.7%)
160 Are you always miserable and blue? (5.8%)

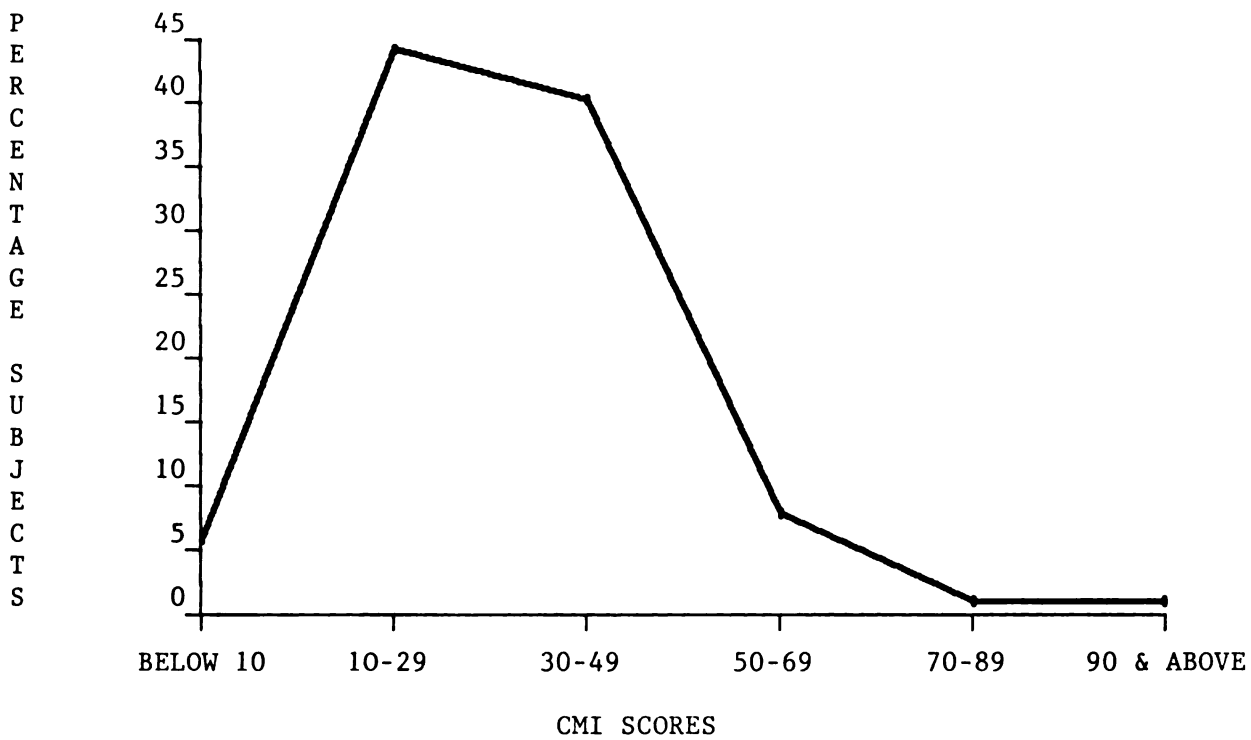
Items Scored Low

159 Do you often cry? (4.9%)
161 Does life look entirely hopeless? (2.9%)
162 Do you often wish you were dead and away from it all? (2.9%)




THE PERCENTAGE OF PATIENTS WITH SYMPTOMS
REFERABLE TO DEPRESSION
(SECTION N)

FIGURE 10

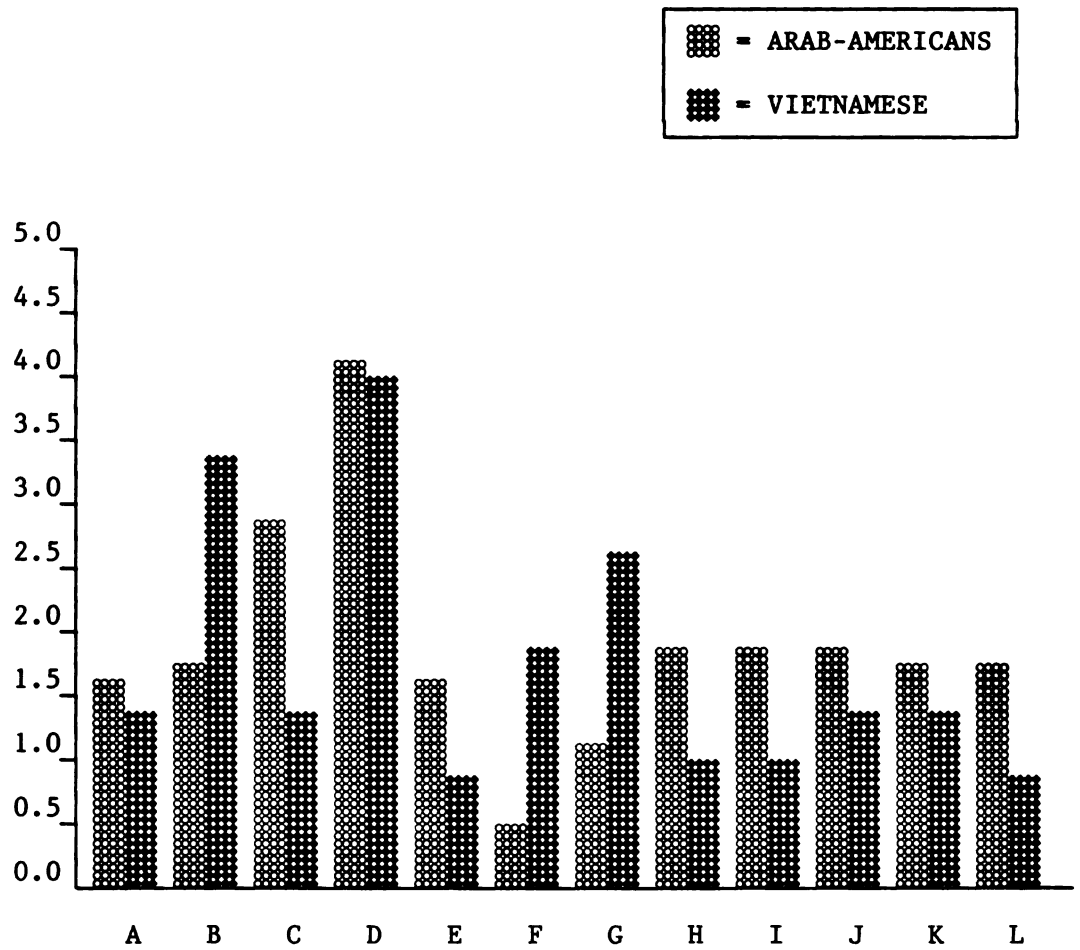



FREQUENCY DISTRIBUTIONS OF TOTAL SCORES
ON THE CMI FOR ALL SUBJECTS

FIGURE 11

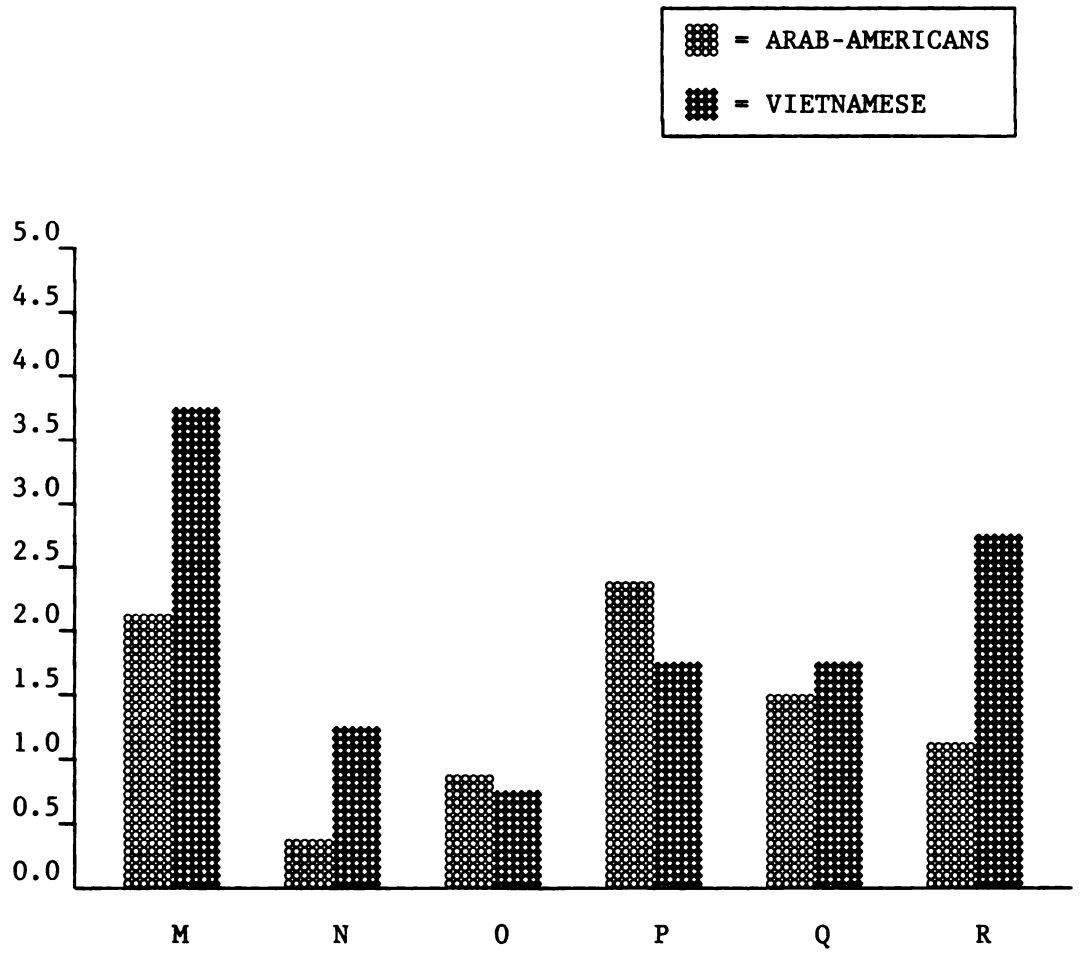
The results of this study population when compared to that of Vietnamese refugees (Lin, Tazuma, & Masuda, 1979) (Figure 12) show that, in the present study, symptoms related to the digestive system (section D), cardiovascular system (section C), and respiratory system (section B) were scored as high. The Vietnamese sample's physiological systems consistently used as a primary somatic target are in the gastrointestinal (section D), respiratory (section B), and dermatological sections (section F) and nervous system (section G). In addition, the Vietnamese samples indicated inadequacy (section M), hypersensitivity (section P), and tension (section R) as psychological symptoms (Figure 13). For Arab-Americans, scores on moods and feelings were on a lower scale, with a prevalence in hypersensitivity (section P) and inadequacy (section M).

Table 10 presents a comparison of the results for Arab-American population and CMI scores reported in two studies of selected sample in the U.S.: the North Carolina population studied by Cassel and Tyroler (1961), which consisted of workers in an industrial plant in a small town and was presumably relatively healthy, and the Oregon groups as reported by Matarazzo, Matarazzo, and Saslow (1961), which were samples of medical and psychiatric inpatients and outpatients at the University of Oregon Medical School Hospital. A third study was conducted by Scotch and Geiger (1964), the sample consisting of a group of rural and urban Zulu population. A fourth study was conducted by Lin et al. (1979), with a sample consisting of Vietnamese refugees. Data showed that Zulu mean scores were four times those of the presumably healthy North Carolina population and as high or higher than the four ill Oregon




MEAN TOTAL CORNELL MEDICAL INDEX SCORES
(A-L - PHYSIOLOGICAL)
COMPARING ARAB-AMERICANS AND VIETNAMESE

FIGURE 12




MEAN TOTAL CORNELL MEDICAL INDEX SCORES
(M-R - PSYCHOLOGICAL)
COMPARING ARAB-AMERICANS AND VIETNAMESE

FIGURE 13

TABLE 10

Cross-Cultural Comparison of Mean Total
Cornell Medical Index Scores

| Area or Group | n | CMI $\bar{\bar{X}}$ |
|---|---|---|
| North Carolina[a] | 390 | 13.50 |
| Oregon Clinic Patients[b] | | |
| Medical Inpatients | 40 | 38.98 |
| Medical Outpatients | 42 | 33.50 |
| Psychiatric Inpatients | 40 | 48.88 |
| Psychiatric Outpatients | 40 | 52.82 |
| Zulu[c] | | |
| Rural | 83 | 53.99 |
| Urban | 162 | 48.33 |
| San Francisco Arab-Americans[d] | 102 | 31.31 |
| Vietnamese[e] | 152 | 34.00 |

[a]Cassel and Tyroler, 1961
[b]Matarazzo, Matarazzo, and Saslow, 1961
[c]Scotch and Geiger, 1963
[d]Present study (Reizian, 1984)
[e]Lin, Tazuma, and Masuda, 1979

groups. The Vietnamese refugees' CMI scores were much higher than the North Carolina sample but less than the Oregon samples. The mean scores of the Arab-American population were less than the Zulu population mean scores, lower than the Vietnamese scores, and lower than the four ill Oregon groups, but most similar to the Oregon medical outpatients.

Research Question #3 asked, How would Arab-Americans describe their complaints?

Based on content analysis from the following interview questions - When did you first feel the symptoms? How was it? How long did it last? How did you decide that this was a health-related problem? - it was found that pain, mostly in the form of (a) chest pain, (b) stomach pain, and (c) shoulder, extremities, and back pain, were the most often reported type of complaints by 45 (44.1%) of the subjects.

Chest pain was described by 16.7 percent as follows:

> "I feel pain in my chest, my whole chest wall is painful."
>
> "I woke up with chest pain; the pain was like a burning fire coming out of my chest. The pain was hitting on my back. I was screaming and lost consciousness."
>
> "I felt a squeezing pain in my left breast; it lasted 5-8 minutes."
>
> "I have this intermittent spasm in my chest when I get tired. It is like a piece of rock."

Stomach pain was described by 10.7 percent as follows:

> "I have this continuous pain in my stomach. It is a stitching pain; it is on my right side."
>
> "I had this pain in my stomach which was like a flame of fire."
>
> "I felt pain in my stomach, a stitching pain in my tummy and flatulence."
>
> "I feel this awful pain in my waist when I walk."
>
> "I have sharp pain and cramps in my stomach."

Pain in back, shoulder, and extremities was described by 16.7 percent as follows:

> "I have this severe pain in my back, radiating to my left leg; it's very, very severe.
>
> "'Hage be tched zie el hagar', something pulling and hard as a stone."
>
> "My shoulder was painful, and when I moved my right arm, part of my neck was sore."
>
> "I felt severe pain in my back and I could not move."
>
> "My leg hurts pretty bad."
>
> "I have severe pain on walking and sitting."
>
> "Pain in my neck and head; it is pulsating pain."
>
> "A frightening pain in the lower part of my back. It's worse with movement."
>
> "I have pain in my knees."
>
> "Electric pain in my hand."

Pain in combination with other symptoms was reported by twenty-four (23.5%) of the subjects, who complained of chest pain, headache, back pain, pain in the loin, stomach pain, pain in the breast, and a combination of one or more symptoms, described as:

> "I had a headache, burning sensation in the stomach, fatigue, and difficulty in respiration, especially when climbing the stairs."
>
> "I felt feverish, sore throat, plus I was coughing. My chest was painful."
>
> "My nose was itching and irritated and I suffered from a bad headache."
>
> "I feel tired and lethargic. I have pain on my left side when I lie flat on my back or on my right side, also when I walk for long periods."
>
> "I have this pain in my chest that comes and goes from the left to right side and difficulty in breathing."
>
> "I felt severe pain in my left loin and felt like passing urine."

"I had heartburn and I eructated a lot. Also had severe, unbearable chest pain and was sweating."

"I couldn't breathe. I felt nervous, tired, and had severe headaches."

"I have blurring of vision at night. My eyes become red and I get headaches. Sometimes my eyes have some discharge."

"I have pain in my chest and feel dizzy."

"I suffer from shortness of breath, pain in my chest and heart. When I walk, I have pain and cramps in the legs."

"I have too much pain when sitting, walking, or standing. I also have some blood in my stools."

"I have this pain under my right breast and spasm in my stomach. It feels like a piece of iron, 'heta min hadid'."

"I have this boil on my thigh. It's very painful."

"I had severe pain in my stomach, plus burning in my chest."

"My breast is sore. I have this lump. The soreness is unbearable during my period."

"I have muscle pain all over, chest pain and back pain."

Other responses. In addition to pain responses, the most frequently mentioned complaints were (a) coughing and dyspnea, (b) dizziness, (c) discomfort, and (d) miscellaneous symptoms.

A few patients (12.6%) complained of coughing and dyspnea.

"I have severe coughing and difficulty in breathing.

"I had a chest congestion. I was coughing and had difficulty in breathing."

"I felt something heavy on my chest and had difficulty in breathing."

A small number of patients (3.2%) complained of dizziness.

"I was feeling dizzy and I lost my speech."

"I felt stuporous, not feeling very well, and was a little dizzy. I felt abnormal."

"I was feverish and dizzy. I felt as if something covered my eyes."

"I felt dizzy, numb. I felt light and felt that I wasn't feeling normal."

Seven (6.8%) of the subjects complained of discomfort.

"I feel flatulence after meals, distension, and gases. I feel that my stomach is very hot from inside and it presses on my body."

"I feel uncomfortable. I have rectal discharge."

Others (9.8%) presented miscellaneous symptoms.

"I was bleeding badly. I had a hole in my wrist and blood was rushing out."

"I had this lump in my breast after I delivered my baby."

"I feel weak."

"I have a liver inflammation and my ankles are swollen."

"I felt swollen and my abdomen distended."

"I had a spot on my forehead."

"I have difficulty swallowing when I eat."

"I had an irritation and itching on my arm and neck."

"I feel like I am under tension. I feel nervous. I feel that all my body has stopped functioning. I feel weak, as if I don't have any circulation anymore."

"I feel that my heart is beating too fast."

"When I lay down, I feel there is some hotness in my stomach."

Research Question #4 asked, What are their cultural beliefs regarding the causes of their illnesses?

Based on content analysis from the following interview question - What do you think has caused your illness? - analysis of responses examining beliefs of causation of illness yielded six dimensions. These dimensions are presented according to the explanations given by 67 (65.6%) of the respondents and are described as follows.

Injury, fall, accident, and muscle sprains or twists were causes reported by 20 (19.6%) of the respondents.

> "I think it is a sprain (lawha). It happened when I was swinging my grandchildren. I pushed too much and this has affected the nerves of my hands. I also swept the garden. Maybe this has affected my shoulder and maybe I have done a false movement that has affected the nerves in my arm."
>
> "I fell down on my wrist when I was a kid.
>
> "I fell when playing football and broke my leg."
>
> "I was cleaning the kitchen floor. I slipped and fell down; I broke my leg."
>
> "I stepped on sharp glass."
>
> "I think that it was caused when I slipped and fell down in the street while walking. Also, my previous job as a tractor driver in Jordan has aggravated my back pain."
>
> "I think I pressed strongly on my hand."

Cold weather or change of weather, exposure to cold, and air drafts were recognized by 11 (10.7%) of the respondents.

Cold air; exposure to cold

> "The cause of my illness is a very bad cold that affected my lungs."
>
> "My condition has been caused by exposure to cold and air drafts (lahfet hawaa) when I was a child. My mother used to take me out of the house often after I just had a bath."
>
> "During work I go a lot inside the ice box. I come out for some time where it is hot and then I go back into the cold."
>
> "Two weeks ago I caught a bad cold."
>
> "I caught a chest cold."

Changes of weather

> "My condition has been caused by exposure to cold plus damp weather."
>
> "My disease has been caused by a change of weather (taghiir gaw). I was back in Jordan for a short visit a while ago where it was very warm. After a month I came back to San Francisco and the weather was very cold."

Drafts

> "I think that it is caused by a cold air draft and exposure to cold."
>
> "I took cold. I was exposed to an air current. I bathed and was exposed to cold and it has affected my arteries."

Job stress - physical and mental stress - were reported by seven (6.8%) of the respondents, who attributed work with its long hours of physical and mental stress as being the cause of their illnesses.

> "My illness is caused by too much work and stress during work and prolonged working hours. I work for twelve hours a day."
>
> "My symptoms are caused by long hours of work."
>
> "I do some heavy lifting during my work."
>
> "Too much work in the fields when I was young."
>
> "I was working too much. I had a hectic day, then I had to drive all the way to San Jose."
>
> "It's over-work, over-studying. I work and study at the same time."
>
> "I guess at that time I was under a lot of pressure, a lot of stress passing my exams in high school (Thanaweya Amaa). I got very sick."

Emotions - stress, nervousness, and fear - were mentioned by six (5.8%) of the respondents.

> "After the death of my brother, I was emotional and depressed."
>
> "It's caused by nervousness."
>
> "After the loss of my husband I went through a lot of stress which caused my hypertension."

Time. Cause of disease was also viewed from a time frame by three (2.9%) of the respondents. Disease was believed to be caused in the distant past (early childhood), recent or immediate past (up to five years ago), and current or present time.

Fate/God. Only one subject (.9%) attributed the cause of his illness to God's will.

> "Amr Rabena, what can I do? He gave me this affliction; that's the way He wants it to be."

Nineteen (18.6%) of the subjects said that the cause of their illnesses was unknown to them.

> "I don't know what has caused the disease."
>
> "I don't know what has caused it; I don't have any health problems all my life."
>
> "I don't know what has caused the symptoms."

Thirty-five (34.3%) of the respondents were aware of explanatory models consistent with Western medicine of the etiology of their illnesses: allergy, heavy smoking, kidney stone, heart, indigestion, obesity, malnutrition, surgery, pregnancy and lactation.

Research Question #5 asked How do Arab-Americans perceive the effects of their illnesses?

Based on content analysis from the following interview questions - How would you describe the effect of this problems on (a) your body and (b) your usual activities, what do you think your sickness does to you? What are the chief problems your sickness has caused you? How severe is your sickness? What do you fear most about your sickness? - 61 (59.8%) of the respondents said that their illnesses have caused disability in the form of interference with activities of daily living and interference with work activities.

Interference with activities of daily living and work activities were described as follows:

"It has weakened me badly, affected my sleeping patterns, and interfered with my eating habits."

"My disease has affected some aspects of my life. Because of my illness I cannot stand hot water when taking a bath. I feel short of breath. I have to be on a diet to lose weight; this is very difficult for me. Also, I have difficulty walking because of some trouble in my bones, aggravated by too much cortisone."

"I cannot button or zip my clothes. Also, I cannot move my arms freely."

"The swelling in my legs is affecting me. I cannot do housework or walk with ease."

"I have to rest all the time."

"I have difficulty walking."

"It limits my action and daily activities (housework)."

"I'm an active person; I am not able to do anything."

"I get tired and am always in bed."

"I feel sleepy and my entire body is tired."

"My chest pain prevents me from walking as before, to run errands, or visit some of my friends who live around the neighborhood."

"It's affecting my whole life, my daily life."

"It has limited the use of my right hand; I cannot write or play sports."

"I cannot eat as fast as I used to. I cannot swallow. I don't eat fast any more."

