

## Perception of illness and health seeking behavior among Fulani in Wamakko Local Government Area of Sokoto State, Nigeria

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### ABSTRACT

**Background:** Several studies have established strong links between individual's health seeking behavior and perception of illness, as well as accessibility to healthcare services. **Aim:** This study aimed to assess the perception of illness, and health seeking behavior of Fulani in Wamakko Local Government Area, Sokoto State, Nigeria. **Materials and Methods:** A cross-sectional study conducted among 390 semi-nomadic Fulani (selected by multistage sampling technique) in rural communities of Wamakko LGA, Sokoto State, Nigeria. A semi-structured pretested interviewer-administered questionnaire was used to obtain information on the research variables. Data were analyzed using IBM SPSS version 17 statistical computer software package. **Results:** More than two-thirds 270 (69.2%) of the 390 respondents had no formal education. Two hundred and thirty-nine (61.3%) wrongly perceived illness to be from God, while 145 (37.2%) and 167 (42.8%) sought care in health facilities for themselves and their children respectively. Of the 172 female respondents, only 37 (21.5%) and 32 (18.6%) had their pregnancy supervised and their last delivery in a health facility respectively, with the main obstacles being financial constraints, poor physical access, and lack of approval by their husbands. Most 282 (72.3%) of the 390 respondents did not take their youngest child to the hospital for immunization at all. **Conclusion:** Majority of the respondents in this study wrongly perceived illness to be naturally from God, and utilization of healthcare services was poor among them. Government should give education of the Fulani girl child top priority and make healthcare services more accessible to this vulnerable population.

**Keywords:** Perception of illness, health seeking behavior, Fulani

### INTRODUCTION

Health is essential for social and economic development; it is seen as a resource for everyday living and sought after by all.<sup>1</sup> Health seeking behavior has been defined as a sequence of remedial actions that individuals undertake to rectify perceived ill health.<sup>2</sup> The link between health and human behavior is a major area of interest in public health. An abundance of descriptive studies on health seeking behavior, demonstrate the complexity of influences on an individual's behavior at a given time and place.<sup>3</sup> Studies have also shown that there are numerous influences on an individual's health seeking behavior namely; past experience with health services, perception about quality and efficiency of health services and influences at the community level.<sup>4</sup> In the WHO conceptualization model, lifestyle is a way of life, a socioeconomic phenomenon arising from interaction between patterns of behavior and specific situations

rather than individual decision to avoid or accept certain health risks.<sup>5</sup> Considering this, health seeking practices are shaped by values and beliefs learned in specific cultures and by opportunities and constraints defined by specific social and economic situations.<sup>5</sup> Health and disease are interrelated and their concept varies from culture to culture and people to people, especially in tribal communities, because their concept of health and health seeking behavior is a part of their culture.<sup>6</sup>

The perception or recognition of illness is the first important stage in the sequence of healthcare. According to Suchman<sup>7</sup> problem identification occurs at this stage and without that identification no healthcare would be sought. A study in Mexico and another in Nepal in 2004 have all identified symptom recognition and perception as a barrier to care-seeking.<sup>8</sup> First the person has to

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assume the sick role, acceptance into this role for a child, as noted by a study on childhood illness in Nepal in, depends primarily upon maternal recognition of certain signs and symptoms of child illness, such as illness severity.<sup>9</sup>

Health care-seeking is a complex behavioral phenomenon. Literature suggests that the choice of care depends upon distance to facility, cost involved, and quality of care provided. However, care-seeking in presence of all these obstacles is also defined by illness-related factors, such as severity or nature of morbidity. Differential use of health services is also shaped by other factors, including socioeconomic status and gender.<sup>10</sup> The perception on illness varies enormously with different ethnic groups. By and large, a general view on illness is found as any incapacitation in the performance of normal activities, such as, working in the field, doing domestic works, going outside for business etc. due to physical discomfort. Illness may be identified in terms of biological parameters such as pain in different part of the body, loss of appetite, headache, loss of body weight, lose eyesight etc. However, few conceptualize illness in terms of broader cosmological explanation involving the interaction of spirits, supernatural forces and ominous power of nature.

