BELIEFS AND ATTITUDES RELATED TO TRADITIONAL

AND SCIENTIFIC MEDICINE AMONG NIGERIANS

RESIDING IN THE UNITED STATES:

A COMPARATIVE STUDY

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A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

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IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF HEALTH SCIENCES

BY

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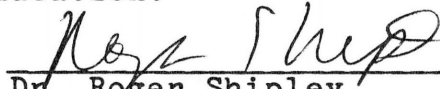
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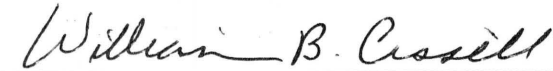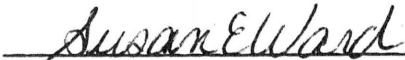DENTON, TEXAS

April 15, 1993
Date

To the Dean for Graduate Studies and Research:

I am submitting herewith a thesis written by Minika Edet
Ekpenyong, entitled "Beliefs and Attitudes Related to
Traditional and Scientific Medicine among Nigerians
Residing in the United States: A Comparative Study." I
have examined the final copy of this thesis for form and
content, and recommend that it be accepted in partial
fulfillment of the requirements for the Degree of Master of
Science, with a major in Health Education.

Dr. Roger Shipley
Major Professor

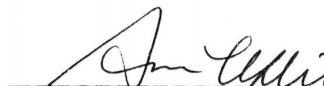We have read this thesis and
recommend its acceptance:

William B. Cissell

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Accepted:

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Research

DEDICATION

This thesis is dedicated to my father, Mr. Edet Ekpenyong, who repeatedly encouraged me to exercise patience and finish up with my master's program. My father knew the importance of education and as such encouraged his children to be educated. My father always told me that being a loser in any game did not mean you cannot be a winner. With much effort anything is possible. "Daughter, do not give up hope, keep on struggling with your studies until you excel."

To my humble mother, Mrs. Florence Ekpenyong, who struggled along with my father to make sure her children became college graduates.

Mother, your dream has come true.

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The purpose of this study was to develop an instrument to
determine beliefs and attitudes toward traditional medicine
and scientific medicine among Nigerian students. The
instrument was to measure beliefs and attitudes of Nigerian
students who had resided in the U.S. for 1 year or less in
comparison to those who had resided in the U.S. for 4 years
or more. The participants were 21 Nigerian students, 13
(62%) of the students were those who had resided in the
U.S. for more than 4 years and 8 (38%) were those who had
resided in the U.S. less than 1 year. The instrument used
to collect data was the Attitude Belief Survey, developed
by the researcher, and administered in December 1992.
T-test was used to analyze the data. Results revealed no
significant difference in attitudes and beliefs toward
traditional medicine in the two groups.

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CHAPTER I

RATIONALE

Traditional medicine is an ancient form of health care, practiced long before developing countries utilized scientific medicine. It is accessible to people in even the most remote areas, and it does not require sophisticated equipment. Many Nigerians, like most third-world people, believe in traditional healing. Many Nigerians believe that diseases are caused by witchcraft and, therefore, cannot be treated successfully by scientific medicine. These beliefs are being transferred from generation to generation. Although the current generation is trying to break these traditional beliefs, it is unlikely that they will ever be totally discontinued. According to Pearce (1989), the Nigerian government attempted to have traditional healers cooperate with the scientific practitioners in order to develop a good understanding of each other's treatment methods. These efforts have not been very successful.

Evil spirits (enemies) are most frequently the cause of diseases in traditional medicine. Many Nigerians believe child deaths, barrenness, miscarriages, fevers, and

diarrhea are caused by evil spirits, as in poisoning of food or drink. Some people in the southeastern part of Nigeria believe malaria cannot "catch" a person without the machination of the enemy. In other words, the enemy often uses malaria as a ploy or cover to inflict persons with more serious ailments and diseases (Uyanga, 1983). The belief system and the traditional analysis of possible etiological factors determine the method and process of treatment of bone fractures by traditional bone setters of Nigeria.

The low income households tend to frequently patronize the traditional healing services which often are spiritual in nature. The older the members of the household, the more influence the spiritual healing services have on the people. Attitudes, decisions, and beliefs about the use of health care are structured and standardized by the culture. Treatment of health problems necessitate paying attention to the underlying spiritual aspects so one may not offend the gods. There seems to be some differences between rural and urban areas. Most patients in rural areas of developing countries are attended initially by traditional healers, and only those who do not adequately recover make their way to the hospital or medical doctors.

Rural-urban migration does not seem to erode the usage of traditional and spiritual medication. These differences may influence some medical and health decisions and habits. Some beliefs may differ, but these do not deviate from the community norm and culture. Decisions about illness and disease tend to be the function of the cultural, environmental, and philosophical background in which the interactions occur (Uyanga, 1983).

Statement of the Problem

The problem of this study was to analyze possible differences among Nigerians who had resided in the United States (U.S.) for less than a year or more than 4 years. This study was conducted among Nigerian students who had resided in Dallas, Texas, during fall semester, 1992. An additional problem was to develop an appropriate instrument to facilitate this study.

Purpose of Study

The purpose of the study was to develop an instrument to determine attitudes toward traditional medicine and scientific medicine among Nigerian students. The instrument was used to measure attitudes of Nigerian students who had resided in the U.S. for 1 year or less in comparison to those who had resided for 4 years or more.

Definition of Terms

For the purposes of clarification, the following definitions and explanations of terms were established for use of the study.

1. <u>Attitude</u>. An indication of how people feel and how they respond. Attitude embodies direction, a favorable component, as well as magnitude and intensity that imply a strength of feeling or degree of favorableness or unfavorableness (Rubinson & Neutens, 1989).

2. <u>Belief</u>. An agreement about what is so, what is real or true. Every culture contains many broadly shared statements about what is true, and those beliefs form a foundation for the rest of the culture (Babbie, 1983).

3. <u>BMPD</u>. Statistical software used in treatment of data.

4. <u>Divination</u>. Consultation of an oracle foreseeing future events (Guralnik et al., 1978).

5. <u>Enemy</u>. Refers to a person who hates another and wishes to injure or kill him by some form of traditional medicine (Sofola, 1983).