"All my movements have been limited."

"The only problems caused by my disease are related to my work. I cannot work as before, plus it has affected my whole health status."

"I feel bored. I am unable to carry on my everyday obligations, like working and earning money."

"Disease makes me feel not healthy, and I cannot do hard work."

"I couldn't go to work."

"Affects my work, too hard to live with."

"Slowed me down, interfered with my work."

"Incapacitated, I cannot work."

"I cannot work for long hours."

"It affects my work; I am too tired."

"I cannot work or walk for long. I get short of breath with any movement."

"It interferes with my work and daily activities."

"My condition has disabled me; I cannot work as before. Also, it is impossible for me to live the same life I used to. I'm not going to work at all. I'll retire, relax, and take care of myself."

Fourteen (13.7%) viewed the effects of their illnesses as creating discomfort.

"My condition makes me uncomfortable. I'm full of gas, but it doesn't interfere with my daily work or my daily activities. It doesn't cause me any problem."

"I act very tired. The disease has affected my life. I have to get up in the middle of the night and go to the bathroom several times."

"The itching bothers me at night."

"I can do nothing. I have too much discomfort when I walk. I feel like I am falling."

"It's annoying."

"I feel choked when I work for long hours."

"I cannot eat well. I am losing weight."

"When I talk much, I get tired."

"When I go to school, I cannot sit for long hours."

"Trouble to be in class, sneezing, runny nose all the time."

Seven (6.8%) of the respondents viewed their illnesses as causing general worry, fear, unhappiness, problems, and depression.

"I cannot work or even move. I have to postpone all my plans. It's leading to psychological depression."

"General worry, loss of efficiency in studies."

"I am not very happy; I'm always worried."

"I'm afraid that it will affect my milk and I won't be able to nurse my baby."

"It affects me a lot, creates a lot of problems. It's a serious condition."

Seven (6.8%) described their illnesses as causing disability and inflicting pain. They responded as follows:

"When I work a lot, or walk, the pain is there."

"I am not able to walk, and my back is hurting."

"Because of the sharp pain, I couldn't go to work, and I think a lot about my health."

"I feel pain during work; I cannot afford not to work."

"Pain increases with work."

"I missed school, couldn't drive my car. When I sit, I feel severe pain."

Seven (6.8%) of the patients said that their illnesses didn't really affect their lives.

"My condition doesn't affect much of my daily work."

"It doesn't really affect me."

"It doesn't affect me."

"Thank God, nothing."

Three (2.9%) mentioned that their condition affected their appearance.

"I feel uncomfortable for esthetic reasons. It affects my appearance."

"I feel that I have to cover my arms. I don't want anyone to see them."

Three (2.9%) of the patients stated that their illnesses didn't affect them much but had interfered with their roles as mothers and housewives.

"My disease does not create any specific problems, but it affects my responsibilities and my duties as a wife."

"I'm only worried about my children. If I am sick, who will take care of them?"

"I cannot take care of my children."

Research Question #6 asked What are the different actions taken by Arab-Americans in response to symptoms perceived to be important?

Based on content analysis of the following interview questions - Did you seek assistance or talk to anyone about your symptoms? What came of it? What were the results? What kind of suggestions were made? - it was found that 65 (63.7%) of the respondents sought help in the form of lay consultation and advice, personal care, and practiced home remedies before deciding or being advised to seek professional help. The advice received from their significant others was in the form of

"Go see the physician." (49.2%)

"Rest" and "Practice home remedies." (32.3%)

"Go to the hospital." (11.7%)

Those who did not seek advice and help but rather sought professional help formed 33.3 percent of the population (n = 34). Three subjects (2.9%) were taken to a health care facility by their significant others because of their emergency condition (accident, fall). These people suffered sudden accidents and therefore did not have to decide on any action to take.

Research Question #7 asked What are they types of home remedies practiced for treatment to manage problems created by an illness situation?

Based on content analysis for the following interview questions - Did you try anything for relief? What did you do? - helped to identify different home remedies and treatment practiced by Arab-Americans. Table 11 shows that home remedies practiced in the event of treatment for some symptoms included rubbing, gargling, hot showers, massage, cupping, and other relatively simple procedures. Aspirin was the most common over-the-counter drug used by Arab-Americans besides Tylenol, Mentholatum, Coricidin, and other cold and pain medicine.

Research Question #8 asked, Who do they contact for advice and consultation in case of an illness situation?

Of the patients, 26.2 percent found their spouses to be the primary source of help, 23 percent first sought help from their mothers or fathers, 21.5 percent found their sons or daughters to be of help, and 13.8 percent sought help from their friends and relatives (Table 12). Siblings and spouse together with children were the least contacted for advice or consultation.

TABLE 11

Home Remedies and Nonprescription Drugs Used by Arab-Americans to Treat Different Problems

| Problems | Home Remedies | Nonprescription Drugs |
|---|---|---|
| Chest Conditions + Cough + Pain | - Rubbing chest with warmed olive oil<br>- Cupping (will sometimes involve incision with a blade to drain blood)<br>- Ingestion of a mixture of a glass of warm milk and 2 eggs early in the morning on an empty stomach (acts as an expectorant)<br>- Rubbing chest with Arak<br>- Drinking hot anissi<br>- Inhaling camphor and eucalyptus oil<br>- Gargle with hot water | Mentholatum<br>Robitussin<br>Coricidin D |
| Fever | - Application of vinegar compresses to forehead<br>- Drinking lemon juice | Aspirin |
| Headache | - Tying head very tightly with a scarf | Tylenol<br>Aspirin, Anacin |
| Backache +<br>Muscular and<br>Joint Pains | - Hot shower<br>- Massage with warm olive oil<br>- Sauna<br>- Swimming in heated pool | Ben Gay<br>Aspirin |
| Stomach Trouble | - 7-Up and few drops of lemon juice<br>- Hot tea (linden, mint)<br>- Hot brandy or hot Arak<br>- Chicken broth | Tums<br>Other antiacids |
| Nausea | - Sucking a lemon | |
| Poor Appetite | - Eating garlic and onions | |
| Skin Lesions | - Cleaning with soap & alcohol<br>- Application of very hot olive oil and covering with dark cloth | |
| Hemorrhoids | - Sitz-bath with hot water | |
| Boils | - Poultice prepared of boiled onions | |

TABLE 12

Distribution of Primary Persons Helpful to Subjects
(n = 65)

| Person Helpful | Number | Percent |
|---|---|---|
| Spouse | 17 | 26.2 |
| Spouse and Children | 5 | 7.7 |
| Mother and/or Father | 15 | 23.1 |
| Son or Daughter | 14 | 21.5 |
| Siblings | 5 | 7.7 |
| Friends or Relatives | 9 | 13.8 |
| Total | 65 | |

Research Question #9 asked <u>Is there a relationship between subject status (inpatient and outpatient), age, sex, marital status, religion, level of education, number of years in the U.S., country of origin, type of occupation, and type and duration of disease and perception of symptoms (CMI scores and Koos scores)?</u>

Table 13 shows the Pearson Product-Moment correlations for CMI (A-R) scores (total), CMI (A-L) scores (physiological), CMI (M-R) scores (psychological), and Koos scores with the continuous variables of age, duration of disease, duration of symptoms, years in the U.S., and level of education indicated. Statistically significant relationships were found for both age with CMI (A-R) scores ($r = .29$) and level of education and CMI (A-R) scores ($r = -.22$). However, upon closer

examination of this table it can be seen that this is due to the relationship of these two variables with CMI (A-L). Age and level of education were unrelated to CMI (M-R) scores. Furthermore, none of the other correlations examined were significant (Table 13).

TABLE 13

Pearson Correlations for Age, Duration of Disease, Duration of Symptoms, Level of Education, Number of Years in the U.S. with CMI and Koos Scores

| Test | Age | Duration of Disease | Duration of Symptoms | Years in U.S. | Level of Education |
|---|---|---|---|---|---|
| CMI (A-R) | .29* | .06 | -.09 | -.02 | -.22* |
| CMI (A-L) | .43*** | .09 | -.09 | .04 | -.31** |
| CMI (M-R) | -.02 | 0.00 | -.04 | -.10 | .03 |
| Koos | -.13 | -.03 | .19 | -.04 | .06 |

* $p < .05$
** $p < .01$
*** $p < .001$

Using multiple regression analysis, the relationship between level of education and CMI (A-L) scores was shown to be significant after adjusting for age (Table 14). Also, the relationship between age and CMI (A-L) scores was shown to be significant after controlling for level of education. When a similar regression analysis was performed using the CMI (A-R) scores as the dependent variable, the statistical significance was diluted for both independent variables and disappeared completely for the variable, level of education. Again, this is because age and level of education appear to be completely unrelated to CMI (M-R) scores.

TABLE 14

Age, Level of Education, CMI (A-L) Scores
Multiple Regression, Correlation Analysis

| Variables | df | F | $R^2$ | $R^2$ change |
|---|---|---|---|---|
| Age | 1,99 | 17.650** | .188 | .188 |
| Level of Education | 1,99 | 6.029* | .234 | .046 |

* $p < .05$
** $p < .001$

The results of t-tests (see Table 15) demonstrated no statistically significant differences (alpha = .05 for each test) between the means of married and single subjects in regard to total CMI scores (A-R), CMI physical scores (A-L), CMI psychological scores (A-L), and total Koos scores.

To determine if there was a difference between subject status (in-patient and out-patient) and CMI and Koos scores, t-tests were performed. Table 16 shows that significant differences were found for Koos score and CMI (M-R) scores, with Group 1 (in-patient) having significantly higher Koos scores (a greater number of symptoms recognized as needing medical attention) and Group 2 (out-patient) having significantly higher CMI (M-R) scores. The other two t-tests were not significant.

TABLE 15

The Relationship Between Marital Status and CMI and Koos Scores

| Test | n | Mean | SD | df | t | p* |
|---|---|---|---|---|---|---|
| CMI (A-R) | | | | | | |
| Single | 28 | 27.85 | 13.45 | 95 | -1.14 | .25 |
| Married | 69 | 31.76 | 16.07 | | | |
| CMI (A-L) | | | | | | |
| Single | 28 | 19.62 | 9.06 | 95 | -1.71 | .09 |
| Married | 69 | 23.71 | 11.90 | | | |
| CMI (M-R) | | | | | | |
| Single | 28 | 8.57 | 7.93 | 95 | .31 | .76 |
| Married | 69 | 8.02 | 7.83 | | | |
| Koos | | | | | | |
| Single | 28 | 14.71 | 2.62 | 95 | .99 | .32 |
| Married | 69 | 14.08 | 2.90 | | | |

* two-tailed p value

The F tests for homogeneity of variance within each group were found to be statistically significant at alpha = .05 for CMI scores (A-R), CMI scores (M-R), and Koos scores. Therefore the group variances were not pooled; instead, separate variance t-tests were performed for these three variables (Table 16).

TABLE 16

The Relationship Between Subject Status (In-patient and Out-patient) and CMI and Koos Scores

| Test | n | Mean | SD | df | t | p* |
|---|---|---|---|---|---|---|
| CMI (A-R) | | | | | | |
| In-patient | 16 | 27.8 | 10.2 | 100 | -1.17[a] | .25 |
| Out-patient | 86 | 31.4 | 16.6 | | | |
| CMI (A-L) | | | | | | |
| In-patient | 16 | 22.2 | 9.5 | 100 | -.17[b] | .86 |
| Out-patient | 86 | 22.7 | 11.7 | | | |
| CMI (M-R) | | | | | | |
| In-patient | 16 | 5.12 | 4.2 | 100 | -2.60[a] | .01** |
| Out-patient | 86 | 8.76 | 8.4 | | | |
| Koos | | | | | | |
| In-patient | 16 | 16.25 | 1.2 | 100 | 5.67[a] | .001** |
| Out-patient | 86 | 13.7 | 2.9 | | | |

* two-tailed p value

[a] separate variance estimate
[b] pooled variance estimate

** statistically significant

There was a statistically significant difference (alpha = .05 for each test) between the means of Christians and Moslems in regard to Koos scores but not for any tests on CMI scores (see Table 17).

TABLE 17

The Relationship Between Religion and CMI and Koos Scores

| Test | n | Mean | SD | df | t | p* |
|---|---|---|---|---|---|---|
| CMI (A-R) | | | | | | |
| Christian | 59 | 31.4 | 16.6 | 97 | .60 | .51 |
| Moslem | 40 | 29.3 | 14.4 | | | |
| CMI (A-L) | | | | | | |
| Christian | 59 | 23.1 | 12.1 | 97 | .80 | .42 |
| Moslem | 40 | 21.3 | 10.3 | | | |
| CMI (M-R) | | | | | | |
| Christian | 59 | 8.3 | 8.0 | 97 | .36 | .72 |
| Moslem | 40 | 7.8 | 7.9 | | | |
| Koos | | | | | | |
| Christian | 59 | 13.6 | 3.2 | 97 | -2.08 | .04** |
| Moslem | 40 | 14.7 | 2.2 | | | |

* two-tailed p value

** statistically significant

The results of the t-tests demonstrated no statistically significant differences between the means of male and female subjects' scores in regard to total CMI scores (A-R), CMI physical scores (A-L), CMI psychological scores (M-R), and Koos scores (Table 18).

TABLE 18

The Relationship Between Sex
and CMI and Koos Scores

| Test | n | Mean | SD | df | t | p* |
|---|---|---|---|---|---|---|
| CMI (A-R) | | | | | | |
| Male | 67 | 30.49 | 16.7 | | | |
| | | | | 100 | -.34 | .73 |
| Female | 35 | 31.6 | 14.1 | | | |
| CMI (A-L) | | | | | | |
| Male | 67 | 22.3 | 12.1 | | | |
| | | | | 100 | -.42 | .67 |
| Female | 35 | 23.3 | 10.0 | | | |
| CMI (M-R) | | | | | | |
| Male | 67 | 8.0 | 8.0 | | | |
| | | | | 100 | -.29 | .77 |
| Female | 35 | 8.5 | 8.0 | | | |
| Koos | | | | | | |
| Male | 67 | 14.2 | 3.0 | | | |
| | | | | 100 | .46 | .64 |
| Female | 35 | 13.9 | 2.7 | | | |

* two-tailed p value

In order to investigate differences among groups as defined by various independent nominal variables (country of origin, type of occupation, and type of disease condition) on the dependent variables CMI (A-L), CMI (A-R), CMI (M-R), and Koos scores, a number of one-way analyses of variance were performed. These were followed up using Tukey's studentized range test whenever the F test from the one-way ANOVA was significant at alpha = .05. The Tukey follow-up contrasts were performed using a procedurewise error rate, alpha = .05. Statistically significant differences were found only for CMI (A-L)

scores, by country of origin, and by type of occupation. Palestinian and Jordanian patients' CMI (A-L) scores were significantly greater than those of the Lebanese, Egyptian, and Iraqi patients' scores (Tables 19 and 20).

TABLE 19

ANOVA for CMI (A-L) by Country of Origin

| Source of Variance | SS | df | MS | F | p |
|---|---|---|---|---|---|
| Between Groups | 1141.4 | 3 | 380.4 | 3.09 | .05 |
| Within Group | 12041.7 | 98 | 122.8 | | |
| Total | 13183.1 | 101 | | | |

TABLE 20

Means, Standard Deviations for CMI (A-L) Scores by Country of Origin with Results of Tukey's Studentized Range Test

| Country of Origin | n | Mean | SD |
|---|---|---|---|
| Palestine and Jordan | 58 | $25.5^{a}$ | 11.4 |
| Lebanon, Egypt, Iraq | 18 | $17.3^{b}$ | 10.1 |
| Saudi Arabia, Kuwait, Yemen | 20 | $20.5^{ab}$ | 10.4 |
| Born in U.S. | 6 | $19.0^{ab}$ | 12.1 |
| Total | 102 | 22.7 | 11.4 |

Means sharing a common superscript are not significantly different from each other.

The CMI (A-L) scores of unemployed patients were significantly higher than those of major professionals, minor professionals, skilled, semiskilled, or unskilled laborers, students, and those who had clerical or technical positions (Tables 21 and 22). All other occupational group comparisons showed no statistical significance ($F = 4.34$, $p < .001$). Furthermore, an analysis of covariance was performed adjusting for both age and level of education. This time the overall F was significant ($p < .001$), but this significance was due to the relationship of the covariates age and level of education ($p < .0001$ and $p = .014$ respectively). Type of occupation was not found to be statistically significant after adjusting for age and level of education ($p = .173$) (Table 23).

This analysis was followed up by calculating the expected adjusted mean deviations from the total grand mean (CMI A-L scores, $\bar{X} = 22.71$) for type of occupation after adjusting for the covariates age and level of education (Table 24). Results show that the adjusted means for different categories of type of occupation are different from one another in a consistent way; unemployed still have much higher scores than the overall mean and major professionals have much lower scores. These differences are not statistically significant, possibly due to the large variability in the data, but with a large sample size these differences would be expected to be significant based on the patterns of adjusted means.

The results obtained for CMI (A-R), CMI (M-R), and Koos scores by country of origin and type of occupation were not statistically significant. In addition, results from the one-way analysis of variance for CMI (A-R), CMI (A-L), CMI (M-R), and Koos scores by type of condition were found not to be statistically significant.

TABLE 21

ANOVA for CMI (A-L) by Type of Occupation

| Source of Variance | SS | df | MS | F | p |
|---|---|---|---|---|---|
| Between Groups | 3220.3 | 7 | 460.0 | 4.34 | .001 |
| Within Group | 9962.7 | 94 | 105.9 | | |
| Total | 13183.0 | 101 | | | |

TABLE 22

Means, Standard Deviations for CMI (A-L) Scores by Types of Occupation with Results of Tukey's Studentized Range Test

| Group | n | Mean | SD |
|---|---|---|---|
| Unemployed | 9 | $37.0^{a}$ | 13.3 |
| Housewife | 24 | $25.7^{ab}$ | 10.0 |
| Major Profession | 6 | $15.8^{b}$ | 7.6 |
| Minor Profession | 7 | $20.0^{b}$ | 11.6 |
| Lesser Profession | 13 | $23.3^{ab}$ | 10.0 |
| Student | 16 | $16.7^{b}$ | 9.6 |
| Clerical/Technical | 11 | $18.0^{b}$ | 10.1 |
| Skilled, Semiskilled, or Unskilled Labor | 16 | $22.4^{b}$ | 9.8 |
| Total | 102 | 22.7 | 11.4 |

Means sharing a common superscript are not significantly different from each other.

TABLE 23
ANCOVA for CMI (A-L) by Type of Occupation
With Age and Level of Education

| Source of Variance | SS | df | MS | F | p |
|---|---|---|---|---|---|
| Covariates | 3093.2 | 2 | 1546.6 | 15.72 | .0001 |
| Age | 1799.2 | 1 | | 18.29 | .0001 |
| Level of Education | 614.5 | 1 | | 6.25 | .014 |
| Main Effect | | | | | |
| Type of Education | 1040.5 | 7 | 148.6 | 1.51 | .173 |
| Between Groups | 4133.7 | 9 | 459.3 | 4.67 | .0001 |
| Within Group | 9049.3 | 92 | 98.4 | | |
| Total | 13183.0 | 101 | | | |

TABLE 24

Category Means for Type of Occupation, Unadjusted and
Adjusted for Covariates Age and Level of Education

| Group | Unadjusted $\bar{X}$ | Adjusted $\bar{X}$ |
|---|---|---|
| Unemployed | 36.99 | 32.94 |
| Housewife | 25.79 | 23.65 |
| Major Profession | 15.83 | 16.89 |
| Minor Profession | 19.99 | 21.16 |
| Lesser Profession | 23.38 | 22.94 |
| Student | 16.74 | 21.51 |
| Clerical/Technical | 17.99 | 19.77 |
| Skilled, Semiskilled, or Unskilled Labor | 22.43 | 21.38 |

CMI (A-L) $\bar{\bar{X}}$ = 22.7

Research Question #10 asked, Is there a relationship between country of origin, type of occupation, living arrangements, and action taken?

Results of Chi-square tests showed no statistically significant relationship between country of origin and living arrangements on action taken. Although the Chi-square test for type of occupation by action taken was significant at the .05 level, a number of expected cell frequencies were less than 5, which potentially could diminish this significance (Table 25).

TABLE 25

Chi-square for Action Taken by Type of Occupation
(n = 99)

| | Action Taken | | |
|---|---|---|---|
| Occupation | Lay Help/Advice | Professional Help | Total |
| Unemployed | 6 | 0 | 6 |
| Housewife | 17 | 7 | 24 |
| Major Professional | 1 | 5 | 6 |
| Minor Professional | 11 | 2 | 13 |
| Lesser Professional | 5 | 2 | 7 |
| Student | 8 | 8 | 16 |
| Clerical/Technical | 6 | 5 | 11 |
| Skilled, Semiskilled, or Unskilled Labor | 11 | 5 | 16 |
| Total | 65 | 34 | 99 |

$X^2 = 14.395$, df = 7, p = .044

The results showed that major professionals have the tendency to seek professional health care instead of seeking advice and/or practicing self-care or home remedies.

Research Question #11 asked, What subset of independent variables will discriminate the patients who will seek advice (lay consultation) and practice self-care and home remedies (Group 1) and those who will not (Group 2) before seeking professional health care?

The results of a discriminant analysis performed on the dependent variable, action taken (Group 1 - patients who sought advice, practiced self-care and home remedies before seeking professional health care and Group 2 - patients who did not seek advice or practice self-care or home remedies and only sought professional health care) and the following independent variables - age, years in the U.S., duration of symptoms, duration of disease, CMI scores (A-R), Koos score, patient status, sex, religion, marital status, level of education, pain, and number in household - showed that CMI scores (A-R) was the only variable that explained variations in actions taken. No other variable was significant (Table 26).

To further examine the contribution of the CMI score as a predictor, it was decided to reexamine the CMI score by dividing the score into its two components: CMI (A-L) and CMI (M-R). The results of the discriminant analysis (Table 27) showed that only CMI (A-L) was statistically significant as a predictor. CMI (M-R) had very little predictive value. Subjects who had high CMI (A-L) scores tended to fall in Group 1.

TABLE 26

Test of Statistical Significance for Each of the Predictors Used in the Discriminant Function on Action Taken

| Variable | $F_{(1,97)}$ | p |
|---|---|---|
| Age | .018 | .89 |
| Years in U.S. | 1.57 | .21 |
| Duration of Symptoms | .05 | .81 |
| Duration of Disease | .25 | .61 |
| CMI Score | 4.49 | .036* |
| Koos Score | .11 | .73 |
| Subject Status | .24 | .62 |
| Sex | .00 | .99 |
| Religion | .25 | .61 |
| Marital Status | .00 | .93 |
| Level of Education | 2.37 | .12 |
| Number in Household | .004 | .94 |
| Pain | 1.90 | .17 |

* $p < .05$

TABLE 27

Test of Statistical Significance for Each of the Predictors Used in the Discriminant Analysis on Action Taken (with CMI Scores Separated into the Two Components)

| Variable | $F_{(1,97)}$ | p |
|---|---|---|
| Age | .018 | .89 |
| Years in U.S. | 1.57 | .21 |
| Duration of Symptoms | .05 | .81 |
| Duration of Disease | .25 | .61 |
| CMI Score (A-L) | 6.04 | .01* |
| CMI Score (M-R) | .40 | .50 |
| Koos Score | .11 | .73 |
| Subject Status | .24 | .62 |
| Sex | .00 | .99 |
| Religion | .25 | .61 |
| Marital Status | .00 | .93 |
| Level of Education | 2.37 | .12 |
| Number in Household | .004 | .94 |
| Pain | 1.90 | .17 |

* $p < .05$

Furthermore, a stepwise discriminant analysis was performed, and the only significant predictor in the stepwise analysis was CMI (A-L) score. After adjusting for CMI (A-L) scores, the F values for the remaining variables were not statistically significant (Table 28).

