HEALTH RELATED LIFE STYLE OF URBAN AND RURAL FULANI IN KADUNA STATE

BY

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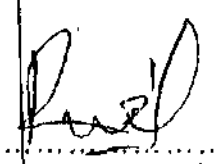
DECLARATION

I hereby declare that this thesis has been written by me and it is a record of my own research work. It has never been submitted elsewhere for the award of any higher degree or diploma. All the literature consulted in the course of this study have been duly acknowledged through references.



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CERTIFICATION

This thesis entitled Health Related Life Style of Urban and Rural Fulani in Kaduna State by Rose N. Agbaoso has been read and approved as meeting the required standard for the award of Masters Degree in Health Education.

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ABSTRACT

The study was aimed at examining the Health Related Life Style of urban and Rural Fulani in Kaduna State. Bearing in mind that Fulani as a people that cling tenaciously to their original culture and appear to resist change. The Fulani who had moved to urban areas or had one form of urban influence or the other could not resist some degree of change posed by urban influences. Differences between these two groups therefore, are believed to be reflected in tneir lifestyles under tne following seven variables. Household size, health attitudes and cultural beliefs, health status, types of food and drink, drinking (alcohol) habits, smoking (cigar, pipe, cigarette) and types of food and drink physical activity.

A total of 500 Fulani in Kaduna State were selected at random, to serve as respondents in this study. Out of these, 250 were Urban Fulani and the remaining 250 were rural Fulani. Out of 400 respondents that returned the questionnaire, 297, were males and 103 females. Data were analysed using chi square 'sta:istics and students' t. test was used for quantitative differences between the two groups. All the seven hypotheses were tested at 0.05 level of significance

Finding from the Study Revealed

1. Significant difference between urban and rural Fulani of Kaduna State in their household size.
2. Insignificant difference between urban and rural Fulani of Kaduna State in their

health attitudes and cultural beliefs.

3. Insignificant difference between urban and rural Fulanis of Kaduna State in their health status
4. Insignificant differences between urban and rural Fulanis of Kaduna State in their types of food and drink
5. Insignificant differences between urban and rural Fulanis of Kaduna State in their drinking (alcohol) habits
6. Insignificant differences between urban and rural Fulanis of Kaduna State in their smoking (cigar, pipe, cigarette)
7. Insignificant differences between urban and rural Fulanis of Kaduna State in their physical activity

Based on the findings of the study recommendations were made aimed at reducing the health related problems of Fulani. Other areas for future research were also recommended.

Aggregate effect of these recommendations would definitely create a new Fulani community.

DEDICATION

To the most high God for his love, provision, sustenance, guidance and encouragement and to my late father Felix O. Agbaoso whose sufferings and love got me started in life.

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OPERATIONAL DEFINITION OF TERMS

Lifestyle: Ways of life of a particular ethnic group. The ethnic group referred to in this study were Fulani.

Rural Fulani: Fulani who are mainly nomads and live in villages.

Urban Fulani: Fulani who live in towns and cities.

Health: *Is relatively perfect condition where one is free from* disease

Diet: Particular types of food regularly eaten by a community.

Social Behaviours: *Conducts acceptable to members of a particular* Community.

Social Habits: Acquired practices resulting from a person's experience.

Cultural Beliefs: Norms and traditions held by members of an ethnic group.

Household: Number of persons living in a house/hut as a family

Nomads: Members of Fulani tribe that move from place to place looking for pasture to graze their animals.

Ethnic Group: A group of people that share the same tribe, culture, language and lifestyle.

Adult: A person from the age of (15 and above)

CHAPTER ONE

INTRODUCTION

1.1 *Background of the Study*

In the course of the development of the Fulani as an ethnic group, two groups - the Sedentary and Nomadic Fulani, had emerged. Fulani migrated to Hausa and Borno regions from the area around the Senegal River valley about 13th century A.D. At present, they number about five million people (Tahir, 1983), although they are concentrated in the northern states of Nigeria.

The nomadic Fulani are a group of community of people who move from one place to another in search of livelihood for themselves and their animals. In the Nigerian economy, they play a significant role. For example, they own about 95 percent of the estimated 12 million of cattle in Nigeria (Aminu, 1986). They provide the nation with milk, meat, hides and skin, and various animal products, most of which are essential for a balanced diet of the inhabitants of this country. They show reluctance to combine crop with animal production. Possession of cattle is a sign of wealth and social position in Fulani community. Their lives are controlled by the needs of their cattle. While herds size remains the sole aim, the sedentary Fulani, because of their settled mode of life, have often cultivated land and sought for koranic and western education.

The Fulanis' main farm produce are vegetables, millet, guinea corn, maize, beans, rice

and others. While consumption pattern is low, their staple food items consist mostly of mixed milk, porridge, and 'tuwon', cheese, grains, and meat. Some of the urban Fulani engage themselves in other occupations such as weaving, dyeing, and salt making (Abubakar, 1979:112).

Culturally, most of the marriages being practised by nomadic or rural Fulani as well as urban Fulani are polygamous and endogamous. In polgamous marriage a man marries more than one woman. In endogamous marriage, marriages are conducted between propergating in breeding. In Fulani social system, young men and women are brought up to accept the different roles assigned to them by their culture. As indicated by Ezeomah (1983) in the "Kumen Myth", it is the duty of any young man to seek for the knowledge, skills and secrets of herdsmanship. He must prepare himself, as in "Sharo" game to face the challenges of all the rigour imposed by herding and the security of the Fulani group. In general, like in the tradition of "Kumen", he is not only regarded as the repository of knowledge and secrets for effective herding, but also as a participant in initiating other young men through the stages of manhood.

'Pulaaku' (Fulbeness) is the nomadic fulbe traditional rite, which is the basis of morality and code of conduct (Ezeomah, 1983). 'Pulaaku' is characterised by such characteristics as modesty, reserve/restrain and patience and fortitude. These characteristics or qualities are associated with the following organs of the body:

(a) belly - for place of secrets, origin of shame

(b) heart - for place of patience and fortitude

(c) head - for repository of care and forethoughts, courage, attractiveness, hunger, fear, sex, anger, revenge, sorrow and other emotions.

The qualities are learnt through observation of and participation in the game of 'sharo'. The game of 'sharo' involves a contest between two men, in which one man flog the other man to test his endurance in bearing pain. The watching wman would then select the man with greater endurance as the husband. The language spoken among Fulanis is fulfulde and religion widely practised by Fulanis are Islam and traditional doctrine.

Most Fulani lack basic education and those who are educated move to the towns to look for "white collar" jobs, ranging from security guards and general construction workers to top office workers. This has significantly changed their traditional lifestyle of herding and farming.

Nonetheless, the lifestyle of any country or society attests to their way of life, or mode of life or culture of that particular society or people. (Jenks, 1993) Thus, the lifestyle of any society is reflected in the mode of behaviour, habits, diet, dressing, language etc of its people. Within the confines of developed countries, social theory of lifestyle has been understood as ways of life of a people, their beliefs, rituals, and customs. It is seen as what people collectively 'do' in their different ways in different places and different times. (Jenks, 1993).

In the Western industrialized countries, the conflicts of culture, and mode of life are not by products of poverty and its consequences. But they are the result of the socio-economic consequences of industrial society. This include rich diet, mode of dressing, cigarette smoking and sedentary habit.

Contemporary lifestyles, especially in urban areas, which are predominantly sedentary play a significant role in the incidence of many diseases, often called "the diseases of civilization". e.g. obesity, rheumatism and gout. However, presence of scoial amenities, such as electricity, pipe-borne water, education, health clinics etc. In urban areas, and the desire for a better quality of life attract rural Fulani to migrate to urbn areas.

Urbanization has its own socio-economic consequences, like increased unemployment and underemployment. Tensions, contradictions and increasing disadvantages often arise from urbanization. It has its unique ways of living, often characterized by inadequate basic services and increased congestion and pollution (Salvatore, 1988). Bearing in mind that Fulani as a people tend to cling tenaciously to their original culture and appear to resist change, those, who had moved to the Urban areas or have had one form or the other of urban influence could not resist some degree of change posed by urban influences. Thus, the logical categorization of the Fulani into rural and urban Fulani becomes inevitable. Differences between these two groups therefore, are believed to be reflected in their lifestyles under the following seven variables: household size, health attitudes and cultural beliefs, health status, types of food and drink, drinking (alcohol),

smoking (cigar, pipe, cigaratte) and physical activity.

1.2 STATEMENT OF THE PROBLEM

National Commission for Nomadic Education, Kaduna revealed that Fulani with little education as well as the educated, had moved to urban areas in Kaduna State, to look for jobs. This mass migration resulted in decreased food production in the villages and overcrowding in the towns. Some of these migrant Fulani appear to have adopted some new lifestyle while others still keep to their original lifestyles. The urban pressure created by the factors resulting from heterogeneity of urban centres in Kaduna state seems to cause changes in their behaviour, belief system, norms, and values which appear to enstrange them from their associates in the villages (Gilbert and Gugler, 1987).

Changes in lifestyles of Fulani associated with urbanization have positive consequences for health and socio-economic development. However, overcroding in Urban areas has negative consequences for healthful living, adequacy of social amenities and sanitation. Similarly, positive outlook and progressive lifestyles characterised by scientific technology promote health development, while negative outlook and retrogressive lifestyles characterised by rigidity to change with the development of technology restrict promotion of health and social-economic development.

The rural Fulani, however remain culturally pastoral. Their agrarian practices are out of mode and archaic resulting in low productivity and living standards. Their nomadic

way of life deprives them of enjoying basic amenities such as good drinking water, health care facilities, electricity and education. The conditions of their dwelling places are temporary and scattered, creating difficulty in the provision of organised community services such as waste disposal, control of disease vectors, and similar services. There is overcrowding and human beings often live under the same roof with domestic animals. Infact, because of their way of life, there is a tendency for them to suffer from multiple infections and infestations. Ignorance and resistance to change due to cultural background have led to poor personal hygiene, nutrition, poor dietary habits, and lack of general education. Their health services are mainly traditional and so not adequate. Consequently, they could experience high mortality rate from communicable diseases like malaria, gastro-enteritis, meningitis, pneumonia, measles as well as malnutrition (mshelia, 1995).

The present study, therefore, was conducted to address the following issues on the lifestyles of fulanis in Kaduna State:

(1) the household size of urban and rural Fulani

(2) the health attitudes and cultural beliefs of urban and rural Fulani

(3) the health status of urban and rural Fulani

(4) the types of food and drink of urban and rural Fulani

(5) the drinking (alcohol) habits of urban and rural Fulani

(6) the smoking (cigar, pipe, cigarette) of urban and rural Fulani

(7) the physical activity of urban and rural Fulani.

1.3 BASIC ASSUMPTIONS

On the basis of available research literature, professional opinion and the personal experience of the researcher, the following assumptions were made for this study:

a) Migration from rural to urban areas affects life style

b) People from rural and urban areas differ in their cultural beliefs

c) There are significant differences between urban and rural Fulani in their health seeking behaviour.

1.4 HYPOTHESES

In attempting to determine the differences between the urban and rural Fulanis in their lifestyles, the following hypotheses were generated for the study.

1. There is no significant difference between urban and rural Fulani of Kaduna State in their household size.
2. There is no significant difference between urban and rural Fulani of Kaduna State in their health attitudes and cultural beliefs.
3. There is no significant difference between urban and rural Fulani of Kaduna State in their health status.
4. There is no significant difference between urban and rural Fulani of Kaduna State in their types of food and drink.
5. There is no significant difference between urban and rural Fulani of Kaduna State in their drinking (alcohol) habits.
6. There is no significant difference between urban and rural Fulani of Kaduna State

in their smoking (cigar, pipe, cigarette) habits.

7. There is no significant difference between urban and rural Fulani of Kaduna State in their physical activity.

1.5 OBJECTIVES OF THE STUDY

This study was conducted to achieve the following objectives:

1. To determine the household size of urban and rural Fulani in Kaduna State
2. To find out the health attitudes and cultural beliefs of urban and rural Fulani in Kaduna State.
3. To determine the health status of urban and rural Fulani in Kaduna State.
4. To find out the types of food and drink of urban and rural Fulani in kaduna State.
5. To determine the drinking (alcohol) habits of urban and rural Fulani in Kaduna State.
6. To determine the smoking (cigar, pipe, cigarette) habits of urban and rural Fulani in Kaduna State.
7. To find out the physical activity of urban and rural Fulani in Kaduna State.