6. <u>Esoteric Causes</u>. Disease originating from the soul, or those caused by the deeds of an individual in his/her former life (Sofola, 1983).

7. <u>Evil Spirit</u>. Referred to as the cause of some disease. Not only disease but death itself is thought to be due to an evil spiritual force. Among the most powerful evil influences that are supposed to cause disease and death are witches (Sofola, 1983).

8. <u>Healer</u>. One who can cure (Guralnik et al., 1978).

9. <u>Physical Ailments</u>. Disease caused by injurious elements entering the human system through food, drink, and/or skin (Sofowora, 1983).

10. <u>Scientific Medicine</u>. Based on or using the principles and methods of science, systematic and exact (Guralnik et al., 1978).

11. <u>Spiritual Causes</u>. Thoughts, desires, and machinations which can be perpetrated by one's enemies or allies (Sofowora, 1983).

12. <u>Traditional Medicine</u>. A form of medicine in which the cause of disease is often ascribed to witchcraft, spirits, and gods. Treatment is based on driving out the causes (Sofowora, 1983).

13. <u>Witchcraft</u>. The power or practices of witch or sorcerer (Guralnik et al., 1978).

Hypotheses of the Study

The following null hypotheses were tested at the .025 level of significance:

1. Concerning their beliefs in traditional medicine, there is no significant difference between Nigerian students residing in the U.S. less than a year and those residing 4 years or more.

2. Concerning their attitudes toward traditional medicine, there is no significant difference between Nigerian students residing in the U.S. less than a year and those residing 4 years or more.

Limitations

This study was limited by the following:

1. The degree of cooperation of the subjects who responded to the questionnaire.

2. The truthfulness of the participants who responded to the questionnaire.

Delimitations

The following delimitations were used for this study:

1. Selected Nigerian students who resided in Dallas/Fort Worth metroplex during the period of the study.

2.   Nigerian students who had been residing in the U.S. for less than a year or more than 4 years.

3.   Those students who had used traditional medicine in the past.

4.   All students belonging to the Akwa Ibom State Association.

CHAPTER II

REVIEW OF LITERATURE

Traditional medicine is indigenous to Nigeria and serves about 80% of the population of Nigeria, whereas the concept of scientific medicine is alien and not well understood (Alawode, 1991). In 1979, the World Health Organization (WHO) in its conference in Khartown recommended an intensification of educational programs for traditional practitioners. This was done to resolve the conflict between the practitioners of scientific and traditional medicines. The medical profession tends to consider traditional medicine as unhygienic, unscientific, and superstitious which can jeopardize lives of people.

The basic concept of scientific medicine centers around the results of experiments. Disease is regarded as caused by physiological agents (including micro-organisms and noxious substances in food and environments). Traditional medicine, however, considers man as an integral somatic (body) and extramaterial (outside body) entity. Many individuals in developing countries still accept the fact that disease can be caused by supernatural events arising from the displeasure of ancestral gods, evil spirits, the effects of witchcraft, the effects of spirit

possession, or the invasion of objects into the body (Sofowora, 1983).

Traditional medicine was the only source of health care delivery available to Nigerians before the first hospital was established in 1873 (Alawode, 1991). The traditional healers continued to practice even after scientific medicine became established. Traditional healers are of several kinds. Some are bone setters and manipulators, and some deal with spirits, placating or exorcizing them (Bradley, Clare, & Kirkwood, 1980). An important part of their work is diagnosis which is practiced by consultation of oracles rather than by the multiplicity of tests used in scientific medicine. Traditional healers consult oracles using such methods as throwing bones or speaking with spirits through mediums who pronounce the cause and order the treatment for illness. Nigerians are pragmatists, they look for a system that works. If one traditional remedy fails, then another is tried and so on until eventually scientific medical treatment is given its chance (Bradley et al., 1980).

Many people believe that a reason for the continuance of traditional medicine in Nigeria is the occasional failure of scientific medicine at times. Also, some people believe that certain diseases are European and thus

susceptible to scientific treatment, whereas other illnesses are considered to be traditional and only susceptible to traditional treatment. In a particular situation, an illness may not respond to European medicine. If the European treatment fails, it becomes evident that the illness is caused by evil spirit, witchcraft, and enemies. Diagnosis in traditional medicine is to find who rather than what is responsible for the illness (Odebiyi, 1981).

Traditional medicine, like scientific medicine, aims at healing or preventing diseases. In this respect, both types of medicine have the same objective, but they differ in their concept of the cause of disease, their approach to healing, as well as in the healing methods used (Sofoworo, 1982).

Traditional medicine places such emphasis on supernatural forces. The traditional medical practitioner is contacted not only in times of sickness, but also when an evil omen is noticed. Actual misfortunes are generally believed to arise as a result of one of two forces: ancestral anger or the greed of evil spirits. It is clear that most forms of traditional medicine acknowledge the fact that disease can be caused by both physical and supernatural agents (Bradley et al., 1980).

Traditional Methods of Diagnosing Diseases

The majority of people in Nigeria are still very superstitious about the causes of illness. Their illnesses and misfortunes are attributed to evil spirits. Due to their strong belief regarding the causes of illnesses, they consult the traditional healers for diagnosing their illnesses. The traditional methods of diagnosing diseases consist of customs, beliefs, and opinions practiced from one generation to another.

Consultation of an Oracle

Consultation of an oracle is a possible route to diagnose a particular ailment (especially in witchcraft) and an appropriate treatment. This act of diagnosis through oracle is used in Nigeria by some "ifa oracle" priests. These traditional practitioners throw 16 seeds (palm kernels or others) on a wooden tray and each arrangement of the seeds is characteristic of a specific "odu" or chapter in a series of poems or verses which the priest has learned during his training (Sofowora, 1982). After the throwing of the seeds, the traditional healer will then follow the directives of the oracle by performing certain sacrifices which are hoped to bring permanent recovery of the patient.