TABLE 28

Predictors Used in the Stepwise Discriminant Analysis on Action Taken and a Test of Statistical Significance for Each

| Variable | $F_{(1,97)}$ | p |
|---|---|---|
| CMI Score (A-L) | 6.04 | .01* |
| Variables Not in the Analysis After Step 1 | | |
| | $F_{(1,96)}$ | p |
| Age | 1.00 | .32 |
| Years in U.S. | 1.96 | .17 |
| Duration of Symptoms | .002 | .96 |
| Duration of Disease | .49 | .48 |
| CMI Score (M-R) | .016 | .90 |
| Koos Score | .05 | .83 |
| Subject Status | .25 | .62 |
| Sex | .015 | .90 |
| Religion | .13 | .71 |
| Marital Status | .20 | .65 |
| Level of Education | .71 | .40 |
| Number in Household | .017 | .90 |
| Pain | 1.27 | .26 |

* $p < .05$

This chapter presented a profile of the study subjects as well as the main findings for each research question. It presented the significant relationships demonstrated among the major variables of the study. Based on the qualitative and quantitative findings presented in this chapter, the next chapter will review these significant findings, explore their meaning, and discuss their implications in regard to prior research.

# CHAPTER VI

# DISCUSSION

This study, a retrospective, descriptive survey, asked the question, "What is the illness and help-seeking behavior among Arab-Americans?" In the context of their illness and help-seeking behavior, the study investigated their symptom perception, complaints presented, their beliefs about causation of illness, different actions taken while seeking help, advice received and home remedies practiced for treatment, and their actual decision to seek professional help. The study further investigated the major determinants of illness and help-seeking behavior in the population studied.

The significant findings demonstrated in this study will be discussed using the study's conceptual framework as a guideline. Therefore the significant relationships that were demonstrated among the five major variables (sociodemographic, symptom perception, health beliefs, explanatory models, action taken) identified in the framework will be used as a basis for presentation.

This chapter presents the significant findings of the study and discusses their implications in regard to prior research, the conceptual framework of the study, and theory development, sampling, and methodological issues.

Symptom Perception

In this research, symptom perception was determined by using the list of seventeen symptoms employed by Koos (1954) and the Cornell Medical Index (Brodman et al., 1949).

Koos' list of symptoms. On Koos' list of symptoms the respondents' scores were determined on their reaction to each particular symptom as needing or not needing medical attention. Results showed that Arab-Americans recognized pain in chest, lump in breast, lump in abdomen, fainting spells, and blood in urine as important symptoms needing medical attention. On the other hand, the two symptoms which received the lowest ratings in terms of needing medical attention were loss of weight and loss of appetite.

The results of the present study compared to that of Koos (1954) show a greater recognition of the need of care than that found in Koos' highest social class (Class I). The results obtained from the present study were very similar to those of Smith and Kane (1970) where symptoms reported by over 90 percent of the respondents fell in the same level of importance as needing medical attention. In addition, another study by Banks and Keller (1971) showed that symptoms receiving relatively high scores by respondents fell into the category of loss of blood and those symptoms associated with dreaded diseases, for example a lump in the breast and pain in the chest.

Different symptom clusters are considered most important among different ethnic groups. For example, the following irregularities will receive particular attention among Puerto Ricans in evaluating their health status: fever, respiratory problems, fatigue, loss of appetite or weight (Harwood, 1981). Haitians will give important consideration

to bone displacement, such as a twisted arm or neck, which causes pain and discomfort (Laguerre, 1981). It may be noted that recognition of symptoms by Arab-Americans involving loss of blood, pain in the chest, and lump in the breast shows that this group is aware of important and dangerous diseases, such as cancer and heart disease, which are usually associated with death.

It was unexpected for loss of weight and loss of appetite to be perceived as less serious symptoms by the Arab-American population. These two particular symptoms are considered very important in Arab communities, where plumpness and good appetite are part of healthy looks and are considered important health values. The same is true in the Mexican-American culture where, according to Clark (1959), loss of weight is considered serious enough to warrant medical attention. Although loss of weight and loss of appetite were not recognized as needing medical attention, there is a possibility that Arab-Americans could have been concerned about them and tried to remedy them by eating appetizing food with lots of garlic and onion, as those are believed to increase appetite. (Garlic and onions were mentioned by some of the respondents throughout the interviews as remedies for loss of appetite.) This unexpected finding might be due to the increasing level of health concern, health awareness, and health sophistication to which Arab-Americans are exposed in the American society, which has positively affected and modified their health beliefs, values, and symptom perception.

Cornell Medical Index. On the Cornell Medical Index (CMI) the respondents' scores were determined by counting the number of Yes responses on the 195 items included in the questionnaire.

In general, Arab-Americans scored high on sections A-L on the CMI, sections related to physiological symptoms ($\bar{X}$ = 22.79) and scored low on sections M-R of the CMI sections related to psychological symptoms ($\bar{X}$ = 8.52). The mean total number of symptoms reported on the 195-item CMI questionnaire (A-R) by the subjects in the present study was somewhat lower than that found in CMI standardization studies ($\bar{X}$ = 31.31) when compared cross-culturally. This mean score was higher than the North Carolina group ($\bar{X}$ = 13.5) (Cassel & Tyroler, 1961) but lower than the Oregon group's clinic patients (medical inpatients, $\bar{X}$ = 38.98; medical outpatients, $\bar{X}$ = 33.5; psychiatric inpatients, $\bar{X}$ = 48.88; psychiatric outpatients, $\bar{X}$ = 52.82) (Matarazzo, Matarazzo, & Saslow, 1961). When compared to the Zulu and Vietnamese culture results, the results of the present study were lower then the Zulu's, both rural and urban ($\bar{X}$ = 53.99, $\bar{X}$ = 48.33) and the Vietnamese ($\bar{X}$ = 34.0) (Lin, Tazuma, & Masuda, 1979; Scotch & Geiger, 1963-64).

Arab-Americans scored high on the following sections of the CMI related to physiological symptoms (A-L): section D symptoms related to the digestive system, section C symptoms related to the cardiovascular system, and section B symptoms related to the respiratory system.

As for the second part of the CMI (M-R), related to psychological symptoms, the following sections got the higher scores: section P related to sensitivity and section M related to inadequacy.

Arab-Americans scored low on the following sections of the CMI: section F (symptoms related to the skin) and section N (symptoms related to depression).

Physiologically, Arab-Americans suffered mainly from gastro-intestinal, respiratory, and cardiovascular symptoms. Psychologically,

there was hypersensitivity with some degree of feelings of inadequacy, meaning that they are at times unable to make adequate social adjustment. This might be explained by the difficulties faced in their process of adjustment and acculturation.

The reason for using the CMI results was to look at or to measure prominent complaints presented by the Arab-American population. The results indicated that gastrointestinal, respiratory, and cardiovascular problems were the major symptoms this population suffered from. These findings are a first step in demonstrating variations in disease among people of different ethnic backgrounds. For example, according to Overfield (1977), urban Jews are the most resistant to tuberculosis, compared to Black-Americans, American Indians, Appalachians, and Chinese, who are more susceptible. Persons with type O blood have more duodenal ulcers. Those with blood type A have more cancer of the stomach. Sickle cell anemia is most commonly found in Black-Americans. The present findings emphasize that gastrointestinal, respiratory, and cardiovascular problems are mainly those encountered by Arab-Americans. Furthermore, they can provide us with a general notion of health indicators in that community. In addition, through these results we can expect that this population might be prone to developing, in the long run, diseases related to the three reported physiological systems. From the psychological viewpoint, as shown in sections M-R of the CMI, it is possible to describe Arab-Americans as being hypersensitive people whose feelings could be easily hurt, who sometimes also feel that they are inadequate, and who show difficulty in their social adjustment, making decisions on their own, or taking an initiative action without help.

Sociodemographic Variables and Symptom Perception (Koos scores and CMI scores)

Results obtained from this study showed some statistically significant relationships between some of the sociodemographic variables and symptom perception.

Koos scores, level of education, sex, age, and marital status. Level of education, sex, age, and marital status did not appear to have a relationship on Koos scores. This is in accordance with the results reported by Smith and Kane (1970) that age factor and level of education were not significant variables with regard to symptom perception.

Koos scores and religion. Results showed that there was a statistically significant difference between the total mean Koos scores among Christians and Moslems ($t = 2.08$, $p < .05$). On the Koos list of symptoms, Moslems scored higher than Christians (Christians $\bar{X} = 13.6$, Moslems $\bar{X} = 14.7$). This significant difference was considered to be on the border line. Furthermore, a Chi-square test performed between each of the groups for different symptoms showed no statistically significant difference between the two groups for the individual items. This could be further identified in a larger sample.

Koos scores and patient status. Those patients who were hospitalized recognized a greater number of symptoms as needing medical attention on the Koos list of symptoms than did those who were outpatients ($t = 5.6$, $p < .001$). This can be explained by the fact that those patients had more severe illness situations and had experienced more symptoms. Some of the symptoms might have been the ones for which they were hospitalized; therefore they would be more symptom-oriented than the outpatient group.

Relation of CMI scores to level of education. Results showed a statistically significant relationship for level of education and CMI A-R scores ($r = -.22$, $p < .05$) and for level of education and CMI A-L scores ($r = -.31$, $p < .01$). This relationship, however, was not due to the previous relationship of level of education to age.

The results of this study contradict the findings of Brodman and colleagues (1953) which showed that no relationship existed between level of education and number of complaints presented on the CMI. They further explained that the more educated patients checked fewer bodily complaints than did the less educated because they were younger and not because of their length of schooling. On the other hand, results of the present study are supported by Chu and Rin (1970) who reported that the lesser educated tended to overreport their symptoms and by Croog (1961) who, in applying the CMI to Army inductees from five ethnic groups, showed that there was no association between Cornell scores and educational level in the soldiers of Irish, British, and German origin, but that in the Italian group an inverse association was found between the Cornell scores and the educational level, showing that high Cornell scores were associated with low educational level in the inductees of Italian origin.

Relation of CMI scores to age. In the present study, results showed a statistically significant relationship for age with CMI A-R scores ($r = .29$, $p < .05$) and for age with CMI A-L scores ($r = .43$, $p < .001$). This finding is supported by Brodman and colleagues (1953). They studied a sample of adult outpatients that consisted of Black and White patients. Results reported showed that older men and women made

more complaints referring to the body than did the younger people. Age and number of bodily complaints were significantly correlated.

The results of the present study are in accordance with clinical observations that as individuals grow older, developing more disabilities, they complain more about their bodies. This study emphasized that in each successive age decade, patients had an increasing number of bodily complaints.

Relation of CMI scores to sex. The majority of research using the CMI reveals higher scores for women than for men (Abramson, 1966; Brodman et al., 1953; Culpan, Davies, & Oppenheim, 1960). In the present study there were no significant differences between male and female scores. This finding is surprising and unexpected. According to Nathanson (1975), women reported more symptoms than men. She postulated that it was culturally more acceptable for women to report and express discomfort and that women were more comfortable with the sick role. The sick role is known to be particularly elaborate among Middle-Eastern women, where socialization patterns allow them to complain more readily and appear less stoic.

Relation of CMI scores to marital status. In the present study there were no significant differences between married and single subjects' scores. This contradicts Lin, Tazuma, and Masuda (1979) who reported that marital status was a factor influencing the total number of CMI scores. Married subjects in their study scored high on the CMI as compared to the total scores of nonmarried, separated, and widowed.

Relation of CMI scores to country of origin. Country of origin was another variable found to be related to perception of symptoms, mostly the CMI (A-L) scores. It was found that Palestinians and

Jordanians reported higher scores when compared to Lebanese, Iraqis, and Egyptian subjects. This difference can be explained by the fact that, although all of the subjects were considered Arabs and shared a common core of traditional cultural values, beliefs, and practices, they still constituted a heterogeneous group. Although similarities outweighed differences, the subjects did demonstrate differences in perception and recognition of symptoms. Also, their initial medical conditions might have had an influence on their reporting and acknowledging a larger number of symptoms on the CMI (A-L) scores.

Relation of CMI scores to type of occupation. It was found that those who were unemployed had statistically significant higher scores on CMI (A-L) than the major professionals, minor professionals, skilled, semiskilled, and unskilled laborers, students, and those who held clerical or technical positions. An analysis of variance showed that statistically there was a significant difference between the mean scores of the unemployed ($\bar{X}$ = 37.00), major professionals ($\bar{X}$ = 15.83), minor professionals ($\bar{X}$ = 20.00), students ($\bar{X}$ = 16.75), clerical/technical ($\bar{X}$ = 18.00), and skilled, semiskilled, or unskilled laborers ($\bar{X}$ = 22.70). This relationship was found not to be significant when the type of occupation was adjusted for age and level of education. The high CMI A-L scores scored by the unemployed were explained by age differences and differences in level of education. Even so, when type of occupation was adjusted for the covariates of age and level of education, the adjusted mean deviation for CMI (A-L) scores still tended to be higher than the other adjusted mean deviations for the other occupation categories, mainly housewives, students, major professionals, minor professionals, etc. It was also apparent that major professionals

still had lower scores. But these differences were not statistically significant. In a larger sample, these differences would be expected to be statistically significant.

Relation of CMI scores to patient status. Results showed that there was a statistically significant difference between the CMI (M-R) scores of inpatients and outpatients ($t = -2.60$, $p < .05$), indicating that outpatients had higher CMI (M-R) scores. This finding was unexpected; the difference might be due to the possible stress caused by uncertainty of diagnosis among outpatients, which led them to score higher on statements related to moods, feelings, and psychological symptoms. The literature reports that usually inpatients have higher total CMI scores compared to outpatients (Matarrazo et al., 1961).

## Pain and Its Metaphors

As for the actual complaints presented by Arab-Americans when seen in the health-care system, it was found that pain, mostly in the form of pain in the chest, stomach, shoulder, extremities, and back, were the most frequently-reported type of complaints ($n = 45$, 44.1%).

Of the respondents, 23.5 percent complained of pain in combination with one or more other symptoms described as burning sensation in the stomach, fatigue, difficulty in respiration, sweating, dizziness. 6.8 percent reported miscellaneous symptoms in the form of bleeding, lump in breast, abdominal distension, palpitation, difficulty swallowing, and skin lesions.

In this study, Arab-Americans' descriptions of complaints suggest that they are anatomically knowledgeable and very familiar with their different body parts. Their descriptions of symptoms comprise specific

anatomical areas such as the heart, chest, abdomen, and back. In general, symptoms were not vaguely described. This accuracy of description can be explained by the fact that interviews were conducted in Arabic, and Arab-American patients were able to fully describe and express what they experienced easily and accurately, in their mother tongue, with some form of sophistication. The fact that they have been labeled as presenting vague complaints by health-care professionals (Meleis, 1981), referring to unspecific parts of the body, might be due to language barriers (as they are often unable to express themselves in English with accuracy) and not to a cognitive deficit.

In relation to the influence of language upon symptomatology in ethnic groups, Del Castillo (1970) reported from the few cases he studied that several patients showed psychotic symptoms in interviews held in their native languages but not in those conducted in foreign languages, possibly because the effort of communicating in another tongue produces unconscious vigilance over the emotions. The same might possibly be true for physiological symptoms described in the patient's own language and in a foreign language.

Arab-Americans, while describing their pain, used words describing the sensory and affective qualities of their pain (Jacox, 1977). They also made some analogies and used metaphors. Use of metaphors while describing pain has been reported by Klein and Brown (1965), who found that 58 percent of patients in a medical clinic used metaphors of violence to describe their pain. Arab-Americans described pain as something pulling and hard as a stone - "Hage be tched zie el hagar"; as frightening - "A frightening pain in the lower part of my back. It's worse with movement", "Haga Mou hkifa"; as a piece of iron - "The pain

under my right breast and in my stomach feels like a piece of iron", "Heta min hadid"; as a burning fire and the flame of fire - "The pain was like a burning fire, coming out of my chest", "I had this pain in my stomach which was like a flame of fire."

As for the effect of illness and problems caused by their illness situation, Arab-Americans mentioned that their illness interfered with their activities of daily living and with work and its activities.

Very few mentioned that their illnesses caused general worry, fear, unhappiness, and depression or created discomfort and affected their appearance. Their main concern was interference with the activities of work and of daily living. According to Rosenstock and Kirscht (1979), interference with normal functioning is an indication of illness.

Arab-Americans' perceptions of the effect of their illnesses can be supported by Zola (1966) who reported that Italians perceived their symptoms as affecting their interpersonal behavior; the Irish denied any such effect. Illness in Italians threatened social and daily living activity. This is similar to Arab-Americans, who respond to their illness pragmatically. Such activity means that their attention is focused primarily on the tasks of daily living; therefore they view their illness as interrupting routine tasks.

## Beliefs of Causation of Illness

Patients who suffered chest conditions, coughing, sore throat, and back, shoulder, and extremities pain attributed their disease causation to cold in general, exposure to cold, cold weather, weather change, and air drafts (n = 11, 10.7%). Injury, falls, accidents, and muscle sprains and twists were also reported as illness causations by

19.6 percent of the subjects. Physical and mental stress was another causation of illness mentioned by Arab-Americans. Those who mentioned stress said that work, with its long hours of physical and mental stress, had caused their illnesses.

Only one subject attributed the cause of his illness to fate and God's will. This belief was expected to be more prominant in Arab-Americans, as fatalistic acceptance or resignation is a specific cultural trait in Arabs.

Another major cause was emotions, in the form of nervousness, and tension and fright were mentioned by some of the respondents. This belief of causation, in viewing symptoms of disease as manifestations of disturbances in emotions, is also shared by Latin-Americans (Cohen, 1979). People who undergo sudden emotional experiences might suffer some physical disorders such as stomach trouble, liver trouble, hypertension, and circulatory problems (Cohen, 1979, Maloof, 1979).

Also, it was found that time was an important factor in disease causality. Different dimensions of causality were believed to have happened in the distant past (early childhood), recent or immediate past (up to five years ago), and the present time.

Some of the beliefs about illness in the Arab-American subculture, those attributed to cold, exposure to cold, and weather changes, are derived from Hippocratic theories (Mettler, 1947). A collection of Hippocratic writings, that explain different and overlapping etiologies, mention meteorologic, climatic, and geographical changes (Mettler, 1947). Air was a determining factor in illness causation (Sigerist, 1961). In addition, ancient Greeks based their etiological explanations on the constriction and relaxation of the pores (status strictus and

status laxus), and the explanations were incorporated in their medical theories (Ackerknecht, 1955). These beliefs, transmitted to Arabia, Europe, and to the west (Messer, 1981), became the ruling medical theories of the Middle Ages (Ackerknecht, 1955).

The Arab-American belief that diseases are caused by cold and weather changes is shared by Italians and Mexican-Americans. According to Ragucci (1981), old Italians have a special preoccupation with drafts and cold as major causes of a number of illnesses, a causation that is thought to lead to aches, pains, and chest colds. It is believed that a person is especially vulnerable to winds and drafts when the pores are open.

Mexican-Americans also refer to mal aire as being a frequent cause of illness. Under certain conditions, "bad air" is thought to enter the body through any of its cavities and result in illness (Schreiber & Homiak, 1981).

Findings of the present study are also supported by Maloof (1979) in her study of Arab-Palestinians in Washington, DC. She reported that weather and air were mentioned frequently by the subjects, who believed that they caused pneumonia and rheumatism. In addition, emotions, in the form of stress, fright, tension, and worry, were believed to be causes of disease.

Fatalistic approaches to causation of illness were expected to be retained by many of the respondents. Only one subject in the present study referred to fate or God's will as being such a cause. This is contrary to the findings of Maloof (1979), who found that fatalism was still very prominent as a cause of illnesses.

Action Taken and Help-seeking

The majority of Arab-Americans waited at least a few days ($\bar{X}$ = 10.8) before deciding to go to a health-care facility for professional help. The reasons why those patients decided to seek professional help or were encouraged to do so were because, most of the time, they suffered severe or sudden symptoms involving the heart or had injuries associated with pain and bleeding. In other instances the symptoms persisted and were not alleviated by home remedies practiced or by the elapse of time. Thirty-four (33.3%) did nothing, but decided to go to a health-care facility for professional help; 65 (63.7%) sought lay help for advice and consultation and practiced home remedies prior to deciding to seek professional health care.

The results showed that the type of occupation was a significant variable affecting action taken. Chi-square test results showed that major professionals would seek professional help directly ($X^2$ = 14.39, p = .04) instead of seeking advice and/or practicing self-care or home remedies. This finding is related to the previous inverse correlation between level of education and symptom perception (CMI A-L: r = .31, p < .001). Those who are high on the educational echelon do not express their symptoms, do not complain as much as the people who are less educated. They either have not as many complaints or symptoms to report or, because of their high social positions and their involvement with professional responsibilities, do not have time to be preoccupied with their symptoms.

Another major variable which was found to be the only variable that could discriminate between the two groups for action taken (those who sought lay advice and help, practiced personal care and home remedies

before seeking professional help [Group I] and those who did not ([Group II]) was CMI (A-L) scores ($F = 6.04$, $p < .05$). Those who scored high on CMI (A-L) reported higher physiological symptoms and had a tendency to fall in Group I; those who scored low on CMI (A-L) reported a lower number of physiological symptoms and had a tendency to fall in Group II. Therefore CMI (A-L) scores were a strong predictor of action taken.

This could be further related to level of education and CMI (A-L) scores. The results showed an inverse relationship between level of education and CMI (A-L) scores. Those who were low on the educational echelon were the ones who expressed and reported a higher number of symptoms and therefore scored high on CMI (A-L) (physiological) symptoms. Again, these subjects were unemployed, had lesser education, and had more time to worry about their symptoms, and they sought help from their lay consultants for approval and validation.

Those who sought lay help, advice, and consultation formed the majority of the sample studied and were the ones who scored high on the CMI (A-L) questionnaire. These subjects had high physiological CMI scores and expressed and recognized more symptoms than the ones who did seek professional help. For help, they contacted their spouse, son or daughter, and parents. It was found that the spouse was the primary person most helpful to the subjects, followed by parents (mother and/or father) and the son or daughter. Lay consultation was always initiated at home and rarely went out of the family circle. This may be rooted in family loyalty and a sense of obligation to take care of the sick or the needy. Only one subject asked the Chinese cook at the restaurant near his home where he used to eat, for advice and help.