1.6 SIGNIFICANCE OF THE STUDY

There has been consistent increase in the migration of Fulani from rural areas to urban centres.(salvatore, 1988). This migration has transformed the lifestyle of Fulani in urban centres, especially in their dietary patterns, behavioral patterns, and beliefs. However, very few studies have been reported on the changing lifestyle of urbanised Fulani. As the main purpose of this study is to find out the differences between the lifestyles of

urban and rural Fulani, its result would contribute to the understanding of the different aspects of lifestyles of these Fulani that are affected by urbanization.

The result of the study would reveal the differences of urban and rural Fulani in Kaduna State in their health attitudes and cultural beliefs, health status, types of food and drink, drinking (alcohol) habits, smoking (cigar, pipe, cigarette) and physical activity. Further, this study would bring to light those aspects of lifestyles that are those of fulanis that are affected by urbanization, which may be investigated in future.

The findings of the study would be useful especially to the National Commission for Nomadic Education Kaduna, the Women Commission and Kaduna State Government and Family Support Programme.

The findings of this study would be useful to the National Commission for Nomadic Education in its attempt to integrate Fulani in its educational programme to nomads so as to improve their health habits and lifestyles. The Women Commission and Family Support Programme would find the study useful for its campaign to educate, socialise, and enlighten nomadic women on their health and welfare, while the Kaduna State Government would find the study useful in its attempts to reduce mortality rate among its Fulani ethnic group by improving their health and welfare.

This study will reveal the role that lifestyle plays in healthful living and socio-economic development. Further it would bring to light the benefits that Fulani can gain by adapting to active and healthy lifestyle.

1.7 DELIMITATIONS

This study was delimitated to the following:

1. Differences between rural and urban Fulani only in their lifestyle; household, size, health attitudes and cultural beliefs, health status, types of food and drink, drinking habits, smoking and physical activity were studied in this investigation.
2. The study involved fulanis from rural and urban areas of only Kaduna State.

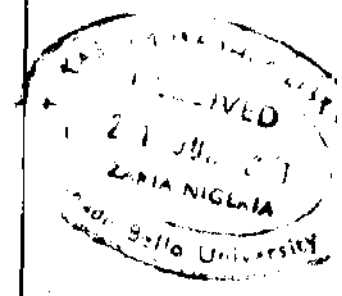
1.8 LIMITATIONS

The following respects, which will be considered in the interpretation of its results:

1. This study used questionnaire as its instrument to collect the information require for the study because the responsdents were widely dispersed. As most of the respondents on whom the questionnaires were administered were illiterates, a translator was used to interpret its statement of the questionnaires to the respondents.

2. The sample size for this study was determined on the basis of the population census for 1972 in Kaduna State, according to which the population of Fulani in Kaduna State was 10,000 (Ministry of Finance and Economic Planning, Kaduna). As there was no ethnic stratification in the 1991 and most recent population census, it was not possible to get the population size of Fulani in Kaduna State from this census. However, it is possible that they were more as there has been considerable population growth in Nigeria since the last census.

CHAPTER TWO



REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

The purpose of this chapter is to review the literature that is related to health problems in rural and urban areas. The chapter reviews literature on differences between rural and urban dwellers, diet in relation to health, social behaviour and habits in relation to health, and cultural beliefs in relation to health.

2.2 DIFFERENCES BETWEEN RURAL AND URBAN DWELLERS

According to Gilbert and Gugler (1987) some rural areas were exploited to the point that the living conditions of their populations declined. Elsewhere specific groups experienced pauperization. But, for most rural dwellers, living conditions improved in terms of better health and longer life. The change was usually dramatic. Today many rural dwellers have realized the good life in towns and cities. Some of the rural people improve their condition by staying in rural areas or by moving to other rural areas, as farmers, traders, or artisans. But for many rural dwellers, rural prospects appear dim and the urban scene appears more promising. Cities are centres of power and privilege (Gilbert and Gugler, 1987). This statement holds throughout the third world today. In a survey of street occupations in Djakarta in 1972, Papanek (1975) reported that most of those interviewed could barely feed their families; the very poor could manage only because they were single. However, those in the poorest trades reported that they were better off than they had been in the rural areas. In a survey of squatter settlements in

Delhi in 1973-4, 54 percent of household heads were reported to be employed as casual labourers. They found work for only 240 to 260 days a year on the average, but this was more than twice the working days they had in the village. And while their wages were low, their average earnings over the years were two and a half times what they couldhave earned in the rural areas (Majumdar, 1978). Available literature emphasis that evaluation of the rural - urban balance must take into account the public amenities in both areas. Urban areas, especially major cities, offer more and better facilities than their rural hinterlands and afford better quality education, and training for the migrant children in particular. Pipe borne water assures clean water and frees women from the drudgery of fetching water over long distances. Expert medical care and drugs are available. Electricity replaces the kerosine lamp and the open fire. Some migrants even move into subsidized housing. Rural - urban differences can also be assessed by the health of the people. Health and life are universal values that are held in high esteems in all cultures. Mortality rates are higher in rural areas than in urban areas.

2.3 REASONS FOR RURAL - URBAN MIGRATION

The great majority of people move for economics reasons. Migration streams between regions can be shown to correspond to income differentials between those regions. With time, as economic conditions at alternative destination change, migration streams switch accordingly (Gilbert and Gugler, 1987).

Migration entails, economic, frequently psychological costs and a substantial risk much of the time. Migration is hardly a solitary affair. Potential migrants do not weigh their decision in isolation, rather, they are members of groups such as family, local

community, classmates that evolve patterns of behaviour modified over time as experience dictates. In a sample of blue-and white-collar workers who had moved to Bombay, over three-quarters had one or more relatives living in the city. More than half gave this as an important consideration for coming to Bombay rather than to another city. Nine out of ten reported that they had been assisted by relatives or friends on their arrival; about two-thirds received free accommodation and food, and two-thirds of the blue-collar workers and over one - third of the white-collar workers acknowledged help in finding a job (Gore, 1971). In some cases, potential migrants can afford to wait in the village until their urban contacts signal a job opportunity (Shaw, 1975).

Extended families usually constituted the central elements in such net-works. Relatives are most likely to assist in paying school fees and expenses for uniforms and books, to provide a home for children who have been sent to town to pursue their education, to offer the newly arrived migrant shelter and food for a while. The extended family can be seen as an agent of urbanization in many parts of sub-Saharan Africa and India as asserted by (Flanagan, 1978); Gone are the days when elders disapproved of the young men 'running away' and they literally had to abscond at night (Skinner, 1965). Today, migration is an accepted behaviour virtually everywhere, and frequently the remittances of migrants furnish villagers with what for them are the luxuries of life. In some cases, and notably in Southern Africa, rural areas have become dependent for survival on the earnings passed on to them from urban areas (Gilbert and Gulgler, 1987).

Other reasons for rural-urban migration are droughts, earthquakes, cyclones, volcanoes or floods which pose threats of hunger and disease in their wake and wars which bread

refugees who invariably migrate to urban areas. Many people migrate from rural areas on the grounds of diseases and inadequate or absence of medical facilities. The cities and towns, on the other hand, have several medical facilities including pharmaceutical shop and patent medicine stores. The perception of many people generally is that it is safer, health-wise to live in urban areas than in the rural areas.

2.5 HEALTH PROBLEMS OF RURAL AND URBAN DWELLERS

The urban migrants appear to have well balanced and nourishing meals while in urban centres, but lose an average of 10 percent of weight within two months of returning to their villages. The reverse is also the case as some urban migrants, who because of high cost of living in urban centres afford only one meal a day, lose weight (Tamawa, 1981). Tamawa further stated that the most common dietary deficiency disease in Kano rural areas is Kwashiorkor, which primarily affects children during and after weaning up to the age of six years. He stated that hospitalization of the children could have been prevented by providing a minimum of one-third of a pint of milk daily. He further reported that approximately 2 percent of Kano children, between the ages of two and six, are affected by malnutrition. Protein foods, such as meat, eggs and milk, are not consumed in sufficient quantities. Failure to give breastfed infants in many villages any food supplement before nine to twelve months of age, the incidence of rice water, corn-starch or even sugar water provided as weaning food, and the variety of taboos surrounding feeding young children with eggs are common practices which cause malnutrition. Most of these essential foods are produced in rural areas but are sent to the urban areas to sell for cash, while the producers themselves live on poor food, mostly carbonhydrates. The causes of many charms, ceremonies and proprietary medicine are

superstitious beliefs. (Tamawa, 1981).

Writing on the health problems in rural areas in Nigeria in general and Opara Inland, Delta State in particular, Ohwona (1981) suggested that rural communities need good food, education in basic personal hygiene, and environmental sanitation. He advocated preventive health care as the answer to the health problems of the people. He stated that preventive health measures will increase life expectancy, reduce mortality and increase the overall output of the population, thus benefiting not only rural communities but the nation as a whole.

Abubakar (1981) also reported that rural dwellers in Funtua find it difficult to obtain nourishing food. He reported that the Ministry of Agriculture was aware of the problem and attributed it to the poor economic status, the lack of modern farming techniques as well as lack of diversification into area such as livestock and poultry rearing. He also reported that Department of Agriculture was making an effort to encourage people in Funtua to grow and eat such cheap protein foods as beans and egg in order to substitute for the meat which the majority could not afford. Due to lack of educational publicity, the farmers remain ignorant and generally, instead of eating the nourishing food they produce for themselves, they take and sell all kinds of protein-rich products - eggs, chickens and beans, in the urban markets and with the cash obtained they buy instead starch foods (rice, gari etc) for their own consumption.

The major causes of morbidity and mortality in Nigeria according to the Nigerian Health Services Panel (1976) are:

- infections and parasitic diseases;
- defective nutrition
- maternal morbidity and closely spaced and too frequent pregnancies;
- infant mortality due principally to poor nutrition and the lack of health care and other social services;
- the general poor social, environmental and economic conditions. (Abdulkadir, 1981).

Describing the rural health problems in Nigeria with particular reference to Plateau State, Nyako (1981) observed that "too few sleeping places for too many people results in overcrowding, especially acute at bedtime; the design of most houses renders them inadequately ventilated. This, plus generally unhealthy surroundings - human and animal faeces, rotten food, unswept floors and walls, etc invites lots of flies and when the flies do not reach uncovered food at night, there are rodents and cockroaches that will".

He further noted that rural health problems are extensive, whether their origins are socio-cultural, environmental or economic. Rural conditions can result in many other diseases in addition to the common ones in communities - malaria and diarrhoea. Cases of bilharziafilariasis, guinea worm and tuberculosis are common.

Despite the many health problems in rural areas pointed out by many of the writers reviewed, urban areas too have their own health problems. The present study will examine health problems in rural and urban areas of Kaduna State as they affect the health of Fulanis.

2.5 DIET IN RELATION TO HEALTH

Food plays more than the nutritional role that it is associated with. In virtually all human societies, it plays many roles and it is associated with the social, religious, and economic aspects of everyday life. In these societies, food has symbolic meanings, both expressing and creating the relationships between man and man, man and his deities, and man and the natural environment (Helman, 1984).

Anthropologists have stated that cultural groups differ in their dietary beliefs and practices. For example; what is regarded as food in one society may not be food in another society. There are also variations in how food is cultivated, harvested, prepared, served and eaten. Each culture has its clearly defined rules as to who prepares and serves the food and to whom, which individuals or groups eat together where, and on what occasions, the consumption of food takes place, the order of dishes within a meal, and the actual manner of eating the food. All these stages of food consumption are based on cultural practices. (Helman, 1984).

The Fulanis of Nigeria have their dietary beliefs and practices which distinguish them from other ethnic groups in Nigeria.

Food plays a central role in the daily life of people particularly in social relationships. Therefore dietary beliefs and practices are very difficult to change even if they interfered with adequate nutrition (Helman, 1984). However, before these beliefs and practices can be modified or improved, it is important to understand the way that each culture views its food, and the way that it classifies it into different categories. Helman (1984)

identifies five types of food classification systems although it is important to point out that several of them usually co-exist within the same society. They are:

(1) definitions of "food" versus "non-food"

(2) 'sacred' versus 'profane' foods

(3) parallel food classifications

(4) food used as medicine and medicine as food, and

(5) social foods (which signal relationships, status, occupation, gender or group identity).

These classifications are significant clinically in that they may severely restrict the types of food stuffs available to people and that diet may be based on cultural, rather than nutritional criteria. These classifications are reviewed below individually.