Communication through a Trance

Another form of divination for diagnosis is
communication through a trance. Traditional practitioners
possessing this ability enter into a trance as soon as a
patient arrives, or when people come to consult them about
some ancestral problem. When the traditional practitioner
is in this trance, the words spoken by the practitioner are
noted and usually the callers (patients) give a positive
sign or response to let the practitioner know whether or
not he is correctly diagnosing the problem. This ability
is used by the traditional medical practitioner not only to
identify an illness but also to prescribe an appropriate
treatment for it. In some cases the practitioner can
actually communicate with spirits in his trance. In this
case he will attempt to link up the spirit of the person
(say an ancestor) who is causing the problem for the
family. Through the practitioner, the spirit narrates what
is wrong, as well as the sacrifice necessary to appease the
gods. People with such clairvoyant ability abound even in
developed countries such as Britain (Bradley et al.,
1980).

Use of Mind-Changing Drugs

Some traditional medical practitioners use a mind-
changing drug in their diagnosis of disease. This drug

could be administered as an enema, a snuff, or orally.
After taking the drug, the patient talks freely and while
in this uninhibited state he reviews the story of his life
as well as his sickness. Some of these drugs are also used
to detect witches by making them confess whether they are
responsible for causing ill-health or fatal injury to
someone. In the process of taking (perhaps fearing death),
the witch would tell of all the people he had killed either
directly by poisoning the victim or through witchcraft
(Okpe, 1989).

Use of Astronomical Signs

The skilled traditional practitioner also uses
astronomical signs to diagnose a patient's ailment. For
example, since it is believed that some forms of insanity
are aggravated by the new moon, the appearance of such a
moon may explain a patient's restlessness (Sofowora, 1982).

Analysis of Dreams

An analysis of recurring dreams is sometimes used by
traditional practitioners to diagnose a patient's problem
and indicate the treatment needed or the sacrifices to be
made. This method of diagnosing is characteristic of some
traditional practitioners (Parrider, 1974).

Treatments Used by Traditional Healers

In traditional medicine the patients are seen as a whole and treatment is offered to restore their balance. The type of treatment offered varies and in some measure is indicative of the specialization of a particular traditional practitioner.

Internal and External Therapeutic Treatment

Traditional medicine preparations are prescribed in several forms. According to Sofowora (1982), they can be liquid (decoctions, infusions, oily mixtures, and gargles), solid (powders, kaolin, ant-heap earth, ointments, and powdered dried herbs for internal administration with hot maize pop or other drink), semi-solid (certain crude balsams, resin, and latex) or gaseous (steam inhalation preparations, and fumigations like incense).

The intravenous route of administration, which is popular in modern medicine, is conspicuously absent in the application of traditional drugs. Traditional enema for rectal application (decoctions) abound, and serve the same purpose as in modern medicine. Enemas are often given to children and babies to relieve indigestion and to serve as a tonic. It is believed that a regular bowel movement is essential to prevent childhood ailments and to improve the appetite. Adults suffering from indigestion, impotence,

sterility, or troubles caused by excess bile are also given enemas.

The equivalent of subcutaneous injections or vaccinations in modern medicine are also found in traditional medicine. Incisions are made on the skin (often to the face, chest, or ankle with a razor blade or the sharp edge of a piece of broken glass) and a powdered drug rubbed into the incision, presumably to allow direct absorption of the active constituents of the drug through the capillaries. The incisions are 1 to 2 cm long and are deep enough to cause bleeding. The drug which is rubbed into the incision is usually made by burning various herbs together giving an almost charcoal-like product. External preparations include traditional cosmetics (coconut oil and palm kernel preparations) which are rubbed into the skin.

Hydrotherapy

In traditional medicine water in the cold, hot, or vapor state is often used with the patient without other drugs for treatment. A cold bath is sometimes used as an invigorating agent for the weak patient but surprisingly not for one that is febrile, in contrast to the practice of modern medicine. Hot baths, on the other hand (with or without the addition of herbs) are prescribed for fever (the patient sweats profusely after the hot bath and this

usually bring his temperature down), arthritis, headaches, and pains all over the body, as well as for general debility. Sometimes a piece of cloth is dipped into very hot water, the water squeezed off, and the hot, damp cloth pressed onto an affected part of the body. This treatment is often used for sores, sprains, inflammations, swellings, arthritis complaints, and in particular, for a woman who has just had a baby to help in the involution of the uterus. A similar hot cloth treatment is applied to a baby's navel to accelerate healing after the remains of the umbilical cord have fallen off. This same treatment is applied to the whole of the mother's body to improve her circulation and help her to recover from the after-effects of child birth. A similar procedure is used to bathe a new born baby. This method of treatment is sometimes referred to as "hot formentution" (Sofowora, 1982).

Inhalation of steam is another form of hydrotherapy. Steam is often generated from water containing aromatic herbs. The patient covers his head and the pot containing the boiling water with a big cloth or blanket, and inhales the steam mixed with the volatile vapor from the drugs. Alternatively, the hot water (and herbs) are removed from the heat source and the steam, together with aromatic vapor, inhaled under a coverlet or blanket. The process

can be prolonged by adding more boiling water as required.
The patient is expected to inhale through the mouth. This
form of treatment is particularly indicated for common
cold, fever, bronchial congestion, and sometimes headache
which is an interesting similarity to scientific medicine.

Heat Therapy

Radiant heat form a coal fire in a coal pot or heat
generated by burning firewood are used to treat certain
ailments in traditional medicine. The heat source often
has powdered aromatic herbs or animal material such as
skin, fat, and hair added to it. This form of treatment
can be likened to infra-red massage in modern
physiotherapy (Parrider, 1974).

Integrating Traditional and Scientific
Medicine

The integration of the two major medical systems in
Nigeria has been a topic of debate for many years. It is
believed that the less expensive traditional method of
treatment could be merged with the scientific method of
treatment. Several authors have demonstrated that people
use both services freely even when scientific method of
services are available (Pearce, 1986). Research into the
active components of the traditional medicines has been

conducted for some time in the universities of Ife and Ibadan, Nigeria.