Person helpful. The person most helpful in cases of illness was the spouse, who usually was the wife. It is noticeable that the women in the family (the spouse or the mother) were always responsible for nurturing tasks and were usually the ones who were consulted within the family for the health protection of all its members. This finding is supported by Litman (1974) who emphasized the primary role of the wife/mother in the decision to seek health care for her children and family. In addition, Maloof (1979) has reported that Palestinian women are popular providers of health care within the family. Pillsbury (1978) has also emphasized the importance of women as decision-makers in helping ill family members.

Arab-American women have influential roles in relation to health and illness in the family, discussing the symptoms, validating them, and suggesting home remedies. Based on the type, severity, and location of symptoms presented, different types of advice or help were offered to the sufferer. These were in the form of advice to go and see the physician (49.2%), advice to go to the hospital (11.7%), and advice to rest and practice home remedies (32.3%).

## Home Remedies and Over-the-counter Medication Used for Self-treatment

It should be noticed that a wide variety of over-the-counter medications and home remedies were used for treating some of the health problems encountered. Home remedies practiced included rest, rubbing, gargling, hot showers, and other relatively simple procedures. Aspirin was the most popular over-the-counter medicine reported, together with

Tylenol, Anacin, and Robitussin. These medicines were generally taken to treat colds, aches, and pains.

Olive oil was used in many ways: rubbing chest for colds, covering skin lesions, and massaging painful body parts. Its use has antecedents in ancient times when oil was used to treat and dress wounds in battle (Arber, 1953; Majno, 1975). Olive oil was also used to treat different ailments such as earaches, muscle pains, and paralysis (Budge, 1913) and was believed to have a warming and soothing effect (Gunther, 1959). The use of lemon juice was also common in the Arab-American population to overcome fever and to break up colds.

A number of respondents practiced some home remedies for the conditions they experienced and reported. For example,

Internal nutritional remedies:

> I was coughing and had some chest pain. For that, I used to drink every morning on an empty stomach a glass of warm milk mixed with two raw eggs. It's good for the chest; it brings all the black secretions out.

External food-related remedies:

> I had a boil in my inner thigh. My wife prepared a poultice made of boiled onions. It helps ripen the boil and all the dirt comes out.

External - Cupping and incision (wet cupping):

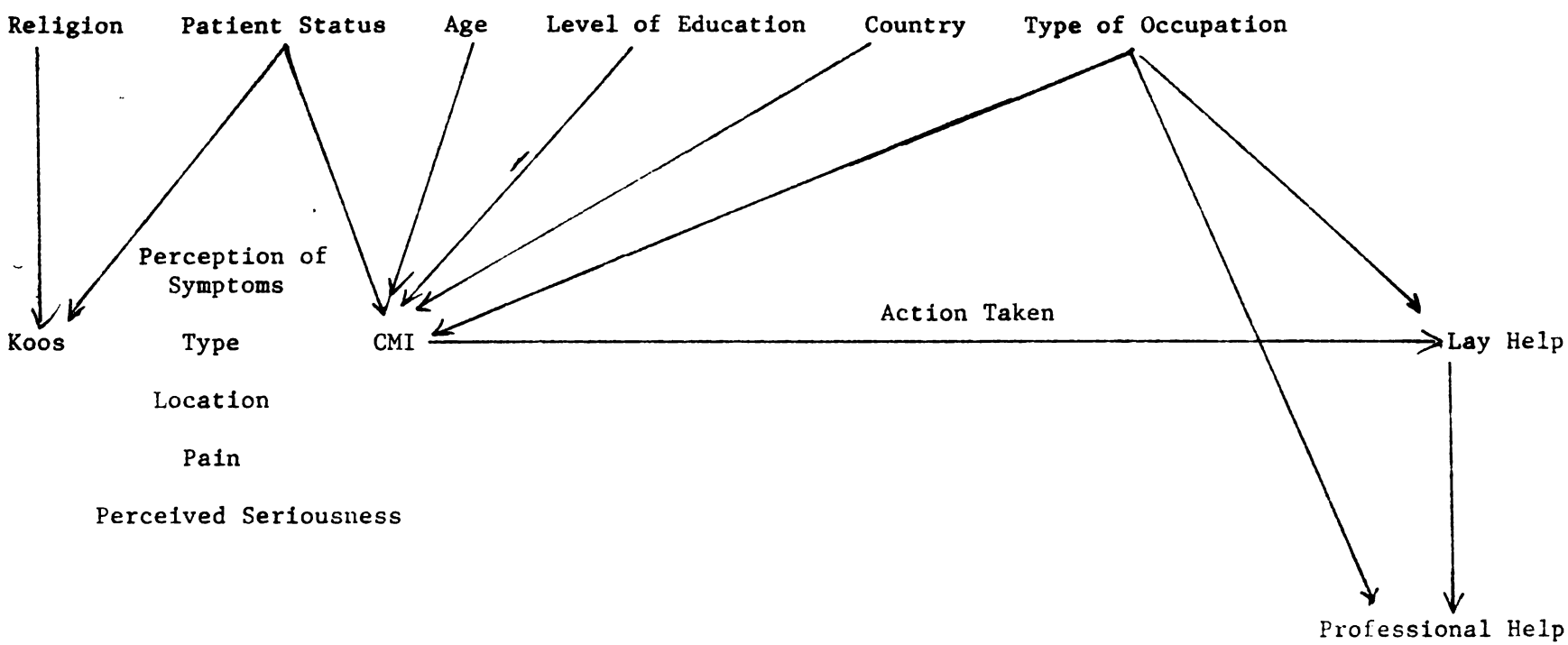
> I had a very bad chest condition. I couldn't breath, and I was coughing. My mother applied small cups, after heating them, on my back and chest. THis sucks all the inflammation out and at the end she incised very lightly the skin with a razor blade to let some of the accumulated blood out.

The home treatments practiced to remedy some of the symptoms presented emphasized beliefs related to the Hippocratic humoral theory: for example, in using internal nutritional remedies, one gets the black out of the chest; the bleeding that occurs after incising and/or cupping helps the body get rid of bad humors.

Results as They Relate to the Conceptual Framework

This part of the discussion focuses upon the study results as they relate to the conceptual framework. It examines the extent to which the findings explicitly clarify an understanding of the concepts of symptom perception, action taken, and illness and help-seeking behavior from a cultural perspective (Figure 14). The framework used in this study (derived from the health belief model and Kleinman's explanatory model) proved to be very useful in conceptualizing a number of interrelated events that occurred at the time the symptoms were perceived by the Arab-American patients. It also helped relate sociodemographic and cultural variables to symptom perception and action taken.

The findings of this study demonstrated individual relationships between 1) age and symptom perception, 2) religion and symptom perception, 3) patient status (inpatient or outpatient) and symptom perception, 4) level of education and symptom perception, 5) type of occupation and symptom perception, 6) country of origin and symptom perception, 7) symptom perception and action taken, and 8) type of occupation and action taken. Thus conceptual relationships were demonstrated between 1) sociodemographic/illness characteristics and symptom perception, 2) demographic characteristics and action taken, and 3) symptom perception and action taken. Therefore certain sociodemographic and illness characteristics and cultural beliefs were found important in influencing an individual's perception of severity of symptoms and, consequently, help-seeking behavior in two different forms of action taken: advice and help from significant others and/or professional help.




Significant Relationships Demonstrated Among Factors Affecting Illness Behavior Among Arab-Americans

FIGURE 14

The findings of this study show that the concepts derived from the health belief model and Kleinman's explanatory model were applicable to the research. Kleinman's explanatory model was particularly useful as it allowed the researcher to evoke sociocultural beliefs retained by patients. It also allowed for a detailed description of patients' beliefs about causation of illness, complaints presented, and home remedies practiced. The model emphasized the importance of cultural influence in shaping health beliefs and practice such as perception of symptoms, perceived threat, and action taken.

The study also affords support for the relevance and usefulness of variables (symptom perception and perceived susceptibility) in the health belief model. They have relevance in explaining behavior and provide some insight into the dynamics of illness and help-seeking behaviors. The concept of perceived susceptibility (symptom perception) influences action taken and health behavior.

The findings of this study build on the works of Chrisman (1977), Friedson (1961), Kasl & Cobb (1966), Kleinman (1978), Mechanic (1962), Rosenstock (1966), Suchman (1965b), and Zola (1964, 1966), which explain theories of lay consultation and illness and help-seeking behaviors. Mechanic (1962) and Zola (1963, 1973, 1983) have reported that how a symptom is perceived affects the likelihood of response by the person experiencing it. A major cue in this perception is the disruption of family work and other social activity. In addition, Rosenstock (1966), Mechanic and Volkart (1961), and Mechanic (1978) have agreed that individual perception is crucial in assessing health and illness. Suchman (1965b) has described the stages of illness, beginning with the first experience of symptoms until recovery and rehabilitation. The

illness experience begins with a decision about whether or not something is wrong; there is then a stage of symptom validation by lay referral, and the adaptation of the sick role, which has been explained in detail by Friedson (1961). Lay consultation and referral processes might be sought to aid in identifying illness, for suggestions about treatment, and for recommendations for competent help.

Social networks have been shown to be both barriers to professional treatment, as in the case of Blacks (Hines, 1972) and Mexican-Americans (Clark, 1959), or important means of promoting the use of professional health care, as in the case of gypsies (Salloway, 1973). The results of this study showed that with Arab-Americans', social networks encouraged the sick person to look for professional help most of the time, as the type of advice given was "go and see the physician" (49.2%) and "go to the hospital" (11.7%). The literature has also presented some important sociodemographic variables such as age, sex, level of education, and cultural variables that affect illness and help-seeking behaviors (Banks & Keller, 1971; Fabrega, 1972; Feldman, 1966; Koos, 1954; Mechanic, 1972; Zborowski, 1952).

By adding new information to the extensive and broad area of illness and help-seeking behavior and by testing the interrelationships between important concepts in the area, this study has made clear that the most important trigger in the decision to take action is the symptom itself - its progression, its seriousness to the point requiring action, its site, and its association with pain - as well as its disruption of normal role performance. Presence of lay consultants and type of advice given also influenced action taken. Three other variables that are relevant to symptom perception and decision to take a particular action

are personality types, health locus of control, and health knowledge. These variables deserve investigation in relation to illness and help-seeking behavior and should be integrated into the study model.

## Sampling and Methodological Issues Pertaining to the Findings of This Study

Access to the sample of this study was a very difficult endeavor. Clinics and hospitals were not knowledgeable about who the Arab-Americans were, and no records were found mentioning the ethnic identity of patients treated except for Mexican-, Spanish-, and Asian-Americans. Arab-Americans were categorized under "others" or "unknown".

Whenever Arab-American patients were contacted, they always showed interest in participating in the study. They were enthusiastic and eager to answer all the questions asked by the researcher. The fact that the researcher spoke Arabic and was originally from Egypt was a major point in breaking the ice. In addition, because the interview was conducted in the Arabic language, patients felt relaxed and comfortable. At times, in many of the interviews, some other issues that were or were not related to health and illness were brought up by the patients, or one of the family members accompanying the patient, for discussion and advice. Also, the respondents were very curious to know about the researcher's background; therefore some introduction and a few minutes of socialization took place before the actual interview. The subjects considered the researcher as a friend and a fellow compatriot and even wanted to meet her on a social basis.

Respondents gave their verbal consent for participating in the study and answered all the questions without difficulty. The Koos list

of symptoms and the Cornell Medical Index were answered verbally. Respondents found the Cornell Medical Index too long.

Some patients who shared the same diagnosis and who happened to be in the health-care system on the same day were introduced to each other by the researcher. These patients showed interest in comparing their medical conditions, treatment received, medication taken, and physician's recommendations.

# CHAPTER VII

# CONCLUSIONS

This chapter consists of an overview of the study and its findings, a discussion of the limitations and implications of the study, and suggestions for further research.

## Summary of the Study

The purpose of this study was to describe the illness and help-seeking behavior of Arab-Americans. It helped identify and describe their perceptions and responses to symptoms of illness. The study further examined their own explanatory models in relation to their illness episodes, their beliefs about etiology and onset of symptoms, and their decisions to seek help, whether professional or lay help. This included the phases the patients went through after the onset of their symptoms, including home treatment, advice, and lay help, until the actual visit to a health-care system for professional help were investigated.

The conceptual framework of this study - a model explaining illness behavior and help-seeking behavior from a cultural perspective - was derived from Rosenstock's (1966) health belief model and Kleinman et al.'s (1978) explanatory model. The health belief model explains why and under what conditions people take actions to prevent, detect, and

diagnose disease. The elements of the traditional health belief model include the individual's perceptions of susceptibility to a disease, the severity of the disease, and the benefits and costs associated with actions taken to prevent or cure the disease. These perceptions are affected by diverse demographic, structural, and sociopsychological variables (modifying variables) as well as cultural variables.

The explanatory model brings into focus the cultural components of health beliefs. The explanatory model examines the patient's clinical reality in the form of the patient's cognitive content of his particular views of what is wrong together with feelings, values, and expectations about the type and style of treatment and goals for what would be considered to be effective care.

The model developed for this study provides a way of describing illness behavior and help-seeking behavior which initially starts with the presence of a symptom from a sociocultural dimension. Presence of symptoms will heighten the perceived seriousness and become a threat to the individual, depending on the type and severity of the symptoms experienced, for example, whether they included pain or discomfort. The perceived benefits can be integrated into action taken, which could be extended into help-seeking. Consequently, the decision to take an action in the presence of a symptom will depend on three areas in which beliefs about illness are likely to be held by patients: the extent to which the patient (a) perceives the presence of symptoms (perceived susceptibility to disease), (b) believes the symptom(s) to be serious (perceived threat of disease), and (c) believes that he will benefit from taking action.

The relationship which existed between each component of the sociodemographic variables (age, sex, level of education, number of years in the U.S., country of origin, and religion) and illness characteristics (type and duration of disease) and perception of symptoms was examined. Furthermore, the relationships which existed between the same sociodemographic variables, in addition to type of occupation, living arrangements, and type of action taken, were examined. This was performed to identify and describe those variables which were the best predictors of symptom perception and action taken.

To accomplish the intended purpose of this study, a retrospective descriptive survey approach was selected. This method of data collection was aimed at Arab-American patients diagnosed with an acute or chronic condition, being treated either in an outpatient or an inpatient setting in two large health-care centers located in a large urban area on the west coast.

The collection of data was accomplished through the use of an initial interview which included three structured questionnaires that were administered by the researcher to each subject through the interview process. A total of 102 patients were interviewed for this study. The interview was conducted in Arabic, except for six patients who preferred to respond in English.

Each of the 102 patients responded to the initial interview and the following three questionnaires: 1) demographic data questionnaire, 2) the Cornell Medical Index, and 3) Koos' list of symptoms. The initial interview was structured around questions related to illness and help-seeking behavior. The questions evolved from the literature related to the area (Friedson, 1961; Lieberman & Glidewell, 1978;

Suchman, 1964, 1965a, 1965b; Zola, 1964). The interview also included a set of questions which helped elicit the patient's own explanatory model of illness (Kleinman, 1978).

The demographic data questionnaire was an instrument designed by the investigator for the purpose of obtaining pertinent sociodemographic data on the subjects in this study. The Cornell Medical Index (CMI) was developed by Brodman and colleagues (1949) for the purpose of measuring a subject's own perception and expression of symptoms of illness and to help appraise symptoms of medical significance (Croog, 1961). Koos' list of symptoms was developed by Koos (1954) for the purpose of measuring perception of severity of selected medical symptoms as needing medical attention or not.

Validity and reliability of the CMI and Koos' list of symptoms were established in previous research (Abramson et al., 1965; Matarazzo, Matarazzo, & Saslow, 1961; Ryle & Hamilton, 1962; Smith & Kane, 1970). Validity and reliability tests were obtained on both the CMI and Koos' list of symptoms after their translation into Arabic.

Data for this study were analyzed by using descriptive and inferential statistical techniques, analysis of variance and analysis of covariance, Chi-square tests, correlations, and regression and discriminant analysis, in addition to qualitative analysis used to analyze responses to the initial interview. The descriptive statistics consisted of frequency distributions, measures of central tendency, and measure of variability. These were used to describe the sample studied. Inferential statistical techniques were used for analyzing data to examine effects which independent variables (i.e. age, sex, level of

education, number of years in the U.S., country of origin, religion, type and duration of disease) had upon the dependent variable (i.e. symptom perception). Correlations were determined between some of the independent variables such as sex, age, level of education, country of origin, and number of years in the U.S. and symptom perception.

A discriminant analysis was conducted to decide which combination of a number of important variables provided the best discriminator between two defined populations. Discriminant analysis explained the influence of a set of variables (sociodemographic variables such as age, sex, religion, marital status, living arrangement, number in household, country of origin, number of years in U.S., level of education, occupation, and illness variables such as type of disease, duration of disease, perception of symptoms) on the dependent variable (action taken prior to seeking professional care), that is, those who did seek advice and practiced self-care and home remedies prior to seeking professional help and those who sought professional help directly.

In addition, content analysis was carried out on the data obtained from the questions which comprised the initial interview. The unit of content analysis selected was the theme. Next, a category system for classifying units of content was developed.

## Summary of Research Findings

The presentation of the research findings was based on the conceptual framework of this study. Therefore the significant findings were presented and discussed under the five major components of the conceptual framework (Fig. 1, p. 31).

Symptom Perception

The following symptoms were identified by Arab-Americans as needing medical attention: pain in chest, lump in breast, lump in abdomen, blood in urine, fainting spells. Two symptoms - loss of weight and loss of appetite - received lower ratings in terms of needing medical attention. On the CMI, sections A-L (physiological symptoms), Arab-Americans reported symptoms related to the digestive system, cardiovascular system, and the respiratory system. Their mean CMI (A-L) score was 22.79. As for sections M-R (psychological symptoms), Arab-Americans reported hypersensitivity and some degree of inadequacy. Their mean CMI (M-R) score was 8.52 and their mean total CMI (A-R) score was 31.31.

Sociodemographic Variables and Symptom Perception

Age. Age demonstrated a statistically significant relationship with CMI (A-R) scores ($r = .29$, $p < .05$) and with CMI (A-L) scores ($r = .43$, $p < .001$). Such findings suggest that as age increased, subjects made more complaints referring to the body.

Religion. Religion demonstrated a statistically significant relationship with Koos scores ($t = -2.08$, $p < .05$). This significance was on the borderline when examined closely.

Level of education. Level of education demonstrated a statistically significant relationship with CMI (A-R) scores ($r = -.22$, $p < .05$) and CMI (A-L) scores ($r = -.31$, $p < .01$). This relationship, however, was not due to the previous relationship of level of education to age. Such findings suggest that the less educated presented a greater number of complaints on the CMI.

Type of occupation. Type of occupation demonstrated a statistically significant relationship with CMI (A-L) scores, as the mean CMI (A-L) scores of the unemployed had statistically significant higher scores ($\bar{X}$ = 37) than the major professionals ($\bar{X}$ = 15.8), minor professionals ($\bar{X}$ = 20), students ($\bar{X}$ = 16.7), clerical/technical ($\bar{X}$ = 18), and skilled, semi-skilled, or unskilled laborers ($\bar{X}$ = 22.7). This relationship was found not to be significant when the type of occupation was adjusted for age and level of education.

Patient status. Patient status (inpatient or outpatient) demonstrated a statistically significant relationship with CMI (M-R) scores ($t = -2.6$, $p < .05$), indicating that outpatients had higher CMI (M-R) scores than inpatients. Patient status also demonstrated a statistically significant relationship with Koos scores ($t = 5.6$, $p < .001$). Inpatients recognized a greater number of symptoms as needing medical attention than the outpatients.

Country of origin. Country of origin demonstrated a statistically significant relationship with CMI (A-L) scores. Such findings show that Palestinians and Jordanians reported higher CMI (A-L) scores when compared to Lebanese, Iraqis, and Egyptians.

## Complaints Presented and Pain

Pain, mostly in the form of pain in chest, stomach, shoulder, extremities, and back, was the most frequently reported type of complaint. Symptoms were not vaguely described; Arab-Americans described the sensory and affective qualities of their pain. They also made some analogies and used metaphors. As for the effects of illness

and problems, Arab-Americans mentioned that their illnesses interfered with their activities of daily living and with work and its activities.

Beliefs of Causation of Illness

Patients who suffered chest conditions, coughing, sore throat, and back, shoulder, and extremities pain attributed their disease causation to cold in general: exposure to cold, cold weather, weather changes, and air drafts. Injury, falls, accidents, and muscle sprains and twists, in addition to physical and mental stress, were other causes mentioned by Arab-Americans.

Action Taken and Help-seeking

Arab-American patients waited at least a few days ($\bar{X}$ = 10.8) before deciding to go to a health-care facility for professional help. Of these, 33.3 percent did nothing before deciding to go to a health-care facility, and 63.7 percent sought lay help for advice and consultation and practiced home remedies prior to deciding to seek professional health care. Three types of advice were offered by lay consultants: go see the physician (49.2%), rest and practice home remedies (32.3%), and go to the hospital (11.7%). Analysis of qualitative date suggests that the type of advice depended on symptoms presented, the site, and involvement of pain, or if it was caused by injury or accident.

Results showed that type of occupation was a significant variable affecting action taken. Chi-square test results showed that major professionals would seek professional help directly ($\bar{X}$ = 14.39, p = .04) instead of seeking advice and/or practicing self-care or home remedies.

Another major variable, found to be the only variable that could discriminate between the two groups for action taken (those who sought lay advice and help, practiced personal care and home remedies before seeking professional help [Group I] and those who did not [Group II]), was CMI (A-L) scores ($F = 6.04$, $p < .05$). CMI (A-L) scores were a strong predictor of action taken. The spouse, son, or daughter and parents were usually contacted for help and advice.

Home remedies and over-the-counter medication used for treatment. A large variety of over-the-counter drugs were used to alleviate minor symptoms, mostly colds and pains involving the back and extremities. Rubbing and massage with olive oil or Arak was commonly practiced. Lemon juice was drunk to break up colds and fevers. Popular drugs such as aspirin, Tylenol, and Robitussin were consumed by Arab-Americans for treatment as home remedies.

Except for major professionals, the first choice for Arab-Americans was to handle the illness within the lay system and move into the professional system if the problem continued or became worse or disrupted their daily functioning.

These research findings suggest that relationships exist among the various factors delineated in the study's conceptual framework. These include relationships between: 1) sociodemographic characteristics and symptom perception, 2) sociodemographic variables and action taken, and 3) symptom perception and action taken (Figure 14, p. 142).

## Limitations of Study

### Design Limitations

The descriptive survey as a design is used to describe situations or events as they naturally occur. It leads to the accumulation of a data base that is solely descriptive; it does not necessarily seek or explain relationships. Its limitation rests on its inability to determine a causal relationship. The findings of this study should be viewed within this context. Also, the fact that this study was partly retrospective, where subjects simply were asked to reflect on their attitudes and behaviors that had occurred, did have some effect on their acurately recalling events that had happened recently. These patients also had already initiated medical care and were undergoing treatment.

### Sample Limitations

Methodological considerations such as sample selection are very closely connected to generalizability. In this study, a limitation of the study findings is that they are not generalizable to a larger population of Arab-American patients. This is because the sample was a convenience one obtained from a limited geographic area. Also, the sample does not represent those who choose not to seek professional health care for their symptoms. Nonetheless, study results do support implications for the practice of nursing and areas for future research efforts.

