

BEYOND BIOMEDICAL DIAGNOSIS AND MANAGEMENT OF TUBERCULOSIS AMONG THE YORUBAS OF SOUTHWESTERN NIGERIA: IMPLICATION FOR TUBERCULOSIS CONTROL PROGRAMME

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Abstract: The beliefs in etiology and etymology of Tuberculosis (TB) among the Yoruba run contrary to the western bio-medical paradigm: a scenario which continues to deter the optimum utilization of biomedical facilities. This accounts for resilience of the disease, as earlier studies on tuberculosis focused on causes, prevalence, logistics and social stigma. Local diagnosis and management of tuberculosis and their implication on tuberculosis control programme have been largely ignored. Our study examines how customs, values, and beliefs embedded in local diagnosis, and management of the disease, disfavor the utilization of biomedical facilities, and the implication on tuberculosis control programme. Through qualitative and descriptive ethnography, Key Informant Interview (KII), Focus Group Discussion (FGD) and the textual analysis of documents, our study seek to establish that the Yoruba cultures are rife with customs, values and beliefs that influenced how tuberculosis is diagnosed and managed locally. This has reinforced their reliance on traditional/ home remedies for cure that makes a strong case for the low utilization of bio-medical facilities, with consequent implication on tuberculosis control programme in the study area. The great optimism of winning the fight against tuberculosis must be sustained by eliminating cultural obstacles and erroneous perceptions that seem to create the gaps in understanding and managing the disease. There is need to dispel these beliefs and primitive perceptions on the causes of tuberculosis that deter

optimum utilization of biomedical facilities and quality care if successful programme must be guaranteed.

Keywords: Local; Diagnosis; Management; Yoruba; Tuberculosis.

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INTRODUCTION

In all human groups throughout the world, the understanding of illness and etiology is unique to each social group; which in turn determine how is being managed. The customary norms, beliefs, values, have influenced how illness, disease is being perceived and managed among the Yoruba. The beliefs in etiology and etymology of Tuberculosis (TB) among the Yoruba run contrary to the western bio-medical paradigm: a parallel assumption and perception exists that continues to deter the optimum effects of Tuberculosis intervention and disease control among the people. However, over the years, Nigeria's Tuberculosis control programme and persons affected by Tuberculosis have encountered several problems. One of the problems is unsuccessful integration of Tuberculosis control with general primary health care. Particularly disturbing is the World Health Organization (WHO 2015) report, which shows consistent increases (rather than decreases) in both new case detection and prevalence of Tuberculosis from 2009-2015 in Southwest area of Nigeria. This raises worries about the effectiveness of Tuberculosis control programme in the area and whether Tuberculosis is a re-emerging disease in the area and for what reasons.

According to the World Health Organization, around 590,000 Nigerians developed TB in 2013, and of these around 140,000 also are infected with HIV. Every year, around 245,000 Nigerians die from tuberculosis (TB) and about 590,000 new cases occur (of these, around 140,000 are also HIV-positive). TB accounts for more than 10% of all deaths in Nigeria. Every hour, nearly 30 people die from the disease, despite effective treatments being available. Tuberculosis (TB) is a serious public health problem in Nigeria. This reveals that TB prevalence was two times higher than previously thought. The above situation appears to be compounded by enormous fear of Tuberculosis among the Nigerian populace (Sule 2008). Furthermore, community participation and socio-economic rehabilitation which are crucial elements in tuberculosis control have remained weak (Ojo et al, 2012). Consequently, community response or behaviour toward those suffering from tuberculosis is characterized by avoidance, insult and rejection.

Nigeria has a national tuberculosis control programme, an organized effort with clearly defined goals to reduce tuberculosis burden in the country. Under the guidance of the National TB and Leprosy Control Programme (NTLCP), Nigeria recently finalized its first TB prevalence survey. Key activities of the programme include problem assessment, health education of the public, case finding, diagnosis, chemotherapy, rehabilitation and efforts to integrate persons affected by Tuberculosis into their community. There is also inbuilt monitoring and evaluation arrangements in the programme.

In spite of the national and international interventions engineered against Tuberculosis over the years, due to the lack of convergence between local and bio-medical perceptions, the disease remains the cause of high morbidity and mortality rates in many sub-Saharan African societies (Lake 2011). The bio-medical optic, perceives the disease as a contagious that is responsible for the deaths of thousands of people in sub-Saharan Africa, including Nigerians. Attempts and

official intervention strategies are thus generated to tackle the inception, growth and spread of the bacteria. Local perceptions signalling the cultural specifics of Tuberculosis and its management in sub-Saharan Africa are mostly ignored. The consequence of this approach is that tuberculosis still remains an intractable disease that continues to affect several thousands of sub-Saharan Africans over the years (Daniel 2016).