2.6 'FOOD VERSUS' 'NON-FOOD'

Each culture usually defines the substances which are edible and which are not although this definition leaves out substances which have nutritional value. Helman (1984) reported that in Britain, for example, snakes, squirrels, dogs, cats and mice are all edible, but are rarely classified as "food". In France, snails and frog's leg are "food", but usually not so in Britain. Historical association may also influence the definition of substances as "non-food". For example, Jelliffe (1967) suggest that the spleen is rarely eaten in Britain, because, in the ancient Galenic humoral system, it was the prime seat of the 'melancholic humour'. Definitions of what is edible and what is not tend to be flexible, especially, during famine, economic deprivation and foreign travel. Regardless of their origins, classifying a substance as 'non-food' on cultural grounds may leave out

nutrients that are useful to the body from the diet, and this appears to be a phenomenon that exists in many cultures. No group as stated by Foster and Anderson (1978), even under conditions of starvation, utilizes all available nutritional substances as food. This present study examined substances that Fulanis classify as non food but which are nutritious and useful to the body.

2.7 'SACRED' VERSUS 'PROFANE' FOODS

'Sacred Foods' refer to those foodstuffs, whose use is validated by religious beliefs, while foodstuffs that are forbidden by the religion can be termed 'profane'. This latter group is associated with taboos that not only prohibit the eating of the food but also forbid physical contact with it. In most cases, this 'profane food' is also seen as 'unclean' and dangerous to health. According to Helman (1984) religious groups which have strong food taboos tend also to have strict observances and rituals that separate the 'sacred' from the 'profane' aspects of daily life - such as regular prayers, or ritual bathing and other rites of purification. Strict taboos against certain types of food are characteristic of many religious faiths. for example, Orthodox Hindus do not kill or eat any animal, such as cow, although, milk and its products may be eaten, since they do not involve taking the animals life, and fish and eggs are infrequently eaten. In Islam, pork and its products are not eaten. The only meat allowed by the religion is that from cloven hooved animals that chew the cud, and it must halah - or be ritually slaughtered. Only fish that has fins and scales may be eaten, and shell fish and eel are, therefore, forbidden. In Judaism, all pig products are forbidden, and also fish without fins or scales, birds of prey, and carrion. Only animals that chew the cud, have cloven hooves and have been ritually slaughtered may be eaten. Meat and milk dishes are never mixed

within the same meal. In Sikhism, beef is strictly forbidden, but pork is allowed - though it is rarely eaten. The animal must also be slaughtered in a special ritualistic way. According to Littlewood and Lipsedge (1982). In Rasta farianism, many rastafarians are vegetarians, although some follow dietary restrictions similar to Judaism.

In the secular world, example of food taboos is found in the contemporary 'whole food' movement in Britain and the United States. In these countries, the sacred/profane dichotomy is between the 'natural' and the 'artificial', between 'whole food' on the one hand and 'junk foods' on the other. Junk Foods are associated with ideas of uncleanness and danger, especially from their additives, dyes, preservatives and other pollutants. Twig (1979) views that the modern movement of vegetarianism as offering 'this worldly form of salvation in terms of body' sees meat and its various products as dangerous and 'profane'. It associates a vegetarian diet with purity, lightness, wholeness, and spirituality, while meat and blood are associated with aggressiveness, base sexual instincts, an 'animal nature', and a disharmonious world.

In these cases of food taboos, it is important to note that classifying a foodstuff as 'profane' and therefore forbidden, is likely to exclude the much needed nutrients from the diet. The present study examined foodstuffs that have been classified as "profane" by the Fulanis to establish differences between the rural and urban Fulanis.

2.8 PARALLEL FOOD CLASSIFICATIONS

The division of foodstuffs into two main groups usually called 'hot' and 'cold' is a feature of many cultural groups in the Islamic world, the Indian sub-continent, Latin

America and China. In these cultures, this classification includes much more than food, medicines, illnesses, mental and physical states, natural and supernatural forces, are all grouped into either 'hot' or 'cold' categories. It is necessary to point out that the notions of 'hot' and 'cold' do not refer to actual temperature, but, rather to certain symbolic values associated with each category of foodstuffs. Because 'health' is defined as a balance between these categories, ill-health is treated by adding 'hot' and 'cold' foods or medicines to the diet in order to restore the balance (Helman, 1984). For example, among the Puerto Rican in New York city, a 'cold' disease like arthritis is treated by 'hot' substances. In most cases, these parallel food classifications are not based on a logically consistent principle, nor are foodstuffs that are classified as 'hot' in one culture necessarily seen as 'hot' in another.

The history of a locality, cultural factors and personal idiosyncrasies may play a part in categorizing foods as hot and cold. For example, in his study in Morocco, Greenwood (1981) found significant differences among his informants as to what foods were 'hot' and what were 'cold' though they all agreed on the tastes, physiological effects and therapeutic value expected of the two categories.

Hunt (1976) described the hot-cold classification system of Asian immigrants (from India, Pakistan and Bangladesh) living in Britain. Illnesses among the Indians are treated by restoring the balance of 'hot' and 'cold' forces within the body, for example, febrile illness, (fever).

In another study by Tann and wheeler (1980), London Chinese mothers believed that

their diet should be modified according to the general health of the infants receiving their breast milk. If the body had a 'cold' illness, like fever they avoided 'cold' foods which might turn the breast milk cold and thus aggravate the illness. This practice sometimes restricted the sources of nutrition available to the mother. As in previous cases, parallel food classifications are usually used by patients as a form of self-medication, which may in some circumstances prove damaging to their health. The present study examined the use of parallel food classification among rural and urban fulanis to establish if there are differences in their practices and the purpose of the usage.

2.9 FOOD AS MEDICINE, MEDICINE AS FOOD

Sometimes foodstuff is used in certain communities as medicine, while in others, medical plants and roots are used as food. In the latter case, special diets may also be seen as a form of 'medicine, for certain illnesses or physiological states such as pregnancy, lactation and menstruation, certain foods are sometimes avoided or are prescribed to aid in the physiological process. 'High blood' is treated by Americans by taking lemon juice, vinegar, sour oranges, pickles, olives or saverkraut while the treatment of 'low blood' involves an increased consumption of beefs, grape juice, red wine, liver and red meat (Helman 1984).

Etkin and Ross (1982) studied the use of plants, both as medicine and as food, among the Hausa people of Northern Nigeria. They found that many of the plants were used as folk medicines and as food. For example, cashew nuts were chewed for treatment of intestinal worms, diarrhoea and dyspepsia, but were also added to soups and used as a condiment in vegetable foods. By analysing both the nutritional and pharmacological

properties of many of these substances, they concluded that many plants taken as 'medicine' may infact also have nutritional value, while some of these plants used mainly as food also have a medicinal effects, only by examining all the uses of plants can an estimation of their overall nutritional value be made.

Medicines, whether medically or self-prescribed, may also be regarded as a form of 'food' or 'nutriment' without which the patient might weaken or die. Examples of this are certain cardiac or hypertensive drugs, insulin therapy, and thyroid and hormone replacement therapy. When these drugs are regularly taken at meal times, they may become incorporated into the meal as a symbolic form of 'food'. Other substances such as vitamins, 'tonic', 'bitters', alcohol, tobacco and psychotropic drugs if taken regularly, might also come to play this role (Helman, 1984).

The present study examined differences in the kinds of food used as medicine and kinds of medicine used as food among rural and urban Fulani. For instance, if there are differences, the researcher may attribute the difference to the influence of urbanisation.

2.10 SOCIAL FOODS

Social foods are those that are consumed in the presence of other people and which have symbolic as well as nutritional value for all those concerned. Helman (1984) observed that in every human society, food is a way of creating and expressing the relationship between people. These relationships may be between individuals, between members of social, religious or ethnic groups or between any of these and the supernatural world. Food used in this way has many properties of ritual symbols. When food is consumed

in an atmosphere of communal meal, it carries with it many associations, telling the participants much about their relationship with one another and with the outside world. Most meals have ritualistic aspect and in addition provide nutrition for several people at the same time.

Meals can also be used to symbolize social status, often by serving rare and expensive dishes. This is what Jelliffe (1967) calls 'prestige foods'. According to him. they are usually protein (and often animal) and are difficult to obtain or prepare (as they are rare, expensive or imported) and are often linked historically with a dominant social group.

The colour of food also shows the status of the food. In many parts of the world, light-colored food, such as white bread or white rice have a higher status than dark-colored foods. In Europe, for instance, it was the peasants who ate rough, brown bread while the aristocracy ate white bread or cakes (Helman 1984). In developing countries, Trowell and Burkitt (1981) pointed out that westernization has increased the status of white bread and rice cereals are increasingly refined to produce low fibre white wheat flour and polished white rice which results in a decreased intake of dietary fibre, especially cereal fibre.

Food can also be used as an indication of group identity. Food that is produced and eaten locally is closely identified with the sense of continuity and cohesion of the community and its dietary practices are often carried to other countries when members of the community emigrate. In their new countries, the immigrants may continue to eat their traditional diet-with its familiar taste, smells, and mode of preparation or revert to

it only on special occasions (Helman, 1984).

Jerome (1969) studied the changes in diet and the pattern of meals in black Americans who had migrated from rural areas in the south to large cities in the North. The traditional southern pattern consisted of two meals. This included break fast, which comprised fried meats, of various kinds, rice, grits, biscuits, gravy, fried - sweet Irish potatoes, coffee and milk, and the 'heavy boiled dinner', which took place in the mid-afternoon and comprised boiled vegetables or dry legumes, seasoned with a variety of meat items. This main dish was accompanied by corn bread, potatoes, a sweet beverage or milk, and an occasional dessert or fruit. In the Northern, urban environment under the influence of occupational schedules the pattern changed, with the heavy boiled dinner served at 4-6pm, and re-named 'supper', the heavy breakfast usually persisted for about 18 months after migration with 'lunch' consisting of left-overs from it. Eventually, a new pattern was established with three meals namely, breakfaast, lunch and dinner. Breakfast, comprising eggs, or bacon or sausage with eggs, hot biscuits, 'light' bread and coffee and lunch of sandwiches, soup, crackers, raw fruits, and a fruit drink. Dinner was composed of either 'heavy boiled' or fried food. Helman (1984) reported that the traditional heavy break fasts were reserved for weekends, 'off days' and holidays. Jerome's study (1969) shows that the internal structure and content of meals can be remarkable uniform within a social or cultural group.

It has been shown in this section the multiple roles that food plays in human society. It creates social relationship, signalling social status, occupation and gender roles; marking important life changes, anniversaries and festivals and re-asserting religious, ethnic or

regional identities. Because of their many social roles, dietary beliefs and practices are sometimes difficult to discard, even when they are dangerous to health. The present study examined the health implications of Fulani social foods consumed by the rural and urban Fulani.

2.11 SOCIAL BEHAVIOUR AND HABITS IN RELATION TO HEALTH

The social behaviour and habits of people have some effect on their health. Excessive smoking for instance affects the health of a person. During the process of the development of the Fulani as an ethnic group, two groups - the Sedentary and Nomadic fulani had emerged. In the period of their development, these two groups have shown marked differences in their mode of life, social organisation and degree of political autonomy (Hopen, 1958).

The seasonal movement of the nomadic fulani is motivated by many factors. Among these factors which are their desire for independence and freedom from the interference and supervision by sedentary authorities, cattle raiding, the avoidance of disease infested areas, and of an over-feeding factor, the never-ending search for new pasture as people who do not own any land of their own. It is actually the seasonal movements that impose a nomadic way of life on the nomadic fulani and his animals (Ezeomah, 1983).

Two types of movement are easily identifiable in the effort of nomadic Fulani to secure grazing for their animals, whether across local government or state boundaries. They are both split and total movements. In each case, the length of time spent in any given location will depend on the availability of pasture and water, their relationship with

sedentary people, and the presence or lack of killer diseases. Wherever animal life and security is threatened in any serious way, their movement away from such areas in fast. They have always described their easy dispersal at very short notice as being like 'birds which when one is touched all others fly away' (De St. Croix, 1972).

Split movement involved a part of a nomadic family - usually young men, their wives, children and some young relations - who seek for areas of pasture during the dry season. The rest of the members of such a family comprising older people and some young people, are left at their base camps where the split groups return during the wet season. Those in the base camps are left with a few milking cattle to provide them with means of existence while the split groups make their drifts to areas of new pasture - split movements are intra-state following valley - upland trends within or across local government boundaries particularly in the Northern States. The split groups are easily identified by their small numbers which consist of about one to five families and the scantiness of their camping equipment tied on a few cow backs. (Ezeomah, 1983). Whereas some members of the nomadic families' remain intra-state/local government throughout the year. While some families who cannot provide enough feeds in local government areas have gone beyond local or state boundaries, but return to the local government areas during the rainy season.