Instrument Limitations

The initial interview, although conveying many aspects of illness and help-seeking behaviors, should have included additional questions that elicited patients' impressions and experiences in relation to their illness in general. It also should have included more open-ended questions instead of structured and semi-structured questions, to better clarify the respondents' reactions and perceptions of their illnesses.

As for the questionnaires administered for this study, specific questions on the questionnaire did not appear to create problems. The researcher assumed that the questionnaires were completed honestly and thoughtfully. A limitation of the questionnaires was their length, especially the CMI which contained 195 questions. Responding to it was tedious at times. Respondents gave a negative response to many of the psychological items on the CMI (M-R) instead of affirmative answers; this is probably due to the fact that the questions were asked and responded to verbally.

A sense of shame might also have played a role, as in Middle-Eastern cultures it is usually unacceptable to present psychological symptoms, especially to someone who is a stranger (Racy, 1970). This might have altered the picture of Arab-American patients in respect to their psychological well-being, moods, and feelings. In addition, responses to the CMI may be taken at their face value, that is, the instrument measures complaints presented within the limitations of the questions which comprised the 18 different sections of the questionnaire. The CMI only covers a partial aspect of symptoms.

Data Analysis Limitations

Many different types of inferential statistical methods were used in analyzing research data. Chi-square tests, analysis of variance, analysis of covariance, t-tests, correlations, regression analysis, and discriminant analysis. These different tests might have created the possibility that some of the test findings that achieved statistical significance at the .05 level could be attributed to chance.

Implications for Nursing

In light of the information derived from the results of this study, several implications may be proposed in relation to guidelines for culture-specific health-care assessment, treatment, and prevention as well as patient and family teaching. In this study, Arab-Americans presented major complaints related to the gastrointestinal, respiratory, and cardiovascular systems. There were also some psychological symptoms of hypersensitivity and inadequacy. Based on these results, one should consider and investigate the presence of symptoms related to these different systems when Arab-Americans seek help for other initial medical conditions.

Knowledge and understanding of the themes evolved in the beliefs of disease causation (especially exposure to cold and drafts) among Arab-Americans is important for nurses. Nurses should be attentive to these beliefs when caring for patients who are likely to consider themselves vulnerable. Identifying patients' explanatory models regarding their illnesses enables health-care providers to clarify those areas where patients need teaching and health education. This would create a more

culturally specific assessment of patient condition and, in turn, make medical intervention more individual.

A knowledge of the reliance of Arab-Americans on family and the role played by lay consultants during illness is valuable because it permits health care providers to adapt further treatment and prescription on the basis of previous home remedies and nonprescription drugs. Also, involving the family and its members in patient care, teaching, and compliance is necessary and can be of help in gaining the patient's cooperation and maintaining compliance.

Inability of Arab-Americans to speak fluent English might create problems and some misunderstandings in the patient/health-care provider communication process. Based on this, health professionals underestimate the ability of Arab-Americans to comprehend their health/illness status. Therefore it is important to have present a family member or close friend who speaks English. This should help the patient to describe his symptoms and complaints. Health-care providers must be prepared to spend extra time with Arab-American patients and their families while they seek professional help, asking simple questions and allowing time for description and expression of their symptoms.

Health-care providers should be aware, too, that Arab-American patients are often hypersensitive. Their feelings are easily hurt, and they may have some feelings of inadequacy. It is very important, therefore, to help them make decisions related to a choice of health-care procedures. Knowledge of symptoms regarded as important by Arab-American patients might be useful in developing health education

programs to stimulate the Arab-American population to obtain preventive health care.

A knowledge and understanding of Arab-American cultural health beliefs and nonjudgmentally eliciting the patient's own model of illness can lead to more involvement on the part of health-care providers and, in turn, make health care more compatible with the patient's beliefs and life-style.

## Suggestions for Future Research

The value of any research lies in the contributions it provides to the knowledge base of the phenomenon studied, as well as its usefulness as a model when designing subsequent research. A major contribution of this research was the descriptive data generated about the illness and help-seeking behaviors of Arab-Americans and the relationships among sociodemographic data, illness characteristics, symptom perceptions, actions taken in the form of lay and professional help, beliefs about disease causation, and home remedies practiced.

Although the sample of this study was large enough to be generalizable ($n = 102$), the study should be replicated on an even larger group of patients, possibly those with the same diagnosis or medical condition. Thus, by controlling some of the variables in the sample and focusing on fewer of them, it would be possible to show more precisely the amount of variance accounted for by the most significant factors. The sample should also include a wider geographic area, including both urban and rural samples.

Future research should also use a prospective design and the sample consist of patients with an initial diagnosis of recent illness,

although access to such a sample might be very limited. Also, a study using a hypothetical situation might be of value in providing the informant with an opportunity to focus on an impersonal topic and to discuss problems and provide examples that might not ordinarily be divulged. Comparative studies of illness and help-seeking behavior of new immigrant and American-born Arabs would be of interest as well, as would comparing illness and help-seeking behavior among different Arab-American groups and among other Mediterranean ethnic groups.

Other aspects of help-seeking behavior among Arab-Americans, such as intrafamilial patterns of help-seeking, require further study. An example would be illness and help-seeking behaviors when different members of the family are involved, for example a child. Also, investigating the relationship of seeking health care to other forms of help-seeking behavior for different types of problems might be of interest.

The variable of symptom perception should also be measured in a healthy population and comparative analysis performed with a group who is ill. Possible religious influences on symptom perception might be investigated as well and may become more apparent in a larger sample. Patterns of health behavior among Arab-Americans for health maintenance and prevention of illness should also be investigated.

A different study, including not only those who seek professional help but also those who do not, is required in a more widely representative sample. Further research in the area of health and illness among Arab-Americans is therefore highly recommended.

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# APPENDIX A

## SUBJECT INFORMATION SHEET

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

INFORMATION SHEET

Ms. Alice Reizian, a doctoral candidate at the University of California, San Francisco School of Nursing, Department of Mental Health and Community Nursing, is doing a study to learn more about how Arab-Americans perceive their illness situation and react to it.

If I agree to participate in this study, the following will happen:

1. I will respond to three questionnaires.
2. I will participate in an interview that will last about two hours.
3. The interview will be recorded in writing, but the answers will be kept as confidential as possible and my name will not be included.

Ms. Reizian has explained the study to me and has answered my questions. If I have any further questions I may reach her at (415) 665-4708 or (415) 666-4771. If I have any comments about participating in this study, I should first talk with Alice Reizian. If for some reason I do not wish to do this, I may contact the Human Subjects Committee between 8-5, Monday through Friday, by calling (415) 666-1314.

My participation in this study is strictly voluntary and I can refuse to participate or withdraw at any time without jeopardizing my continued care in this clinic.

There will be no direct benefit to me personally, but the study may benefit other individuals in the near future.

# APPENDIX B

## INITIAL INTERVIEW

INITIAL INTERVIEW

When did you first feel the symptom?

How was it?

How long did it last?

How did you decide that this was a health-related problem?

What do you think has caused it?

How would you describe the effect of this problem on (a) your body? (b) your usual activity?

What do you think your sickness does to you?

How severe is your sickness?

What are the chief problems your sickness has caused you?

What do you fear most about your sickness?

Did you try anything for relief? What did you do?

Did you seek assistance or talk to anyone about your symptoms? (episode of illness)

Who did you talk with? Who did you approach?

What specific person(s) did you approach?

What came of it? (What were the results)

What kind of suggestions were made?

Were they helpful?

Were you satisfied by the help you received?

What kind of advice did you receive?

Who told you to see the physician?

# APPENDIX C

## DEMOGRAPHIC DATA QUESTIONNAIRE

DEMOGRAPHIC DATA QUESTIONNAIRE

Code # _____

Please either fill in the answer or place a checkmark ( ) beside the appropriate response for the following questions.

1. How old are you? _____

2. What is your sex? Male ( ) Female ( )

3. What is your marital status?
   Married ( )
   Widowed ( )
   Separated ( )
   Divorced ( )
   Single ( )

4. What is your occupation? _____

5. What is the highest grade of school that you have completed?

   None ( )
   Elementary (1-8) ( )
   High School ( )
   College ( )
   Professional or Graduate ( )
   Technical ( )
   Other (specify) ( ) _____

6. What is your country of origin? _____

7. How many years have you been in the U.S.? _____

8. City of residence? _____

9. Reasons for coming to the U.S.? _____

_____

_____

10. What is your religion? _____

11. Describe your living arrangements. _____

_____

_____

# APPENDIX D

## CORNELL MEDICAL INDEX

MEN)

CORNELL MEDICAL INDEX

# HEALTH QUESTIONNAIRE

ate _____

rint
our
ame _____

Your
Home
Address _____

ow Old Are You? _____ Circle If You Are . . Single, Married, Widowed, Separated, Divorced.

ircle the Highest
ear You Reached
School | 1 2 3 4 5 6 7 8 | Elementary School | 1 2 3 4 | High | 1 2 3 4 | College |

What Is Your
Occupation? _____

**Directions:** This questionnaire is for ***MEN ONLY.***
If you can answer **YES** to the question asked, put a circle around the (Yes)
If you have to answer **NO** to the question asked, put a circle around the (No)
Answer all questions. If you are not sure, guess.

**A**

| | | | |
|---|---|---|---|
| Do you need glasses to read? | Yes | No | 001 |
| Do you need glasses to see things at a distance? | Yes | No | 002 |
| Has your eyesight often blacked out completely? | Yes | No | 003 |
| Do your eyes continually blink or water? | Yes | No | 004 |
| Do you often have bad pains in your eyes? | Yes | No | 005 |
| Are your eyes often red or inflamed? | Yes | No | 006 |
| Are you hard of hearing? | Yes | No | 007 |
| Have you ever had a bad running ear? | Yes | No | 008 |
| Do you have constant noises in your ears? | Yes | No | 009 |

**B**

| | | | |
|---|---|---|---|
| Do you have to clear your throat frequently? | Yes | No | 010 |
| Do you often feel a choking lump in your throat? | Yes | No | 011 |
| Are you often troubled with bad spells of sneezing? | Yes | No | 012 |
| Is your nose continually stuffed up? | Yes | No | 013 |
| Do you suffer from a constantly running nose? | Yes | No | 014 |
| Have you at times had bad nose bleeds? | Yes | No | 015 |
| Do you often catch severe colds? | Yes | No | 016 |
| Do you frequently suffer from heavy chest colds? | Yes | No | 017 |
| When you catch a cold, do you always have to go to bed? | Yes | No | 018 |
| Do frequent colds keep you miserable all winter? | Yes | No | 019 |
| Do you get hay fever? | Yes | No | 020 |
| Do you suffer from asthma? | Yes | No | 021 |
| Are you troubled by constant coughing? | Yes | No | 022 |
| Have you ever coughed up blood? | Yes | No | 023 |
| Do you sometimes have severe soaking sweats at night? | Yes | No | 024 |
| Have you ever had a chronic chest condition? | Yes | No | 025 |
| Have you ever had T.B. (Tuberculosis)? | Yes | No | 026 |
| Did you ever live with anyone who had T.B.? | Yes | No | 027 |

**C**

| | | | |
|---|---|---|---|
| Has a doctor ever said your blood pressure was too *high?* | Yes | No | 028 |
| Has a doctor ever said your blood pressure was too *low?* | Yes | No | 029 |
| Do you have pains in the heart or chest? | Yes | No | 030 |
| Are you often bothered by thumping of the heart? | Yes | No | 031 |
| Does your heart often race like mad? | Yes | No | 032 |
| Do you often have difficulty in breathing? | Yes | No | 033 |
| Do you get out of breath long before anyone else? | Yes | No | 034 |
| Do you sometimes get out of breath just sitting still? | Yes | No | 035 |
| Are your ankles often badly swollen? | Yes | No | 036 |
| Do cold hands or feet trouble you even in hot weather? | Yes | No | 037 |
| Do you suffer from frequent cramps in your legs? | Yes | No | 038 |
| Has a doctor ever said you had heart trouble? | Yes | No | 039 |
| Does heart trouble run in your family? | Yes | No | 040 |

**OPEN TO NEXT PAGE**



Cornell University Medical College
1300 York Avenue New York, N.Y. 10021

**D**

| | | | |
|---|---|---|---|
| Have you lost more than half your teeth? | Yes | No | 041 |
| Are you troubled by bleeding gums? | Yes | No | 042 |
| Have you often had severe toothaches? | Yes | No | 043 |
| Is your tongue usually badly coated? | Yes | No | 044 |
| Is your appetite always poor? | Yes | No | 045 |
| Do you usually eat sweets or other food between meals? | Yes | No | 046 |
| Do you always gulp your food in a hurry? | Yes | No | 047 |
| Do you often suffer from an upset stomach? | Yes | No | 048 |
| Do you usually feel bloated after eating? | Yes | No | 049 |
| Do you usually belch a lot after eating? | Yes | No | 050 |
| Are you often sick to your stomach? | Yes | No | 051 |
| Do you suffer from indigestion? | Yes | No | 052 |
| Do severe pains in the stomach often double you up? | Yes | No | 053 |
| Do you suffer from constant stomach trouble? | Yes | No | 054 |
| Does stomach trouble run in your family? | Yes | No | 055 |
| Has a doctor ever said you had stomach ulcers? | Yes | No | 056 |
| Do you suffer from frequent loose bowel movements? | Yes | No | 057 |
| Have you ever had severe bloody diarrhea? | Yes | No | 058 |
| Were you ever troubled with intestinal worms? | Yes | No | 059 |
| Do you constantly suffer from bad constipation? | Yes | No | 060 |
| Have you ever had piles (rectal hemorrhoids)? | Yes | No | 061 |
| Have you ever had jaundice (yellow eyes and skin)? | Yes | No | 062 |
| Have you ever had serious liver or gall bladder trouble? | Yes | No | 063 |

**E**

| | | | |
|---|---|---|---|
| Are your joints often painfully swollen? | Yes | No | 064 |
| Do your muscles and joints constantly feel stiff? | Yes | No | 065 |
| Do you usually have severe pains in the arms or legs? | Yes | No | 066 |
| Are you crippled with severe rheumatism (arthritis)? | Yes | No | 067 |
| Does rheumatism (arthritis) run in your family? | Yes | No | 068 |
| Do weak or painful feet make your life miserable? | Yes | No | 069 |
| Do pains in the back make it hard for you to keep up with your work? | Yes | No | 070 |
| Are you troubled with a serious bodily disability or deformity? | Yes | No | 071 |

**F**

| | | | |
|---|---|---|---|
| Is your skin very sensitive or tender? | Yes | No | 072 |
| Do cuts in your skin usually stay open a long time? | Yes | No | 073 |
| Does your face often get badly flushed? | Yes | No | 074 |
| Do you sweat a great deal even in cold weather? | Yes | No | 075 |
| Are you often bothered by severe itching? | Yes | No | 076 |
| Does your skin often break out in a rash? | Yes | No | 077 |
| Are you often troubled with boils? | Yes | No | 078 |

**G**

| | | | |
|---|---|---|---|
| Do you suffer badly from frequent severe headaches? | Yes | No | 079 |
| Does pressure or pain in the head often make life miserable? | Yes | No | 080 |
| Are headaches common in your family? | Yes | No | 081 |
| Do you have hot or cold spells? | Yes | No | 082 |
| Do you often have spells of severe dizziness? | Yes | No | 083 |
| Do you frequently feel faint? | Yes | No | 084 |
| Have you fainted more than twice in your life? | Yes | No | 085 |
| Do you have constant numbness or tingling in any part of your body? | Yes | No | 086 |
| Was any part of your body ever paralyzed? | Yes | No | 087 |
| Were you ever knocked unconscious? | Yes | No | 088 |
| Have you at times had a twitching of the face, head or shoulders? | Yes | No | 089 |
| Did you ever have a fit or convulsion (epilepsy)? | Yes | No | 090 |
| Has anyone in your family ever had fits or convulsions (epilepsy)? | Yes | No | 091 |
| Do you bite your nails badly? | Yes | No | 092 |
| Are you troubled by stuttering or stammering? | Yes | No | 093 |
| Are you a sleep walker? | Yes | No | 094 |
| Are you a bed wetter? | Yes | No | 095 |
| Were you a bed wetter between the ages of 8 and 14? | Yes | No | 096 |

GO TO NEXT PAGE

**H**

| | | | |
|---|---|---|---|
| Have you ever had anything seriously wrong with your genitals (privates)? | Yes | No | 097 |
| Are your genitals often painful or sore? | Yes | No | 098 |
| Have you ever had treatment for your genitals? | Yes | No | 099 |
| Has a doctor ever said you had a hernia (rupture)? | Yes | No | 100 |
| Have you ever passed blood while urinating (passing water)? | Yes | No | 101 |
| Do you have trouble starting your stream when urinating? | Yes | No | 102 |
| Do you have to get up every night and urinate? | Yes | No | 103 |
| During the day, do you usually have to urinate frequently? | Yes | No | 104 |
| Do you often have severe burning pain when you urinate? | Yes | No | 105 |
| Do you sometimes lose control of your bladder? | Yes | No | 106 |
| Has a doctor ever said you had kidney or bladder disease? | Yes | No | 107 |
| Do you often get spells of complete exhaustion or fatigue? | Yes | No | 108 |
| Does working tire you out completely? | Yes | No | 109 |
| Do you usually get up tired and exhausted in the morning? | Yes | No | 110 |
| Does every little effort wear you out? | Yes | No | 111 |
| Are you constantly too tired and exhausted even to eat? | Yes | No | 112 |
| Do you suffer from severe nervous exhaustion? | Yes | No | 113 |
| Does nervous exhaustion run in your family? | Yes | No | 114 |
| Are you frequently ill? | Yes | No | 115 |
| Are you frequently confined to bed by illness? | Yes | No | 116 |
| Are you always in poor health? | Yes | No | 117 |
| Are you considered a sickly person? | Yes | No | 118 |
| Do you come from a sickly family? | Yes | No | 119 |
| Did severe pains and aches make it impossible for you to do your work? | Yes | No | 120 |
| Do you wear yourself out worrying about your health? | Yes | No | 121 |
| Are you always ill and unhappy? | Yes | No | 122 |
| Are you constantly made miserable by poor health? | Yes | No | 123 |

**K**

| | | | |
|---|---|---|---|
| Did you ever have scarlet fever? | Yes | No | 124 |
| As a child, did you have rheumatic fever, growing pains or twitching of the limbs? | Yes | No | 125 |
| Did you ever have malaria? | Yes | No | 126 |
| Were you ever treated for severe anemia (thin blood)? | Yes | No | 127 |
| Were you ever treated for "bad blood" (venereal disease)? | Yes | No | 128 |
| Do you have diabetes (sugar disease)? | Yes | No | 129 |
| Did a doctor ever say you had a goiter (in your neck)? | Yes | No | 130 |
| Did a doctor ever treat you for tumor or cancer? | Yes | No | 131 |
| Do you suffer from any chronic disease? | Yes | No | 132 |
| Are you definitely *under* weight? | Yes | No | 133 |
| Are you definitely *over* weight? | Yes | No | 134 |
| Did a doctor ever say you had varicose veins (swollen veins) in your legs? | Yes | No | 135 |
| Did you ever have a serious operation? | Yes | No | 136 |
| Did you ever have a serious injury? | Yes | No | 137 |
| Do you often have small accidents or injuries? | Yes | No | 138 |

**L**

| | | | |
|---|---|---|---|
| Do you usually have great difficulty in falling asleep or staying asleep? | Yes | No | 139 |
| Do you find it impossible to take a regular rest period each day? | Yes | No | 140 |
| Do you find it impossible to take regular daily exercise? | Yes | No | 141 |
| Do you smoke more than 20 cigarettes a day? | Yes | No | 142 |
| Do you drink more than six cups of coffee or tea a day? | Yes | No | 143 |
| Do you usually take two or more alcoholic drinks a day? | Yes | No | 144 |

TURN TO NEXT PAGE

M

| | | | |
|---|---|---|---|
| Do you sweat or tremble a lot during examinations or questioning? | Yes | No | 145 |
| Do you get nervous and shaky when approached by a superior? | Yes | No | 146 |
| Does your work fall to pieces when the boss or a superior is watching you? | Yes | No | 147 |
| Does your thinking get completely mixed up when you have to do things quickly? | Yes | No | 148 |
| Must you do things very slowly in order to do them without mistakes? | Yes | No | 149 |
| Do you always get directions and orders wrong? | Yes | No | 150 |
| Do strange people or places make you afraid? | Yes | No | 151 |
| Are you scared to be alone when there are no friends near you? | Yes | No | 152 |
| Is it always hard for you to make up your mind? | Yes | No | 153 |
| Do you wish you always had someone at your side to advise you? | Yes | No | 154 |
| Are you considered a clumsy person? | Yes | No | 155 |
| Does it bother you to eat anywhere except in your own home? | Yes | No | 156 |

N

| | | | |
|---|---|---|---|
| Do you feel alone and sad at a party? | Yes | No | 157 |
| Do you usually feel unhappy and depressed? | Yes | No | 158 |
| Do you often cry? | Yes | No | 159 |
| Are you always miserable and blue? | Yes | No | 160 |
| Does life look entirely hopeless? | Yes | No | 161 |
| Do you often wish you were dead and away from it all? | Yes | No | 162 |

O

| | | | |
|---|---|---|---|
| Does worrying continually get you down? | Yes | No | 163 |
| Does worrying run in your family? | Yes | No | 164 |
| Does every little thing get on your nerves and wear you out? | Yes | No | 165 |
| Are you considered a nervous person? | Yes | No | 166 |
| Does nervousness run in your family? | Yes | No | 167 |
| Did you ever have a nervous breakdown? | Yes | No | 168 |
| Did anyone in your family ever have a nervous breakdown? | Yes | No | 169 |
| Were you ever a patient in a *mental* hospital (for your nerves)? | Yes | No | 170 |
| Was anyone in your family ever a patient in a *mental* hospital (for their nerves)? | Yes | No | 171 |

P

| | | | |
|---|---|---|---|
| Are you extremely shy or sensitive? | Yes | No | 172 |
| Do you come from a shy or sensitive family? | Yes | No | 173 |
| Are your feelings easily hurt? | Yes | No | 174 |
| Does criticism always upset you? | Yes | No | 175 |
| Are you considered a touchy person? | Yes | No | 176 |
| Do people usually misunderstand you? | Yes | No | 177 |

Q

| | | | |
|---|---|---|---|
| Do you have to be on your guard even with friends? | Yes | No | 178 |
| Do you always do things on sudden impulse? | Yes | No | 179 |
| Are you easily upset or irritated? | Yes | No | 180 |
| Do you go to pieces if you don't constantly control yourself? | Yes | No | 181 |
| Do little annoyances get on your nerves and make you angry? | Yes | No | 182 |
| Does it make you angry to have anyone tell you what to do? | Yes | No | 183 |
| Do people often annoy and irritate you? | Yes | No | 184 |
| Do you flare up in anger if you can't have what you want right away? | Yes | No | 185 |
| Do you often get into a violent rage? | Yes | No | 186 |