The word Fulbe was first used by the German writers to refer to the Fulanis in 1945.<sup>11</sup> The Fulani (known by different names such are Peul in Wolof, Fula in Bambara, Felaata in Kanuri and Fulani in Hausa) are majorly pastoralists and reside in the rural populations of the West African countries, including Nigeria, where less than 15% of the populace have access to medical services. Even among the rural dwellers, the Fulani pastoralists are disadvantaged in getting medical services; this obviously explains the high morbidity and mortality among them as one of ten Fulani children born alive die within the first birth day, one of five Fulani children does not reach the age of six, and the likelihood of a Fulani child living up to the age of fifty years is only forty-six percent.<sup>11</sup>

A cause for concern is the fact that of all Nigerians, the Fulani are the most vulnerable to diseases and natural hazards.<sup>11</sup> Although they contribute to the national economies of their countries and are the major producers of milk, meat and other animal products in many African countries<sup>12</sup> they have less access to health care, safe drinking water and formal education and are more exposed to diseases such as Malaria than the settled population.<sup>13</sup> The mobility of the Fulani exposes them to extremes of temperatures and allergies

associated with dust, weeds, and animals; and they drink water that is polluted with dirt and decomposing matter. Their unprotected bodies are exposed to injuries (including cuts from thorns, tree branches, falling trees and accidental gun shots by hunters) and bites or stings from bees, snakes, scorpions, mosquitoes and flies. It is therefore not surprising that the pastoral Fulani are plagued by diseases such as malaria, filariasis, dysentery, gangrene wounds, liver flukes, bilharziasis, asthma, rabies, sleeping sickness, hyperthermia, skin disorder, tuberculosis, constipation, and exhaustion.<sup>11</sup>

In a study carried out among Nomadic Fulani, it was reported that they perceived intermittent fever (which is believed to be their most common health problem, and is called “pabboje” in their local language) to be due to environmental factors including early rains; and despite its interference with their normal duties such as herding, rather than seek orthodox medical care (which they considered to be unnecessary), they routinely use traditional medicines, or perform some rituals to reduce its severity or prevent a recurrence. Although modern antimalarials may make the severity of subsequent pabboje episodes worse, nomads seek treatment in private health facilities against fevers that are persistent using antimalarial medicines. It was concluded that understanding nomadic Fulani beliefs about pabboje is useful for planning an acceptable community participatory fever management among them.<sup>14</sup>

Another study carried out by among Fulani of Karfi Village in Northern Nigeria on perception and beliefs about mental illness showed that the most common symptoms proffered by respondents as manifestations of mental illness included aggression/destructiveness (22.0%), loquaciousness (21.2%), eccentric behavior (16.1%) and wandering (13.3%). Although about a third of respondents (34.3%) identified drug abuse as a cause, close to a fifth of them attributed it to divine wrath/Gods will (19.0%), and magic / spirit possession (18.0%). Less than half of respondents (46.0%) preferred orthodox medical care for the mentally sick, while about a third (34.0%) preferred spiritual intervention. The study emphasized the need to organize community educational programs aimed at demystifying mental illness across Nigeria.<sup>15</sup>

Various factors are known to intervene in the process of using health services once the need for care is perceived, whether because of illness or the threat of it or because of a desire to maintain present levels of health. Such intervening factors include individual predisposing factors (e.g. demographic characteristics or individual

attitudes) and enabling factors, derived from the socioeconomic environment including the extent to which access to health services is contingent upon the ability to defray expenses of the extent and nature of insurance provisions.<sup>2</sup> A study conducted among rural Yoruba and Fulani residents of two local governments in Oyo State, Nigeria, to determine differences in health seeking behavior reported that Fulani residents more commonly used private facilities during a recent illness, while Yoruba residents more commonly used government facilities.<sup>16</sup> Similarly, a study that assessed the health seeking behavior of nomadic Fulani at the Gongola-Benue valley in Northeastern Nigeria reported that they patronize private health facilities but hardly public ones; and the major reasons given were the flexible and negotiable payment condition in the private health facilities, the closeness of the facilities to their camps, satisfaction with the services provided, and the politeness of the health care providers working in the private health facilities as compared to the public ones.<sup>14</sup>

Understanding the health seeking behavior of the Fulani is therefore important in designing appropriate strategies for improving both their access to health care services and their health status. Currently, there is a dearth of literature on the health seeking behavior of the Fulani in Nigeria, and there is no documentation on the health seeking behavior of the semi-nomadic Fulani in North-Western Nigeria. This study was conducted to assess the perception of illness, and health seeking behavior of Fulani in Wamakko Local Government Area, Sokoto State, Nigeria.