Total movement usually involves the entire nomadic family old and young and all of their animals. The family sometimes combines with related families to form large groups. In a number of cases such large groups move across state boundaries towards the Niger/Benue river basin during the dry season and because they have no centre to which

they return for a season, like the split group, they move to convenient highlands or plains during the wet season (Ezeomah, 1983).

The main characteristics of the total movement groups are their large numbers. Some of the groups comprise about ten to twenty families. Their camping equipment is more detailed than those of the split groups. Their baggage is tied not only on cow backs, but also on donkeys, while the older members of the groups and children are mounted on horses, donkeys and even cow backs. Some of the trained large cows carry bamboo for rafters, 'kewe'. These rafters portable shelters for a number of nomads (Ezeomah, 1983).

In both split and total movement, the nomads erect simple huts. During the dry season huts are easily and quickly built by using corn stocks found or harvested corn fields. These provide quick shelter from the heat of the sun. With the approach of the rainy season better huts are provided with the bamboo hut rafters carried along on animal backs during the journeys. These are thatched with either grasses or leaves to provide shelter against the rain by these huts.

According to Ezeomah (1983) the season movement of nomadic Fulani is likely to have some effects on their health, they are likely to be exposed to all kinds of drudgeries insects such as mosquitoes, and flies that cause river blindness, dangerous animals and reptiles such as snakes. They are also exposed to harsh weather which certainly adversely affects their health. The make - shift huts they erect as shelter against the rain affect their health particularly against cold weather or humid conditions. Further more,

the water they drink from wells, rivers and streams are likely to be polluted and unclean. The food they eat also may not be regular, and may be unbalanced and there may be the tendency for them to have malnutrition. Diseases related to their diet may therefore arise from such factors as inadequate intake (under nourishment) imbalance of the various constituents of the diet and deficiencies of essential food substances. Rural fulani men specialise in selling cow meat while their women sell dairy products which they consume on a limited scale. The sedentary fulanis who live in the rural areas produce large quantities of foodstuffs. However, they are without adequate medical care. Poor transport and communications add to their difficulty. Abdulkadir (1981) reported that there is imbalance in health care resources and organisation between rural and urban areas in Borno State and blamed this on faulty priorities. There is no doubt that for a long time to come rural dwellers including nomadic fulanis will suffer neglect and be exposed to many diseases. When individuals migrate to urban areas, there is the tendency to continue with the rural behaviour or modify such behaviour to suit the urban way of life. According to Gilbert and Gugler (1987), many urban dwellers remain deeply rooted in the rural community in which they grew up and this is a widespread pattern in Sub-saharan Africa. They stated that the recent migrant in the urban area still maintains close contacts with the family members or relatives he left behind in the rural community. These could be wives, children or parents. Although the migrant is in an urban area, he still sees the rural community he came from as his home. This is common among the Fulani who visit their rural community for festivals, ceremonies or family re-unions. These occasions thus serve as ties that migrants maintain with their community of origin. Many migrants anticipate returning there. They continue to see themselves as members of a rural community, whether they want to be back in time for the next harvest, or plan

to retire in the village after a lifetime of work in the city.

The commitment many migrants have to their community of origin may be taken to suggest that they remain peasants at heart, that they do not become urbanites (Gilbert and Gugler, 1987). As soon as the migrant arrives in town he has to adopt behaviour that will allow him to pursue his economic goals effectively (Gluckman, 1960). The urban fulani easily adapts to the urban economic life by engaging in occupations that other urban dwellers are engaged in such as buying of grains, obtaining bank loans for small or large scale business or working as civil servants.

Language constitutes a conspicuous and important area of adaptation. Some migrants need only to make a few additions to their vocabulary or to modify their pronounciation, but others have no mastery, or only limited mastery, of the city's lingua franca. Many migrants in African cities have to switch to the national or regional language in common use (Gilbert and Gugler, 1987). Many of them abandon their rural dress and hair styles and modify their food habits.

However, adopting urban patterns of behaviour does not require forgetting how things were done at home. Migrants in urban areas will continue to behave in urban or rural ways as the situation demands. Indeed, they have to be both peasants and townsmen in order to operate successfully in the dual system they have established (Gugler, 1971). Some of them learn and acquire new norms of behaviour through urban socialization, others grow away from their rural ways, but most do not abandon the will or lose the ability to enter into social relations governed by rural norms, whether in the town or in

their home areas (Gilbert and Gugler, 1987). In other words, becoming urban involves an extension of one's culture, but it does not necessarily imply a rejection or loss.

Contrary to the assumption that urban life is characterized by the absence of meaningful personal relationships, many rural-urban migrants maintain strong ties with their community of origin, establish in the city new communities based on common origin or indeed do both. Other urban dwellers, first generation migrants or the urban born, feel securely anchored in networks of kinship and friendship. In a survey in Kanpur, India, an industrial centre of over one million inhabitants, nearly everyone reported seeing friends in the city more than once a week, and most characterized these friendships as intimate or extending to mutual aid (Chandra, 1977).

Religious groupings play an important integrative role for some urbanites. Roberts (1978) attributes the development of pentecostal and other protestant sects in predominantly catholic areas to the attempts of those lacking extensive social relationships to develop the basis for such relationship. In the two low - income neighbourhoods he studied, members of the sects were often those without kin in the city and included women separated from husbands or whose husbands were alcoholics.

What distinguishes the city from rural areas are the options it provides. There is not one urban lifestyle distinct from a rural way of life but a variety of lifestyles unknown in the villages community. Some urbanites lead encapsulated lives, nearly as if they were in a village community, but others strike out, associated with like -minded persons, separate when they no longer agree, become individualists. The city allows the unconventional,

those labelled 'deviants' in the society at large, to establish social relationships with those of their Ilk, and to develop viable social roles (Gilbert and Gugler, 1987). In the city, adherents of new religion, protagonists of a new political idea, carriers of a new fashion can aggregate in sufficient numbers to support each other. Cities are centres of innovation because it is in cities that innovators can constitute a critical mass. (Fischer, 1976).

The present study examined the social behaviour and habits of urban fulanis in relation to the behavioural traits of urban dwellers described in the preceeding paragraphs and how these behaviours affect their health.

2.12 CULTURAL BELIEFS IN RELATION TO HEALTH

Culture is widely regarded as the whole way of life of a people. It includes their mode of dressing, food habits, custom, religion, and language, Wexler (1982) observed that culture indicates "a need for articulation, a language of social understanding. Commitment to ideals; fostering emotional and cognitive capacities such as empathy, hope and social knowledge; communicative potential; cultural imagination for alternatives; social practicality for organisational forms: the shape, size, clothing and surface of the body. In every society, the human body has a social as well as a physical reality. In other words, the shape, size and adornments of the body are a way of communicating information about its owners' position in society.

Artificial changes in the shape, size and surface of the body which are widespread throughout the world, can also have a social function. This includes extreme forms of bodily mutilation which are regarded as culturally defined notions of 'beauty'. Polhemus (1978) has listed some of the more extreme forms of body alteration practised historically and, at the present time, among non-industrialised peoples. These include: wearing of nose and earrings among the people of mali, artificial fattening of girls in parts of West Africa; tattooing of the body in Tahiti and among some American Indians; insertion of large ornaments into the lips and ear-lobes in Brazil, East Africa and Melanesia; and the wearing of nose and earrings among the people of Timbuktu, Mali. The health risks of such bodily mutilations are obvious, but they may also bring benefits to the population. While female circumcision, practised still in parts of Africa, carries with it the dangers of infection, scar tissue formation and difficulty with future childbirth (Jeffcoate, 1962). Early male circumcision is believed to be one of the factors protecting women from developing cancer of the cervix (Jeffcoate, 1962).

Various forms of self-mutilation or alteration are used in Western industrialized societies particularly by women to conform to culturally defined standards of 'beauty'. These include the widespread use of orthodontics to straighten front teeth; plastic surgery to noses, ears and chins; ear-piercing; body building regimens; breast prostheses; face lift surgery; and hair implants for baldness. In addition, there are the various forms of dieting used by women to reduce their weight to attractive dimensions. (Helman, 1984). It has been hypothesized that anorexia nervosa is an extreme pathological form of

dissatification with body image, in a society which values and rewards slimness (Garner and Garfinkel, 1980). However, by contrast, in parts of West Africa, wealthy men frequently sent their daughters to 'fattening houses' where they were fed on fatty foods with minimal exercise, so as to be plump and pale, a culturally defined shape believed to indicate both wealth and fertility (Polhemus, 1978).

Helman (1984) observed that altered shape alone is not all that shows a particular culturally prescribed patterns, special clothes contribute, along with women corsets and other constrictive underwear, and high heeled or plat-form shoes, all of which may have a negative effect on health. Cosmetics and deodorants, which may cause skin allergies or contact dermatitis, are also part of the western mode of communication, where personal odour is considered to be offensive - a belief that is not shared by some other cultures.

While the body is protected by clothes, and by its covering of skin, some areas of the body surface are sometimes considered to be more vulnerable than others. For example, in Helman's study of English beliefs about 'chills', 'colds' and 'fever', the lay body image included certain areas of skin - the top of the head, the back of the neck, and the feet - considered more vulnerable than other parts to penetration by environmental cold, damp or draughts. In this model, one 'caught cold' if you 'went out into the rain without a hat on (or after a haircut), 'fever' was believed to result from the penetration of 'germs', 'bugs' or 'viruses' through other breaks in the body surface - the orifices, such

as the anus, urethra, throat or nostrils.

Ezeomah (1983) described some rites, symbols and ritual. The fulani child name - giving is the most widespread and faithfully followed ritual. The child is not regarded as a person until it has been named at such a ceremony. It is social crime not to have the ceremony for a child (Dupire, 1962). The seven procedures followed during the ceremony include:

(1) the distribution of kola

(2) prayer

(3) slaughter of an animal or more

(4) formal questioning as to sex and day of birth

(5) whispering in the baby's ear

(6) shaving the hair into a bowl of milk

(7) ritual disposal of the hair and milk.

The milk containing the hair is poured into the "corral" in order to transfer fertility to the animals. This gives another cultural theme of the nomadic fulani. It shows a connection between the fertility of the herd and human fertility and a clear indication that without cattle a nomadic fulbe family has no base for existence.

(8) the ritual meal. The ceremony establishes the fatherhood of the child and a focus on fertility (Ezeomah, 1983).

Another cultural aspect of the Fulanis pointed out by Ezeomah which may have health implications is circumcision of both boys and girls. If the wounds arising from the circumcision are not properly treated, there is the tendency for infection or disease associated with the wounds.

Another cultural practice which may have health implication is the piercing of the ear of girls as a mark of attaining womanhood, (Ezeomah, 1983). Like circumcision, if the wounds arising from piercing the ears are not well treated, infection may result which could lead to disease.

Another cultural practice of the fulanis, which has health implication is the use of magical powers for general protective or healing and fertility purposes. The details of these three categories as provided by Ezeomah (1983) are as follows:

- if activities are to take place on unlucky days, some of the magical precautions are taken.
- calves must not be born in the bush. If it happens, it brings bad luck to the herd and they should be sold on weaning.
- the right kind of wood must be used in the corral fire and its smoke has beneficial effect.

- a woman who is pregnant must not milk a cow
- cattle must not be counted, doing so limits the number

Protection or Healing

- to ward off predatory animals from cattle, a hole is dug under the place for the corral fire and magic concoction is poured into it.

- certain cuts can be made on calves to protect them from death and sickness.

Fertility

- pouring a potion on a terrible hill for prolific population (human and animal)
- pouring a potion on a calf rope
- use of certain songs
- potion added to salt given to cattle.

Some of these magical practices have health implication. The cuts that are made on calves to protect them from death and sickness could be injurious to the calves. It could lead to infection in the place where cuts have been made. Similarly, potion added to salt given to the cattle could also be harmful to the cattle.