R

| | | | |
|---|---|---|---|
| Do you often shake or tremble? | Yes | No | 187 |
| Are you constantly keyed up and jittery? | Yes | No | 188 |
| Do sudden noises make you jump or shake badly? | Yes | No | 189 |
| Do you tremble or feel weak whenever someone shouts at you? | Yes | No | 190 |
| Do you become scared at sudden movements or noises at night? | Yes | No | 191 |
| Are you often awakened out of your sleep by frightening dreams? | Yes | No | 192 |
| Do frightening thoughts keep coming back in your mind? | Yes | No | 193 |
| Do you often become suddenly scared for no good reason? | Yes | No | 194 |
| Do you often break out in a cold sweat? | Yes | No | 195 |

(WOMEN)

# CORNELL MEDICAL INDEX
# HEALTH QUESTIONNAIRE

e _____

it
ir
ne _____ Your Home Address _____

Old Are You? _____ Circle If You Are . . Single, Married, Widowed, Separated, Divorced.

le the Highest r You Reached School | 1 2 3 4 5 6 7 8 | Elementary School | 1 2 3 4 | High | 1 2 3 4 | College

What Is Your Occupation? _____

**Directions:** This questionnaire is for ***WOMEN ONLY.***
If you can answer **YES** to the question asked, put a circle around the (Yes)
If you have to answer **NO** to the question asked, put a circle around the (No)
Answer all questions. If you are not sure, guess.

| | | | |
|---|---|---|---|
| o you need glasses to read? | Yes | No | 001 |
| o you need glasses to see things at a distance? | Yes | No | 002 |
| as your eyesight often blacked out completely? | Yes | No | 003 |
| o your eyes continually blink or water? | Yes | No | 004 |
| o you often have bad pains in your eyes? | Yes | No | 005 |
| re your eyes often red or inflamed? | Yes | No | 006 |
| re you hard of hearing? | Yes | No | 007 |
| ave you ever had a bad running ear? | Yes | No | 008 |
| o you have constant noises in your ears? | Yes | No | 009 |
| o you have to clear your throat frequently? | Yes | No | 010 |
| o you often feel a choking lump in your throat? | Yes | No | 011 |
| re you often troubled with bad spells of sneezing? | Yes | No | 012 |
| s your nose continually stuffed up? | Yes | No | 013 |
| o you suffer from a constantly running nose? | Yes | No | 014 |
| lave you at times had bad nose bleeds? | Yes | No | 015 |
| o you often catch severe colds? | Yes | No | 016 |
| o you frequently suffer from heavy chest colds? | Yes | No | 017 |
| When you catch a cold, do you always have to go to bed? | Yes | No | 018 |
| Do frequent colds keep you miserable all winter? | Yes | No | 019 |
| Do you get hay fever? | Yes | No | 020 |
| Do you suffer from asthma? | Yes | No | 021 |
| Are you troubled by constant coughing? | Yes | No | 022 |
| Have you ever coughed up blood? | Yes | No | 023 |
| Do you sometimes have severe soaking sweats at night? | Yes | No | 024 |
| Have you ever had a chronic chest condition? | Yes | No | 025 |
| Have you ever had T.B. (Tuberculosis)? | Yes | No | 026 |
| Did you ever live with anyone who had T.B.? | Yes | No | 027 |

**C**

| | | | |
|---|---|---|---|
| Has a doctor ever said your blood pressure was too *high?* | Yes | No | 028 |
| Has a doctor ever said your blood pressure was too *low?* | Yes | No | 029 |
| Do you have pains in the heart or chest? | Yes | No | 030 |
| Are you often bothered by thumping of the heart? | Yes | No | 031 |
| Does your heart often race like mad? | Yes | No | 032 |
| Do you often have difficulty in breathing? | Yes | No | 033 |
| Do you get out of breath long before anyone else? | Yes | No | 034 |
| Do you sometimes get out of breath just sitting still? | Yes | No | 035 |
| Are your ankles often badly swollen? | Yes | No | 036 |
| Do cold hands or feet trouble you even in hot weather? | Yes | No | 037 |
| Do you suffer from frequent cramps in your legs? | Yes | No | 038 |
| Has a doctor ever said you had heart trouble? | Yes | No | 039 |
| Does heart trouble run in your family? | Yes | No | 040 |

**OPEN TO NEXT PAGE**



Cornell University Medical College
1300 York Avenue, New York, N. Y. 10021

D

| | | | |
|---|---|---|---|
| Have you lost more than half your teeth? | Yes | No | 041 |
| Are you troubled by bleeding gums? | Yes | No | 042 |
| Have you often had severe toothaches? | Yes | No | 043 |
| Is your tongue usually badly coated? | Yes | No | 044 |
| Is your appetite always poor? | Yes | No | 045 |
| Do you usually eat sweets or other food between meals? | Yes | No | 046 |
| Do you always gulp your food in a hurry? | Yes | No | 047 |
| Do you often suffer from an upset stomach? | Yes | No | 048 |
| Do you usually feel bloated after eating? | Yes | No | 049 |
| Do you usually belch a lot after eating? | Yes | No | 050 |
| Are you often sick to your stomach? | Yes | No | 051 |
| Do you suffer from indigestion? | Yes | No | 052 |
| Do severe pains in the stomach often double you up? | Yes | No | 053 |
| Do you suffer from constant stomach trouble? | Yes | No | 054 |
| Does stomach trouble run in your family? | Yes | No | 055 |
| Has a doctor ever said you had stomach ulcers? | Yes | No | 056 |
| Do you suffer from frequent loose bowel movements? | Yes | No | 057 |
| Have you ever had severe bloody diarrhea? | Yes | No | 058 |
| Were you ever troubled with intestinal worms? | Yes | No | 059 |
| Do you constantly suffer from bad constipation? | Yes | No | 060 |
| Have you ever had piles (rectal hemorrhoids)? | Yes | No | 061 |
| Have you ever had jaundice (yellow eyes and skin)? | Yes | No | 062 |
| Have you ever had serious liver or gall bladder trouble? | Yes | No | 063 |

E

| | | | |
|---|---|---|---|
| Are your joints often painfully swollen? | Yes | No | 064 |
| Do your muscles and joints constantly feel stiff? | Yes | No | 065 |
| Do you usually have severe pains in the arms or legs? | Yes | No | 066 |
| Are you crippled with severe rheumatism (arthritis)? | Yes | No | 067 |
| Does rheumatism (arthritis) run in your family? | Yes | No | 068 |
| Do weak or painful feet make your life miserable? | Yes | No | 069 |
| Do pains in the back make it hard for you to keep up with your work? | Yes | No | 070 |
| Are you troubled with a serious bodily disability or deformity? | Yes | No | 071 |

F

| | | | |
|---|---|---|---|
| Is your skin very sensitive or tender? | Yes | No | 072 |
| Do cuts in your skin usually stay open a long time? | Yes | No | 073 |
| Does your face often get badly flushed? | Yes | No | 074 |
| Do you sweat a great deal even in cold weather? | Yes | No | 075 |
| Are you often bothered by severe itching? | Yes | No | 076 |
| Does your skin often break out in a rash? | Yes | No | 077 |
| Are you often troubled with boils? | Yes | No | 078 |

G

| | | | |
|---|---|---|---|
| Do you suffer badly from frequent severe headaches? | Yes | No | 079 |
| Does pressure or pain in the head often make life miserable? | Yes | No | 080 |
| Are headaches common in your family? | Yes | No | 081 |
| Do you have hot or cold spells? | Yes | No | 082 |
| Do you often have spells of severe dizziness? | Yes | No | 083 |
| Do you frequently feel faint? | Yes | No | 084 |
| Have you fainted more than twice in your life? | Yes | No | 085 |
| Do you have constant numbness or tingling in any part of your body? | Yes | No | 086 |
| Was any part of your body ever paralyzed? | Yes | No | 087 |
| Were you ever knocked unconscious? | Yes | No | 088 |
| Have you at times had a twitching of the face, head or shoulders? | Yes | No | 089 |
| Did you ever have a fit or convulsion (epilepsy)? | Yes | No | 090 |
| Has anyone in your family ever had fits or convulsions (epilepsy)? | Yes | No | 091 |
| Do you bite your nails badly? | Yes | No | 092 |
| Are you troubled by stuttering or stammering? | Yes | No | 093 |
| Are you a sleep walker? | Yes | No | 094 |
| Are you a bed wetter? | Yes | No | 095 |
| Were you a bed wetter between the ages of 8 and 14? | Yes | No | 096 |

GO TO NEXT PAGE

**H**

| | | | |
|---|---|---|---|
| Have your menstrual periods usually been painful? | Yes | No | 097 |
| Have you often felt weak or sick with your periods? | Yes | No | 098 |
| Have you often had to lie down when your periods came on? | Yes | No | 099 |
| Have you usually been tense or jumpy with your periods? | Yes | No | 100 |
| Have you ever had constant severe hot flashes and sweats? | Yes | No | 101 |
| Have you often been troubled with a vaginal discharge? | Yes | No | 102 |
| Do you have to get up every night and urinate? | Yes | No | 103 |
| During the day, do you usually have to urinate frequently? | Yes | No | 104 |
| Do you often have severe burning pain when you urinate? | Yes | No | 105 |
| Do you sometimes lose control of your bladder? | Yes | No | 106 |
| Has a doctor ever said you had kidney or bladder disease? | Yes | No | 107 |
| Do you often get spells of complete exhaustion or fatigue? | Yes | No | 108 |
| Does working tire you out completely? | Yes | No | 109 |
| Do you usually get up tired and exhausted in the morning? | Yes | No | 110 |
| Does every little effort wear you out? | Yes | No | 111 |
| Are you constantly too tired and exhausted even to eat? | Yes | No | 112 |
| Do you suffer from severe nervous exhaustion? | Yes | No | 113 |
| Does nervous exhaustion run in your family? | Yes | No | 114 |

**I**

| | | | |
|---|---|---|---|
| Are you frequently ill? | Yes | No | 115 |
| Are you frequently confined to bed by illness? | Yes | No | 116 |
| Are you always in poor health? | Yes | No | 117 |
| Are you considered a sickly person? | Yes | No | 118 |
| Do you come from a sickly family? | Yes | No | 119 |
| Do severe pains and aches make it impossible for you to do your work? | Yes | No | 120 |
| Do you wear yourself out worrying about your health? | Yes | No | 121 |
| Are you always ill and unhappy? | Yes | No | 122 |
| Are you constantly made miserable by poor health? | Yes | No | 123 |

**K**

| | | | |
|---|---|---|---|
| Did you ever have scarlet fever? | Yes | No | 124 |
| As a child, did you have rheumatic fever, growing pains or twitching of the limbs? | Yes | No | 125 |
| Did you ever have malaria? | Yes | No | 126 |
| Were you ever treated for severe anemia (thin blood)? | Yes | No | 127 |
| Were you ever treated for "bad blood" (venereal disease)? | Yes | No | 128 |
| Do you have diabetes (sugar disease)? | Yes | No | 129 |
| Did a doctor ever say you had a goiter (in your neck)? | Yes | No | 130 |
| Did a doctor ever treat you for tumor or cancer? | Yes | No | 131 |
| Do you suffer from any chronic disease? | Yes | No | 132 |
| Are you definitely *under* weight? | Yes | No | 133 |
| Are you definitely *over* weight? | Yes | No | 134 |
| Did a doctor ever say you had varicose veins (swollen veins) in your legs? | Yes | No | 135 |
| Did you ever have a serious operation? | Yes | No | 136 |
| Did you ever have a serious injury? | Yes | No | 137 |
| Do you often have small accidents or injuries? | Yes | No | 138 |

**L**

| | | | |
|---|---|---|---|
| Do you usually have great difficulty in falling asleep or staying asleep? | Yes | No | 139 |
| Do you find it impossible to take a regular rest period each day? | Yes | No | 140 |
| Do you find it impossible to take regular daily exercise? | Yes | No | 141 |
| Do you smoke more than 20 cigarettes a day? | Yes | No | 142 |
| Do you drink more than six cups of coffee or tea a day? | Yes | No | 143 |
| Do you usually take two or more alcoholic drinks a day? | Yes | No | 144 |

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| | | | |
|---|---|---|---|
| o you sweat or tremble a lot during examinations or questioning? | Yes | No | 145 |
| o you get nervous and shaky when approached by a superior? | Yes | No | 146 |
| es your work fall to pieces when the boss or a superior is watching you? | Yes | No | 147 |
| es your thinking get completely mixed up when you have to do things quickly? | Yes | No | 148 |
| ust you do things very slowly in order to do them without mistakes? | Yes | No | 149 |
| o you always get directions and orders wrong? | Yes | No | 150 |
| strange people or places make you afraid? | Yes | No | 151 |
| e you scared to be alone when there are no friends near you? | Yes | No | 152 |
| it always hard for you to make up your mind? | Yes | No | 153 |
| o you wish you always had someone at your side to advise you? | Yes | No | 154 |
| e you considered a clumsy person? | Yes | No | 155 |
| es it bother you to eat anywhere except in your own home? | Yes | No | 156 |
| o you feel alone and sad at a party? | Yes | No | 157 |
| o you usually feel unhappy and depressed? | Yes | No | 158 |
| o you often cry? | Yes | No | 159 |
| e you always miserable and blue? | Yes | No | 160 |
| es life look entirely hopeless? | Yes | No | 161 |
| o you often wish you were dead and away from it all? | Yes | No | 162 |
| es worrying continually get you down? | Yes | No | 163 |
| es worrying run in your family? | Yes | No | 164 |
| es every little thing get on your nerves and wear you out? | Yes | No | 165 |
| re you considered a nervous person? | Yes | No | 166 |
| oes nervousness run in your family? | Yes | No | 167 |
| id you ever have a nervous breakdown? | Yes | No | 168 |
| id anyone in your family ever have a nervous breakdown? | Yes | No | 169 |
| Were you ever a patient in a *mental* hospital (for your nerves)? | Yes | No | 170 |
| Was anyone in your family ever a patient in a *mental* hospital (for their nerves)? | Yes | No | 171 |

**P**

| | | | |
|---|---|---|---|
| Are you extremely shy or sensitive? | Yes | No | 172 |
| Do you come from a shy or sensitive family? | Yes | No | 173 |
| Are your feelings easily hurt? | Yes | No | 174 |
| Does criticism always upset you? | Yes | No | 175 |
| Are you considered a touchy person? | Yes | No | 176 |
| Do people usually misunderstand you? | Yes | No | 177 |

**Q**

| | | | |
|---|---|---|---|
| Do you have to be on your guard even with friends? | Yes | No | 178 |
| Do you always do things on sudden impulse? | Yes | No | 179 |
| Are you easily upset or irritated? | Yes | No | 180 |
| Do you go to pieces if you don't constantly control yourself? | Yes | No | 181 |
| Do little annoyances get on your nerves and make you angry? | Yes | No | 182 |
| Does it make you angry to have anyone tell you what to do? | Yes | No | 183 |
| Do people often annoy and irritate you? | Yes | No | 184 |
| Do you flare up in anger if you can't have what you want right away? | Yes | No | 185 |
| Do you often get into a violent rage? | Yes | No | 186 |

**R**

| | | | |
|---|---|---|---|
| Do you often shake or tremble? | Yes | No | 187 |
| Are you constantly keyed up and jittery? | Yes | No | 188 |
| Do sudden noises make you jump or shake badly? | Yes | No | 189 |
| Do you tremble or feel weak whenever someone shouts at you? | Yes | No | 190 |
| Do you become scared at sudden movements or noises at night? | Yes | No | 191 |
| Are you often awakened out of your sleep by frightening dreams? | Yes | No | 192 |
| Do frightening thoughts keep coming back in your mind? | Yes | No | 193 |
| Do you often become suddenly scared for no good reason? | Yes | No | 194 |
| Do you often break out in a cold sweat? | Yes | No | 195 |

# APPENDIX E

## KOOS' LIST OF SYMPTOMS

KOOS' LIST OF SYMPTOMS

Below is a list of symptoms which affect some people from time to time. We would like you to judge if any of these symptoms, in your opinion, need medical attention or not.

For each symptom, please place a checkmark ( ) in either the YES or NO column.

| | NO | YES |
|---|---|---|
| Loss of appetite | _____ | _____ |
| Persistent backache | _____ | _____ |
| Continuous coughing | _____ | _____ |
| Persistent joint and muscle pain | _____ | _____ |
| Blood in stool | _____ | _____ |
| Blood in urine | _____ | _____ |
| Excessive vaginal bleeding | _____ | _____ |
| Swelling of ankles | _____ | _____ |
| Loss of weight | _____ | _____ |
| Bleeding gums | _____ | _____ |
| Chronic fatigue | _____ | _____ |
| Shortness of breath | _____ | _____ |
| Persistent headaches | _____ | _____ |
| Fainting spells | _____ | _____ |
| Pain in the chest | _____ | _____ |
| Lump in the breast | _____ | _____ |
| Lump in abdomen | _____ | _____ |

# APPENDIX F

## RESPONSES TO CORNELL MEDICAL INDEX

TABLE F-1

Questions on CMI (A-L) Scored High by Arab-American Patients
(19-44 Yes Responses)

| Question | Section of CMI |
|---|---|
| CMI (A-L) Physiological Symptoms | |
| Do you always eat sweets or other food between meals? | D (digestive system) |
| Do you always gulp your food in a hurry? | D (digestive system) |
| Do you often suffer from an upset stomach? | D (digestive system) |
| Does your heart often race like mad? | C (cardiovascular) |
| Do you have pains in the heart or chest? | C (cardiovascular) |
| Do you often have difficulty in breathing? | C (cardiovascular) |
| Do you have to clear your throat frequently? | B (respiratory) |
| Do you often catch severe colds? | B (respiratory) |
| When you catch a cold, do you always have to go to bed? | B (respiratory) |

TABLE F-2

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section D Items of CMI Questionnaire (gastrointestinal tract)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 041 | Have you lost more than half your teeth? | 17 | 16.6 |
| 042 | Are you troubled by bleeding gums? | 6 | 5.8 |
| 043 | Have you often had severe toothaches? | 3 | 2.9 |
| 044 | Is your tongue usually badly coated? | 15 | 14.7 |
| 045 | Is your appetite always poor? | 20 | 19.6 |
| 046 | Do you usually eat sweets or other foods between meals? | 44 | 43.1 |
| 047 | Do you always gulp your food in a hurry? | 41 | 40.1 |
| 048 | Do you often suffer from an upset stomach? | 37 | 36.2 |
| 049 | Do you usually feel bloated after eating? | 33 | 32.3 |
| 050 | Do you usually belch a lot after eating? | 29 | 28.4 |
| 051 | Are you often sick to your stomach? | 27 | 26.4 |
| 052 | Do you suffer from indigestion? | 26 | 25.4 |
| 053 | Do severe pains in the stomach often double you up? | 23 | 22.5 |
| 054 | Do you suffer from constant stomach trouble? | 15 | 14.7 |
| 055 | Does stomach trouble run in your family? | 5 | 4.9 |
| 056 | Has a doctor ever said you had stomach ulcers? | 11 | 10.7 |
| 057 | Do you suffer from frequent loose bowel movements? | 6 | 5.8 |
| 058 | Have you ever had severe bloody diarrhea? | 8 | 7.8 |
| 059 | Were you every troubled with intestinal worms? | 11 | 10.7 |

TABLE F-2 (continued)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 060 | Do you constantly suffer from bad constipation? | 15 | 14.7 |
| 061 | Have you ever had piles (rectal hemorrhoids)? | 10 | 9.8 |
| 062 | Have you ever had jaundice? | 8 | 7.8 |
| 063 | Have you ever had serious liver or gall bladder trouble? | 10 | 9.8 |

TABLE F-3

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section C Items of CMI Questionnaire (cardiovascular system)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 028 | Has a doctor ever said your blood pressure was too high? | 25 | 24.5 |
| 029 | Has a doctor ever said your blood pressure was too low? | 7 | 6.9 |
| 030 | Do you have pains in the heart or chest? | 35 | 34.3 |
| 031 | Are you often bothered by thumping of the heart? | 29 | 28.4 |
| 032 | Does your heart often race like mad? | 41 | 40.1 |
| 033 | Do you often have difficulty in breathing? | 32 | 31.3 |
| 034 | Do you get out of breath long before anyone else? | 25 | 24.5 |
| 035 | Do you sometimes get out of breath just sitting still? | 9 | 8.8 |
| 036 | Are your ankles often badly swollen? | 16 | 15.6 |
| 037 | Do cold hands or feet trouble you even in hot weather? | 13 | 12.7 |
| 038 | Do you suffer from frequent cramps in your legs? | 21 | 20.5 |
| 039 | Has a doctor ever said you had heart trouble? | 20 | 19.5 |
| 040 | Does heart trouble run in your family? | 27 | 26.5 |

TABLE F-4

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section B Items of CMI Questionnaire (respiratory system)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 010 | Do you have to clear your throat frequently? | 23 | 22.5 |
| 011 | Do you often feel a choking lump in your throat? | 5 | 4.9 |
| 012 | Are you often troubled with bad spells of sneezing? | 10 | 9.8 |
| 013 | Is your nose continually stuffed up? | 9 | 8.8 |
| 014 | Do you suffer from a constantly running nose? | 6 | 5.8 |
| 015 | Have you at times had bad nose bleed? | 13 | 12.7 |
| 016 | Do you often catch severe colds? | 23 | 22.5 |
| 017 | Do you frequently suffer from heavy chest colds? | 12 | 11.7 |
| 018 | When you catch a cold, do you always have to go to bed? | 19 | 18.6 |
| 019 | Do frequent colds keep you miserable all winter? | 18 | 17.6 |
| 020 | Do you get hay fever? | 9 | 8.8 |
| 021 | Do you suffer from asthma? | 6 | 5.8 |
| 022 | Are you troubled by constant coughing? | 11 | 10.7 |
| 023 | Have you ever coughed up blood? | 7 | 6.9 |
| 024 | Do you sometimes have severe soaking sweats at night? | 10 | 9.8 |
| 025 | Have you ever had a chronic chest condition? | 8 | 7.8 |
| 026 | Have you ever had TB? | 1 | .9 |
| 027 | Did you ever live with anyone who had TB? | 2 | 1.9 |

TABLE F-5

Questions on CMI (M-R) Scored High by Arab-American Patients
(16-68 Yes Responses)

| Question | Section of CMI |
|---|---|
| CMI (M-R) Psychological Symptoms | |
| Are you extremely shy or sensitive? | P (sensitivity) |
| Are your feelings easily hurt? | P (sensitivity) |
| Are you considered a touchy person? | P (sensitivity) |
| Do you sweat or tremble a lot during examinations or questioning? | M (inadequacy) |
| Do you get nervous and shaky when approached by a superior? | M (inadequacy) |
| Are you scared to be alone when there are no friends around you? | M (inadequacy) |

TABLE F-6

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section P Items of CMI Questionnaire (sensitivity)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 172 | Are you extremely shy or senstive? | 60 | 58.8 |
| 173 | Do you come from a shy or sensitive family? | 16 | 15.6 |
| 174 | Are your feelings easily hurt? | 61 | 59.8 |
| 175 | Does criticism always upset you? | 30 | 29.4 |
| 176 | Are you considered a touchy person? | 68 | 66.6 |
| 177 | Do people usually misunderstand you? | 12 | 11.7 |