## **MATERIALS AND METHODS**

### **Study Design, Population and Area**

A cross-sectional study was conducted among semi-nomadic Fulani (i.e., whose living habits are largely nomadic but also plant some crops at temporary camps) living in Wamakko Local Government Area of Sokoto State, Nigeria, in October 2012. All consenting permanent residents of the selected settlements  $\geq 18$  years of age were considered eligible for enrollment into the study, while their visiting relatives who do not reside in the settlements were excluded.

### **Sample Size Estimation and Sampling Technique**

The sample size was statistically estimated at 384 (and then adjusted to 426 in anticipation of a 90% response rate) and the eligible participants were selected by multistage sampling technique. At the first stage, 2 of 11

Wards in Wamakko Local Government were selected by simple random sampling using the ballot option. At the second stage, line listing of all the settlements in the selected Wards was done, and 2 settlements were selected in each of the selected Wards by simple random sampling using the ballot option. At the third stage, the population of Fulani in the selected settlements was obtained and proportionate allocation of respondents was done; houses were then selected in the respective settlement by systematic sampling technique. One of every 3 houses was selected, and an adult  $\geq 18$  years in each selected house was interviewed. In a house with more than one adult, one was selected by simple random sampling using the ballot option, and if no adult was found in a selected house, the next house was done. This was continued until the desired sample size was obtained (430 subjects were enrolled into the study).

### **Data Collection and Analysis**

A semi-structured interviewer-administered questionnaire with open and closed questions was used to obtain information on the participants' socio-demographic characteristics, perception of illness, and health seeking behavior. Thirty students of the School of Nursing, Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria, assisted in data collection after a two-day training that focused on various aspects of research, community entry, use of survey instrument, and the entire conduct of the study. The questionnaire was pretested on 20 Fulani in one of the Wards that were not selected for the study, and the necessary modifications were made based on the observation made during the pretesting. Data were analyzed using the IBM SPSS version 20 computer statistical software package. Quantitative variables were summarized using mean and standard deviation, while categorical variables were summarized using frequencies and percentages.

### **Ethical Consideration**

Ethical approval was obtained from the Research and Ethics Committee of Sokoto State Ministry of Health, Sokoto, Nigeria. Permission to conduct the study in the selected settlements was obtained from the administration of Wamakko Local Government Area, Sokoto State, Nigeria, and informed written consent was obtained from the study participants before data collection.

## RESULTS

### Socio-demographic characteristics of respondents

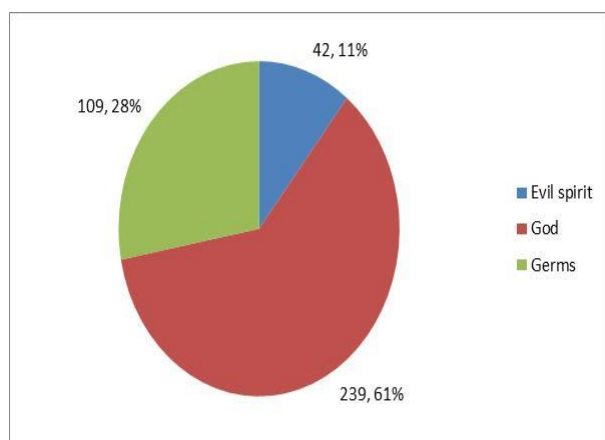
Three hundred and ninety out of the 430 questionnaires administered were adequately completed and found suitable for analysis, giving a response rate of 90.7%. The mean age of respondents was 39.1±16.4 years. All the 390 respondents were Muslims; and most of them 327 (83.84%) were married. Majority of respondents 218 (55.9%) were males and more than two-thirds 270 (69.2%) had no formal education (Table 1).

**Table 1: Socio-demographic characteristics of respondents**

Variables	Frequency (%) n = 390
Age group (years)	
18-27	120 (30.8)
28-37	74 (19.0)
38-47	69 (17.7)
48-57	56 (14.3)
58-67	53 (13.6)
>68	18 (4.6)
Religion	
Islam	390 (100)
Marital status	
Single	33 (8.5)
Married	327 (83.8)
Separated / divorced	30 (7.7)
Sex	
Male	218 (55.9)
Female	172 (44.1)
Education level	
None	88 (22.5)
Quranic only	182 (46.7)
Primary	51 (13.1)
Secondary	28 (7.2)
Tertiary	41 (10.5)

### Respondents' perceived causes of illness

About two-thirds 239 (61.3%) of the 390 respondents believed that illness was from God, while only less than a third 109 (27.9%) perceived illness to be caused by germs (Figure 1).



**Figure 1: Respondents' perceived causes of illness**

### Respondents' preference of source of health care

Less than half 145 (37.2%) of the 390 respondents sought care in a government hospital or health facility, and only a few 13 (3.3%) sought care in a private hospital during their last illness. Close to two-thirds 232 (59.5%) of the 390 respondents sought care through other sources (including drug vendors, traditional healers and spiritual homes) instead of a hospital. Of the 158 respondents that sought care in a hospital when ill, less than half of them 72 (45.6%) did so promptly, while about a third 48 (30.4%) did so only after home remedy failed. Among the 232 respondents that did not seek care in a hospital when ill, most 169 (43.3%) did not do so because they could not afford the charges, while the other reasons given were hospital being far from home (21.1%), attitude of hospital staff (21.1%), and lack of approval from husband (16.5%) as shown in Table 2.

**Table 2: Respondents' preference of source of health care**

Variables	Frequency (%)
Where care was sought during the last illness (n = 390)	
Government owned hospital or health facility	145 (37.2)
Private hospital	13 (3.3)
Other sources (drug vendors, traditional healers, spiritual homes)	232 (59.5)
When hospital care was sought (n = 158)	
Immediately symptoms were felt	72 (45.6)
When there was no relief of symptoms after some time	48 (30.4)
When home remedy failed	38 (24.0)
Main reason for not going to a hospital or health facility (n = 232)	
Treatment charges not affordable	169 (43.3)
Hospital was far from home	74 (19.1)
Attitude of hospital staff	82 (21.1)
Husband did not give approval	64 (16.5)

### Supervision of pregnancies and deliveries among female respondents

Only about a fifth 37 (21.5%) of the 172 female respondents had their last pregnancies supervised. Of these, majority 26 (70.3%) had their pregnancies supervised at home, but most of them 35 (94.6%) had their pregnancies supervised by a midwife. Among the 135 female respondents whose pregnancies were not supervised, the most commonly cited reason was not being able to afford the charges (49.6%), while the other reasons given were lack of approval from husband (18.5%), hospital being far from home (16.3%), and lack of female care givers (18.5%). Less than a fifth 32 (18.6%) of the 172 female respondents had their last deliveries in a hospital (Table 3).

**Table 3: Supervision of pregnancies and deliveries among female respondents**

Variables	Frequency (%)
Had her last pregnancy supervised (n = 172)	
Yes	37 (21.5)
No	135 (78.5)
Place where pregnancy was supervised (n = 37)	
Home only	26 (70.3)
Home and hospital	4 (10.8)
Hospital only	7 (18.9)
Pregnancy supervisor (n = 37)	
Family member	2 (5.4)
Midwife	35 (94.6)
Reasons for pregnancies not being supervised (n = 135)	
Hospital far from home	22 (16.3)
Hospital charges not affordable	67 (49.6)
No female caregiver	21 (15.6)
Husband did not give approval	25 (18.5)
Place of last delivery (n = 172)	
Home	140 (81.4)
Hospital	32 (18.6)

### Preferred place of treatment for children and acceptance of immunization

Less than half 167 (42.8%) of the 390 respondents have ever sought care in a hospital when their youngest children were ill. About a quarter 100 (25.6%) sought care from traditional healers, while 54 (13.9%) and 47 (12.1%) sought care from drug vendors and traditional healers respectively. Less than a third 108 (27.7%) of the 390 respondents have ever taken their youngest children to a hospital for immunization. Of these, less than half 38 (35.2%) were immunized  $\geq 5$  times. Among the 282 respondents who have never taken their youngest children to a hospital for immunization, the most commonly cited reasons were fear of the vaccines causing harm to their babies, and their relatives being against it, while the other reasons given were not considering it as necessary 59 (20.9%), and fear of their babies developing fever after being vaccinated 47 (16.7%) as shown in Table 4.

## DISCUSSION

This study assessed the perception of illness and health seeking behavior among Fulani in Sokoto. Majority (55.9%) of the respondents in this study were males, this is in contrast with the study conducted by Otusanya *et al.*<sup>16</sup> among Fulani Herders and Yoruba farmers in Oyo where majority of respondents (52.4%) were females. This could be due to the fact that whereas this study was conducted among a homogenous population of Fulani, the other latter study involves two ethnic groups with different cultures. It is not surprising that all the respondents in this study were Muslims considering the fact that Islam is the predominant religion in the study

area, and also, the Fulani ethnic group mainly practices Islam. This is similar to the finding in a study among Fulani nomads in Enugu, Nigeria which reported that all the respondents were Muslims.<sup>17</sup> More than two-thirds (69.2%) of the respondents in this study had no formal education; this is in agreement with the finding in a study on utilization of maternity services in Gidan Igwai Sokoto, by Oche *et al.*<sup>18</sup> which showed that 71.3% of respondents had no form of formal education. This could be due to the prevalent practice of withdrawal of Fulani girls for early marriage, while the males are made to take care of the family herd instead of going to school.<sup>19</sup>

**Table 4: Preferred place of treatment for children and acceptance of immunization**

Variables	Frequency (%)
Where care was sought when youngest child was ill (n = 390)	
Hospital	167 (42.8)
Drug vendors	54 (13.9)
Traditional healers	100 (25.6)
Home treatment	47 (12.05)
No response	22 (5.64)
Youngest child ever taken to hospital for immunization (n = 390)	
Yes	108 (27.7)
No	282 (72.3)
Number of times youngest child was immunized (n = 108)	
< 5	70 (64.8)
$\geq 5$	38 (35.2)
Main reason for not immunizing youngest child (n = 282)	
It is not necessary	59 (20.9)
Fear of harm to the child	110 (39.0)
Fear of child developing fever	47 (16.7)
Relatives were against it	66 (23.4)

Majority (61.3%) of the respondents in this study wrongly perceived illness as being naturally from God. This could be related to their low educational attainments as less than a third of them (27.9%) were aware of transmission of diseases by germs. This finding is comparable to the finding in a study on health seeking behavior among semi-nomadic Lohar Gadiyas which showed that 62.2% of respondents believed that illness is caused only by the mercy of God.<sup>6</sup> Majority of the respondents in this study (59.5%) sought care from other sources (including drug vendors, traditional healers and spiritual homes) instead of a hospital. This could be related to the ease of access to these sources, particularly the cheaper fees charged by them. Patent medicine vendors are present in every locality in Nigeria, and they constitute the major source of care for the populace.<sup>20</sup> In relatively low utilization of private hospitals (3.3%) as compared to government owned hospitals (37.2%) by the respondents in this study is in contrast to the finding

in a study by Akogun *et al.*<sup>14</sup> in which the respondents showed preference for private hospitals and avoided government owned hospitals. This may be due to the limited number of private hospitals in the study area.