There is no official program for the integration of the traditional and scientific medicine. Any program for integration should consist of participation by the following: the traditional practitioners, the scientific practitioners, the government agencies, and the consumers. Most of the research conducted on this topic focuses only on one of the mentioned four groups. At present, fear and suspicion of the traditional healers exists among scientific practitioners because the traditional medicine men do not possess scientific knowledge and skills. Many traditional medical associations have been formed and promptly disintegrated because of disagreements between the traditional healers and the medical practitioners. Some of the most successful ones are the Nigeria Association of Medical Herbalists, the Nigerian Union of Medical Herbal practitioners, and the Nigerian Association of Traditional Medical Practitioners. While some scientific practitioners may react favorably to traditional medicine, others may be still distressed by what is viewed as the "nonscientific" dimension of traditional practices (Pearce, 1986).

CHAPTER III

METHODOLOGY

A non-experimental, descriptive study was conducted to determine the difference in the attitudes and beliefs of Nigerian students who have resided 4 years or more in the United States and those who have resided here less than one year. The procedure for the study is described according to the following: setting, population and sample, protection of human subjects, instrument, data collection, and treatment of the data.

Setting

The data were collected at 8741 Ferndale Street, Apartment 140, Dallas, Texas, during the Akwa Ibom State Association meeting. This association was chosen because it has a large Nigerian student population.

Population and Sample

The subjects for this study had the following characteristics: 19-45 and above years of age, (b) members of Akwa Ibom State Association, (c) Nigerian students who have resided in the U.S. less than 1 year and over 4 years, (d) willing to participate in the study. The sample for this study was selected from the names given to the

researcher by the president of the association during their meeting period on the 5th of December 1992. The sample consisted of 30 members of the Nigerian Akwa Ibom State Association. Of the 30 participants, 9 of them were eliminated because they did not meet the criteria for this study. Thirteen of the participants have resided in the U.S. over 4 years while 8 of them have resided in the U.S. less than a year.

In order to select subjects, the researcher surveyed the association records to find out the number of years each participant has resided in the U.S. The purpose of the study was explained to the subjects before they began to respond to the questionnaire. Subjects who did not want to participate were allowed to leave.

Protection of Human Subjects

Permission to conduct this study was obtained from the Texas Woman's University Human Subject's Review Committee (see Appendix A), and the President of Akwa Ibom State Association before the data collection began. An answer sheet with no identification of the subject was used. There was no risk to the participants. Anonymity and confidentiality of information was guaranteed to each participant. The participants were told that only the researcher and the research committee members would have

access to the data. They were told data would be destroyed after the thesis has been accepted.

Instrument

There was no appropriate instrument available for this study. The researcher developed the Attitude Belief Survey (ABS) used in this study after reading the literature written by researchers in traditional and scientific medicine (see Appendix C). This instrument was reviewed by three Nigerian doctors who received their training in Nigeria and who are practicing in Dallas for content validity. The instrument was modified according to the recommendations of the research committee. The ABS instrument consisted of 39 demographic, multiple choice, open-ended, and yes or no questions.

A pilot study using the ABS was conducted in this study to determine consistency of the instrument. A reliability coefficient of .68 was determined with Cronbach's Alpha ($\underline{r}$ = .68) formula.

Data Collection

The data for this study were collected from the Akwa Ibom State Association during their monthly meeting at 8741 Ferndale Street, Apartment 140, Dallas, Texas, during the month of December. Before collection of data, permission

was obtained from the thesis committee, the Texas Woman's University Human Subject's Review Committee, and the President of Akwa Ibom State Association. The data were collected before the meeting started on Sunday at 6 p.m. The Attitude-Belief Survey was distributed to participants individually. After the questionnaires were completed, the researcher collected them, thanked the participants, and left.

Treatment of the Data

Descriptive statistics and content analysis were used to report demographic data and subjects' other responses. BMDP Software was used to treat descriptive measures on all variables. The hypotheses of this study were tested with t-tests for significance of the statistical difference between the two groups. The .025 level of significance was used for the purpose of this study. The .025 level of significance was used because two tests were done. The .05 was divided by two tests (.05/.025) to guard against type I error.

CHAPTER IV

ANALYSIS OF THE DATA

Chapter IV is a presentation of the results of the statistical analysis of the data. The demographic characteristics of the study's participants are described and statistical analyses of the data relevant to the hypotheses are presented.

Demographic Characteristics of
the Sample

The sample of this study was 21 Nigerian students who were members of Akwa Ibom State Association. The statistics showed that 13 people who had lived in the U.S. over 4 years and 8 people who had resided in the U.S. less than 1 year were subjects in this study.

As indicated in Table 1, the Nigerian students who participated in this study ranged in age from 15-45 and above. In the 15-19 years group, 5 people (62.5%) participated in the study. None of those who had lived in the U.S. over 4 years were in the 20-24 years of age range, 2 people (25%) who had lived in the U.S. less than 1 year participated in the study while zero of the people who had lived less than 1 year participated. In the 35-44 years

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age range 7 (53.8%) of those who had resided in the U.S. over 4 years participated and only 1 of those who had lived in the U.S. less than 1 year participated in this study. In the 45 and above age group, no people less then 1 year in the U.S. participated, while 3 people (23.1%) participated in the study.

Table 1

Descriptive Statistics for Age Classification

Classification	Frequency	Percentage
15-19 years		
Less than 1	5	62.5%
More than 4	0	0.0%
20-24 years		
Less than 1	2	25.0%
More than 4	0	0.0%
25-34 years		
Less than 1	0	0.0%
More than 4	3	23.1%
35-44 years		
Less than 1	1	12.5%
More than 4	7	53.8%
45 and above		
Less than 1	0	0.0%
More than 4	3	23.1%

As indicated in Table 2, only one male (12.5%) who had lived in the U.S. less than 1 year took part in the study while 7 females (87.5%) participated. In the over 4 years group, 5 males (38.5%) were subjects in this study while 8 females (61.5%) participated.

Table 2

Distribution of Subjects by Gender

Gender	Frequency	Percentage
Less than 1 year		
Male	1	12.5%
Female	7	87.5%
More than 4		
Male	5	38.5%
Female	8	61.5%

As indicated in Table 3, 2 participants (25%) were married, 5 (62.5%) were single, and 1 (12.5%) was separated in the less than 1 year group. The more than 4 years group had 5 (38.5%) married, 3 (23%) single, and 5 (38.5%) widowed participants in this study. The subjects' distribution according to marital status indicated that a large number of single subjects were in the less than 1 year group while an equal number of the married and widowed subjects participated in the over 4 years group.