TABLE F-7

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section M Items of CMI Questionnaire (inadequacy)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 145 | Do you sweat or tremble a lot during examinations or questioning? | 29 | 28.4 |
| 146 | Do you get nervous and shaky when approached by a superior? | 28 | 27.4 |
| 147 | Does your work fall to pieces when the boss or a superior is watching you? | 18 | 17.6 |
| 148 | Does your thinking get completely mixed up when you have to do things quickly? | 22 | 21.5 |
| 149 | Must you do things very slowly in order to do them without mistakes? | 24 | 23.5 |
| 150 | Do you always get directions and orders wrong? | 11 | 10.7 |
| 151 | Do strange people or places make you afraid? | 20 | 19.5 |
| 152 | Are you scared to be alone when there are no friends near you? | 25 | 24.5 |
| 153 | Is it always hard for you to make up your mind? | 11 | 10.7 |
| 154 | Do you wish you always had someone at your side to advise you? | 14 | 13.7 |
| 155 | Are you considered a clumsy person? | 13 | 12.7 |
| 156 | Does it bother you to eat anywhere except in your own home? | 7 | 6.8 |

TABLE F-8

Questions Scored Low by Arab-American Patients
(3-18 Yes Responses)

| Question | Section of CMI |
|---|---|
| CMI (A-L) Physiological Symptoms | |
| Are you often bothered by severe itching? | F (skin) |
| Are you often troubled by boils? | F (skin) |
| Do cuts in your skin usually stay open a long time? | F (skin) |
| Do you sweat a great deal even in cold weather? | F (skin) |
| CMI (M-R) Psychological Symptoms | |
| Do you often wish you were dead and away from it all? | N (depression) |
| Does life look entirely hopeless? | N (depression) |
| Do you often cry? | N (depression) |
| Do you feel alone and sad at a party? | N (depression) |

TABLE F-9

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section F Items of CMI Questionnaire (skin)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 072 | Is your skin very sensitive and tender? | 18 | 17.6 |
| 073 | Do cuts in your skin usually stay open a long time? | 6 | 5.8 |
| 074 | Does your face often get badly flushed? | 9 | 8.8 |
| 075 | Do you sweat a great deal even in cold weather? | 4 | 3.9 |
| 076 | Are you often bothered by severe itching? | 8 | 7.8 |
| 077 | Does your skin often break out in a rash? | 11 | 10.7 |
| 078 | Are you often troubled with boils? | 4 | 3.9 |

TABLE F-10

Total Yes Responses and Percentage of Respondents with Affirmative Answers on Section N Items of CMI Questionnaire (depression)

| Item | Question | Total Yes Responses | % of Respondents |
|---|---|---|---|
| 157 | Do you feel alone and sad at a party? | 7 | 6.8 |
| 158 | Do you usually feel unhappy and depressed? | 11 | 10.7 |
| 159 | Do you often cry? | 5 | 4.9 |
| 160 | Are you always miserable and blue? | 6 | 5.8 |
| 161 | Does life look entirely hopeless? | 3 | 2.9 |
| 162 | Do you often wish you were dead and away from it all? | 3 | 2.9 |

# APPENDIX G

## ARABIC TRANSLATION OF QUESTIONNAIRES

جامعة كاليفورنيا / سان فرانسيسكو

استمارة معلومات

آلانسة أليس ريزيان احدى طالبة الدكتوراه في جامعة كاليفورنيا / سان فرانسيسكو ،كلية التمريض،قسم تمريض صحة المجتمع والصحة العقلية ،تؤدي بحث علمي للتعرف على كيفية تقبل العرب الامريكان للحلات المرضية التي تصيبهم وتعاطهم معها ٠

في حالة موافقتي على المشاركة في هذا البحث العلمي سوف استجيب لما يلي :

١ـ سوف استجيب الى ثلاثة استمارات احصائية وصحية ٠

٢ـ سوف اشارك في مقابلة شخصية مع الباحثة لا تقل عن ساعتين ٠

٣ـ سوف تسجل جميع اجابات المقابلة الشخصية كتابيا وستحفظ كافة الاجابات في سرية تامة على قدر الامكان ،مع عدم بيان اي اسم شخصي ٠

آلانسة ريزيان شرحت لي بصورة تامة عن الدراسة وقامت باجابة كافة الاستفسارات ٠ وفي حالة وجود اي استفسارات لخرى استطيع الاتصال بها هاتفيا على الرقم التالي : ٤٧٠٨ـ٦٦٥ ( ٤١٥ ) ٠
في حالة وجود اي ملاحظات حول المشاركة في البحث اتصل بالانسة ريزيان وفي حالة عدم الرغبة في الاستمرار بالمشاركة في البحث العلمي بمقدرتي ان اتصل بلجنة حقوق الانسان بين الساعة الثامنة صباحا وحتى الخامسة مساء خلال الايام الاثنين الى الجمعة على الرقم التالي : ١٣١٤ـ٦٦٦ ( ٥١٤ ) ٠

ان مشاركتي في هذا البحث العلمي تطوعي وباستطاعتي رفض المشاركة او الانسحاب في اي وقت بدون ان يؤثر على عنايتي الصحية في هذه العيادة الطبية ٠

لطمتني الباحثة بأن ليس هناك اي فوائد مادية احصل عليها من خلال مشاركتي في البحث ،وانما هذا البحث سوف يفيد اشخاص اخرين في المستقبل القريب ٠

## مقابلة شخصية

١ــ متى شعرت بالاعراض لاول مرة ؟

٢ــ كيف كانت ( اوصف ) ؟

٣ــ كم ساعة دامت الاعراض ؟

٤ــ كيف علمت ان الاعراض سببت مشكلة صحية ؟

٥ــ ماذا كان سبب الاعراض ؟

٦ــ كيف توصف اثر المرض عليك ؟ وعلى عملك اليومي ؟

٧ــ هل تستطيع ان تصف شدة مرضك ؟

٨ــ ما هي اهم المشاكل التي سببها تلك المرض ؟

٩ــ ما هي اعظم مخاوفك من مرضك هذا ؟

١٠ــ ماذا فعلت لتخفف الاعراض ؟

١١ــ هل حاولت ان تأخذ اي شيء لترتاح ؟

١٢ــ مع من تكلمت عن الاعراض ؟

١٣ــ الى من ذهبت ؟

١٤ــ هل بحثت عن مساعدة ؟

١٥ــ هل تكلمت مع اي شخص عن الاعراض ؟

١٦ــ من هو هذا الشخص ؟

١٧ــ ماذا كانت النتيجة ؟

١٨ــ ماذا كانت نوع الاقتراحات التي عرضت عليك ؟

١٩ــ هل ساعدتك تلك الاقتراحات ؟

٢٠ــ ماذا كانت النصيحة التي حصلت عليها ؟

٢١ــ من نصحك بأن تذهب الى الطبيب ؟

الرجاء ملئ الفراغات التالية :

١ــ السن :

٢ــ الحالة الاجتماعية : اعزب ( )

متزوج ( )

ارمل ( )

مطلق ( )

٣ــ اعلى مؤهل دراسي حصلت عليه :

ابتدائي : ( )

اعدادي : ( )

ثانوي : ( )

ثانوي تجاري : ( )

ثانوي صناعي : ( )

جامعة : ( )

آخر : ( )

٤ــ نوع العمل

٥ــ مدة الاقامة في الولايات المتحدة :

٦ــ سبب المجئ الى الولايات المتحدة :

٧ــ ما موطنك الاصلي :

٨ــ الديانة :

٩ــ محل السكن :

١٠ــ مع من تسكن :

ارشادات :

يوجد اسفل بعض الاعراض التي تصيب بعد الافراد من حين لاخر.

الرجاء قراءة الاعراض التالية بعناية ووضع علامة ( ✓ ) على الاعراض التي تراها ضرورية لطلب مساعدة طبية ووضع علامة ( X ) على الاعراض التي لا تراها ضرورية لطلب مساعدة طبية .

| | |
|---|---|
| ١ـ فقد الشهية | ( ) |
| ٢ـ الم مستمر في الظهر | ( ) |
| ٣ـ سعال مستمر | ( ) |
| ٤ـ الم مستمر في المفاصل والعضلات | ( ) |
| ٥ـ دم في البراز | ( ) |
| ٦ـ دم في البول | ( ) |
| ٧ـ نزيف شديد من الرحم | ( ) |
| ٨ـ ورم في الاقدام | ( ) |
| ٩ـ نقص في الوزن | ( ) |
| ١٠ـ نزيف باللثة | ( ) |
| ١١ـ هزال او تعب مزمن | ( ) |
| ١٢ـ نهجان وصعوبة مع التنفس | ( ) |
| ١٣ـ صداع مزمن | ( ) |
| ١٤ـ حالة فقدان الوعى | ( ) |
| ١٥ـ الم في الصدر | ( ) |
| ١٦ـ ورم في الثدى | ( ) |
| ١٧ـ ورم في البطن | ( ) |

( للنساء)

## استمارة كورنيل الطبية

### احصائية صحية

**الرجاء ملء الفراغات التالية :**

التاريخ :

السن :

الحالة الاجتماعية :

عزبة ( )

متزوجة ( )

ارملة ( )

مطلقة ( )

منفصلة ( )

الاسم :

العنوان :

نوع العمل :

اعلى موهل دراسي :

ابتدائي : ( )

اعدادي : ( )

ثانوي : ( )

جامعة : ( )

**ارشادات : هذه الاستمارة للنساء فقط :**

اذا كانت اجابتك نعم ضعي دائرة حول نعم

اذا كانت اجابتك لا ضعي دائرة حول لا

اجب على جميع الاسئلة :

( ا )

١ـ هل تستعملي نظارة طبية للقراءة ؟ نعم لا

٢ـ هل انت في حاجة لنظارات طبية لرؤية الاشياء البعيدة ؟ نعم لا

٣ـ هل حدث لنظرك ضعف شديد في اي وقت من الاوقات ؟ نعم لا

٤ـ هل عينك ترش او تدمع باستمرار ؟ نعم لا

٥ـ هل تشعري بالام شديدة في عينك باستمرار ؟ نعم لا

٦ـ هل يحدث احمرار او احتقان في عينك ؟ نعم لا

٧ـ هل تشعري باي صعوبة في السمع ؟ نعم لا

٨ـ هل عانيت من افرازات في الاذن ؟ نعم لا

٩ـ هل تشعري بوش في الاذن ؟ نعم

( ب )

١٠ـ هل انت في حاجة دائمة الى تسليك حلقك ( زورك ) ؟ نعم

١١ـ هل تشعري بوجود ورم في حلقك ؟ نعم

١٢ـ هل تعطسي باستمرار ؟ نعم

١٣ـ هل تشعري بانسداد في الانف ؟ نعم

١٤ـ هل تشعري بسيولة دائمة من انفك ؟ نعم

١٥ـ هل حدث لك نزيف في الانف ؟ نعم

١٦- هل تصابي بادوار رشح ( برد ) شديدة باستمرار ؟ نعم لا

١٧- هل تصابي بنزلات صدرية كثيرا ؟ نعم لا

١٨- خدما يصيبك ( برد ) او رشح هل تحتاجي ان تمكثي في الفراش ؟ نعم لا

١٩- هل تشعري بانزعاج نتيجة لاصابات البرد الشتوية ؟ نعم لا

٢٠- هل عندك حساسية في الانف ؟ نعم لا

٢١- هل اصابك ازمة صدرية ( ربو ) ؟ نعم لا

٢٢- هل تنزعجي من ( السعال ) بصورة دائمة ؟ نعم لا

٢٣- هل حدث انك لاحظت دم في البصاق ؟ نعم لا

٢٤- هل تصيبك حالات عرق شديد في الليل ؟ نعم لا

٢٥- هل اصابك مرض صدري مزمن ؟ نعم لا

٢٦- هل اصابك مرض السل او الدرن ؟ نعم لا

٢٧- هل سكنت مع شخص مريض بالسل او الدرن ؟ نعم لا

( ث )

٢٨- هل اخبرك الطبيب بارتفاع في ضغط الدم ؟ نعم لا

٢٩- هل اخبرك الطبيب بانخفاض في ضغط الدم ؟ نعم لا

٣٠- هل شعرت بألم في القلب او الصدر ؟ نعم لا

٣١- هل تشعري بانزعاج نتيجة سرعة نبضات قلبك ؟ نعم لا

٣٢- هل شعرت بأن نبضات قلبك سريعة جدا ؟ نعم

٣٣- هل تشعري بصعوبة في التنفس ؟ نعم

٣٤- هل تشعري بضيق في التنفس بعد مجهود قليل قبل اي شخص اخر ؟ نعم

٣٥- هل تشعري ( بلهتان ) (صعوبة في التنفس) اثناء الجلوس ؟ نعم

٣٦- هل تلاحظي ورم مستمر في القدمين ؟ نعم

٣٧- هل تشعري ببرودة في الاطراف ( اليدين والارجل ) حتى في الجو الحار ؟ نعم

٣٨- هل تعاني من تقلصات في السيقان ؟ نعم

٣٩- هل اخبرك الطبيب بانك مصابة بمرض في القلب ؟ نعم

٤٠- هل يعاني احد افراد اسرتك بمرض في القلب ؟ نعم

( ث )

٤١- هل فقدت اكثر من نصف اسنانك ؟ نعم

٤٢- هل تعاني من نزيف في اللثة ؟ نعم

٤٣- هل تشعري بالم شديد في الاسنان باستمرار ؟ نعم

٤٤- هل تلاحظي وجود طبقة على لسانك ؟ نعم

٤٥- هل تشعري كثيرا بفقدان الشهية ؟ نعم

٤٦- هل تأكلي الحلويات او بعض المأكولات بين الوجبات ؟ نعم

٤٧- هل تأكلي بسرعة ( هل تبلعي الطعام بسرعة ) ؟ نعم

٤٨- هل تشعري بأضطراب في المعدة ؟ نعم

٤٩- هل تشعر بالانتفاخ بعد الاكل ؟ نعم لا

٥٠- هل تتكرع بعد الاكل ؟ نعم لا

٥١- هل تشعر بألم في المعدة ؟ نعم لا

٥٢- هل عندك عسر هضم ؟ نعم لا

٥٣- هل تشعر بثقل وانتفاخ بسبب
ألم في المعدة ؟ نعم لا

٥٤- هل تعاني بأعراض في المعدة
بصورة مستمرة ؟ نعم لا

٥٥- هل يعاني احد افراد اسرتك
بمرض في المعدة ؟ نعم لا

٥٦- هل اخبرك الطبيب بوجود قرحة
في المعدة ؟ نعم لا

٥٧- هل يحدث لك اسهال باستمرار ؟ نعم لا

٥٨- هل حدث لك حالة اسهال مدم
( به دم ) ؟ نعم لا

٥٩- هل اصبت بديدان في الامعاء ؟ نعم لا

٦٠- هل تعاني باستمرار من امساك
شديد ؟ نعم لا

٦١- هل عانيت من البواسير ؟ نعم لا

٦٢- هل اصابك مرض الصفرة ؟ نعم لا

٦٣- هل عانيت بأي مشاكل في الكبد
او المرارة ؟ نعم لا

( ج )

٦٤- هل تشعر بورم وألم في المفاصل ؟ نعم لا

٦٥- هل تشعر بتخشب في المفاصل ؟ نعم لا

٦٦- هل تشعر بألم دائم في الاذرع
او الارجل او القدامين ؟ نعم لا

٦٧- هل اصابك مرض ( روماتيزم ) او
التهاب المفاصل ؟ نعم لا

٦٨- هل اصيب احد افراد اسرتك بمرض
الروماتيزم ( او التهاب في المفاصل ) ؟ نعـ

٦٩- هل يؤثر ضعف او ألم الاقدام على
حياتك اليومية ؟ نعم لا

٧٠- هل تشعر بتأثير على وظيفتك
( او عملك ) نتيجة ألم في الظهر ؟ نعم

٧١- هل عندك اي تشوه في جسمك ؟ نعم لا

( ح )

٧٢- هل تشعر بحساسية وألم في الجلد ؟ نعم

٧٣- هل تلاحظي تأخر في التئام من الجروح ؟ نعـ

٧٤- هل تشعر بسخونة او احمرار في
الوجه ؟ نعم لا

٧٥- هل تشعر بعرق شديد حتى في
الجو البارد ؟ نعم لا

٧٦- هل تصابي بنوبات ( حكاك ) متكررة ؟ نعم

٧٧- هل يحدث لك ارتيكارية ( حساسية )
او احمرار في الجلد ؟ نعم لا

٧٨- هل يحدث لك دمامل ( تقيحات )
في الجلد ؟ نعم لا

( خ )

٧٩- هل تعاني كثيرا بصداع شديد ؟ نعم لا

٨٠- هل الصداع له تأثير على حياتك ؟ نعم

٨١- هل الصداع منتشر في عائلتك ؟ نعم

٨٢- هل تعاني بنوبات برد او ارتفاع
في درجة الحرارة ؟ نعم

٨٣- هل تعاني بنوبات دوخة ؟ نعم

٨٤- هل تشعر بدوار او اغماء مستمرة ؟ نعم

٨٥- هل اصبت بدوار او اغماء اكثر من
مرتين في حياتك ؟ نعم

٨٦- هل تشعري بتنمل ( بتخدر ) في اي جزء من جسمك ؟ نعم لا

٨٧- هل اصبت بشلل في اي جزء من جسمك ؟ نعم لا

٨٨- هل اصبت بفقدان الوعي ؟ نعم لا

٨٩- هل حدث لك انقباض في عضلات الوجه او الكتف او الرأس ؟ نعم لا

٩٠- هل اصبت بحالة تشنج او صرع؟ نعم لا

٩١- هل يعاني اي شخص في عائلتك من حالة تشنج او صرع ؟ نعم لا

٩٢- هل تأكلي اظافرك باستمرار ؟ نعم لا

٩٣- هل تعاني من صعوبة او تأتأة في الكلام ؟ نعم لا

٩٤- هل تسيبي على اقدامك اثناء النوم ؟ نعم لا

٩٥- هل تتبولي في الفراش ؟ نعم لا

٩٦- هل كنت تتبولي في الفراش بين سن ٨ و ١٤ ؟ نعم لا

( د )

٩٧- هل تشعري باي ألم خلال الدورة الشهرية ؟ نعم لا

٩٨- هل تشعري بضعف او مرض خلال الدورة الشهرية ؟ نعم لا

٩٩- هل يجب عليك ان تمكثي في الفراش اثناء الدورة ؟ نعم لا

١٠٠- هل انت عصبية خلال الدورة الشهرية ؟ نعم لا

١٠١- هل تشعري بنوبات سخونة وعرق خلال الدورة الشهرية ؟ نعم لا

١٠٢- هل تعاني من افرازات ( من الفتحة التناسلية - المهبل ) ؟ نعم

١٠٣- هل تستيقظي في الليل للتبول ؟ نعم

١٠٤- هل تتبولي باستمرار اثناء النهار ؟ نعم

١٠٥- هل تشعري بحرقان اثناء التبول ؟ نعم

١٠٦- هل تفقدي التحكم في التبول ؟ نعم

١٠٧- هل اخبرك الطبيب بوجود مرض في الكلى او المثانة ؟ نعم

( ز )

١٠٨- هل تشعري بدوار او ارهاق شديد او هزال بصورة دائمة ؟ نعم

١٠٩- هل تشعري بارهاق شديد نتيجة عملك ؟ نعم

١١٠- عندما تستيقظي من النوم هل تشعري انك مرهقة ؟ نعم

١١١- هل تشعري بارهاق بعد مجهود قليل ؟ نعم

١١٢- هل تكوني متعبة او مجهدة حتى انك لا تستطيعي ان تأكلي ؟ نعم

١١٣- هل تعاني من اجهاد عصبي ؟ نعم

١١٤- هل يعاني احد افراد عائلتك من اجهاد عصبي ؟ نعم

( ر )

١١٥- هل تتعرضي مرارا لاصابات مرضية ؟ نعم

١١٦- هل تحتاجي ان تمكثي في الفراش كثيرا نتيجة اي مرض ؟ نعم

١١٧- هل تشعري ان صحتك ضعيفة ؟ نعم

١١٨- هل تعتبي نفسك شخص مريض؟ نعم

١١٩ـ هل انت من عائلة مصابة بامراض ؟ نعم لا

١٢٠ـ هل الالم الشديد يعوق عملك ؟ نعم لا

١٢١ـ هل ترهقي نفسك في التفكير في صحتك ؟ نعم لا

١٢٢ـ هل تشعري بعدم السعادة ؟ نعم لا

١٢٣ـ هل ضعف صحتك يجعل حياتك بائسة ؟ نعم لا

( ز )

١٢٤ـ هل اصابتك الحمى القرمزية ؟ نعم لا

١٢٥ـ هل اصبت بأحد الاعراض التالية

اثناء الطفولة : حمى روماتيزمية ألم في المفاصل والعضلات ؟ نعم لا

١٢٦ـ هل اصابك مرض الملاريا ؟ نعم لا

١٢٧ـ هل عولجت من مرض الانيميا الحادة ( فقر الدم ) ؟ نعم لا

١٢٨ـ هل عولجت من اي مرض تناسلي ؟ نعم لا

١٢٩ـ هل اصبت بمرض السكر ؟ نعم لا

١٣٠ـ هل اخبرك الطبيب بوجود مرض الغدة الدرقية ؟ نعم لا

١٣١ـ هل اخذت اي علاج لمرض السرطان ؟ نعم لا

١٣٢ـ هل تعاني من اي مرض مزمن ؟ نعم لا

١٣٣ـ هل وزنك اقل من الطبيعي ؟ نعم لا

١٣٤ـ هل وزنك اكثر من الطبيعي ؟ نعم لا

١٣٥ـ هل اخبرك الطبيب بوجود دوالى في السيقان ؟ نعم لا

١٣٦ـ هل اجريت لك اي عملية جراحية كبيرة ؟ نعم لا

١٣٧ـ هل حدث لك اي ( جرح خطير ) او اصابة خطيرة ؟ نعم لا

١٣٨ـ هل يحدث لك حوادث او جروح بصفة دائمة ؟ نعم

( س )

١٣٩ـ هل تعاني من اي مشكلة في النوم ؟ نعم

١٤٠ـ هل تشعري بصعوبة في اخذ فترة راحة اثناء النهار ؟ نعم

١٤١ـ هل تعاني باي صعوبة في القيام ببعض التمرينات الرياضية ؟ نعم

١٤٢ـ هل تدخني اكثر من ٢٠ سيجارة في اليوم ؟ نعم

١٤٣ـ هل تشربي اكثر من ٦ اكواب قهوة او شاي في اليوم ؟ نعم

١٤٤ـ هل تتناولي مشروبات كحولية مرتين او اكثر في اليوم ؟ نعم

( ش )