The finding of the main common reasons for not seeking care in a hospital being inability to afford the charges (43.3%) and attitude of hospital staff (21.1%) is in consonance with the finding in a study by Iro<sup>11</sup> who reported that financial constraints and attitude of health workers were major barriers to utilization of health care facilities by them. In the latter study, 61% of Fulani partly or fully pay for their own medical costs, and 22.8% of respondents did not visit government hospitals due to attitude of the staff. It was also reported that when they see an opportunity, health care workers extort fees from Fulani, while counter-clerks mock the Fulani who do not speak English or the local language.<sup>11</sup> It is therefore not surprising that less than half (42.8%) of the respondents in this study sought care in a hospital when their children were ill, and these findings bring to the fore the need for governments at all level to improve the accessibility (physical, financial and intellectual) of residents of the rural populations across the country to healthcare services. Also, the management of healthcare facilities should promote good health worker-patient relationship in their respective facilities.

Long distance between the health facilities and their homes was the reason given for not seeking care in a hospital by close to a fifth (16.6%) of the respondents in this study. This is similar to the finding in a study on sedentism and malnutrition among nomadic Fulani children in South Western Nigeria, in which the settlements were said to be located very far from the health facilities that provide health and nutrition education services.<sup>21</sup> Also in contrast to the relatively high proportion (16.5%) of female respondents who did not seek care in a hospital because their husbands did not allow them to do so, only a few respondents (4.3%) reported non-utilization of health care facilities as being due to lack of approval by their husbands in a study in South Western Nigeria.<sup>21</sup> This could be due to the low level of educational attainments by the respondents in this study as compared to those in the latter study. According to the Nigeria Demographic and Health Survey 2013, North Western Nigeria had the highest proportion of females with no formal education in the country (62.8%), and within the North-Western zone, Sokoto State had the highest prevalence of women with no formal education (78.5%).<sup>22</sup> It is therefore not surprising that only about a fifth (21.5%) of the female respondents in this study had their last pregnancies

supervised and only a few of them (18.6%) delivered in a hospital; and the main reasons given by the majority whose pregnancies were not supervised were also inability to afford the charges (49.6%) and lack of approval from their husbands (18.5%). These findings underscore the need for government to pay special attention to education of the Fulani girl child.

The high proportion (72.3%) of respondents whose last children were never vaccinated in this study is alarming, and it is far higher than the 21.0, 20.8 and 24.1% prevalence of no vaccination in Nigeria, North-Western zone, and Sokoto State respectively; and it may not be unconnected with the poor educational attainment among women in Sokoto State.<sup>22</sup> Also, rumors of 'contaminated' polio vaccine ignited a controversy in Kano state, in Northern Nigeria in mid-2003 and led to official suspension of immunization activities. Such rumors, which ranged from contamination of polio vaccine with human immunodeficiency virus at the time of manufacture to deliberate addition of hormones to permanently sterilize young girls, have plagued the attitude towards immunization services in Northern Nigeria (the study area inclusive),<sup>23</sup> and this could have contributed to the abysmally low immunization coverage obtained in this study.

It had been observed over the years that basically, health programs often do not reach the Fulani. For example, among the Fulani living in South-western Nigeria, their children had lower immunization rates than the settled farmers and their settlements they were not included in the guinea worm surveillance and control program that was carried out in their area.<sup>24</sup> It is therefore not surprising that Fulani children had the worst health indices in Nigeria<sup>11</sup> and these findings provide additional evidence in support of the need for Government at all levels to make healthcare services more accessible (both physically and financially) to the Fulani and others vulnerable populations across Nigeria. In addition, utilization of maternal and child health services should be promoted among the Fulani through aggressive advocacy and education, improved and more accessible healthcare services, and regular outreach immunization programs, to be taken to the door steps of the nomadic Fulani in their respective settlements.

Specifically, to attain and maintain a level of health that will permit good economic and social development among this vulnerable group, basic education of the Fulani girl child should be made compulsory in Nigeria. Also, the national board for nomadic education should be strengthened and empowered to carry out its mandate

in ensuring that Fulani children in every part of the country have access to Western education.

## CONCLUSION

Majority of the respondents in this study wrongly perceived illness to be naturally from God, and utilization of healthcare services was poor among them. Government should give education of the Fulani girl child top priority and make healthcare services more accessible to this vulnerable population.

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## Conflict of interest

None declared.

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