Table 3

Distribution of Subjects by Marital Status

Marital status	Frequency	Percentage
Less than 1 year		
Married	2	25.0%
Single	5	62.5%
Separated	1	12.5%
More than 4 years		
Married	5	38.5%
Single	3	23.0%
Widowed	5	38.5%

Table 4 indicates that an equal number of students, 7 freshmen 87.5% in the less than 1 year group, and 7 graduate students (53.8%) in the over 4 years group participated in the study. One sophomore (12.5%) in the over 4 years group was a subject in this study. The remaining participants were 5 seniors (46.5%) in the over 4 years group.

Table 4

Distribution of Subjects by College Classification

College classification	Frequency	Percentage
Less than 1		
Freshman	7	87.5%
Sophomore	1	12.5%
More than 4		
Junior	1	7.7%
Senior	5	46.5%
Graduate student	7	53.8%

As indicated in Table 5, 8 people (38.1%) resided in U.S. less than 1 year, while 13 people (16.90%) resided in U.S. over 4 years. More individuals who participated in this study had lived in U.S. longer than 4 years.

Table 5

Distribution of Subjects by Number of Years Resided in United States

Number of years	Frequency	Percentage
Less than 1 year	8	100.0%
More than 4 years	13	100.0%

The greatest proportion of the study's participants were Christians. In the less than 1 year group (6 or 75%) were Christians, while 8 (61.5%) in the over 4 years group were Christians. A lesser number of participants belonged to Moslem religion. There was 1 (12.5%) in less than 1 year group and 3 (23.1%) in the over 4 years group. The remaining population was neither Christians nor Moslems (Table 6).

Table 6

Distribution of Subjects by Religion

Religious classification	Frequency	Percentage
Less than 1 year		
Christians	6	75.0%
Moslem	1	12.5%
Other	1	12.5%
More than 4 years		
Christians	8	61.5%
Moslem	3	23.1%
Other	2	15.4%

The frequency with the subjects which had used traditional medicine in their life time were evenly distributed in the less than 1 year group. The 4 years or longer group had a large number of people who had used traditional medicine in one form or another. One (7.7%)

had used traditional medicine on 3 or 5 occasions, 1 (7.7%) had used it on 6-9 occasions, and 11 (84.6%) had used traditional medicine more than 10 times.

Table 7

Distribution of Participants by the Number of Times They Have Used Traditional Medicine (Question 7)

Number of occasions	Frequency	Percentage
Less than 1 year		
1-2 occasions	2	25.0%
3-5 occasions	2	25.0%
6-9 occasions	2	25.0%
more than 10 occasions	2	25.0%
More than 4 years		
1-2 occasions	0	0.0%
3-5 occasions	1	7.7%
6-9 occasions	1	7.7%
more than 10 occasions	11	84.6%

About half (7, or 53.8%) of the subjects who participated in the study said they would use traditional medicine throughout their life time. Only 6 (46.2%) said they do not know when they would quit using traditional medicine. The majority of the subjects in the less than 1 year group did not know when they would stop using traditional medicine, while 2 (25%) said they would use it throughout their life time.

Table 8

Distribution of Participants on How Much Longer They Are

Planning to Consult a Traditional Healer (Question 9)

Number of occasions	Frequency	Percentage
Less than 1 year		
1-2 occasions	2	25.0%
3-5 occasions	3	37.5%
6-9 occasions	2	25.0%
more than 10 occasions	1	12.5%
More than 4 years		
1-2 occasions	0	0.0%
3-5 occasions	2	15.4%
6-9 occasions	2	15.4%
more than 10 occasions	9	69.2%

Table 9

Distribution of Participants on How Many Occasions They

Have Consulted a Traditional Healer (Question 9)

Number of occasions	Frequency	Percentage
Less than 1 year		
Throughout lifetime	2	25.0%
I do not know	6	75.0%
More than 4 years		
Throughout lifetime	7	53.8%
I do not know	6	46.2%

Table 10 indicates that 7 (87.5%) of the less than 1 year group strongly agreed that family members slept with patients when admitted into healing homes. One (12.5%) agreed on this statement. Eight (61.5%) of the subjects in the more than 4 years group strongly agreed with this statement. The remaining 5 participants (38.5%) agreed with this statement.

Table 10

Distribution Table on Family Members Who Sleep With Patients When Admitted into Healing Homes (Question 24)

Degree of Appropriateness	Frequency	Percentage
Less than 1 year		
Strongly agree	7	87.5%
Agree	1	12.5%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%
More than 4 years		
Strongly agree	8	61.5%
Agree	5	38.5%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%

Table 11 indicates that 6 (75%) of the less than 1 year group strongly agreed that Nigerians abroad believe like those at home concerning scientific medicine. Two (25%) participants agreed with this statement while in the

more than 4 years group, 10 (76.9%) strongly agreed on this statement. The rest of the participants (3 or 23.1%) agreed with this statement.

Table 11

Distribution Table on Nigerians Abroad Who Believe Like Those at Home Concerning Scientific Medicine (Question 29)

Degree of Appropriateness	Frequency	Percentage
Less than 1 year		
Strongly agree	6	75.0%
Agree	2	25.0%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%
More than 4 years		
Strongly agree	10	76.9%
Agree	3	23.1%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%

As indicated in Table 12, all the participants (8 or 100%) in the less than 1 year group strongly disagreed that traditional medicine should be discouraged. In the over 4 years group, 8 (61.5%) strongly disagreed to this statement. The remaining participants (5 or 38.5%) disagreed that traditional medicine should be discouraged.

Table 11

Distribution Table on Nigerians Abroad Who Believe Like

Those at Home Concerning Scientific Medicine (Question 29)

Degree of Appropriateness	Frequency	Percentage
Less than 1 year		
Strongly agree	6	75.0%
Agree	2	25.0%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%
More than 4 years		
Strongly agree	10	76.9%
Agree	3	23.1%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%

As indicated in Table 12, all the participants (8 or 100%) in the less than 1 year group strongly disagreed that traditional medicine should be discouraged. In the over 4 years group, 8 (61.5%) strongly disagreed to this statement. The remaining participants (5 or 38.5%) disagreed that traditional medicine should be discouraged.