١٤٥ـ هل تشعري بعرق او رعشة في فترة الامتحانات او الاستجوابات ؟ نعم

١٤٦ـ هل تشعري باضطراب عندما تعلمي انك مراقبة من قبل رئيسك ؟ نعم

١٤٧ـ هل مراقبة رئيسك تؤثر على عملك ؟ نعم

١٤٨ـ هل تفكيرك يضطرب اذا كان لابد ان تعملي عملا بسرعة ؟ نعم

١٤٩ـ هل تحتاجي ان تعملي ببطء حتى تتفادي الغلطات ؟ نعم

١٥٠ـ هل انت دائما تخطىء في فهم الارشادات او الاوامر الموجهة اليك ؟ نعم

١٥١ـ هل تشعري بخوف من المناطق او الاشخاص الغريبة ؟ نعم

١٥٢ـ هل تشعري باي خوف اذا وجدت في مكان غريب او مع اشخاص لا تعرفيهم ؟ نعم

١٥٣- هل تجدي صعوبة في اخذ القرارات ؟ نعم لا

١٥٤- هل تشعري بحاجة الى وجود شخص
بجانبك لارشادك ؟ نعم لا

١٥٥- هل تشعري بالتغام في بعض
المواقف ؟ نعم لا

١٥٦- هل تشعري بالضيق اذا تناولت
الوجبات خارج المنزل ؟ نعم لا

( ص)

١٥٧- هل تشعري بالحزن او الوحدة في
الحفلات ؟ نعم لا

١٥٨- هل تشعري بعدم السعادة او
الحزن باستمرار ؟ نعم لا

١٥٩- هل تبكي كثيرا ؟ نعم لا

١٦٠- هل تشعري باستمرار انك حزينة
او تعيسة ؟ نعم لا

١٦١- هل تشعري ان الحياة ليس
لها معنى او هدف ؟ نعم لا

١٦٢- هل تتمني الموت ؟ نعم لا

( ض)

١٦٣- هل يؤثر القلق على حالتك
النفسية ؟ نعم لا

١٦٤- هل ظاهرة القلق منتشرة بين
افراد اسرتك ؟ نعم لا

١٦٥- هل المواقف البسيطة تثير غضبك
او تفقدك أعصابك ؟ نعم لا

١٦٦- هل تعتبي نفسك شخص عصبي ؟ نعم لا

١٦٧- هل جميع افراد عائلتك يتصرفون
بعصبية ؟ نعم لا

١٦٨- هل حدث ان اصبت بانهيار
عصبي ؟ نعم لا

١٦٩- هل حدث ان اصيب اي شخص في
عائلتك بانهيار عصبي ؟ نعم

١٧٠- هل دخلت مستشفى امراض عقلية
( بسبب اعصابك ) ؟ نعم

١٧١- هل دخل اي شخص من افراد
عائلتك مستشفى امراض عقلية ؟ نعم

( ط )

١٧٢- هل انت شخص خجول او حساس؟ نعم

١٧٣- هل انت من عائلة خجولة ؟ نعم

١٧٤- هل من السهل جرح شعورك؟ نعم

١٧٥- هل تغضبي من نقد الاخرين ؟ نعم

١٧٦- هل تعتبي نفسك حساسة اكثر
من الازم ؟ نعم

١٧٧- هل تشعري دائما بسوء فهم
الاخرين نحوك ؟ نعم

( ظ )

١٧٨- هل تشعري انك متحفظة في
تصرفك حتى مع اصدقائك ؟ نعم

١٧٩- هل تتصرفي باندفاع باستمرار؟ نعم

١٨٠- هل من السهل اثارة غضبك؟ نعم

١٨١- هل تشعري بالاحتياج في التحكم
الشديد في تصرفك لكي لا تنهاري ؟ نعم

١٨٢- هل اشياء صغيرة او مشاكل بسيطة
تثير غضبك ؟ نعم

١٨٣- هل تغضبي اذا قال لك لي شخص
ماذا تعملي ؟ نعم

١٨٤- هل تشعري بالغضب من الاشخاص
الاخرين ؟ نعم

١٨٥- هل تفقدي اعصابك بسهولة في
عدم حصولك على شيء تريديه ؟ نعم

١٨٦- هل تفعلي دائما الى درجة
الغضب ؟ نعم لا

( ع)

١٨٧- هل تشعري برعشة ؟ نعم لا

١٨٨- هل تشعري بانك متوترة الاعصاب ؟ نعم لا

١٨٩- هل تزعجك الاصوات المفاجئة ؟ نعم لا

١٩٠- هل ترتعشي او تشعري بضعف
اذا احد الافراد تكلم بشدة او
بصوت مرتفع نحوك ؟ نعم لا

١٩١- هل تشعري بخوف من اي صوت او
اي حركات مفاجئة في الليل ؟ نعم لا

١٩٢- هل تستيقظي على احلام مزعجة ؟ نعم لا

١٩٣- هل تنتابك افكار ( تهيئات ) مخيفة ؟ نعم لا

١٩٤- هل تشعري بالخوف بدون سبب ؟ نعم لا

١٩٥- هل تعرقي بسبب الخوف ؟ نعم لا



Translated by Alice Reizian, University of California, San Francisco, 1983.

( للرجال )

## استمارة كورنيل الطبية

### احصائية صحية

الرجاء ملء الفراغات التالية ؟

التاريخ :
السن :
الحالة الاجتماعية :
اعزب ( )
متزوج ( )
ارمل ( )
مطلق ( )
منفصل ( )

الاسم :
العنوان :
نوع العمل :
اعلى مؤهل دراسي :
ابتدائي : ( )
اعدادي : ( )
ثانوي : ( )
جامعة : ( )

ارشادات : هذه الاستمارة للرجال فقط :

اذا كانت اجابتك نعم ضع دائرة حول نعم
اذا كانت اجابتك لا ضع دائرة حول لا
اجب على جميع الاسئلة :

( ا )

١ـ هل تستعمل نظارة طبية للقراءة ؟ نعم لا
٢ـ هل انت في حاجة لنظارات طبية لرؤية الاشياء البعيدة ؟ نعم لا
٣ـ هل حدث لنظرك ضعف شديد في اي وقت من الاوقات ؟ نعم لا
٤ـ هل عينك ترمش او تدمع باستمرار؟ نعم لا
٥ـ هل تشعر بالام شديدة في عينك باستمرار ؟ نعم لا
٦ـ هل يحدث احمرار او احتقان في عينك ؟ نعم لا
٧ـ هل تشعر باي صعوبة في السمع ؟ نعم لا
٨ـ هل عانيت من افرازات في الاذن ؟ نعم لا
٩ـ هل تشعر بوش في الاذن ؟ نعم

( ب )

١٠ـ هل انت في حاجة دائمة الى تسليك حلقك ( زورك ) ؟ نعم
١١ـ هل تشعر بوجود ورم في حلقك ؟ نعم
١٢ـ هل تعطس باستمرار ؟ نعم
١٣ـ هل تشعر بانسداد في الانف ؟ نعم
١٤ـ هل تشعر بسيولة دائمة من انفك ؟ نعم
١٥ـ هل حدث لك نزيف في الانف ؟ نعم

١٦- هل تصاب بادوار رشح (برد) نعم لا

١٧- هل تصاب بنزلات صدرية كثيرا ؟ نعم لا
شديدة باستمرار ؟

١٨- عندما يصيبك (برد) او رشح هل
تحتاج ان تمكث في الفراش ؟ نعم لا

١٩- هل تشعر بانزعاج نتيجة لأصابات
البرد الشتوية ؟ نعم لا

٢٠- هل عندك حساسية في الانف ؟ نعم لا

٢١- هل اصابتك ازمة صدرية (ربو) ؟ نعم لا

٢٢- هل تتزعج من (السعال) بصورة
دائمة ؟ نعم لا

٢٣- هل حدث انك لاحظت دم في
البصاق ؟ نعم لا

٢٤- هل تصيبك حالات عرق شديد في
الليل ؟ نعم لا

٢٥- هل اصابك مرض صدري مزمن ؟ نعم لا

٢٦- هل اصابك مرض السل او الدرن ؟ نعم لا

٢٧- هل سكنت مع شخص مريض بالسل
او الدرن ؟ نعم لا

(ت)

٢٨- هل اخبرك الطبيب بارتفاع في
ضغط الدم ؟ نعم لا

٢٩- هل اخبرك الطبيب بانخفاض في
ضغط الدم ؟ نعم لا

٣٠- هل شعرت بألم في القلب او في
الصدر ؟ نعم لا

٣١- هل تشعر بانزعاج نتيجة سرعة
نبضات قلبك ؟ نعم لا

٣٢- هل شعرت بان تبضات قلبك سريعة
جدا ؟ نعم لا

٣٣- هل تشعر بصعوبة في التنفس ؟ نعم

٣٤- هل تشعر بضيق في التنفس بعد
مجهود قليل قبل اي شخص اخر ؟ نعم

٣٥- هل تشعر (بلهثان) (صعوبة
في التنفس) اثناء الجلوس ؟ نعم

٣٦- هل تلاحظ ورم مستمر في
القدمين ؟ نعم

٣٧- هل تشعر ببرودة في الاطراف
(اليدين والارجل) حتى في
الجو الحار ؟ نعم

٣٨- هل تعاني من تقلصات في
السيقان ؟ نعم

٣٩- هل اخبرك الطبيب بانك مصاب
بمرض في القلب ؟ نعم

٤٠- هل يعاني احد افراد اسرتك
بمرض في القلب ؟ نعم

(ث)

٤١- هل فقدت اكثر من نصف اسنانك ؟ نعم

٤٢- هل تعاني من نزيف في اللثة ؟ نعم

٤٣- هل تشعر بألم شديد في الاسنان
باستمرار ؟ نعم

٤٤- هل تلاحظ وجود طبقة على
لسانك ؟ نعم

٤٥- هل تشعر كثيرا بفقدان الشهية ؟ نعم

٤٦- هل تأكل الحلويات او بعض
المأكولات بين الوجبات ؟ نعم

٤٧- هل تأكل بسرعة (هل تبلع الطعام
بسرعة) ؟ نعم

٤٨- هل تشعر باضطراب في المعدة ؟ نعم

٤٩ـ هل تشعر بالانتفاخ بعد الاكل ؟ نعم لا

٥٠ـ هل تتكرع بعد الاكل ؟ نعم لا

٥١ـ هل تشعر بألم في المعدة ؟ نعم لا

٥٢ـ هل عندك عسر هضم ؟ نعم لا

٥٣ـ هل تشعر بثقل وانتفاخ بسبب ألم
في المعدة ؟ نعم لا

٥٤ـ هل تعاني باعراض في المعدة
بصورة مستمرة ؟ نعم لا

٥٥ـ هل يعاني احد افراد اسرتك
بمرض في المعدة ؟ نعم لا

٥٦ـ هل اخبرك الطبيب بوجود قرحة
في معدتك ؟ نعم لا

٥٧ـ هل يحدث لك اسهال باستمرار ؟ نعم لا

٥٨ـ هل حدث لك حالة اسهال مدم
(به دم) ؟ نعم لا

٥٩ـ هل اصبت بديدان في الامعاء ؟ نعم لا

٦٠ـ هل تعاني باستمرار من امساك
شديد ؟ نعم لا

٦١ـ هل عانيت من البواسير ؟ نعم لا

٦٢ـ هل اصابك مرض الصفرة ؟ نعم لا

٦٣ـ هل عانيت بأي مشاكل في الكبد
او المرارة ؟ نعم لا

(ج)

٦٤ـ هل تشعر بورم والم في المفاصل ؟ نعم لا

٦٥ـ هل تشعر بتخشب في المفاصل ؟ نعم لا

٦٦ـ هل تشعر بألم دائم في الاذرع
او الارجل او القدمين ؟ نعم لا

٦٧ـ هل اصابك مرض (روماتيزم) او
التهاب المفاصل ؟ نعم لا

-٣-

٦٨ـ هل يعاني احد افراد اسرتك بمرض
الروماتيزم او (التهاب في المفاصل) ؟ نعم

٦٩ـ هل يؤثر ضعف او ألم الاقدام على
حياتك اليومية ؟ نعم

٧٠ـ هل تشعر بتأثير على وظيفتك
(او عملك) نتيجة ألم في الظهر ؟ نعم

٧١ـ هل عندك اي تشوه في جسمك ؟ نعم

(ح)

٧٢ـ هل تشعر بحساسية وألم في الجلد ؟ نعم

٧٣ـ هل تلاحظ تأخر في آلتام الجروح ؟ نعم

٧٤ـ هل تشعر بسخونة او احمرار في
الوجه ؟ نعم

٧٥ـ هل تشعر بعرق شديد حتى في
الجو البارد ؟ نعم

٧٦ـ هل تصاب بنوبات (حكاك) متكررة؟ نعم

٧٧ـ هل يحدث لك ارتيكارية (حساسية)
او احمرار في الجلد ؟ نعم

٧٨ـ هل يحدث لك دمامل (تقيحات)
في الجلد ؟ نعم

(خ)

٧٩ـ هل تعاني كثيرا بصداع شديد ؟ نعم

٨٠ـ هل الصداع له تأثير على حياتك ؟نعم

٨١ـ هل الصداع منتشر في عائلتك ؟ نعم

٨٢ـ هل تعاني بنوبات برد او ارتفاع
في درجة الحرارة ؟ نعم

٨٣ـ هل تعاني بنوبات دوخة ؟ نعم

٨٤ـ هل تعاني بدوار او اغماء مستمرة ؟ نعم

٨٥ـ هل اصبت بدوار او اغماء اكثر من
مرتين في حياتك ؟ نعم

٨٦- هل تشعر بتثمل (بتخدر) في اي جزء من جسمك ؟ نعم لا

٨٧- هل اصبت بشلل في اي جزء من جسمك ؟ نعم لا

٨٨- هل اصبت بفقدان الوعي ؟ نعم لا

٨٩- هل حدث لك انقباض في عضلات الوجه او الكتف او الرأس ؟ نعم لا

٩٠- هل اصبت بحالة تشنج او صرع ؟ نعم لا

٩١- هل يعاني اي شخص في عائلتك من حالة تشنج او صرع ؟ نعم لا

٩٢- هل تأكل اظافرك باستمرار ؟ نعم لا

٩٣- هل تعاني من صعوبة او تأتأة في الكلام ؟ نعم لا

٩٤- هل تسير اثناء النوم ؟ نعم لا

٩٥- هل تتبول في الفراش ؟ نعم لا

٩٦- هل كنت تتبول في الفراش بين سن ٨ و ١٤ ؟ نعم لا

(د)

٩٧- هل اصبت باعراض غير طبيعية في الاعضاء التناسلية ؟ نعم لا

٩٨- هل تشعر بألم في الاعضاء التناسلية ؟ نعم لا

٩٩- هل عولجت من اي مرض تناسلي ؟ نعم لا

١٠٠- هل اخبرك الطبيب بوجود حالة فتاق ؟ نعم لا

١٠١- هل حدث ان لاحظت وجود دم في البول ؟ نعم لا

١٠٢- هل تشعر بصعوبة عند بداية التبول ؟ نعم لا

١٠٣- هل تستيقظ في الليل عادة للتبول ؟ نعم

١٠٤- هل تتبول كثيرا خلال النهار ؟ نعم

١٠٥- هل تشعر بحرقان عند التبول ؟ نعم

١٠٦- هل تفقد التحكم في التبول ؟ نعم

١٠٧- هل اخبرك الطبيب بوجود مرض في الكلى او المثانة ؟ نعم

(ذ)

١٠٨- هل تشعر بدوار او ارهاق شديد او هزال بصورة دائمة ؟ نعم

١٠٩- هل تشعر بارهاق شديد نتيجة عملك ؟ نعم

١١٠- عندما تستيقظ من النوم هل تشعر انك مرهق ؟ نعم

١١١- هل تشعر بارهاق بعد مجهود قليل ؟ نعم

١١٢- هل تكون متعب او مجهد حتى انك لا تستطيع ان تأكل ؟ نعم

١١٣- هل تعاني من اجهاد عصبي ؟ نعم

١١٤- هل يعاني احد افراد عائلتك من اجهاد عصبي ؟ نعم

(ر)

١١٥- هل تتعرض مرارا لاصابات مرضية ؟ نعم

١١٦- هل تحتاج ان تمكث في الفراش كثيرا نتيجة اي مرض ؟ نعم

١١٧- هل تشعر ان صحتك ضعيفة ؟ نعم

١١٨- هل تعتبر نفسك شخص مريض ؟ نعم

١١٩- هل انت من عائلة مصابة بامراض ؟ نعم

١٢٠- هل الالم الشديد يعوق عملك ؟ نعم

١٢١- هل ترهق نفسك في التفكير في صحتك ؟ نعم لا

١٢٢- هل تشعر بعدم السعادة ؟ نعم لا

١٢٣- هل ضعف صحتك يجعل حياتك بائسة ؟ نعم لا

(ز)

١٢٤- هل اصابك الحمى القرمزية ؟ نعم لا

١٢٥- هل اصبت باحد الاعراض التالية اثناء الطفولة : حمى روماتيزمية ، ألم في المفاصل والعضلات ؟ نعم لا

١٢٦- هل اصابك مرض الملاريا ؟ نعم لا

١٢٧- هل عولجت من مرض الانيميا الحادة (فقر الدم) ؟ نعم لا

١٢٨- هل عولجت من اي مرض تناسلي ؟ نعم لا

١٢٩- هل اصبت بمرض السكر ؟ نعم لا

١٣٠- هل اخبرك الطبيب بوجود مرض الغدة الدرقية ؟ نعم لا

١٣١- هل اخذت اي علاج لمرض السرطان ؟ نعم لا

١٣٢- هل تعاني من اي مرض مزمن ؟ نعم لا

١٣٣- هل وزنك اقل من الطبيعي ؟ نعم لا

١٣٤- هل وزنك اكثر من الطبيعي ؟ نعم لا

١٣٥- هل اخبرك الطبيب بوجود دوالى في السيقان ؟ نعم لا

١٣٦- هل اجريت لك اي عملية جراحية كبيرة ؟ نعم لا

١٣٧- هل حدث لك اي (جرح خطير) او اصابة خطيرة ؟ نعم لا

١٣٨- هل يحدث لك حوادث او جروح بصفة دائمة ؟ نعم لا

(س)

١٣٩- هل تعاني من اي مشكلة في النوم ؟ نعم

١٤٠- هل تشعر بصعوبة في اخذ فترة راحة اثناء النهار ؟ نعم

١٤١- هل تعاني باي صعوبة في القيام ببعض التمرينات الرياضية ؟ نعم

١٤٢- هل تدخن اكثر من ٢٠ سيجارة في اليوم ؟ نعم

١٤٣- هل تشرب اكثر من ٦ اكواب قهوة او شاي في اليوم ؟ نعم

١٤٤- هل تتناول مشروبات كحولية مرتين او اكثر في اليوم ؟ نعم

(ش)

١٤٥- هل تشعر بعرق او رعشة في فترة الامتحانات او الاستجوابات ؟ نعم

١٤٦- هل تشعر باضطراب عندما تعلم انك مراقب من رئيسك ؟ نعم

١٤٧- هل مراقبة رئيسك تؤثر على عملك ؟ نعم

١٤٨- هل تفكيرك يضطرب اذا كان لابد ان تعمل عملا بسرعة ؟ نعم

١٤٩- هل تحتاج ان تعمل ببطء حتى تتفادى الغلطات ؟ نعم

١٥٠- هل انت دائماً تخطىء في فهم الارشادات او الاوامر الموجهة اليك؟ نعم

١٥١- هل تشعر بخوف من المناطق او الاشخاص الغريبة ؟ نعم

١٥٢- هل تشعر بأي خوف اذا وجدت في
مكان غريب او مع اشخاص لا تعرفهم؟ نعم لا
١٥٣- هل تجد صعوبة في اخذ القرارات؟ نعم لا
١٥٤- هل تشعر بحاجة الى وجود شخص
بجانبك لارشادك ؟ نعم لا
١٥٥- هل تشعر بألتخام في بعض المواقف؟ نعم لا
١٥٦- هل تشعر بالضيق اذا تناولت الوجبات
خارج المنزل ؟ نعم لا

(ص)

١٥٧- هل تشعر بالحزن او الوحدة في
الحفلات ؟ نعم لا
١٥٨- هل تشعر بعدم السعادة او الحزن
باستمرار ؟ نعم لا
١٥٩- هل تبكي كثيرا ؟ نعم لا
١٦٠- هل تشعر باستمرار انك حزين او
تعيش ؟ نعم لا
١٦١- هل تشعر ان الحياة ليس لها
معنى او هدف ؟ نعم لا
١٦٢- هل تتمنى الموت ؟ نعم لا

(ض)

١٦٣- هل يؤثر القلق على حالتك النفسية ؟ نعم لا
١٦٤- هل ظاهرة القلق منتشرة بين افراد
أسرتك ؟ نعم لا
١٦٥- هل المواقف البسيطة تثير غضبك
او تفقدك أعصابك ؟ نعم لا
١٦٦- هل تعتبر نفسك شخص عصبي ؟ نعم لا
١٦٧- هل جميع افراد عائلتك يتصرفون
بعصبية ؟ نعم لا

١٦٨- هل حدث ان اصبت بانهيار عصبي ؟ نعم
١٦٩- هل حدث ان اصيب اي شخص
في عائلتك بانهيار عصبي ؟ نعم
١٧٠- هل دخلت مستشفى امراض
عقلية (بسبب اعصابك) ؟ نعم

١٧١- هل دخل اي شخص من افراد
عائلتك مستشفى امراض عقلية ؟ نعم

(ط)

١٧٢- هل انت شخص خجول او حساس؟ نعم
١٧٣- هل انت من عائلة خجولة ؟ نعم
١٧٤- هل من السهل جرح شعورك؟ نعم
١٧٥- هل تغضب من نقد الاخرين ؟ نعم
١٧٦- هل تعتبر نفسك شخص حساس
اكثر من الازم ؟ نعم
١٧٧- هل تشعر دائما بسوء فهم
الاخرين نحوك ؟ نعم

(ظ)

١٧٨- هل تشعر انك متحفظ في
تصرفك حتى مع اصدقائك ؟ نعم
١٧٩- هل تتصرف باندفاع باستمرار؟ نعم
١٨٠- هل من السهل اثارة غضبك؟ نعم
١٨١- هل تشعر بالاحتياج في التحكم
الشديد في تصرفاتك لكي لا تنهار؟ نعم
١٨٢- هل اشياء صغيرة او مشاكل بسيطة
تثير غضبك ؟ نعم
١٨٣- هل تغضب اذا قال لك اي
شخص مذا تعمل ؟ نعم

١٨٤- هل تشعر بالغضب من الاشخاص

الاخرين ؟ نعم لا

١٨٥- هل تفقد اعصابك بسهولة في حالة

عدم حصولك على شيء تريده ؟ نعم لا

١٨٦- هل تفعل دائماً الى درجة الغضب ؟ نعم لا

( ع)

١٨٧- هل تشعر برعشة ؟ نعم لا

١٨٨- هل تشعر بانك متوتر الاعصاب ؟ نعم لا

١٨٩- هل تزعجك الاصوات المفاجئة ؟ نعم لا

١٩٠- هل ترتعش او تشعر بضعف اذا

احد الافراد تكلم بشدة او بصوت

مرتفع نحوك ؟ نعم لا

١٩١- هل تشعر بخوف من اي صوت او

اي حركات مفاجئة في الليل ؟ نعم لا

١٩٢- هل تستيقظ على احلام مزعجة ؟ نعم لا

١٩٣- هل تنتابك افكار ( تهيئات )

مخيفة ؟ نعم لا

١٩٤- هل تشعر بالخوف بدون سبب ؟ نعم لا

١٩٥- هل تعرق بسبب الخوف ؟ نعم لا



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