It is beyond doubt that previous studies focused on economic, ecological and political aspects of tuberculosis management, little or no attention has been drawn to how the "local" concept of tuberculosis informs specific knowledge creation and how such a disease is interpreted to affect or disfavour the utilization of bio-medical based facilities, and its implication on Tuberculosis control programme. This situation partly explains the poor results of Tuberculosis intervention in sub-Saharan Africa. More specifically, the significance of local perception (which entails belief systems) matters in understanding a disease, and especially how such local understandings can come to bear on diagnosis, and how such disease is being managed.

The cultural template of a particular morbid entity and its nosography can shed more light on therapeutic choices and the knowledge frameworks within which these choices are articulated and translated. Such specifics include local terms for disease; attitudes and responses emanating from such terms; how those attitudes construct responsibility to manage the disease and the cumulative effects such constructions on community health, arising from local understandings of the disease (Ajala and Adejumo, 2007). Schultz (2016) asserts that household is structured in a way that depicts cultural attributes that affect healthcare system. The study conducted by Spheri et al (2008) has also shown that health insecurities in many households in Nigeria are associated with the way in which a disease is locally diagnosed and managed.

Federal Ministry of Health (FMH 2014), stated that more than 70% of Nigerian do not seek quality healthcare and 85 percent of the population rely on home remedies for health care and underutilize western healthcare facilities (that can enhance quality health). The reliance on home remedies and underutilization of bio-medical facilities has been socially constructed by Okoli (2013) as "uncivilized" "unscientific" and "dangerous" or at least in need of sustainable intervention and continual monitoring.

Above all, utilization of biomedical facilities for Tuberculosis control in Nigeria seems to be low, which may likely produce negative impact on the control effort. 'This dialectic is particularly worrisome especially as huge amount is voted for the programme to control the disease, yet, has not yielded desired result on Tuberculosis control.

It is against the above background and problems that the research was undertaken to investigate local diagnosis and management of Tuberculosis, and how it affect the effectiveness of Tuberculosis control programme in the area. This is anchored on the premise that the finding of this study will aid policy formulation toward tuberculosis control programme. Also to inform future research and provide guidance for health interventionists aimed at improving health care system and health status of study population.

Objective of the study

1. To examines examine how local beliefs, values and customs influence local diagnosis and management of Tuberculosis
2. To examine how local diagnosis and management of Tuberculosis affect utilization of biomedical facilities
3. To examine how the above implicate on Tuberculosis control programme.

The Study Area

The Yoruba people inhabit Oyo, Ondo, Ogun, Lagos, Ekiti, Osun states and some parts of Kwara and Edo states in Nigeria. They are also found in some parts of the republic of Benin and Togo. The Yoruba geographical location in Nigeria stretches from the southwestern lagoon to the lower bank of River Niger. Thus, among different Yoruba nations there exist similar historical traditions. Through this historical tradition, the Yoruba people are united and are still bonded together with a common culture in modern Nigeria. The people are intensely religious. Religion features prominently in almost all the spheres of their activities. Like other people in Africa and elsewhere, they believe that gods, goddesses, and departed ancestors are capable of causing disasters like epidemics, if they are not propitiated; and if they are well propitiated, they can ward off disasters, repel the forces of evil, and ensure the general wellbeing of the society.

Traditionally, healthcare system among the Yoruba was carried out in the context of the traditional/indigenous religion. This involved the use of both natural and supernatural means to maintain good health prevention and cure diseases. Medicine and magic were practiced hand in hand, commonly so, by traditional healers in the quest for health sustainability among the people. Plants and other natural substances were heavily relied upon for the prevention of physical ailments while magico-religious rituals were used for those suspected to have supernatural undertones. Even today, the Yoruba people are known for their belief in the efficacy of herbal remedies and ritual practices in the prevention and cure of certain diseases. The notion of germ theory in the aetiology of disease is completely alien to Yoruba culture.

It is believed by the Yoruba that diseases are caused by a person's lifestyle/habits of consumption and supernatural factors. In Yoruba cosmology, animals, insects and other natural elements do not cause

or transmit diseases except when they are used by the gods as a punishment against a person, or group.

METHODOLOGY

Our study was designed as a descriptive ethnography, relying mostly on qualitative methodology; however, bits of quantitative data were integrated to run the frequency of some variables. Both the individual and the community served as the basis of data interpretation. The need for this arose from the desire to capture a multi-lateral perception of local culture surrounding the diagnosis and management of tuberculosis in the Yoruba region. Specifically, our study focuses on local cultural specifics such as the perception of disease arising from local terminologies, beliefs and attitudes and how such cultural contents knowledge-creation influence tuberculosis management among the Yoruba of Southwestern Nigeria. In this study, the local knowledge of and attitudes towards tuberculosis were investigated alongside the beliefs that define, enforce and enhance such local perceptions. Through descriptive ethnography, the western ideas of tuberculosis to solving the disease were equally investigated to determine the extent to which biomedical facilities for tuberculosis is utilized.

Within this baseline, local ideas were critically analyzed to see if there a point of reconciliation between the two existed. Further, to explain how such worldview impacts on local diagnosis and management of tuberculosis, our research engaged in multi-lateral, comprehensive and descriptive ethnography. Drawing largely from the *emic* approach (how people think), albeit with some sense of *etic* perception (what is ethnographically important) of Yoruba in the world of tuberculosis, our study is data driven and community centred. Tuberculosis infection is non-spatial in restriction. It is also highly likely that some Yoruba resident have not experienced the infection. Hence, to grasp as many local perceptions as possible, an extensive ethnographic study of the Yoruba people and its responses to the disease was carried out

in a culturally sensitive context. The local language, Yoruba, was used in the field with research being conducted using both emic/etic frameworks. Indigenous knowledge and beliefs associated with the disease were interrogated using folk or local terminologies based on the cultural context of the disease.

Our study population comprises four categories of respondents, namely, the general public, persons affected by tuberculosis, tuberculosis control staff and officials of World Health Organization and the donor agency operating in the two states. Secondary data were sourced from textbooks; academic journals; magazines and government /organizational publications. Primary data were collected from the field relying on the triangulation of Key informant interviews (KII), In-depth interview (IDI), Focus Group discussion (FGD) and Non-participatory Observation (NO). The study relied on non-systematic sampling. Hence a sizeable number of respondents were selected to achieve objective and generalized data from the field. Specifically, each of the non-systematically selected respondents was engaged in deep and intensive interview. The sampling produced the selection of 12 research communities both rural and urban on equal divides from Ondo and Osun states.

A total of 24 key informants were used across the 12 study locations: and an average of 2 key informants was used in each research location. Some of the informants were identified during the pre-field visit and others during the FGD sessions were singled out for further interview. These respondents provided testimony on traditional treatment regimens and processes involved in the preparation and administration of traditional remedies in Tuberculosis management. Traditional and modern healers, caregivers, as well as Tuberculosis patients were selected and interviewed on a one-on-one basis. The instrument used for the key informant interview consisted of 12 open-ended question guides that allowed the respondents to freely express opinion on the respective issues under investigation. Also,

purposively selected 10 Tuberculosis Control Staff and 2 officials of World Health Organization and the donor agency operating in the two states were respondents to In-Depth Interview (IDI).

12 sessions of Focus Group Discussion (FGD) which consisted of average of six people were held in all field locations, which served as avenues for self expression. Information so gathered was used to complement the data obtained through other methods. Each session was limited to six discussants and lasted one hour. This was to ensure sufficient time for each participant to air his/her views. Interview sessions were interactive in order to elicit comments and responses that clearly brought out local terminologies associated with Tuberculosis and the cultural significance of the disease.

Apart from the above methods, 34 sessions of Tuberculosis care were observed mainly through non-participatory observations. Included in the observations were the traditional and modern healers, caregivers as well as Tuberculosis patients, who were selected across all the study locations. It was also observed how patients responded to Tuberculosis in order to gather first hand information on therapeutic choices and the perceptions of Tuberculosis care. Specifically, informants communicated key research issues such as indigenous knowledge and the community conceptualization of the disease, beliefs associated with it, ways of diagnosing Tuberculosis, responses to its symptoms, care given to Tuberculosis patients and the pattern of utilization of both traditional and Western medical facilities. The sessions were moderated by the researcher and research assistant. A tape recorder was used to record the sessions. This was done in order to capture all the information offered through the sessions that may be missed by manual recording. The instrument consisted of open ended questions raised from the research questions.

Our study furnished both quantitative and qualitative data. The quantitative data from questionnaires were analyzed using descriptive

analysis. Content analysis was involved as data analysis for the qualitative data. This process entailed deep routine interaction with data generated from the field on a daily basis throughout research sampling phases. Immediately after fieldwork sessions, all generated data were crosschecked and, where needed, further visits to sites were undertaken to fill certain gaps in the "raw" data collection. Following editing, transcription from electronic devices and translation of data into the English language was undertaken. Both the data from the research field diary and notes were extrapolated with that retrieved from the electronic devices. Sorting of the data according to the research objectives involved the writing of study objectives on separate sheets of paper, which were referred to as "objective cards" (this enables the researcher to constantly check the cohesion of his findings in line with the aims and outputs of research – one could call this a "running point" of reference). Interviews were filtered to allocate relevant data to the appropriate "objective cards" which formed the frame and general rationale for report writing. All data was thoroughly anonymized to protect the identity of participants.

RESULTS

Respondents' Profile

Table 1 below shows that a total of 142 people were involved in the field work. Of this number, 74(52.1%) were females while 68(48.9%) were males. The age range of the respondents was between 10 and 92 years. Many of the respondents, 71 (29.5%) fall within the age bracket of 38 -47 years. The least number of respondents (4.3%) came from the age-group of 45 years and above. However, the modal and median ages were 41 and 45 years respectively. Also, the mean age of respondents was 40.33 years with a standard deviation of 13.45.

Educationally, 15 (10.6%) had not received a western education, 26 (18.3%) had attained only primary level, 63 (44.4%) had secondary level education and 38 (26.8%) had attained tertiary level of education. With only 10.6% of the respondents without any form of

formal education, the literacy level in the area is relatively high. With regard to the marital status of the respondents, 108 (76.1%) were married while 21(14.8%) were single. The widowed and divorced respondents were very few: 8 (5.6%) and 5 (3.5%) respectively. The large number of married respondents illuminates the high premium placed on marriage and family institution in the area. Similarly, divorce is low probably because the value system abhors it. Being married and having stable marriage are accorded high esteem and social honour among Yoruba people.

The respondents were grouped into occupations. These are students 14 (9.9%), Businessmen 76 (53.5%), and civil/public servants 43 (30.3%), and others 9 (6.3%). The occupational distribution of the respondents highlighted above mirrors the popular description of Osun and Ondo state as for commerce and other entrepreneurial activities. The predominance of Businessmen (farmers, traders, and Artisans) in the area of study is therefore not a major surprise. With respect to religious affiliation, the table clearly shows that larger number of the respondents 62 (43.7%) were Christians. A relatively large number of the respondents 51(35.9) belong to Islam. While 27(19%) Of the respondents belong traditional religion and 2(1.4%) belong to other unspecified groups.

Local Perception and Diagnosis of Tuberculosis

In all the study sites, investigation revealed that values, beliefs and customs influence how tuberculosis is being perceived and diagnosed. According to respondents, tuberculosis is generally referred to as "*Iko-ife*." When asked what the causes of tuberculosis were, it was revealed that respondents attach the cause to many things. Approximately, 76% of the respondents linked causation to supernatural forces, while 24% claimed that tuberculosis is a disease of the lung caused by bacteria. The latter was corroborated by the assertion of a bio-medical healthcare giver who attributed the cause of the disease to bacteria as he clarified, "*Tuberculosis is caused by a slow-growing type*

of bacteria called Mycobacterium tuberculosis that spread from person to person through microscopic droplets released into the air." Those that linked cause of tuberculosis to supernatural forces claimed that it is evil forces that inflict the germ. Out of those who associated the cause of tuberculosis to germ causation, 33% are literates and 65% of them are from High Income Residential Areas (HIRA). Even as they believe in bio-medical causation, some of them did not dispute that the disease can still be linked to supernatural causes as one of the respondents clarified, *"Most of the food eaten in the dream has spiritual undertone which often result into sickness and which tuberculosis is not exempted"*. We can infer from the statement that an element of local belief still reflects in the life of educated respondents in the study areas.

According to 83% of the respondents, diagnosing tuberculosis is somehow complicated because it manifests in diverse ways. One of the respondents, whose explanation corroborated the above assertion clarified *"Tuberculosis manifests in several ways which make it difficult for one to narrow it down to single cause. The type of symptoms that sufferer manifests determine the way disease is locally diagnosed"*. This suggests that they make evaluation of the disease primarily through its symptoms and interpret it based on their local beliefs. Based on several symptoms manifest by sufferer, tuberculosis is sub-categorized namely: *"Ahugbe,"* (Dry cough) *"Iko-pejepeje,"* (Bloody cough) *"Iko-awubi"* (Coarse cough). The symptoms manifest by sufferers determine the type of category he/she falls into. It is not uncommon for a sufferer to manifest symptoms that can make him fall into all categories. In all the study sites, 76% of FGDs discussants were conversant with many local terms, while 24% said they only were aware of a single local name.

Based on respondents' views on the causes of tuberculosis it was revealed that the disease is labeled into normal and abnormal. According to some respondents, this categorization depends on the

severity of the symptoms manifest by the sufferers. Some of the respondents (24%) claimed that normal tuberculosis is caused by germs acquired through air and at times through inheritance. In FGD sessions, the discussants highlighted the difference between natural and supernatural cause of tuberculosis based on the severity of symptoms. One of the discussants at that session, whose explanations were more comprehensive on the causes of tuberculosis, said, "*When the symptom is mild and develops gradually and not pronounced, is regarded as "normal" tuberculosis and often attributed to natural causation. But when the symptom appears spontaneously overnight, it is regarded as "abnormal" and is attributed to supernatural causation*". According to respondents, if normal tuberculosis is not properly taken care, can degenerate to abnormal one. In a key informant interview with a biomedical care provider in Akure, he highlighted clinical picture of the disease, as he said, "*when the illness persists and becomes severe the infections aggravates in the body, in turn, can result in breaking tissue of the lung, causing skin to wrinkled, and loss of weight*".

Approximately, 74% of those who linked causation to supernatural forces claimed that tuberculosis is abnormal and usually sent by evil forces. According to them "abnormal" illness is persistent and life-threatening to the extent that spontaneous manifestations of the symptoms make its causal explanations imperative. In FGD sessions, different dimensions on how supernatural forces can cause tuberculosis were highlighted. In a key informant interview with a traditional healthcare giver, whose explanations were more comprehensive on supernatural causes of tuberculosis, has this to say: *Gods and goddesses as well as ancestor spirits can cause tuberculosis if they are not propiated, or well propiated and failing to avoid mysteries guiding cultural beliefs or customs.* In FGDs, 67% of discussants also claimed that avenging spirits can also inflict tuberculosis. A discussants whose explanation was concise and clear clarified, "*When one fail to abide by custom and/or committing*

abomination, like claiming land which does not belong to him by tradition, swearing unjustly or taking oaths while guilty, and wishing and causing harm to others.

Approximately 63% of respondents also believed that some tuberculosis is caused by witchcraft spirits. They strongly believe that witchcraft is used by evil-doers in the community to inflict tuberculosis related illness. This wicked act is the outcome of jealousy. A respondent clarified, *"jealous neighbours and or relatives were believed to attempt to create hardship and reduce each other's status by ensuring that their victim fall ill and even die of the disease.* According to some respondents (65%), one of ways one can know abnormal tuberculosis is that it will defy bio-medical treatment. A community leader has this to say *"no matter the biomedical drugs you use for abnormal tuberculosis, it will not work, is like putting the sufferer in danger"*. A traditional health care giver, whose explanation corroborated the above assertion said, *"It is fruitless efforts treating abnormal tuberculosis with western medication. Such attempts had resulted to the deaths of many affected persons."*

Respondents (57%) also clarified that, in cases where symptoms manifest by the sufferer are not interpreted as Tuberculosis symptoms, the sufferer, and his household members, seek for a causal explanation from the scientific and or spiritual realms. In this situation, the cause of Tuberculosis will not be linked or connect with the way of life of the sufferer. If the life style of the sufferer is somehow not deem responsible, the Yoruba linked any symptoms of sufferer to careless living such as smoking, drinking alcohol and loose tongue. One of discussants whose explanation was detail on the issue said, *"if a chain-smokers manifests any of the symptoms people will see it as normal and ordinary, if the sufferer lifestyle were difficult to come by, then symptoms are likely to be explained in terms of other causes"*.

In all the study sites, 83% of the respondents claimed that the disease is beyond bio-medical explanation. The causation was linked or attributed to supernatural forces such as ancestor, alien, or avenging spirits, especially if the victim has a devilish and or questionable character. A respondent clarified, "*some people are very dubious and wicked, and their relationships with others are shaky thereby prompting the ancestral spirit to afflict them with tuberculosis-related illness*". At times, as explained by the respondents, the symptoms are not very obvious to the community members.

As explained by some respondents, family history also influences the explanation of tuberculosis. If an individual is from a family known to be haunted by avenging spirits and suffers ill-health without showing visible or community-defined tuberculosis telling symptoms, then the tuberculosis-related illness is attributed to the spirits. In all the study sites, 61% of the respondents claimed that the disease have been in existence before the introduction and emergence of western medical system. Yet, 112 (83%), respondents claimed that it is a divine punishment against the moral rote of the society. The dual interpretation of tuberculosis, depending on the peoples' understanding of the visible symptoms, as "normal" and "abnormal," does not only indicate people's dilemma but also defines the pathway to local diagnosis, management and selecting behaviour of the sufferer and his/her social group.

Some respondents 44 (27%) attributed the cause of tuberculosis to witchcraft; they claim that many people have died due to the disease because it defer bio-medical treatment. A respondent has this to say, "*witches are taking advantage of the virus, take innocent people's life, and use tuberculosis as a scapegoat*". In all the study sites, 74% of the discussants agreed that people can also contract the disease if ancestors are not happy. *Ancestors register their disgruntlement by allowing misfortunes such as tuberculosis virus to attack the living.* Respondents also established that religious affiliation plays an

important role in determining how tuberculosis symptoms are viewed and interpreted. In focus group discussion, 61(44%) respondents who practice both African Traditional Religion (ATR) and Christianity explained the disease has a spiritual undertone, as it could as a result of our sin.

Local Management of Tuberculosis in Yoruba Land

In all the study sites, symptoms thought to be related or unrelated to tuberculosis are defined by the values, beliefs and customs of the community. At the onset of symptoms, the infected person(s) resume(s) disease culture, which includes a number of incapacities such as eating, sleeping, walking, playing, and other incapability suspending normal active practices and behaviours. As these incapacities create fear of economic loss, dissociation from the community functions, bewitch and possibility of death, both the infected and the relation engages in sick role including sourcing for care and supporting the patients in his/her sick behaviours. The conditions open up a pathway of care.

Tuberculosis is both objectively and subjectively managed. Thus, most sufferers in Yoruba land, together with their significant others, manage tuberculosis primarily in terms of their own understanding of diseases. The nucleus and sometimes extended family, also determine the "course of action" or treatment response. If the sick individual and the family are operating within the "announced" agenda, the subject matter of the illness is disclosed and the social group may advise accordingly with regard to healthcare choice. A respondent clarified, *"at times it is one close relative and or associates that will draw your attention to susceptibility of the virus when you are ignorant"*.

Our investigation revealed that the early symptoms of tuberculosis infection fit well into the Yoruba people's natural or normal category of disease and illness. When the tuberculosis symptoms are perceived as mild and normal, the early symptoms are taken casually. The care

at this stage differs as regard respondents' initial action. Approximately, 63% of them said they initially embarked on home remedies, while 37% said they went to hospitals. Out of those that went to hospitals, 60% of them are from High Income Residential Areas (HIRA).while 70% of those that first opted for home remedies are from Low Income Residential Areas (LIRA).This difference might be as a result of their economic background.

This also indicates that no matter the popularity of home remedies some people are very skeptical about indigenous care of tuberculosis. Those that opt for western care at initial stage gave reason for their action. One of the respondents in this category has this to say, "*The service which our hospitals rendered are very reliable because of the level of exactness in their dosage, regimen and the expertise involved as compared to other healthcare.* Thus, it was revealed that few people that embrace biomedical care are not serious with their medication as highlighted by a biomedical healthcare giver, "*some of the sufferer would not take their drugs as prescribed, and many of them do not come for check-up on appointed date.*" Some of the sufferer (63%) that we interviewed said the long dosage regimen is often long which usually generate boredom "*there are some drugs prescribed for me that I am suppose to use for six months without interruption, at times I find it difficult to comply due to boredom*". This challenge at times make sufferer to engage in home remedies that would not cause boredom. It indicates that some circumstances make those that opt for biomedical cares to engage in home remedies. A biomedical care giver clarified, "*some of the sufferer of the disease will collect drugs for free from governments' centres for tuberculosis control, but they will not use half of it until it expires, after sometimes the same thing we still repeat himself. They are just wasting the drugs.*

However some respondents did not even go for biomedical care even when the symptoms are perceived as mild and normal. They see biomedical care as culturally alien and abstract since the processes of

producing such medicines are not regionally known, unlike traditional treatments. These categories of respondents still hold conventional belief about the existence of the disease that affect their orientation towards managing tuberculosis, as a respondent clarified, *"This disease has been in existence many years back and we have been managing them with traditional remedies from day immemorial"*. They engage home remedies because it involves some concoctions that they can easily get free of charge and do not require undue protocol. The use of this herbal soup is believed to cure any ailment as indicated by respondents. It is also believed that this herbal soup serves two purposes. It is food supplement and also acts as medication. The use of a particular herbal soup is believed to cure all diseases and illnesses and very effective for tuberculosis.

According 70% of the respondents, there are also many other plants and food supplements that readily available that one can consume for curing tuberculosis. A respondent whose view is clearer on home remedies for tuberculosis explained thus, *Dry pawpaw seed can grinded and consumed with pap, it is effective. One can also prepare herbal soup. The soup is made with "Ito" (cucumeropsis edulis) "lyere" (capsicum annum), "orukita" (leucaenia gluaca)."*. Information gathered reveals that there many other things consumed, and that the practice reduces the cost and the stress involved in seeking biomedical care.

However, community folk tend to rely more on local remedies and faith healing against tuberculosis especial when it is perceived as abnormal. This is informed by their holistic conception of health and illness, based on their cultural milieu. According to respondents, this usually includes care-seeking practices such as praying, fasting, exorcism, appeasement ritual. One of the respondents shared, *"there is no way you can completely eliminate the virus biomedically in an ordinary sense, because it is stubborn, and you have to adopt supernatural means for cure"*.

When tuberculosis is perceived as "*Iko pejepeje*", (bloody cough), it is believed that the best course of action is to stop the blood cough of the patient. Although "*Iko pejepeje*" is used bio-medically to refer to as blood cough, the local belief is that blood cough is a more acute form of tuberculosis that is caused either by spiritual attack, by one's enemies or as a punishment for wrong doing. Local oral remedies are often taken in the morning with the aim of reducing the intensity of the cough at night and to help 'soften' the tuberculosis residue the following morning. The concentration of the tuberculosis 'matter' is, moreover, believed to have been stirred up by the evil deposit and having been softened by the oral concoction taken early in the morning as explained by a respondents. *There is one concoction which has to be taken in the morning, which is meant to neutralize and cleanses affected parts of the infected body.*

Apart from taking home remedies, some respondents claimed that there are some tuberculosis which defy biomedical care and home remedies. One of the respondents clarified, "*when I realize there is no solution, I went to church, prayer is the master key to every solution, and there is nothing difficult for God to do as healing of God is guaranteed*". Some respondents who argue in favour of this kind of care opined that only God can heal, doctors' care; and that the healing power of God surpasses human being. They further opined that, it is often requires relatively low cost or no cost at all and in some larger extent the payment may be in kind or cash and pledges are sometimes made which could be redeemable gradually after treatments are acceptable.

In all the study sites, the use of biomedicine for tuberculosis care is not totally ruled out, however, traditional/home remedies remains a priority. The continuous reliance on traditional/home remedies has affected the patronage of biomedical facilities for tuberculosis care. In an interview with one of the officer in tuberculosis control centre

clarified, *"We have a lot of drugs in our centre, but few people do patronize us, even few that usually turn up normally collect drugs without using them appropriately"*. This indicates that attitude towards biomedical facilities impact negatively on tuberculosis control programme.

Based on investigation, 119 (71%) respondents believed that local remedies are more effective against tuberculosis, while 17(12%) respondents argued that orthodox medicine is more effective and 25 (17%) believed that for tuberculosis to be effectively cured, the traditional and western medicines must be combined. Most of those in the last group believe that local remedies must be taken first. As emphasized by a respondent, in tuberculosis care, *"you engage appeasement ritual and fasting/prayer to cleanse the residue of virus before you take the biomedical drugs."* Though, according to 108 (76%) of the respondents, priority is mostly given to home remedies; there are cases when a patient is being treated simultaneously with traditional remedies and orthodox drugs. As a patient in charity hospital shared *"I was initially adopting traditional remedies, when there is no improvement my people took me to this charity hospital"* Information gathered also revealed that some victims at times engage biomedical first, and later opt for faith healing when there is no improvement.

DISCUSSION

This descriptive ethnographic study has investigated the local diagnosis and management of tuberculosis and its implication for Tuberculosis control programme among the Yoruba's of Southwestern Nigeria. Our findings supports others studies (Olujimi 2006; Burky 2011), that see culture as a determinant of behaviors and attitude in health. To a large extent the Yoruba people translate their understanding of disease based on their values, to view such disease. Our study also corroborates the assertion of other studies that demonstrate how influence of culture on health and disease goes

beyond the scope of material culture. Implying that it is not only the human and material needs influence human health. As earlier pointed by Ajala (2002) elements of ideal culture, such as the formation of ideas, views and beliefs about health and disease play a prominent role in shaping human health. The understanding of disease concept is therefore capable of producing different views on the disease to the extent of determining how individual and society respond to their health situation.

Our findings corroborated the assertion of other studies (Gidado2009, Sule 200) that the cause of a disease may be linked to many source, as Yorubas hold the belief that tuberculosis is caused by a plethora of different factors ranging from poor lifestyle, spiritual attacks and host of others. The local perceptions of tuberculosis as a contagious and dangerous disease generate a fear on the mind of victims and Yoruba people in general. As a result of this fear, they devise several means to get over it.

Based on this belief, interviews and observation, indicate that the traditional ways in which tuberculosis is managed are parallel to western/bio-medical ideas. The people repose much confidence in the efficacy of traditional remedies. This study revealed that Yoruba people rely mostly on home remedies because it has affinities with their cultural belief pertaining to local etiology and management of illness. The reliance of home/traditional remedies has negative implication on tuberculosis control programme. As this study revealed that biomedical facilities are not fully seek and utilize due to several limitations imposed by local diagnosis and management of the disease. This supports Sule (2008).assertion that about 70% of Nigerian do not have access to proper healthcare and even when they have, healthcare facilities are poorly utilized..

Our study revealed that 73% of the respondents generally seek home remedies initially when managing tuberculosis and turn to any other

alternative care if they are not successful. This occurs regularly as local remedies might have failed to give the sufferer relief from the disease. This buttressed the assertion of Banti (2012) that utilization of bio-medical facilities for health care is quite low, especially in the rural areas. Most of those who utilize bio-medical facilities do so at an advanced stage of the disease when the disease might have set in complications. This occurs regularly as local remedies might have failed to give the sufferer relief from the disease. This might also explain why the presence of government does not have appreciable effect on health status of Yorubas in southwestern Nigeria..

As good utilization of health services serves to improve the health status of the population; this study is in line with previous studies which shown that the presence of health facilities alone is not enough to guarantee their use as other factors could influence utilization. In addition, that low health facility utilization is often not a reflection of poor quality of services and poor attitude of staff as previously established by some literatures. Many studies have shown that cost of health services affect choice and utilization of health care resources. This does not hold at all time, as some people are able to afford certain healthcare, but they do not utilize them due to certain reason(s). This study argues that there are precedents for this factor and has to do with the local perceptions and diagnosis of health and disease. It is this area neglected by most health interventionists that make intervention not to yield optimal result or success.

Given strong perceptions of susceptibility and severity of tuberculosis among the study population (which ordinarily should stimulate appropriate responses), Health belief model (HBM) thus relates or explains poor performance of tuberculosis control, evident in the study area in the forms of low utilization of bio-medical tuberculosis control services and poor compliance to treatment as associated with socio-cultural beliefs and reactions that stimulate a preference to cover up the disease by victims. Beliefs serve as templates that have

negatively structured responses or activities of individuals in the context of tuberculosis control. Interestingly, this type of situation has also been found to be true in both Southern and Western cultures where fear of tuberculosis has existed from ancient times (Gidado 2009). Okeke (2006) has also observed that the belief that tuberculosis is a curse from gods is a global phenomenon. This study has therefore shown that the Yoruba group which populates the two states is not an exception in that regard. It is therefore pertinent, as Waisbord (2014) suggested that shared meanings of the group about tuberculosis and other cultural factors ought to be understood by tuberculosis control personals. Unfortunately, this is the exception rather than the rule in the control programmes of Ondo and Osun states.

CONCLUSION

The Yoruba in southwestern Nigeria, like many other African cultures is full of beliefs and perceptions on supernatural deities. Even among the highly educated, almost all illnesses are attributable to ancestors, evil spirits or witchcrafts. This has influenced the way tuberculosis is diagnosed and managed locally. This has reinforced their reliance on home remedies for cure. The continued reliance on traditional remedies for the treatment of tuberculosis makes a strong case for the low utilization of bio-medical facilities, with consequent implication on tuberculosis control programme in the study area. The great optimism of winning the fight against tuberculosis must be sustained by eliminating cultural obstacles and erroneous perception that seem to create the gaps in understanding and managing the disease. There is need to dispel these beliefs and primitive perceptions on the causes of illness including tuberculosis if high utilization of biomedical facilities and quality care must be guaranteed. One way of doing this is through sustained and continued health education.

RECOMMENDATION

1. There is a need to create an enabling environment to redress social-cultural practices (through customs, values and beliefs) that impact negatively on utilization of bio-medical healthcare resources. This will require mobilizing rural people through their respective local organizations and through mass media to bring about such change.
2. The support of traditional and religious institutions must be sought and won. To this end, there should be extensive advocacy visits by tuberculosis control staff to traditional rulers, religious leaders and other opinion leaders in the communities that make-up the two states. This is to improve their understanding of issues related to tuberculosis and to enable them be at the fore-front of the crusade to change people's perception about tuberculosis.
3. There should be regular conduct of seminars for traditional healers to enable them suspect and appropriately refer tuberculosis cases. This seminar is important given the fact that persons affected by tuberculosis may patronise them for treatment.

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Conflict of Interest

We the authors hereby declare that there is no conflict of interest with respect to this study.

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Table 1 Respondent Profile

| VARIABLE | FREQUENCY | PARENTAGE |
|-----------------------|-----------|-----------|
| Gender | | |
| Male | 68 | 47.90 |
| Female | 74 | 52.10 |
| Total | 142 | 100% |
| Age | | |
| 10-29 | 21 | 14.80 |
| 30-29 | 50 | 35.20 |
| 50-65 | 37 | 26.10 |
| 56 above | 34 | 23.90 |
| Total | 142 | 100% |
| Education | | |
| No formal | 15 | 10.60 |
| Primary | 26 | 18.30 |
| Secondary | 63 | 44.40 |
| Tracery | 38 | 26.80 |
| Total | 142 | 100.1% |
| Marital Status | | |
| Single | 21 | 14.8 |
| Mandrel | 108 | 76.1 |
| Divided | 5 | 3.5 |
| Widows | 8 | 5.6 |
| Total | 142 | 100% |
| Occupation | | |
| Student | 14 | 9.90 |
| Civil servant | 43 | 53.50 |
| Businessman | 76 | 30.30 |
| Other | 9 | 6.30 |
| Total | 142 | 100% |
| Religion | | |
| Christianity | 62 | 43.70 |
| Islamic | 51 | 35.90 |
| Traditional | 27 | 19.00 |
| Other | 2 | 1.40 |
| Total | 142 | 100% |