Table 12

Distribution Table on Traditional Medicine Should Be

Discouraged as It Causes Death (Question 32)

Degree of Appropriateness	Frequency	Percentage
Less than 1 year		
Strongly agree	0	0.0%
Agree	0	0.0%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	8	100.0%
More than 4 years		
Strongly agree	0	0.0%
Agree	0	0.0%
Neutral	0	0.0%
Disagree	5	38.5%
Strongly disagree	8	61.5%

Table 13 shows that 5 (62.5%) of the subjects in the
less than 1 year group strongly agreed on this statement
that scientific medicine is mainly used by the white
population. Only 1 (12.5%) agreed with this statement and
2 (25%) were neutral on this statement. The over 4 years
group had 10 (76.9%) participants who strongly agreed with
this statement. Two (15.4%) agreed with this question.
Only 1 participant strongly disagreed with this statement.

Table 13

Distribution Table on Scientific Medicine Is Mainly Used

by the White Population (Question 34)

Degree of Appropriateness	Frequency	Percentage
Less than 1 year		
Strongly agree	5	62.5%
Agree	1	12.5%
Neutral	2	25.0%
Disagree	0	0.0%
Strongly disagree	0	0.0%
More than 4 years		
Strongly agree	10	76.9%
Agree	2	15.4%
Neutral	0	0.0%
Disagree	0	0.0%
Strongly disagree	1	7.7%

Statistical Analysis

The first hypothesis stated there is no significant difference in beliefs towards traditional medicine by Nigerian students residing in U.S. less than a year and those residing in the U.S. 4 years or more. T-tests were computed and the analysis indicated that there was no significant difference in their belief towards traditional medicine between the two groups in this study. The less than 1 year group had a range of 37-46, mean (M) 40.63, Standard deviation (SD) 2.9, and Standard error of mean (SEM) 2.04. The over 4 years group had a range of

Table 15

Descriptive Statistics for Attitude

Group	Range (low-high)	$\underline{M}$	$\underline{SD}$	SEM
Less than 1 year	17 (51-68)	61.50	5.78	2.04
More than 4 years	19 (47-68)	62.54	5.53	1.51

A multivariate $\underline{t}$-test indicated that there was no significant difference in beliefs towards traditional medicine between Nigerian students residing in the U.S. less than 1 year and those residing in the U.S. over 4 years. The same test showed that there was no significant difference in attitudes towards traditional medicine between Nigerian students residing in the U.S. less than 1 year and those residing in the U.S. over 4 years (Hotelling's T^2 = .243, $\underline{F}$ = .115, $\underline{p}$ = .89.

Table 16

Multivariate Analysis of Beliefs-Attitudes

Variable	Group	$\underline{M}$	$\underline{t}$	$\underline{p}$
Beliefs	1	40.63	-0.08	.94
	2	40.77		
Attitudes	1	61.50	-0.04	.68
	2	62.54		

Note. Group 1 = less than 1 year; Group 2 = more than 4 years.

[a] Hotelling's T^2 = .243, $\underline{F}$ = .115, $\underline{p}$ = .89.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS
FOR FURTHER STUDY

The summary of the research methods and findings used
are included in this chapter. The discussion of the
results of the investigation, conclusions drawn from the
findings, and recommendations for future studies are also
included.

Summary

The purpose of the study was to develop an instrument
to determine attitudes toward traditional medicine and
scientific medicine among Nigerian students. The
instrument was used to measure attitudes of Nigerian
students who had resided in the U.S. for 1 year or less in
comparison to those who had resided in the U.S. for 4 years
or more.

The review of literature for this study dealt with
different types of traditional healers, traditional methods
of diagnosing diseases, methods of treatments used by
traditional healers, and the idea of integrating
traditional and scientific medicine.

The subjects for this study were 30 Nigerian students residing in the U.S. less than 1 year or over 4 years. A 39-item Attitude Belief Survey Questionnaire, developed by the researcher, was used. The questionnaire consisted of 9 demographic, 16 attitude, and 14 belief questions. The questionnaires were administered to the participants during their monthly meeting on the 5th of December 1992.

The null hypotheses for this study stated there would be no significant difference in the beliefs and attitudes of Nigerian students towards traditional medicine, collectively. A t-test was used to determine the significant difference between the two groups at the .025 level of significance.

Tests of Hypotheses

The null hypotheses were tested at the .025 level of significance. There were no significant differences found in this study and the results were as follows:

1. There is no significant difference between Nigerian students residing in the U.S. less than a year and those residing 4 years or more concerning their beliefs in traditional medicine. The hypothesis was not rejected.

2. There is no significant difference between Nigerian students residing in the U.S. less than a year and those residing 4 years or more concerning their attitudes

The subjects for this study were 30 Nigerian students residing in the U.S. less than 1 year or over 4 years. A 39-item Attitude Belief Survey Questionnaire, developed by the researcher, was used. The questionnaire consisted of 9 demographic, 16 attitude, and 14 belief questions. The questionnaires were administered to the participants during their monthly meeting on the 5th of December 1992.

The null hypotheses for this study stated there would be no significant difference in the beliefs and attitudes of Nigerian students towards traditional medicine, collectively. A t-test was used to determine the significant difference between the two groups at the .025 level of significance.

Tests of Hypotheses

The null hypotheses were tested at the .025 level of significance. There were no significant differences found in this study and the results were as follows:

1. There is no significant difference between Nigerian students residing in the U.S. less than a year and those residing 4 years or more concerning their beliefs in traditional medicine. The hypothesis was not rejected.

2. There is no significant difference between Nigerian students residing in the U.S. less than a year and those residing 4 years or more concerning their attitudes

towards traditional medicine. The hypothesis was not rejected.

Discussion of the Results

The results of the statistical testing of the two hypotheses showed that there were no significant differences in the beliefs and attitudes of Nigerian students residing in U.S. less than 1 year and over 4 years concerning their beliefs in traditional medicine.

Some of the descriptive findings in the study were interesting. Among them are the following: (a) a greater number of participants in general believed illnesses are caused by witchcraft, evil spirits, or enemies; (b) a greater number of participants (95%) consulted traditional healers when they got sick despite their educational background or exposure to scientific methods of treatment; and (c) all the subjects in this study (100%) believed traditional method of treatment should be utilized.