Finally, a cultural practise among the fulanis is the game of 'sharo'. Ezeomah (1983) remarked that "to an outside observer, the game of 'sharo' is associated with marriage,

in real sense of the practise of this game such association is quite indirect, because marriages are arranged long before the test of this game. In effect, the 'sharo' game is a test of courage, endurance, fortitude and the attainment of manhood. The 'challenger' - the receiver of the blows is tested on attainment of manhood. However, the practice of 'sharo' seems to have died down since the middle sixties, as the nomads tended to modernise in terms of the things they wear and eat, their more favourable attitude to modern medicine and as a result of the adaption to modern methods of transportation and fewer attacks by wild animals and cattle raiders. However, in the past few years, its practice has been revived due partly to clashes between nomads and land cultivators over the use of grazing land, and cattle raiding along the Benue Basins. The 'sharo' game has health implications in that the effect of prolonged beatings received by the young man who is proving his manhood could be devastating on the functioning of his body organs. Some muscles may damage. There could be internal body injury and bleeding.

Beliefs are also held on pregnancy and uterus in some societies. Skultans (1970) studied the beliefs about menstruation among women in a mining village in south wales. She found two types of belief about menstrual blood. First, a belief that menstrual blood is 'bad blood', and menstruation the process by which the system is purged of 'badness' or 'excess'. The emphasis was on losing as much blood as possible, as this was the method whereby 'the system rights itself'. The women said that they felt huge, bloated, slow and sluggish if they do not have a period or if they do not, lose much. One woman felt 'really great' after a heavy period, and most insisted on the value of having a

monthly 'good clearance'.

The present study examined cultural beliefs among rural and urban fulanis in order to determine if there are differences in their beliefs. For instance, it will be revealing to establish the fact that urbanization has reduced or eliminated some cultural beliefs held by urban fulanis and the effect of this on their health.

2.13 SUMMARY OF LITERATURE REVIEW

This chapter reviewed literature on differences between rural and urban dwellers in terms of diet, social behaviour and habits, and cultural beliefs of ethnic groups in relation to their health. It was established in the review that inspite of the many health problems in rural areas, urban areas too have their own health problems some of which originated from the rural areas. It was also established that food plays multiple roles in human society and because of this, dietary beliefs and practices are sometimes difficult to discard even when they are dangerous to health.

In addition, it was established that there are differences in the social behaviour and habits of rural and urban people. Some behaviour and habits in urban area could be traced to the rural areas. Unlike the rural area, the city has a variety of lifestyles which demand behavioral response by its dwellers. Furthermore, it was revealed by the literature review that some cultural beliefs and practices have health implications and that as long as those cultural practices prevail, the health of those involved will be endangered. A

review of the literature showed that no previous study has been conducted to the knowledge of the investigator, on the difference between rural and urban fulanis in relation to their health. This was the issue addressed by this study.

CHAPTER THREE

METHOLOGY

3.1 INTRODUCTION:

This chapter describes the research method and procedures employed in conducting this study. The chapter specifically describes the research method used, the population, sample, instruments for collecting data and procedures for collating and analysing data.

3.2 RESEARCH DESIGN

To achieve the purpose of this study, ex-post-facto research design was used, because the information required was already available. In this design a 2x7 factorial sub-design was used. In this, the sample was divided into two groups, namely rural Fulani and Urban Fulanis. Rural Fulani group served as control group and the Urban Fulani group as experimental group. Information on seven (7) different aspects of lifestyle of these two groups was then collected and compared as shown in paradigm I.

Gr	**Lifestyle**						
	Household size 1	Health attitudes and Cultural beliefs 2	Health Status 3	Food and drink 4	Drinking (alcohol) 5	Smoking (cigar, pipe cigarette) 6	Physical activity 7
Urban Fulanis Group							
Rural Fulanis							

Paradigm I: 2 x 7 Research Design

3.3 POPULATION FOR THE STUDY

The population for this study consisted of all adult Fulani (15 and above) living in Kaduna State, the total number of urban and rural Fulani in Kaduna State was about 10,000. The target population comprised of males and females.

3.4 SAMPLE SIZE AND SAMPLING PROCEDURE

Borg and Gall (1974) suggested that 5 per cent of the total population of 10,000 and above can be adequate sample size in survey research.

According to 1972 census, (Ministry of Finance and Economic Planning, Kaduna) the total Fulani population in Kaduna State in 1972 was 10,000. Therefore, it was decided to select 5 per cent of 10,000, which was 500 Fulani from Kaduna State for this study.

As this study was concerned with lifestyles of urban and rural Fulani, it was decided to select 250 urban and 250 rural Fulani to serve as respondents in this study.

In selecting the respondents for this study the purposive sampling technique was used because of costs and time involved in reaching the respondents and to ensure that all the elements of the population of interest were represented in the study.

In this sampling procedure, Kaduna and Zaria cities were used as urban areas to select urban Fulani respondents. Similarly Shika and Giwa villages were selected to choose the

rural Fulani.

In selecting the urban and rural respondents, cluster random sampling technique was used. In this technique, National Commission for Nomadic Education, National Commission for Colleges of Education and National Educational Technology Centre in Kaduna city were used as clusters. From each of these clusters, names of Fulani serving in this organisations were recorded. Each name was given a number. These numbers were written on pieces of paper and then the numbers were chosen by casting lots. Thus, a total of 200 respondents were selected. Similar procedure was used in selecting 50 Fulani respondents from Sabon-Gari and Tudun-Wada in Zaria. Thus, a total of 250 urban Fulani respondents were selected.

In selecting rural Fulani respondents, Giwa and Shika Villages were used. From Giwa village 130 Fulani were selected randomly. In this selection, each compound (rugga) was used as a cluster. 13 family compounds were identified in Giwa. 10 respondents from each of these 13 compounds were selected randomly as determined by the head of each compound (rugga).

In shika village, 120 Fulani were selected randomly. 10 compounds were used as clusters and from each one of which 12 respondents were selected at random as determined by the head of each compound. Thus, a total of 250 Fulani were selected from Giwa and Shika villages to serve as rural Fulani respondents in this study.

3.5 INSTRUMENTATION FOR DATA COLLECTION

The main instrument that was used for collecting data was the questionnaire. It was used also as an interview schedule for non-literate respondents. The questionnaire constructed was based on the questionnaire used in the Health and lifestyle survey study by Cox et al (1993:352). The rationale for using similar questionnaire is based on the fact that the two studies are related. Both are on the subject of health and lifestyle of groups of people.

The questionnaire consisted of items on the areas which sought the respondents views on the seven variables being studied; namely household size, health attitudes and cultural beliefs, health status, food and drink, drinking (alcohol) habits, smoking, (cigar, pipe, cigarette) physical activity as related to health seeking behaviour. The questionnaire (Appendix II) consisted of items on the following areas. Background information, household size, health attitudes and cultural beliefs, Health status, food and drink, drinking (alcohol) habits, smoking (cigar, pipe, cigarette) and physical activity. The response modes to the questionnaire items were in the form of (a) yes or no options (b) selecting appropriate response from a group of items and (c) Likert scale type statement and (d) fill in type.

The instrument of the study was vetted by five senior academicians in Education and medicine for face validity. The experts were not only knowledgeable in the aspects of the of the problem but were also highly experienced in research. They were requested to

judge the items for their appropriateness for accomplishing the objectives of the study.

THE PILOT STUDY

For the pilot study, 30 Fulani from each of urban and rural areas of Zaria and Giwa respectively were selected at random. These respondents were not a part of the sample for the main study. The questionnaire was administered to the literate respondents and translated for the non-literate respondents by an interpreter whose mother tongue was Fulfulde and who was also fluent in Hausa. Thereafter, the responses of the latter group were recorded in the questionnaire forms by investigator. Immediately after the respondent gave his response in Fulfulde to a statement, the interpreter translated the response into English, which was then recorded by the researcher - thus all the responses of the respondents who could not read or write English were recorded by the researcher. The other respondents who could read and understand English filled in the questionnaire by themselves, which were then returned to the researcher. The responses thus collected were statistically analysed to test the internal consistency of the instrument and the validity of the statistical tests used.

INTERNAL CONSISTENCY:

The reliability procedure was used to determine the internal consistency and validity of the instrument. In the procedure, the Spectian split half model was used through the Statistical Package for Social Science (SPSS). This analysis produced an alpha value of 0.6939, which showed that the instrument was consistent and valid (See Appendix I).

After establishing the internal consistency and validity of the questionnaire, it became necessary to discard four questions that were found not to be relevant.

3.6 PROCEDURE FOR DATA COLLECTION

The investigator went to Giwa Village along with two research assistants who spoke Hausa and Fulfulde. In Giwa Village 130 copies of the questionnaire were distributed at random to the respondents selected according to the procedure described earlier. As the respondents from Giwa could not read or understand English, each statement of the questionnaire was read in Fulfulde by one of the research assistants. The respondent then gave his response to the statement in Fulfulde which was then translated by the second researcher in English which was then recorded by the researcher. Thus by this process the responses of all the 130 subjects from Giwa were recorded. Out of this number, 30 subjects did not respond to all the statements. The researcher then went to Shika Village with the research assistants where she distributed 120 copies of the questionnaire as described earlier. In the distribution of the questionnaire the same method used in Giwa was adopted. The responses of 20 subjects were incompleted. The whole exercise of the distribution of questionnaire took four weeks - two weeks Giwa and two weeks in Shika.

The researcher went with research assistants to Zaria town where she distributed 50 questionnaires at random. As the respondents from Zaria could read and write English, the respondents filled the questionnaire forms. However, some respondents wanted

clarification about some statements while filling the questionnaire, which the researcher gave. The researcher and her assistants collected the questionnaires after they were filled in.

The researcher and her assistants then visited Kaduna where they distributed 200 questionnaires at random. The same procedure followed in Zaria was followed in Kaduna in distributing the questionnaire forms. Out of these 200 copies of the distributed questionnaire, only 150 were returned. The researcher spent one week in Zaria and three weeks in Kaduna to administer the questionnaires. In order to eliminate the influence of incomplete responses on the results of this study and to make statistical analysis and inference easier, the 50 incomplete responses from Giwa and Shika were not included in the statistical analysis. Thus, only 200 rural and 200 urban Fulani respondents were included in the statistical analysis.

3.7 METHOD OF ANALYSIS OF DATA

Data were analysed using chi square statistics to test the differences in the opinions of Fulani in urban and rural areas in terms of household size, health attitudes and cultural beliefs, health status, food and drink, drinking (alcohol) habits, smoking (cigar, pipe, cigarette) and physical activity. The chi square statistical method was used for qualitative information. Students t-test was used for quantitative differences between the two groups. All the seven hypotheses were tested at 0.05 level of significance. The results are presented in the tables that follow.

CHAPTER FOUR

ANALYSES OF DATA AND INTERPRETATION OF FINDINGS

4.1 INTRODUCTION:

The purpose of this study was to find out differences between the lifestyles of urban and rural Fulani. To achieve this purpose, the data collected were statistically analysed to test the hypotheses posed in the study, the results of which are presented and discussed in this chapter.

Before the results are presented according to the hypotheses the demographic characteristics of respondents are analysed. The results of which are shown in table 4.1.

Table 4.1 Demographic Characteristics of the Subjects

S/No	Characteristics	Frequency	Percentage
1	Gender:		
	Male	297	74.3
	Female	103	25.8
2	Marital Status:		
	Single	137	34.3
	Married	263	65.8
3	Age Range:		
	15 - 19 Years	37	9.3
	20 - 29 Years	112	28.0
	30 - 39 Years	136	34.0
	40 - 49 Years	71	17.8
	50 years and above	43	10.8

4	Religion: Islam Christian	 400 -	 100.0 -
5	Location: Urban Rural	200 200	50.0 50.0
		400	100

Examination of table 4.1 shows that out of a total of 400 respondents, 297 (74.3%) were males and 103 (25.8%) females, 137 (34.8%) were single and 263 (65.8%) married. Most of them were between 20 and 50 years of age. All were moslems, urban and rural areas were equally represented.

4.2 HYPOTHESIS I

There is no significant difference between urban and rural Fulani of Kaduna State in their household size.

To test this hypothesis t-test was used for statistical significance of differences between urban and rural Fulani in household size, health status, types of food and drink, drinking (alcohol) habits, smoking (cigar, pipe, cigarette) and physical activity, the results of which are represented below.

Descriptive statistics about the household size of urban and rural Fulani are shown in table 4.2.

Table 4.2 **Frequency of Responses to Statements on Household Size**

Statements																													
Who lives in the household with you?												How many people live with you?												Do you have any (other) relations or children of your own who are not living with you?					
Wife Husband		Children		Relatives		Parent Parent in-law		Non-Relatives				1 - 5		6-10		11-15		16-19		20 years and above				Yes		No			
f	p	f	p	f	p	f	p	f	p	Tf	TP	f	p	f	p	f	p	f	p	f	p	Tf	TP	f	p	f	p	Tf	TP
73	18.3	135	33.8	125	31.3	43	10.8	24	6.0	400	100	137	34.3	108	27.0	83	20.8	30	7.5	42	10.5	400	100	215	53.8	185	46.4	400	100

f - represents Frequency

P - represents Per cent

Tf - represents Total Frequency

TP - represents Total Per cent

Examination of table 4.2 indicates that the highest per cent contributed to the household size of Fulanisis that of relatives (31%) and the least contribution was made by non-relatives. Table 4.2 further shows that in most Fulani household (90%), 1 - 15 people lived in the same house. Majority of Fulanis (53.8%) had relatives and children who are not living with them.

Results of t-test statistical significance for difference between household size of urban and rural Fulani are shown in Table 4.3.

Table 4.3 t-ratio for differences between urban and rural Fulanis in household size.

Group	No. of respondents	Mean	SD	SE	t-test
Urban	200	4.18	1.65	.117	3.94
Rural	200	5.15	1.92	.136	

t (398) = $1.96 < 0.05$

A careful examination of table 4.3 reveals significant differences between urban and rural Fulani, suggesting that there were more people living in each household of rural Fulani compared to the household of urban Fulani.

4.3 **HYPOTHESIS 2:**

There is no significant difference between urban and rural Fulani of Kaduna State in their health attitudes and cultural beliefs.

Descriptive statistics about the health attitudes and cultural beliefs of urban and rural Fulani are presented in table 4.4.

Table 4.4 **Frequency of Responses to Statements on Health Attitudes and Cultural Beliefs**

Statements (A)																													
Would you say that for someone of your age, your own health is generally												Do you do anything at the moment to keep yourself healthy or improve your health?				If yes to the above question, what are the three most important things you do to keep or improve your health.													
Do not know		Poor		Fair		Good		Excellent				Yes		No		Diet		No Drinking		No Smoking		Medicine		Physical activities		Job		Sleep		Social	
f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p
22	5.5	7	1.8	84	21.0	199	49.8	98	24.5	400	100	320	80.0	80	20	269	67.3	50	12.5	15	3.8	35	8.8	21	5.3	7	1.8	1	.3	2	.5

Tf	Tp
400	100

Tf	Tp
400	100

(B) If yes to the above question, what are the three most important things you do to keep or improve your health?																					
No Drinking		No Smoking		Medicine		Physical Activities		Job		Sleep		Social		Mental State		Hearing Area		Fresh Air			
f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
113	28.3	65	16.3	113	28.3	48	12.0	20	5.0	28	7.0	3	.8	8	2.8	1	.3	1	.3	400	100

(C)		If yes to the above question, what are the three most important things you do to keep or improve your health?																					
Diet		No Dinking		No Smoking		Medicine		Physical Activities		Job		Sleep		Social		Mental State		Housing Area		Fresh Air		Others			
f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
100	22.8	1	.3	17	4.3	30	7.5	58	14.5	82	20.5	47	11.8	18	4.5	38	9.5	11	2.8	6	1.5	1	.3	400	100

Statements																					
Are there anythings you would like to do to keep yourself healthy but don't do?				If yes, what would you like to do?																	
Yes		No		Exercise Sport		Diet Nutrition		Lose Weight		Cut Down/Give Up Smoking		Cut Down/Give up Alcohol		Bobbies		Get Job		Social Life		Others			
f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
286	71.5	114	28.5	237	59.3	80	20.0	17	4.3	13	3.3	9	2.3	12	3.0	8	2.0	22	5.5	2	.5	400	100

Statements																					
Is Circumcision practiced here?				Has your family contacted diseases through circumcision?				If yes, are the diseases treated with						It's sensible to do exactly what doctors say.							
Yes		No		Yes		No		Magical Power		Scientific Medicine		Herbs		Strongly Disagree		Disagree		Do not Know		Agree		Strongly Disagree	
f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p
396	99.0	4	1.0	46	10.0	360	90.0	368	92.1	10	2.5	22	5.4	6	1.6	9	2.3	16	4.0	179	44.8	190	47.5

Tf	Tp
400	100

Tf	Tp
400	100

Tf	Tp
400	100

Tf	Tp
400	100

Statements																							
To have good health is the most important thing in life.												Generally, health is a matter of luck											
Strongly Disagree		Disagree		Do not know		Agree		Strongly Agree				Strongly Disagree		Disagree		Do not kow		Agree		Strongly Agree			
f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	Tf	Tp
5	1.3	4	1.0	28	7.0	139	34.8	224	56.0	400	100	39	9.8	75	18.8	59	14.8	155	38.8	72	18.0	400	100

If you think too much about your health, you are likely to be ill.												Suffering sometimes has a divine purpose.											
Strongly Disagree		Disagree		Do not know		Agree		Strongly Agree				Strongly Disagree		Disagree		Do not kow		Agree		Strongly Agree			
f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	Tf	Tp
22	5.6	63	15.8	58	14.5	196	49.0	61	15.3	400	100	16	4.0	40	10.0	55	13.8	179	44.8	110	27.5	400	100

Statements																							
I have to ill before I'll go to the doctor.												People like me don't really have time to think about their health.											
Strongly Disagree		Disagree		Do not know		Agree		Strongly Agree				Strongly Disagree		Disagree		Do not kow		Agree		Strongly Agree			
f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	Tf	Tp
44	11.1	143	35.8	34	8.5	121	30.3	58	14.5	400	100	59	14.8	157	39.3	44	11.0	76	19.0	64	16.0	400	100

The most important thing is the constitution (the health) you are born with.											
Strongly Disagree		Disagree		Do not know		Agree		Strongly Agree			
f	p	f	p	f	p	f	p	f	p	Tf	Tp
37	9.3	66	16.5	56	14.0	145	36.3	96	24.0	400	100

Table 4.4 shows that majority of the respondents (90%) stated that their health was generally good. Almost all the respondents claimed that they were doing something at the moment to improve their health, such as keeping to medical and slimming diets, abstention and reduction of smoking, stoppage and reduction of alcohol intake. They added that they improved their health also through self medication and doctors' prescription, involvement in physical activities such as house work and playing 'sharo' games. They further indicated that their traditional herding activities and office work help them in improving their health. They also recognizse that enough sleep, social activities and sound mental state contribute to the improvement of their health. About 70% of the respondents agreed that there are things they would like to do to keep themselves healthy but do not do. They identified sports and exercise, diet as those things among others that they would like to do. Almost all the respondents agreed that circumcision is a common practice among them, even though some indicated that diseases were contacted through circumcision which they cured by magical power and herbs.

On the eight statements made about health marked (a-h) more than 80% of respondents strongly agreed that they should do according to doctor's advice and that good health is the most important thing in life.

About 90% agreed with the statements, "generally, health is a matter of luck", if you think too much about your health, you are likely to be ill", "suffering sometimes has a devine purpose" and "the most important thing is the constitution of health you are born with". Almost all respondents disagreed that they should be ill before they see the doctor and don't really have time to think about their health.

Result of the statistical test of significance for differences between health attitude and cultural beliefs of urban and rural Fulani are shown in table 4.5

Table 4.5: t-ratio for differences between urban and rural Fulanis in health attitudes and cultural beliefs

Group	No. of Respondents	Mean	SD	SE	t-test
Urban	200	50.19	11.94	.845	0.32
Rural	200	50.51	7.79	.551	

t (398) = 1.96 > 0.05

Perusal table 4.5 shows insignificant difference between urban and rural Fulani, implying that the movement of Fulani from rural to urban area did not have any change in their health attitudes and cultural beliefs.

4.4 HYPOTHESIS 3:

There is no significant difference between urban and rural Fulani of Kaduna State in their health status.

Descriptive statistics about the health status of urban and rural Fulani are presented in table 4.6

Table 4.6 Frequency of Responses to Statements on Health Status.

Statements																							
Are there any thing about your life now that have a bad effect on your health?						If yes, what are they?																	
Yes		No				Unable to get along		Environment/ Housing		Work		Income of Living		Family Problem		Friends/ Neighbours		Behaviour		Stress Worry		Others			
f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
187	46.8	213	53.4	400	100	225	56.3	12	3.0	14	3.5	67	16.8	16	4.0	3	0.8	18	4.5	37	9.3	8	2.0	400	100

Statements																							
Are there any thingsabout your life now that have a good effect on your health?																Do you feel that you lead							
Able to get along		Environment Housing		Income		Marital Relationships Social Activities		Friends Neighbours		Behaviours		Others				A very healthy life		Fairly healthy		Not very healthy life		Unhealthy Life		Do not know			
f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	Tf	Tp
58	14.5	37	9.3	84	21.0	78	19.5	72	18.0	13	3.3	11	2.8	400	100	157	39.3	204	51.0	10	2.5	2	0.5	27	68	400	100

Statements											
Do you have any long-standing illness, disability or infirmity?						Does it limit your activities in any way compared with other people of your age?					
Yes		No				Yes		No			
f	p	f	p	Tf	Tp	f	p	f	p	Tf	Tp
62	15.6	338	84.6	400	100	202	50.5	198	49.5	400	100

Table 4.6 reveals that 47% of the respondents agreed that there were somethings about their lives that had bad effect on their health, which they attributed to low income which possibly results to stress and worry. On those things about their life that had good effect on their health, about 73% identified income, Family and Marital relationships, while the rest attributed the good effect on their health to friends, neighbours and social activity, all of which they ascribed to be a fairly healthy life which they claimed they enjoyed.

Results of the t-test of statistical significance for differences between health status of urban and rural Fulani are shown in table 4.7.

Table 4.7 t-ratio for differences between urban and rural Fulanis in health status

Group	No. of Respondents	Mean	SD	SE	t-test
Urban	200	12.84	4.19	.296	-1.25
Rural	200	12.37	3.28	.232	

t (398) = 1.96 > 0.05

Table 4.7 reveals insignificant differences between urban and rural Fulani, suggesting

that the movement of Fulani from rural to urban area did not have any change in their health status.

4.5 HYPOTHESIS 4:

There is no significant difference between urban and rural Fulani of Kaduna State in their types of food and drink.

Descriptive Statistics about the types of food and drink of urban and rural Fulani are presented in table 4.8.

Table 4.8: Frequency of Reponses to Statements on Food and Drink:

Statements																									
Are you on special diet for health reason?						What is diet for?														Would you say that you eat the right amount of food?					
Yes		No				Obsity		High Blood		Ulcers		Senes		Kidney		Diabetes		Allergy				Yes		No			
f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	Tf	Tp
85	21.3	315	78.8	400	100	323	80.8	23	5.8	33	8.3	4	1.0	1	.3	11	2.8	5	1.3	400	100	264	66.1	136	34.1	400	100

Do you eat too much or too little?								How often do you eat cooked break - fast?												Do you eat regularly?					
Too Much		Too Little		Can't say				Every day		Most days		Once Twice a Week		Less than once a week		Never				Yes		No			
f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	Tf	Tp
96	24.1	83	20.8	221	55.3	400	100	154	38.5	158	39.5	62	15.5	22	5.5	4	1.0	400	100	202	50.6	198	49.5	400	100

Statements																									
Fresh Fruit														Salad Vegetables											
Never		Less 1 a week		Twice a Week		Most Days		Once a Day		More than 1 a Day				Never		Less 1 a Week		Twice a Week		Most Days		Once a Day		More than 1 a Day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
19	4.8	120	30.0	97	24.3	88	22.0	45	11.3	31	7.8	400	100	59	14.8	146	36.5	90	22.5	73	18.3	19	4.8	13	3.3	400	100

Tinned Fruit														Yams											
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
196	49.1	93	23.3	53	13.3	38	9.5	16	4.0	4	1.0	400	100	20	5.0	54	13.5	110	27.5	46	36.5	53	13.3	17	4.3	400	100

Potatoes														Root Vegetables											
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
16	4.1	58	14.5	111	27.8	143	35.8	53	13.3	19	4.8	400	100	33	8.3	54	13,5	71	17.8	159	39.8	55	13.8	28	7.0	400	100

Rice														Beans											
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
12	13.1	33	8.3	72	18.0	152	38.0	83	20.8	48	12.0	400	100	8	2.0	34	8.5	66	16.5	134	33.5	103	25.8	55	13.8	400	100

(Tuwon Masara)														Green Vegetables													
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
10	2.5	9	2.3	27	6.8	116	29.0	133	33.3	105	26.3	400	100	13	3.3	39	9.8	50	12.5	177	29.3	87	21.8	94	23.5	400	100

Fura														Nuts													
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
13	3.3	35	8.8	41	10.3	92	23.0	92	23.0	127	31.8	400	100	19	4.8	67	16.8	65	16.3	98	24.5	76	19.0	75	18.8	400	100

Break fast Cereal														Cow Milk													
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
37	9.3	64	16.0	97	24.3	104	26.0	65	16.3	33	8.3	400	100	15	3.8	33	8.3	41	10.3	102	25.5	96	24.0	113	28.3	400	100

Fish														Beef													
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
20	5.0	75	18.8	116	29.0	112	28.0	42	10.5	35	8.8	400	100	22	5.6	86	21.5	107	26.8	106	26.5	40	10.0	39	9.8	400	100

Eggs														Chicken													
Never		Less 1 a week		Twice a week		Most days		Once a day		More than 1 a day				Never		Less 1 a week		Twice a week		Most day		Once a day		More than 1 a day			
f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
34	8.5	129	32.3	101	25.3	103	25.8	23	5.8	10	2.5	400	100	28	7.0	201	50.3	99	24.8	61	15.3	9	2.3	2	.5	400	100

Statements									
Think about the things you eat. Would you say that your diet is									
As healthy as it could be		Quite good, but could improve it		Not very healthy		Don't know			
f	p	f	p	f	p	f	p	Tf	Tp
129	32.3	228	57.0	18	4.5	25	6.3	400	100

Perusal table 4.8 shows that about 80% of the respondents disagreed that they were not on special diet for health reasons such as obesity, high blood pressure and heart diseases, ulcers, diabetes and allergy. About 66% of the respondents stated that they were eating the right amount of food, 55% could not categorically say whether they ate too much or too little while the rest agreed they did. They however claimed they enjoyed cooked breakfast most days, with about 54% indicating that they had it everyday.

On specific food types, more than 90% of the respondents claimed they ate fresh fruit, salad and raw vegetables, egg and chicken less than once a week, with none of them indicating any interest at all in tinned fruit. Almost all the respondents ate yam, potatoes, rice, beans, green vegetables, nuts and breakfast creal most days. About 60% stated they ate Fura and drank cow milk more than once a day. Over 50% of the respondents believed their diet was quite good, but could be improved.

Reseults of t-test the statistical significance for difference between types of food and drink of urban and rural Fulani are shown in table 4.9.

Table 4.9: t-ratio for differences between urban and rural Fulanis in food and drink

Group	No.of Respondenses	Mean	SD	SE	t-test
Urban	200	72.80	9.72	.688	1.49
Rural	200	74.28	10.17	.719	

$t(398) = 1.96 > 0.05$

Careful examination of table 4.9 shows insignificant differences between urban and rural Fulani in food and drink patterns, suggesting that the movement of Fulani from rural to urban area did not have any effect on the types of food and drink they ate and drank.

4.6 HYPOTHESIS 5:

There is no significant difference between urban and rural Fulanis of Kaduna State in their drinking (alcohol) habits.

Descriptive statistics about the drinking (alcohol) habits of urban and rural Fulanis are shown in table 4.10.

Table 4.10 Frequency of Responses to Statements on Drinking (alcohol):

Statements																			
Would say that you are now										If you drink would say that you are									
A non drinker		Special Occasional drinker		Occasional drinker		Regular drinker				Light drinker		Moderat e drinker		Heavy drinker		Don't know			
f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	Tf	Tp
345	86.3	15	3.8	33	8.3	7	1.8	400	100	362	90.6	32	8.0	34	1.0	2	.5	400	100

Has a doctor ever suggested that you should cut down on drinking?						Why did they suggested that you cut down?									
Yes		No				Health reason		Driving		Other		Don't know			
f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	Tf	Tp
358	89.6	42	10.5	400	100	389	97.3	8	2.0	2	.5	1	.3	400	100

Careful examination of table 4.10 reveals that most (86%) of the respondents claimed that they were non-drinkers; very few (8%) of the respondents stated they occasionally drank and described themselves as light drinkers. A few abstained from drinking on doctor's suggestion due to health reason.

Results of t-test of statistical significance for differences between drinking (alcohol) habits of urban and rural Fulani are presented in table 4.11.

Table 4.11: t-ratio for differences between urban and rural Fulanis in drinking (alcohol) habits:

Group	No.of Respondents	Mean	SD	SE	t-test
Urban	200	3.44	2.30	.163	1.84
Rural	200	3.88	2.41	.171	

t (398 = 1.96 > 0.05

Observation of table 4.11. shows insignificant differences between urban and rural Fulani, suggesting that the movement of Fulani from rurla to urban area did not have any change in their drinking (alcohol) habits.

4.7 Hypothesis 6

There is no significant difference between urban and rural Fulani of Kaduna State in their smoking (cigar, pipe, cigarette).

Descriptive Statistics about the smoking (cigar, peipe, cigarette) of urban and rural Fulani are shown table 4.12.

Table 4.12: Frequency of Responses to Statements on Smoking (Cigar,Pipe, Cigarette):

Statements																													
Have you ever smoked a cigarette as an experiment?						If yes, how many cigarette do you generally smoke?						Where you ever a regular smoker, smoking at least 1 cigarette per day?						What reasons made you to give up smoking cigarette?											
Yes		No				Less than 1 per day		More than 1 per day				Yes		No				Ill health		Expense		Fear ill in future		Pressure		Pregnacy		Just wanted to give up			
f	p	f	p	Tf	Tp	f	p	f	p	Tf	Tp	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp
100	25.0	300	75.0	400	100	343	85.8	57	14.3	400	100	366	91.5	34	8.5	400	100	348	87.1	8	2.0	31	7.8	6	1.5	2	.5	5	1.3	400	100

Examination of table 4.12 shows that about 25% of the respondents, who were in the habit of smoking, claimed they had smoked as an experiment and smoked less than one cigarette per day. Those of them who gave up smoking did so because of ill health.

Results of t-test for statistical significance of differences between smoking (cigar, pipe, cigarette) of urban and rural Fulani are presented in table 4.13.

Table 4.13: t-ratio for differences between urban and rural Fulani in Smoking (cigar, pipe, cigarette):

Group	No.of Respondents	Mean	SD	SE	t-test
Urban	200	2.82	1.89	.134	0.37
Rural	200	2.89	1.89	.134	

t (398) = 1.96 > 0.05

Table 4.13 reveals insiginficant differences between urban and rural Fulani, implying that the movement of Fulani from rural to urban areas did not have any change in their smoking (Cigar, Pipe, Cigarette).

4.8 HYPOTHESIS 7.

There is no significant difference between urban and rural Fulani of Kaduna State in their physical activity.

Descriptive statistics about the physical activity of urban and rural Fulani are shown table 4.14.

Table 4.14: Frequency of Responses to Statements on Physical activity:

Statements																									
Do you think you get enough exercise				In general, compared with men/Women of your age, are you physically								How much time on average per day do you spend walking?						Compared to people of your own age, which of the following best describe your usual walking pace?									
Yes		No		More Active		Less Active		About Average		Don't know		Hour		Don'tknow				Slow		Average		Fairly brisk		Fast		Don't know	
f	p	f	p	f	p	f	p	f	p	f	p	f	p	f	p	Tf	Tp	f	p	f	p	f	p	f	p	f	p
184	46.0	216	54.1	113	28.3	59	14.8	187	46.8	41	10.3	251	62.8	149	37.3	400	100	25	6.3	181	45.3	49	12.3	105	26.3	40	10.0

Tf	Tp
400	100

Tf	Tp
400	100

Tf	Tp
400	100

Careful examination of table 4.14 reveals that 46% of the respondents claimed they got enough exercise and so considered their physical condition as average. They felt they engaged in walking from 1-12 hours on the average per day and indicated that their walking pace compared to people of their own age was best described as average.

Results of t-test for statistical siginificance of differences between physical activity of urban and rural Fulani are presented in table 4.15.

Table 4.15 t-ratio for differences between urban and rural Fulanis in Physical Activity:

Group	No.of Respondents	Mean	SD	SE	t-test
Urban	200	8.14	1.78	.126	
Rural	200	8.19	2.06	.146	0.26

$t\ (398) = 1.96 > 0.05$

Examination of table 4.15 reveals insignificant difference between urban and rural Fulani in their physical activity patterns, suggesting that the movement of Fulani from rural to urban area did not have effect on their physical activity.

4.9 DISCUSSION:

The results of this study revealed significantly larger households for rural Fulani than those of urban Fulani. In other words, households of rural Fulani were more populated than those of urban. This results in what Nyako (1981) called "too few sleeping places for too many people results in over crowding, especially acute at bedtime". These differences are attributed to the fact that potential migrants can afford to wait in the village until their urban contacts signal a job opportunity (Shaw 1975). In support of this, Flanagan, 1978) observed that extended families usually constitute the central elements in such network. Relatives are most likely to assist in paying school fees and expenses for uniforms, and books, to provide a home for children who have been sent to town to pursue their education, to offer the newly arrived migrant shelter and food for a while. They further stated that extended family can be seen as an agent of urbanization in many parts of Africa.

The result of the health attitudes and cultural beliefs of urban and rural Fulani showed insignificant differences between the two groups. In other words the urban and rural Fulani have a stronger belief in culture and health matters. Commenting on the aims of education, Ezeomah (1983) remarked that in their traditional pastoral society the aims of nomadic education are to form character, aptitude, skills and beliefs of the children. He further stated that children received a greater part of their informal education from the environment, their family and society, drawing directly on experience. Most of them are ignorant of modern medicine and are traditionally conservative. It is thus that their

practices and beliefs are very deep rooted and are not easily affected by their migration to urban areas. In support of this, Tamawa (1981) observed that superstitious beliefs are also the cause of many charms ceremonies and proprietary medicine.

The insignificant difference between urban and rural Fulani in relation to their health status, implies that they have the same health problems. However, an examination of the mean scores reveals that urban Fulani have lesser though insignificant health problems due to their awareness than their rural counterparts. This trend may be due to readily available medical facilities in urban areas as against rural areas where such facilities are almost non-existent and where Fulani resort to the use of traditional medicine. Commenting on the deplorable health conditions in rural areas of Nigeria, Ezeomah (1983) stated that the pastoral fulbe who form part of this rural population are even worse of - as a result of their mobile mode of life. They are more exposed and prone to attacks by diseases, because of the hostile environment they live in, poverty, ignorance, lack of knowledge of proper preventive measures and unwillingness and inability to seek and use available health services. As mobile population, they live in make-shift huts and in unhealthy surroundings and adversed climatic conditions, therefore to reach them with health services becomes difficult hence, they are being neglected. In the same vein, Gilbert and Gugler (1987) noted that urban areas especially major cities offer more and better facilities than their rural hinterlands and afford superior education and training for the migrants children in particular. They further observed that pipe borne water assures clean water and frees women from the drudgery of fetching water

over long distances. Expert medical care and drugs are available. Electricity replaces the kerosine lamp and the open fire. However, the health status of the two groups remains very much the same as their lifestyle and belief systems are the same and as there appears to be insignificant difference between urban and rural areas in the Provision of health care services.

The result of the types of food and drink of urban and rural Fulanis revealed insignificant difference. This implies that though no significant difference exists between the two groups in their food and drink intake, Tamawa (1981) observed that urban migrants appear to have well balanced and nourishing meals while in urban centres, but lose an average of 10% of weight within two months of returning to villages. The reverse is also the case of some urban migrants, who because of high cost of living in urban centres, afford only one meal a day, and lose weight. He further stated that the most common dietary deficiency diseases in rural areas is kwashiorkor, which primarily affects children during and after weaning up to the age of six. According to him, most of these essential foods are produced in rural areas but are sent to urban areas to sell for cash, while the producers themselves live on poor food, mostly carbohydrates. In support of this, Abubakar (1981) also reported that rural dwellers find it difficult to obtain nourishing food. The failure of this study to support these claims may be attributed to the fact that the habits and beliefs of the Fulani remain same even after they migrate to urban areas, because of which their life remains almost unchanged.

The findings showed insignificant differences between urban and rural Fulani in their drinking (alcohol). This may be explained on the basis that all the respondents of this study are moslems and therefore prohibited from drinking (alcohol). In addition, inspite of migration to urban areas, the faith in their religion remained unchanged which did not permit them to become drinkers. This explanation is supported by the findings of this study that showed insignificant differences between urban and rural Fulani in their smoking (cigar, pipe, cigarette) habits.

The insignificant difference found in the study between urban and rural Fulani in physical activity level substantiate the other findings of the study in that the migration of Fulani to urban areas did not significantly affect their lifestyle, although there was contraction in the household size of the urban Fulani.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

The purpose of this chapter is to summarise the study, draw conclusions from the findings and make recommendations that will help to improve the lifestyle of urban and rural Fulani. The chapter is organised according to the following sub-headings: introduction, Summary, Conclusions and recommendations.

5.2 SUMMARY

The objectives of this study as stated in chapter one are as follows:-

1. To determine the household size of urban and rural Fulani in Kaduna State.

2. To find out the health attitudes and cultural beliefs of urban and rural Fulani in Kaduna State.

3. To determine the health status of urban and rural Fulani in Kaduna State.

4. To find out the types of food and drink of urban and rural Fulani in Kaduna State.

5. To determine the drinking (alcohol) habits of urban and rural Fulani in Kaduna State.

6. To determine the smoking (cigar, pipe, cigarette) of urban and rural Fulani in Kaduna State.

7. To find out the physical activity of urban and rural Fulani in Kaduna State.

To achieve these purposes, 250 urban Fulani and 250 rural Fulani were selected at random from urban and rural areas of Kaduna State respectively, to serve as respondents in the study. A questionnaire specially developed for the purpose of the study on different aspects of lifestyle was administered on the respondents. The information thus collected was statistically analysed to test the following hypotheses generated for this study.

1. There is no significant difference between urban and rural Fulani of Kaduna State in their household size.

2. There is no significant difference between urban and rural Fulani of Kaduna State in their health attitudes and cultural beliefs.

3. There is no significant difference between urban and rural Fulani of Kaduna State in their health status.

4. There is no significant difference between urban and rural Fulani of Kaduna State in their types of food and drink.

5. There is no significant difference between urban and rural Fulani of Kaduna State in their drinking (alcohol) habits.

6. There is no significant difference between urban and rural Fulani of Kaduna State in their smoking (cigar, pipe, cigarette)

7. There is no significant difference between urban and rural Fulani of Kaduna State in their physical activity.

SUMMARY OF FINDINGS

The findings of the study revealed:

1. Significant difference between urban and rural Fulani of Kaduna State in their household size. The household size of rural Fulani is significantly larger than that of urban Fulani.

2. Insignificant difference between urban and rural Fulani of Kaduna State in their health attitudes and cultural beliefs. Both of them had a stronger belief in health and cultural matters.

3. Insignificant differences between urban and rural Fulani of Kaduna State in their health status. They showed indifference in their health awareness.

4. Insignificant differences between urban and rural Fulani of Kaduna State in their types of food and drink. Invariably they ate the same types of food.

5. Insignificant differences between urban and rural Fulani of Kaduna State in their drinking (alcohol) habits.

6. Insignificant differences between urban and rural Fulani of Kaduna State in their smoking (cigar, pipe, cigarette)

7. Insignificant difference between urban and rural Fulani of Kaduna State in their physical activity.

5.3 CONCLUSION

Based on the findings of this study, it can be concluded that whereas significant difference exists between urban and rural Fulani in their household size with latter having a larger household size, the two groups of Fulani did not significantly differ in their health attitudes and cultural belief, health status, types of food and drink, drinking (alcohol) smoking (cigar, pipe, cigarette) and physical activity. This suggests that the two groups generally did not significantly differ in their lifestyle.

5.4 RECOMMENDATIONS

5.4.1 SUGGESTIONS FOR IMPLEMENTATION

Based on the findings of this study the following recommendations, aimed at reducing the health related problems and at the same time improving the lifestyle of Fulani, are made.

1. Concerted effort should be intensified by federal, state and local government to stem rural to urban drift through the provision of low cost but affordable housing within an area of rich grazing ground. Within this area, quality of life should be improved through availability of basic social amenities such as good road, pipe borne water or portable borehole, health centres/clinics, electricity etc.

2. The National Commission for Nomadic Education should intensify her effort to speedily stamp out illiteracy, ignorance and diseases through an introduction of basic hygiene and health education in their school curriculum.

3. Health policy should include the provision or posting of medical doctors, nurses, veterinary doctors, extension workers, social workers, pharmacist etc to health services in rural areas with additional incentives.

4. The Ministry of education in collaboration with National orientation Agency should educate the opinion leaders and heads of household on the importance of

modern medicine instead of orthodox methods based on cultural beliefs and superstition.

5. The federal/state/local government should educate Fulani on the importance of nutrition. More rapid transportation is essential for safe conservation of meat, poultry and fish and they should devise standards for quality of milk and pasteurization.

6. On drinking and smoking, even though the attitudes are basically the same, the opinion leaders and the family heads should intensify campaign to discourage this habits. The campaign of the Federal Ministry of Health on smoking should be translated into Fulfulde and Hausa language and should be regularly read to them.

7. The Fulani should be made to understand that the traditional long trekking resulting from nomadic way of life cannot take the place of physical activity or leisure. In its place therefore, recreational facilities should be provided by the state/local government and at the same time they should be encouraged to take part and avail of the opportunity.

Aggregate effect of these recommendations would definitely create a new Fulani community, translated by good quality of life.

5.4.1 RECOMMENDATIONS FOR FUTURE RESEARCH

During this investigation, researcher experienced a number of problems in the area of lifestyle. These problems are suggested below for future research.

1. Effect of cultural beliefs on the health of Fulani.

2. Comparative medical assessment of the health status of urban and rural Fulani.

3. Nutritional status of rural and urban Fulani.

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APPENDIX II

QUESTIONNAIRE ON LIFESTYLE OF FULANI

INSTRUCTION: Tick the appropriate response

A. BACKGROUND INFORMATION

1. Sex: Male ☐ Female ☐

2. Marital Status: Single ☐ Married ☐

3. Age Range:
   (a) 15 - 19
   (b) 20 - 29
   (c) 30 - 39
   (d) 40 - 49
   (e) 50 and above

4. Religion: Islam ☐ Christianity ☐
   Traditional Religion: ☐

5. Location: Rural ☐ Urban ☐

B. HOUSEHOLD MEMBERS

6. Who lives in the household with you?
   (a) Wife/husband
   (b) Children
   (c) Relatives
   (d) Parent/Parent in-law
   (e) Non-relative

7. How many people live with you?
   (a) 1 - 5
   (b) 6 - 10
   (c) 11 - 15
   (d) 16 - 19
   (e) 20 and above.

8. *Do you have any (other) relations or children of your own who are <u>not</u> living with you?*
   (a) Yes
   (b) No

C. HEALTH ATTITUDES AND BELIEFS

9. Would you say that for someone of your age, your own health is generally
   (a) Excellent
   (b) Good
   (c) Fair
   (d) Poor
   (e) Don't know

10. Do you do anything at the moment to keep yourself healthy or improve your health?
   (a) Yes (b) No

11. If yes to the above question, what are the three most important things you do to keep or improve your health?
   (a) Diet
      (i) Keep to medical/slimming diet
      (ii) Other dietary habits

(b) Drinking (Alcohol)
  (i) Stopped or reduced drinking
  (ii) Never drank

(c) Smoking
  (i) Stopped or reduced smoking
  (ii) Never smoked

(d) Medicines
  (i) Self treatment
  (ii) Doctor's Prescription
  (iii) both

(e) Physical Activities
  (i) House Work
  (ii) "Sharo" Game
  (iii) Gardening
  (iv) Walking
  (v) Physical Leisure activities

(f) Job
  (i) Herding
  (ii) Office work/Other Business

(g) Sleep
  (i) Nap/Sleep
  (ii) Relaxing/Resting

(h) Social
  (i) Traditional Dance/Parties
  (ii) Interaction

(i) Mental State

(i) Mental attitude, lack of stress

(ii) Use special technique - meditation, prayers etc.

(j) Housing/Area

(i) Sanitary

(k) Fresh Air

(i) Get (more) fresh air

(l) Other (Specify)

(i) _____

(ii) _____

(iii) _____

12. Are there any things you would like to do to keep yourself healthy but don't do?

(a) Yes

(b) No

13. If yes, what would you like to do?

(a) Sport/exercise

(b) Diet/nutrition generally

(c) Lose weight

(d) Cut down or give up smoking

(e) Cut down or give up alcohol

(f) Pursue hobbies

(g) Change/get job

(h) change social life

(i) Other (specify) _____

14. Is circumcision practiced here?
    (a) Yes
    (b) No

15. Has your family contacted disease through circumcision?
    a) Yes
    b) No

16. *If yes, are the disease treated with (a) magical power*
    b) Scientific medicine (c) or Herbs?

17. The following are statements people have made about health I would like you to say how far you agree with each statement.

	Strongly Agree	Agree	Don't Know	Dis-Agree	Strongly Disagree
a. It's sensible to do exactly what doctors say					
b. To have good health is the most important thing in life					
c. Generally, health is a matter of fuck					
d. If you think too much about your health, you are more likely to be ill					
e. Suffering sometimes has a divine purpose					
f. I have to be very ill before I'll go to the doctor					
g. People like me don't really have time to think about their health					
h. The most important thing is the constitution (the health) you are born with					

D. **HEALTH**

18. Are there any things about your life now that have a bad effect on your health?
    a) Yes □
    b) No □

19. If yes, what are they?
    a) Unable to get about
    b) Environment/housing
    c) Work

d) Financial/Standard of living/income
e) Family or marital problem/relationships
f) Friends/Neighbors/Social activity
g) Behaviour (smoking/drinking/exercise etc.)
h) Stress and worry
i) Other (Specify) _____

20. Are there any things about your life now that have a good effect on your health?
a) Able to get about
b) Environment/housing
c) Financial/standard in living/income
d) Family/marital relationships
e) Friends/Neighbors/social Activity
f) Behaviour (smoking, drinking, exercise, etc)
g) Other (specify) _____
h) Don't know

21. Do you feel that you lead
a) a very healthy life
b) a fairly health life
c) Not very health life
d) An unhealthy life
e) Don't know

22. Do you have any long-standing illness, disability or infirmity?
a) Yes
b) No

23. Does it limit your activities in any way compared with other people of your own age?
a) Yes
b) No

E. FOOD AND DRINK

24. Are you on any special diet of any sort for health reason?
    a) Yes
    b) No

25. What is this diet for?
    a) Obesity to lose weight
    b) High blood pressure/health disease
    c) Ulcers
    d) Gall Stones
    e) Kidney failure
    f) Diabetes
    g) Food Allayer

26. Would you say that you eat the right amount of food?
    a) Yes
    b) No

27. Do you eat too much or too little?
    a) too much
    b) too little
    c) can't say

28. How often do you have break-fast?
    a) Everyday
    b) Most days
    c) Once or twice a week
    d) Less than once a week
    e NEVER

29. Do you eat regularly, that is, have the same number of meals at roughly the same time each day?
    a) Yes
    b) No

30. Indicate by a tick the number of times in a week that you take the following *foods*

	More than once a day	Once a day	Most days	Once or twice a Week	Less than once a week	Never
Fresh fruit						
Salads or raw vegetables						
Tinned fruit						
Yam						
Potatoes						
Root vegetables						
Rice						
Beans						
(Tuwon masara)						
Green vegetables						
Fura						
Nuts						
Breakfast cereal						
Cow milk						
Fish						
Beef						
Eggs						
Chicken						

31. Think about the things you eat. would you say that your diet is
    (a) as healthy as it could be
    (b) quite good, but could improve it
    (c) *or not very healthy*
    (d) Don't know

38. Were you ever a regular cigarette smoker, that is, smoking at Least one cigarette per day for 6 months?

(a) Yes

(b) No

39. What reasons made you to give up smoking cigarettes?

(a) Ill health

(b) Expense

(c) Fear of ill health in future

(d) Special pressure/to please someone else

(e) Pregnancy

(f) Just wanted to give up

H. EXERCISE/PHYSICAL ACTIVITY/LEISURE

40. Do you think you get enough exercise?

(a) Yes

(b) No

41. In general, compared with men/women of your age, are you physically.

(a) more active

(b) less active

(c) about average

(d) don't know

42. How much time on average per day do you spend walking?

(a) ----------Hours

(b) don't know

43. Compared to people of your own age, which of the following best described your usual walking pace?

(a) Slow (b) Average

(c) Fairly brisk (d) fast

(e) don't know.