In the question, "How much longer are you planning to use a traditional healer?" half of the study sample (53.8%) responded "throughout my life time." A greater number of participants (84.6%) in the over 4 years group have used traditional medicine on more than 10 occasions. Table 7 indicated that 84.6% of the subjects have used traditional medicine more than 10 times. As indicated in Table 8,

the majority of the participants in the over 4 years group had consulted a traditional healer on more than 10 occasions on the question, "On how many occasions have you consulted a traditional healter?" In the less than 1 year group, only 1 (12.5%) of the participants had consulted a traditional healer on more than 10 occasions. On the question, "Do you prefer traditional methods of treatment?" all the participants in the less than 1 year group preferred traditional methods of treatment. The majority of the subjects in the over 4 years group preferred traditional methods of treatment. Of the less then 1 year group, the majority of the participants in the study strongly agreed that family members slept with their patients when admitted into a healing home. Only one of the participants disagreed on this question. More than half of the respondents strongly agreed that "Nigerians abroad believe like those at home concerning scientific medicine." A majority of the respondents in the over 4 years group strongly agreed on this question while three of the participants were neutral. Due to the high response to this question, this confirms the statement that despite the exposure of Nigerian students to scientific methods of treatment abroad, their beliefs still remain the same.

All of the participants in the less than 1 year group (100%) believed traditional medicine should not be discouraged. Many participants in the over 4 years group strongly believe it should not be discouraged, while the remaining subjects in the over 4 years group believe it should not be discouraged.

As mentioned in the review of literature, many of the Nigerians used traditional medicine. The responses to the question, "Scientific medicine is used mainly by the white population," were as follows: more than half of the subjects in the less than 1 year group strongly agreed, one of the respondents agreed, and two of the respondents disagreed. The majority of the respondents in the over 4 years group strongly agreed, two of the participants agreed, and only one respondent disagreed.

All the respondents (100%) in the less than 1 year group believed that traditional healers consult oracles to determine if a disease is curable or not. In the over 4 years group, the majority of the participants strongly agreed on this, while a few disagreed on it. The greater proportion of the respondents in the over 4 years group and in the less than 1 year group strongly agreed that traditional medicine is passed from one generation to another. The remainder of the respondents in the less than

1 year group and in the over 4 years group agreed. The
greatest percentage of respondents in both groups, 76.9% in
the over 4 years group and 62.5% in the less than 1 year
group, strongly agreed to the question, "Belief is
difficult to change." The remaining respondents, 23.1% in
the over 4 years group and 37.5% in the less than 1 year
group, agreed to this question. A total of 62.5% of the
respondents on the statement, "preventive medicine is part
of scientific medicine," strongly agreed to this question
and 37.5% agreed to this question in the less than 1 year
group. In the over 4 years group, 61.5% strongly agreed on
this, 30.8% of the respondents in this group agreed, while
the remaining percentage (7.7%) disagreed to this question.

The reason the researcher believes there is no
significant difference in the beliefs of the two groups in
this study is due to the following:

1. Many Nigerian students belong to different tribal
associations. In these associations they practice their
different Nigerian beliefs, culture, and customs.

2. The selected Nigerian students used as subjects in
this study were born in Nigeria. They still maintain the
traditional beliefs and attitudes. Only the responses of
second generations of Nigerians (those born in the United
States or other advanced countries) may make the results of

this study change in the future. These subjects would probably be persons between the ages of 15-19 years, who were born in the U.S., or had been in the U.S. the majority of their lives.

Conclusion

According to the research findings and within the limitations of this study, the following conclusion has been drawn:

There are no significant differences in the beliefs and attitudes of Nigerian students who resided in the U.S. less than 1 year and those who resided in the U.S. over 4 years concerning their beliefs in traditional medicine.

Recommendations

As a result of this study, the investigator recommends the following for further research:

1. Replication of this study in another Nigerian Association.

2. Replication of this study using a larger sample to support the results of this study.

3. Replication of this study in Nigeria with those who had traveled out of Nigeria and those who had never traveled out of Nigeria.

4. Replication of this study in educational institutions of higher education both in the U.S. and in Nigeria.

5. Replication of this study with participants from other cultures.

6. Replication of this study with participants who are not students.

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APPENDIX A

Approval Letter for Human Subjects

Review Committee

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON

OFFICE OF RESEARCH AND GRANTS ADMINISTRATION
P.O. Box 22939, Denton, Texas 76204-0939 817/898-3375

HUMAN SUBJECTS REVIEW COMMITTEE

December 2, 1992

Minika Edet Ekpenyong   Social Security #: 454-57-9314
P.O. Box 165784
Irving, TX 75016

Dear Minika Edet Ekpenyong:

Your study entitled "Beliefs and Attitudes Related to Traditional and Scientific Medicine Among Nigerians Residing in the United States: A Comparative Study" has been reviewed by a committee of the Human Subjects Review Committee and appears to meet our requirements in regard to protection of individuals' rights.

Be reminded that both the University and the Department of Health and Human Services (HHS) regulations typically require that signatures indicating informed consent be obtained from all human subjects in your study. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to HHS regulations, another review by the Committee is required if your project changes.

Special provisions pertaining to your study are noted below:

_X_   The filing of signatures of subjects with the Human Subjects Review Committee is not required.

_X_   Your study is exempt from further TWU Human Subjects Review.

___   No special provisions apply.

Sincerely,

Chairman
Human Subjects Review Committee

cc: Graduate School
      Dr. Roger Shipley, Health Studies
      Dr. William Cissell, Health Studies

APPENDIX B

Letter of Permission

AKWA IBOM STATE ASSOCIATION
P.O. BOX 821594
DALLAS, TEXAS 75382-1594

November 11, 1992
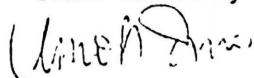
Minika Ekpenyong
P.O Box 165784
Irving, TX. 75016

Dear Ms. Ekpenyong:

On the 1st of November 1992, following your discusion with me over the phone about using our Association to administer your questionaire, I hereby grant you permission.

You may use this Association during any of our monthly meetings to administer your questionaire.

If I may be of any further assistance to you, please let me know. I wish you the best of luck in your studies.

Yours Sincerely

Umoh Isuo

PRESIDENT: Umoh Isuo VICE PRESIDENT: Sunday Uwah
SECRETARY: Anietie Edohoukwa: FIN SEC: Enefiok Ntuk
TREASURER: Patrick Antia SOC SEC: Sam Ekpenyong

APPENDIX C

Attitude Belief Survey

Attitude-Belief Survey

This questionnaire was designed specifically for this study. The questions included were developed by the researcher after reading the literature written by researchers in traditional and scientific medicine. These questions were designed to determine Nigerian students' attitudes as compared to scientific medicine.

Answer all the questions by circling the letter at the left of the response you consider to be the correct answer. Your answers will be kept strictly confidential. Please answer all questions. Completion of the questionnaire indicates your voluntary participation in the study.

1. What is your age?
   (1) 15-19 years
   (2) 20-24 years
   (3) 25-34 years
   (4) 35-44 years
   (5) 45 and above

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

3. What is your marital status?
   (1) Married
   (2) Single
   (3) Divorced
   (4) Separated
   (5) Widowed
   (6) Other (specify) _____

4. What is your college classification?
   (1) Freshman
   (2) Sophomore
   (3) Junior
   (4) Senior
   (5) Graduate Student
   (6) Other (specify)_____

5. How long have you resided in the United States?
   (1) Under 1 year
   (2) 1-2 years
   (3) 3-4 years
   (4) Over 4 years

6. What is your religion?
    (1) Christian
    (2) Moslem
    (3) Other (specify)_____

For questions 7 and 8 circle the numbers which indicate the
frequency of your opinion on the following questions. The
opinions are numbered on a 1-5 scale.

7. On how many occasions have you used traditional
    medicine?
    (1) Zero occasions
    (2) 1-2 occasions
    (3) 3-5 occasions
    (4) 6-9 occasions
    (5) More than 10 occasions

8. On how many occasions have you consulted a traditional
    healer?
    (1) Zero occasions
    (2) 1-2 occasions
    (3) 3-5 occasions
    (4) 6-9 occasions
    (5) More than 10 occasions

9. How much longer are you planning to use a traditional
    healer?
    (1) 1-2 more years
    (2) 3-5 more years
    (3) 6-9 more years
    (4) Throughout my lifetime
    (5) I do not know

10. What do you believe is the cause of sickness in man?
    (a) Natural causes
    (2) Witchcraft
    (3) Evil spirit
    (4) Enemies

11. Where do you go for treatment when you get sick?
    (1) Hospital
    (2) Church
    (3) Traditional healer
    (4) None of the above

12. What method of treatment do you believe should be utilized?
    (1) Traditional treatment
    (2) Scientific medicine
    (3) Neither

13. What method of treatment do you consider to be more effective?
    (1) Traditional
    (2) Scientific medicine
    (3) Neither

14. Does any member of your family believe in traditional medicine?
    (1) Yes
    (2) No

15. Do you refuse scientific medical treatment?
    (1) Yes
    (2) No

    If yes, which of the following is the major reason:
    (1) It is expensive
    (2) Patient waits too long to see a doctor
    (3) Hospital does not treat patients with no insurance
    (4) Nurses are rude
    (5) Other reasons_____

16. Do you prefer traditional methods of treatment?
    (1) Yes
    (2) No

    If yes, why?
    (1) It is less expensive
    (2) Traditional treatment is effective
    (3) Hospital could not treat my sickness
    (4) They drive away evil spirits
    (5) Other reasons_____

17. How often do you go for scientific medical check-ups?
    (1) Once a year
    (2) Only when sick
    (3) As last resort
    (4) Never

18. Will you encourage your children to use traditional
    medicine?
    (1) Yes
    (2) No

19. When you were a child, did you remember ever being
    taken to the hospital?
    (1) Yes
    (2) No

Please indicate to what degree the following statements are
appropriate regarding your beliefs in traditional medicine
by circling a response to each statement. The letters
stand for Strongly Agree (SA), Agree (A), Neutral (N),
Disagree (D), and Strongly Disagree (SD). Space has been
provided for your comments, if any, at the end of the
questionnaire. Thank you for your participation.

20. The way that Nigerians
    were brought up plays a
    part in choosing between
    scientific or traditional
    medicine.   SA   A   N   D   SD

21. Traditional medicine is
    easily accessible.   SA   A   N   D   SD

22. Traditional medicine does
    not need sophisticated
    equipment.   SA   A   N   D   SD

23. Poor households make more
    use of traditional healers
    than the rich households.   SA   A   N   D   SD

24. Family members sleep with
    patients when admitted into
    healing homes.   SA   A   N   D   SD

25. Traditional treatment is more
    popular among Nigerians than
    scientific medicine.   SA   A   N   D   SD

26. Early acquaintance with
    hospitals can change
    beliefs.   SA   A   N   D   SD

27. Scientific medicine works in an area where traditional medicine cannot.   SA   A   N   D   SD

28. Belief deals with the act of mind.   SA   A   N   D   SD

29. Nigerians abroad believe like those at home concerning scientific medicine.   SA   A   N   D   SD

30. Scientific medicine has no proof to be better than traditional before Nigerians change their beliefs.   SA   A   N   D   SD

31. Scientific medicine cures only symptoms, not the disease that causes them.   SA   A   N   D   SD

32. Traditional medicine should be discouraged as it causes death.   SA   A   N   D   SD

33. Evil spirits help to cure illness.   SA   A   N   D   SD

34. Scientific medicine is mainly used by the white population.   SA   A   N   D   SD

35. Traditional healers can consult an oracle to determine if a disease is curable or not.   SA   A   N   D   SD

36. Certain diseases are treated with traditional medicine.   SA   A   N   D   SD

37. The art and practice of traditional forms of treatment are passed from one generation to another in the same family.   SA   A   N   D   SD

38. Traditional belief is difficult to change.   SA   A   N   D   SD

39. Preventive medicine is part of scientific medicine.   SA   A   N   D   SD

Write any comments or thoughts regarding the statements above in this space: