International Journal of Humanities and Social Science Invention
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org Volume 2 Issue 5 ǁ May. 2013ǁ PP.47-57

Utilization of traditional bone-setters in the treatment of bone fracture in Ibadan North Local Government

Owumi, B.E, Taiwo, Patricia A. and Olorunnisola, A. S.

Department of Sociology, Faculty of the Social Sciences, University of Ibadan.

ABSTRACT: *The World Health Organization had recommended the integration of traditional and modern medicine. However traditional medicine as well as traditional bone-setting had received poor recognition in Nigeria. This notwithstanding traditional bone-setters still enjoys patronage from the populace in Ibadan and the practitioners abound in almost every part of the country. This study focused on the causes of fracture and utilization of traditional bone setters in Ibadan under the explanation of the functionalism and modernization theories. The study adopted the quantitative and qualitative method, with the survey of eighty-eight (88) patients and In-depth interview administered to eight (8) traditional bone setters and (4) patients. Majority (69.5 percent) of the respondents fall within the age range of 18-47 years. Findings revealed that there were more (55.7%) male patients than female (44.3%). A huge majority (85.7 percent) reported by that the major causes of fractures of the respondents was road traffic accidents, especially through the motor-cycle, while friends had major influence in the selection of traditional bone setting as a form of treatment among the patients. All the patients responded that they are willing to recommend the traditional bone-setter who treated them to others. Traditional bonesetters are well patronized and found to be relevant in the treatment of fractures in especially in Ibadan and in other communities in Nigeria. The study recommends maximum support and funding from governments in the training and establishment of traditional bone-setters in Nigeria. Integration of traditional medicines as well as traditional bone-setting with modern medicine should be encouraged in Nigeria*

Keywords: *Traditional, bone setting, utilization, patronage, clinics.*

I. BACKGROUND TO THE STUDY/STATEMENT OF THE PROBLEM

Before the advent of western invention, every society stipulated ways of doing things even with relation to health. These ways are embedded in the culture and tradition of the people. Just like in every other aspect, there are traditional ways of treating the sick whenever there is the need to do so. African traditional medicine therefore has an important place in the healthcare delivery system among Africans. Traditional medicines are utilized in forms of treatment, and serve as last resort where other forms of treatment have failed. (Omonzejele, 2008) puts it as being the first port of call before western or orthodox medicine and a last resort when all orthodox efforts fail. This indicates that Africans put traditional medicine into consideration, whenever they are to undergo any treatment before looking at other means. World Health Organization (2002), defines traditional medicine as that health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illness or maintain well-being.

The idea of traditional medicine is further illustrated by Dime, (1995) that medicine in Africa is based on the belief that: the natural resources have active therapeutic principles that heal, occult supernatural forces, power to change active principles which can be manipulated by those who know how to produce marvelous results (Omonzejele, 2008). This implies that Africans have belief in using the natural way to treat illnesses than the modern and scientific method that was brought from the western societies. Traditional healers were long practiced before orthodox medicine was introduced into the developing world. The first orthodox hospital was built in Nigeria (Lagos) in 1873. Before this, traditional medicine was the only available form of healthcare, (Omololu, 2008).

The art of traditional medicine is so wide that different experts have emerged to have their own area of specialization (Owumi 1996). There is therefore no disputing the fact that some aspects of trado-medical knowledge system is well structured and organized and has survived through generations to maintain harmony between body, mind and soul within its socio-cultural and religious context. However, different experts have emerged within their ranks including herbalists, bonesetters, psychiatrists, and traditional birth attendants among others (Owumi and Jerome, 2012). They usually rely on vegetables, mineral substances, animal parts and certain other methods such as prayers, divinations and incantations (Sofowora, 1982).

Traditional bone-setting as an alternative health service is a recognized and specialized form of traditional healing practice. It is an old practice in African societies that is available and accessible to people in both rural

and urban centres. From a non-western standpoint, bone-setting is practice of re-setting joint and treating sprains, dislocations and other simple or complex fractures. It includes manipulation of the bones, application of splints to the area around the fracture or wound and application of material such as herbs and utilization learned skills to ensure healing of bone-related injuries and fractures. In some instances, incantations are made on the affected area as a way of invoking the spirit of the ancestors for divine intervention and healing, (Chris, 2011). Traditional bone setting arose as an adaptive approach to injury care. With the advent of new technologies and advancements in medicine, traditional fracture care evolved into what we recognize today as contemporary and modern. (Nwachukwu, Okwesili, Harris and Katz, 2011) The traditional bone setter is a lay practitioner of joints manipulation. He/ she is the "unqualified practitioner (in the western training)" who takes up the practice of healing without having had any formal training in accepted medical procedures according to (Agarwal and Agarwal, 2010). They reduce joint dislocations and "re-set" bone fractures. In Nigeria, traditional bonesetters account for about 70% to 90% treatment of fracture care in certain areas. (Nwachukwu et al, 2011).

Traditional bone setters enjoy high patronage and confidence from patients in the communities where they exist. It was documented that the patrons of the service cuts across every strata of the society including the educated and the rich. The practice is widespread including areas well served with modern healthcare facilities such as Lagos, Ibadan and Enugu, (Dada, Yinusa and Giwa, 2011). In their study, Ogunlusi, Okem and Oginni, (2007), found out that most people visit traditional bone setters because they wanted cheaper and quicker services than modern treatment. The high patronage received by traditional bone-setters have been documented in some researches. For instance Olaolorun, Oladiran and Adeniran, (2001) revealed that eighty-five percent of patients who presented with femoral fractures to an Orthopaedic Hospital had been to traditional bonesetters (TBS) prior to going to the hospital. Cheaper fees, easy accessibility, quick service, cultural belief, utilisation of incantations and concoction, pressure from friends and families were identified by (Dada et al, 2011) as some of the reasons for the high patronage of traditional bone-setters in Nigeria.

Despite criticisms on the efficacy of traditional bone-setting which includes reported cases of complications, complaints about unsatisfactory results, pains/discomfort etc among patients treated by traditional bone setters. (Nwadiaro. Nwadiaro, Kidmas and Ozoilo, 2006), researches have revealed traditional bone setting can be efficient and effective. Bassey, (2011) observed in a study that traditional bone setters' practice is good for closed fractures of the shaft of the humerus, ulna, radius and tibia, but poor for peri-articular and open fractures. It therefore indicates that traditional bonesetters are proficient in some aspect of bone treatment. While practitioners of traditional bone-setting recognize the fact that advances in medical research and science requires more formal education, they also accept the idea of access to regular training under medical supervision (Erinosho, 1985). However, orthodox practitioners are against the promotion of traditional bone-setting and medicine, as well as their integration with modern healthcare delivery system (Gureje, 2005). This accounts for the climate of mistrust that exists between the two forms of health care delivery (Agarwal et al, 2010).

Generally, the providers of orthopaedic care in the rural developing world have recognized the contributions of traditional and regional practitioners. However, just as no certificate is required to deliver babies, no certificate is required to set bones. The acceptance or non-acceptance of such practices is solely defined by societal norms and values. A scientifically-trained general practitioner can effectively treat nearly ninety percent of common orthopaedic and trauma conditions. In the face of infrastructural improvements, use of non-medical healthcare providers in rural clinic settings has been advocated as a viable low cost alternative for health care (Agarwal et al, 2010). The trained traditional bone setter may provide essential and culturally relevant health services to their communities in developing countries, if adequately trained in the basics of orthopaedic care. They can serve as the first point of contact at the primary healthcare level, reducing the burden on secondary and tertiary institutions.

The rising cases of bone-related injury is alarming, especially those caused by motor-cycle (okada) accidents. This partly accounts for the banning of okada transport in some communities and utilization of keke napep (a tri-cycle machine) in its place. The concerns about increased accidents from motorcycle calls for alternative forms of treatment as the cases of such types of accidents in communities where motorcycle transport exists is alarming. It was once reported in the media that the orthopaedic section of the University College Hospital is no more admitting patients who have motor-cycle related injury because of the enormous influx of victims from such accidents. This leaves the patients and their family members at the mercy of the traditional bone setters who are less recognized and supported by orthodox practitioners. Should their treatment succeed on a patient, the better for the economy as the victims are not only part of the Nigerian community but will contribute country's man- power. The patronage of traditional bone setters should attract abound even in the midst lack of recognition and support. However, their challenges in terms of lack of proper training and lack of formal education may account for the reported complications that occurs and may never end as long as the underserved masses (especially fracture victims) continually patronize traditional healers as well as traditional

bonesetters. It is against this back drop that the paper seeks to examine the causes of fracture and rationale for the patronizing traditional bone-setters in Ibadan North, Local Government.

Specifically the study seeks to

- Identify the major cause(s) of fractures among the patients.
- Discuss the rationale for the patronage of traditional bone setters.

II. CAUSES OF FRACTURES

A bone fracture is a medical condition in which there is a break in the continuity of the bone. A bone fracture can be the result of high force impact or stress, or trivial injury as a result of certain medical conditions that weaken the bones, such as osteoporosis, bone cancer, or osteogenesis imperfecta, where the fracture is then properly termed a pathologic fracture (Wikipedia). Most fractures result in a temporary loss of function for the patients and sometimes, a loss of work time for the parents, children or other caretakers of the injured patients. (Saw, Sallehuddin, Chuah and Ismail, 2010) found out that fracture pattern differs depending on geographical location, variations in the activities of daily life and in the nature of work, especially between urban and rural population. This indicates that the environment where one lives, one's place of work, e.t.c. can determine the fracture pattern of an individual. For instance, it will be very difficult to have record of patients living in Government Reserved Areas suffer fractures as a result of street fight while this may be the norm among the inhabitants of Central Business Districts like Bere, Oje, e.t.c. Also, workers in the University of Ibadan are less likely to have high rate of occupational injury except for those who works in the laboratories, compared to those who work in the industrial companies. This implies that one's geographical location influence the pattern of fracture.

(Krug, Sharma and Lozano, 2000) as reported by (David, 2003) found out that road traffic accidents (17.5%), falls (12.2%), violence (10.1%) and self-inflicted injuries (9.7%) are the main injury-related causes of disability. This implies that road traffic accidents is the major cause of injuries. This finding is important in Nigeria when the rate of road traffic accidents being recorded in the country is put into consideration. Bad roads, activities of the policemen as a result of road blockages, highway robberies, e.t.c. are some of the reasons for high rate of road traffic accidents in Nigeria.

(Nantulya and Reich, 2002) also reported that road traffic injuries are the 9th leading cause of disability adjusted life years in the world, and are projected to rank 3rd by the year 2020. They found out that ninety percent of these accidents occur in the developing countries and those who are prone to be affected are pedestrians, passengers, and cyclists.

(Saw et al, 2010) found out that the overall rate of fracture was higher in men (75.3%) as against the women (24.7%) while the nature of their daily activities, the relative amount of travel, and the traditional role of women as house wives were given as the reasons for these differences. This is possible mostly because larger percentage of women in Nigeria is not career-oriented. They usually get involved in businesses that are less stressful and therefore have lower rate of fracture records compared to their male counterparts.

(Evandro, Katia and Laura, 2009) found out that falls leading to severe fractures are a problem for the elderly. While about 17% were living alone, 77.5% were women and the proportion of men who were working just before the fall are more.

(Umaru, Ahidjo and Madziga, 2006) identified gunshot injuries as a major cause of violent injuries and the most vulnerable groups are between 20 and 40 years while armed robbery dominated the major cause of gunshot injuries. In the study carried out, 80% of the gunshot injuries were due to armed robbery attack, while accidental discharge account for 10%.

While there are several causes of fractures among patients, different literature reviewed showed that road traffic accident is a major cause of fractures among patients.

III. RATIONALE FOR THE PATRONAGE OF TRADITIONAL BONESETTERS

There are varieties of reasons why patient patronize traditional bone-setters, (Dada et al, 2011) identified some of the reasons to include cheaper fees, easy accessibility, quick service, cultural belief, utilization of incantations and concoction, pressure from friends and families.

The belief that diseases and accidents have spiritual components that needs to be tackled along with treatment account for one of the reasons for the patronage. (Olaolorun et al, 2001) also explained that the widespread belief in our society that traditional bonesetters are better at fracture treatment than orthodox practitioner makes them patronize the bonesetters. (Dada et al, 2011) also found out that the belief in our community that sickness and afflictions usually have spiritual aspects that need to be cured with traditional like the use of incantations and concoctions are reasons for the patronage of traditional bone setters by patients. (Adefolaju, 2011) found out in his study that the services of the practitioners are relied upon by people because of the belief that the practitioners are well vast while treating physical illnesses as well as psychological and

spiritual comfort. There is another belief among the people especially those far away from the cities as identified by (Omololu et al, 2002) which is the belief by those people who have fractures that amputation is imminent once a person is referred to a teaching hospital. The erroneous belief in traditional Africa that the only available option for the treatment of fractures in hospital is amputation and that the application of Plaster of Paris (POP) usually results in atrophy and gangrene of the affected limbs was also identified by (Udosen et al, 2006).
This fear of amputation was also identified by (Agarwal et al, 2010) as one of the factor that ensures high patronage of traditional bone setters by patients. (Alonge et al, 2002) also identified this fear of amputation as a major reason for their patronage as they put it that the patients will not be subjected to any form of surgery with a risk of losing their lives or limbs.

The cost involved is another factor that makes the patronage of traditional bonesetters to be on a higher side. Traditional bonesetters, unlike the modern hospital charges lesser fees. The reason for the cheaper fees being charged by the bonesetters as identified by (Chris, 2011) is because of a strong conviction and belief that the spirits will desert the treatment centres and make the medicine powerless, and in some cases, make the practitioners go mad or die when monetary rewards become the primary driver. (Dada et al, 2011) identified the mode of payment as being through multiple little payments and even payments in kind with clothes and life animals are allowed. This indicated that there are practitioners who do not necessarily collect money from their patients, but do request for things that serves as money substitute. (Olaolorun et al, 2011) while calculating the difference in the charges made by traditional bonesetters and orthodox hospitals discovered that there is a 4-fold difference in the charges between the two. While a traditional bonesetter charged N3,385 ($30) on average, orthodox hospitals charged on average #12500 ($130). It was this high charge that (Omololu et al, 2002) identified as prohibitive cost of modern care in a hospital setting. This findings of both (Olaolorun et al, 2001) and (Omololu et al, 2002) pointed to the fact that the high cost of treatment in the modern way may be a major factor for the patronage of traditional bone setters by the patients.

Another factor that is directly related to the cost of the service is poverty. This is the state of one who lacks a certain amount of material possessions or money. The United Nation measured poverty and explained it to mean those who are living below $1.25/ day. It is a well known fact that majority of those who live in the developing nations live below the poverty level. It may therefore difficult for them to afford the cost that will be required by orthodox hospitals, hence, the adoption of traditional means of fracture treatment as an alternative. (Omololu et al, 2002) estimated the cost of managing a child forearm fracture for sound union in about 6-8 weeks to cost $35. These are people live below $1/day (Chris, 2006) in his work also identified ignorance and poverty as being the basis for the continual patronage of traditional bonesetters.

Kinship is another factor why people patronize traditional bonesetters. (Dada et al, 2011) explained that strong social and family ties still exist in Nigeria. Because of this bond that exists, friends and families therefore remains an important group in the choice of the type of treatment an injured or sick relative will receive. (Agarwal et al, 2010) identified this factor as being the coaxing by relatives, neighbors and traditional bonesetters canvassers. Although majority of those susceptible to this are the children who are not permitted to decide on the mode of treatment they want as (Omololu et al, 2011) identified that the children who patronize the traditional bonesetters are largely dependent on their parental decisions.
Other factors that make people patronize traditional bone-setters as identified by previous scholars who studied the traditional bonesetters include:

- Easy Accessibility.
- Quick Service.
- Fear of implants and foreign objects including musculoskeletal traction devices.
- Convenience and flexibility of traditional care settings.
- Familiarity with bonesetter culture and lack of familiarity with modern centres.
- Viewed as specialists for minor fractures.

IV. FUNCTIONALISM THEORY

Functionalism sees society as an organic whole, with each of its parts working to maintain the others. This is similar to the way in which parts of the body work to maintain each other and the body as a whole. "Functionalist thought was originally pioneered by Comte who saw it as closely bound up with his overall view of sociology. Durkheim also regarded functional analysis as a key part of his formulation of the tasks of sociological theorizing and research. Radcliffe-Brown and Malinowski both assert that we must study a society or culture as a whole if we are to understand its major institutions and explain why its members behave the way they do."(Anthony Giddens, 1993).

The most important features of functionalism are the concepts of structures and functions. To the functionalists, behaviors of people in the society are structured, that is, relationships that exist between members in such society are organized in terms of rules. This structure is viewed as the sum total of normative behavior, consisting of the sum total of social relationships which are governed by norms. Thus, the main parts of the

society, its institutions, become major aspects of the social structure. To study the function of a social practice or institution is to analyze the contribution which that practices or institution makes to the continuation of the society as a whole. The best way to understand this is through organic analogy; to study a bodily organ, we need to show how it relates to the other part of the body. Also, an understanding of any part of the society should also involve an analysis of its relationship to other parts especially its contribution to the maintenance of the society. Just as the survival of an organism depends on the satisfaction of certain basic needs, society equally requires that some basic needs be met for its continued existence.

Similarly, analyzing the function of a social item means showing the part it plays in the continued existence of the society. This indicates that a social item will continue to be relevant, when it has a function that is being played toward the continued existence of the society. That a structure exists presupposes its continued functioning and therefore, relevance to the existence and survival of the whole system. Immediately it has no relevance to the continued existence of the society, it will cease to exist. Functionalist perspective on health and medicine was formulated largely by Talcott Parsons. He explained that a healthy population is essential to the society. Healthy people can perform the social roles that are necessary to keep the society function optimally. Illness, then, is dysfunctional as it prevents people from performing their social roles, at least temporarily. Thus, the traditional bonesetters play a vital role in the overall functioning of a society by making members who have fractures regain their health. If those who have fractures are not treated, just like the organic analogy as explained by the functionalist, it will hamper the continued existence of the society, as the role they are suppose to play toward the survival of the society will be affected.

The practice of traditional bone settings have though existed for centuries, there has however been campaigns against its patronage, especially by the orthodox practitioners. Despite this campaign, it still survives till today. This indicated that the practice of traditional bone setting has an important role that it is playing in the society, to have continued to exist. It would have ceased to be in existence, if it has no role that it is played in the society.

The functionalists explained that the society comprises of structures with each part playing different role toward ensuring the continual survival of the society. They used the organic analogy to explain this whereby organism contains different part, with each part carrying out a particular function toward the sustenance of the organism. The organism will continue to exist when each part perform its role and they explained that the different structures that make up the society has specific role to perform, so as to ensure the survival of the society. It therefore indicates that a structure will cease to exist when it has no function that it performs in the society again. Though the functionalist perspective identified the social institution bone setting as being vital toward the overall functioning of the society by making the members healthy, the failure to recognize that there may be better ways of managing fractures, due to their rigidity and maintaining status quo therefore led to the need to another theory to explain this study. Hence, the modernization theory.

V. MODERNIZATION THEORY

The modernist theorists on the other hand look at how society evolves from tradition to modernity. They explained that societies will join the "developed" world when they do away with their traditions and adopt modernity as a way of life. In constructing their accounts of development, they drew on the tradition-modernity distinction of classical sociologists. They placed most emphasis on norms and values that operate in these two types of society. They argued that the transition from the traditional to modernity depended on a prior change in the values, attitudes and norms of people. They called for the total abandoning of the old form of doing things, for the adoption of the western ways.

To synthesize these theories, functionalism and modernization theory, have a common perspective on the importance of ensuring that people who have fractures are treated and continue to contribute their own quota toward having a functional society, they however have point of divergence. While functionalism explain the relevance of the traditional bonesetters toward the continual survival of the society and believes in the maintenance of status quo, modernization theory looks at how the traditional bonesetters have adopted modern form in carrying out treatment among patients. Modernity has made it easier for the traditional bone setters to adopt modern form in the treatment of fracture. This is important as it not only reduce the rate of complication, but also assist in ensuring that proper treatment are received by the patients, which will aid them in their health restoration and optimal functioning in the society.

Both the Traditional bonesetters and the western practitioners are practicing today in Nigeria. Until recently, the relationship that exists between these two kinds of practitioners can best be explained as being that of cat and mouse as the traditional bonesetters' method of treatment was regarded as being fetish, primitive and not modern. This conception of the art of traditional bone settings led to its relegation to the background while greater emphasis was placed on modern form as the best way of treating bone fractures. This is as a result of the belief that the method of traditional treatment is not rational and therefore does not deserve funding from the

government, unlike modern form of bone treatment. This is however different from the practice in China where there is already full integration of both traditional and western medicine.

The different methods used in Nigeria include the use of splints and bamboo stick or rattan cane or palm leaf axis with cotton thread or old cloth. This is wrapped tightly on the injured part and left in place for the first 2–3 days before intermittent release and possible treatment with herbs, massage and manual traction of the affected bone, e.t.c.

The modern way of fracture treatment includes the use of radiological graphs, wound dressing and suturing, aids, functional cast bracing, amongst others. The coexistence of traditional bonesetters and orthopedic care for fractures in Nigeria provides an opportunity to learn about the potential strengths and limitations of each method and to examine opportunities for cultural synthesis and collaboration. Thus, in relating this models to the practices of bone setting, this study therefore calls for the training of bone setting in the modern way, so that there could be merging of both ways of treatment, just as it has been adopted in other countries like China and India. This was the suggestion by (Omololu et al, 2011) in their study of the practice of bonesetters in Ibadan, Nigeria, where they suggested that there was a need to educate and train traditional bonesetters in fracture treatment both to minimize the mismanagement of fractures and to reduce the healthcare burden on secondary and tertiary institutions. Their proposed training algorithm included introduction of radiographs to urban bonesetters, recognition of open and displaced fractures, and guidance in the approximate duration of fracture healing and training in recognition of complications of fracture treatment.

Some recent reports from South-Western and Central Nigeria confirm that some of the practitioners have started inculcating some orthodox practices into their treatment. This includes wound dressing and suturing and even use of radiological aids (Dada et al, 2011), functional cast bracing which bear close resemblance to some of the 'bamboo' bandaging pattern of traditional bone healers (Agarwal et al, 2010). These findings of (Agarwal et al, 2010), (Dada et al, 2011) and suggestion of (Omololu et al, 2011) showed that traditional bone setters are now adopting modern form of treatment in fracture management. This study therefore looks at how modern practices have been adopted by the traditional bone setters in ensuring a healthy society. It is important to state that although there is still dichotomous relationship between traditional and western practitioners, the move is now towards some tolerance and recognition. Many state governments in Nigeria have now established boards to supervise traditional medicine practice and Ibadan North Local Government also has a board charged with such responsibility.

VI. METHODOLOGY

The study was conducted within Ibadan in Oyo State. Communities where traditional bone-setters and their clients could be found included exist were selected for the study The communities included neighbourhoods in Bere, Oke-Are, Mokola, Ijokodo, Oke-Itunu, Bashorun, Idi Ape, Secretariat, Bodija, Agbowo and University of Ibadan. Although the number of traditional bone setters that abound in these communities is not well documented due to lack of proper record by the constituted authorities, it is widely accepted that traditional fracture care is utilized in the selected communities. Thus, the purposive and snowball sampling techniques were used traditional bonesetter' practitioners or patients who have fractures. The first bonesetter clinic was identified by the researcher and snowballing technique was used to identify subsequent respondents/interviewees. Although patients were not evenly distributed in the clinics identified, the available number of patients that a clinic can catered for within the period of the study was all selected. Patients in the clinics range between three and twenty-two.

Both quantitative and qualitative methods were used to collect the necessary data. For the quantitative research method, eighty-eight copies of questionnaires were administered among patients in eight traditional bonesetter's clinic that were identified and visited, while the in-depth interview was conducted with traditional bonesetter practitioners in the eight clinics and four patients that were visited. Quantitative data was analyzed using descriptive statistical tools like tables, percentages, frequency distributions, bar charts and pie-charts, while qualitative data was content analyzed.

VII. FINDINGS

Socio-demographic Characteristics of Respondents

The socio-demographic characteristics of the respondent as represented in the table 1 reveals that there are more (55.7%) male patients than female (44.3%). Majority of the respondents fall within the age range of 28-37 years. This age group comprises of those in their active working years. Also, majority (60 percent) of the respondents are from the Yoruba while the others constituted of Hausa, Igbo and other ethnic group The larger proportion of Yoruba may be due to the concentration of these people in the south western part of Nigeria, where the research was carried out. There was higher proportion of Muslims compared to their Christian counterparts as about fifty-two percent of the respondents being Muslims, while about forty-eight percent are Christians. Furthermore, a high proportion (65%) of the respondents is traders, while about eleven percent was

civil servants. This confirmed a previous study carried out in the local government where it was reported that majority of the population are traders and artisans (Abiola, 2001).

Table 1: Socio-demographic characteristics of respondent (patients)

Variables	Labels	Frequency	Percentage
Gender	**Male**	**49**	**55.7**
	Female	**39**	**44.3**
Age	**18-27**	**12**	**13.6**
	28-37	**32**	**36.4**
	38-47	**26**	**29.5**
	48-57	**13**	**14.8**
	58 & above	**5**	**5.7**
Ethnicity	**Yoruba**	**53**	**60.2**
	Hausa	**13**	**14.8**
	Igbo	**21**	**23.9**
	Others	**1**	**1.1**
Religion	**Christianity**	**42**	**47.7**
	Islam	**46**	**52.3**
Occupation	**Trader**	**57**	**64.8**
	Civil Servant	**10**	**11.4**
	Others	**21**	**23.9**
Educational qualification	**Primary School Leaving Certificate**	**15**	**17.0**
	Junior Secondary School Certificate	**13**	**14.8**
	Senior Secondary School Certificate	**44**	**50.0**
	Tertiary Education	**10**	**11.4**
	Others	**6**	**6.8**
Average income per month	**< N10000**	**33**	**37.5**
	N10000- N20000	**25**	**28.4**
	N20001- N30000	**16**	**18.2**
	N30001 & above	**14**	**15.9**

Source: Field work, 2012

It was also revealed that half of the respondents had Secondary School Certificate (SSCE), while only about eleven percent had tertiary education, while others that are not specified was about seven percent of the respondents. The lower number of those who had tertiary education may be due to the type of profession that is common in the area i.e trading and artisan or poor recognition give to traditional healers in Nigeria. The least income (less than N10, 000.00) earner has the highest percentage (37.5%) of respondents in this study; this may be as a result of their occupation traders and artisans.

The Major Causes of Fracture among Patients

Table 2. Respondents responses on the causes of fractures

Variables	Labels	Frequency	Percentage
Causes of Fracture	**Road traffic accident**	**75**	**85.2**
	Road side fall	**4**	**4.6**
	Workplace fall	**4**	**4.6**
	Fall at home	**1**	**1.0**
	Gun-short injury	**2**	**2.3**
	Other unspecified	**2**	**2.3**
	Total	**88**	**100.0**

Source; Field work, 2012.

A huge majority (85.2%) of the respondents indicated road accident as a major cause of fractures among. This result supports that of previous studies which identified road traffic accident account for major causes of fractures, especially in the developing countries such as those of David, (2003) who projected that road traffic accidents will be the third leading cause of disability in the world, and second in the developing world by 2020. Krug et al, (2000) also revealed that road traffic accident is the tenth leading causes of death,

and ranked ninth in the overall burden of diseases. Again Mock (2001), also argued that road traffic accident is the second leading cause of mortality among patients from 15-44 years of age, and third among children of 5-14 years in the developing country.

Similarly, (Nantulya et al, 2002) also explained that road traffic accident is the ninth leading cause of disability adjusted life years in the world, and projected it will be ranked third by 2020. The qualitative research supports the view that road accidents are the leading causes of fracture in Nigeria. A respondent who is a patient in one of the traditional clinics in Beere supported this view by saying:

Well road accident is the major cause of bone fracture. Accidents such as machine (okada) and car accidents contribute a great deal to the major bone fractures and injuries. Mine was actually caused by an accident with okada that collided with a car.

The above response revealed that car accidents as well as machine accidents are major causes of bone fractures and injuries as reported in the quantitative studies and other studies conducted.

Patients Rational for the Patronage of Traditional Bonesetters

Although there have been different research works that observed the rate of complications in the art of bone setting, yet, people still patronize the traditional bone setters. The study revealed that majority about (70 percent) of the patients patronized the traditional bone setters clinic because it is cheap and more affordable than modern hospital, about thirty-two percent of the respondents patronize them because they are easily accessible and close about twenty-two percent who patronize them do so because of the fear of implant/amputation if they patronize modern health care, while about forty percent of the patients traditional bone-setters do so because they are quickly attended to. This is probably due to the fact that there is very little or no formal organization of service where lots of protocols exist in these traditional clinics. Table 3 shows the reasons for the patronage of traditional bone setters by patients. There are several reasons for this high rate of patronage of traditional bone setters. (Dada et al, 2011) listed the reasons for patronage to include; cheaper fees, easy access, quick service, cultural belief, utilization of incantations and concoctions, pressure from friends and families.

Table 3. Reasons for utilizing traditional bone-setters for fracture treatment

Variables	Labels	Frequency	Percentage
Reasons for utilizing traditional bone-setters for fracture treatment	**Cheaper fee/affordable**	**60**	**68.2**
	Proximity/Easy accessibility	**28**	**31.8**
	Quick service	**35**	**39.8**
	Fear of implant/amputation	**19**	**21.6**

Source; Field work, 2012.

Findings also revealed that respondents patronized traditional bone-setters for several reasons such as proximity and easy accessibility, quick service, fear of implant/amputation by modern medicine and cheaper cost/affordability. While about seventy-eight percent of the respondents agreed that traditional clinic is closer to their homes, only about twenty-one percent of the respondents said the modern hospital is closer to them, while a meager two percent said both form of treatment (traditional and western) are closer to their place of residence. Table 4 shows respondent responses on proximity of the clinic to their residence.

Table 4. Respondents view on the closeness of the form of treatment to their residence

Variables	Labels	FREQUENCY	PERCENTAGE
The closeness of the form of treatment to patients' residence	**Traditional Clinic**	**68**	**77.3**
	Modern Hospital	**18**	**20.5**
	Both	**2**	**2.3**

Source; Field work, 2012.

The proximity of the clinic to the patient has been revealed to influence of the choice of treatment in table 4 where about thirty-two percent of the respondents chose easy accessibility as what influence their choice of clinic as source of treatment. This result is similar to a previous research carried out by (Dada et al, 2011) where easy accessibility was revealed as part of the reasons why traditional bonesetters enjoy enormous patronage from the patients. The closeness of traditional bonesetters to the residency of the patients than the modern hospitals means that they are easily accessible. Owumi (1996) had established that traditional healers are close to their communities.

Similarly, while questioned about whether patients have been to a modern hospital before their visit to the clinic for treatment, thirty-three percent of the respondents have visited a modern hospital before their withdrawal, while the remaining sixty-seven percent did not visit a modern hospital. Table 5 shows respondents' response to question whether they have visited a modern hospital before their choice of the clinic.

Table 5. Respondents response to whether they have visited a modern hospital before visiting the clinic.

Variables	Labels	FREQUENCY	PERCENTAGE
Whether patients has visited a modern hospital before coming to the clinic	**Yes**	**29**	**33.0**
	No	**59**	**67.0**
	Total	**88**	**100.0**

Source; Field work, 2012

When probed further on their reason for the withdrawal from the hospital (for those who had visited the hospital before coming to the clinic), it was discovered that nearly eighty percent of them withdrew due to lack of improvement in their condition. An interviewed respondent buttressed this view by saying:

….. I had been taken to the hospital for over six days treatment that were very expensive, but when we discovered that the pain was unbearable and my hand was not getting any better, I had to follow my friend to see a bone-setter and within four days, I was feeling much better….(*male patient/IDI/Bere/May, 2012)*

The above revealed that traditional bone-setters as well as traditional are relevant in healing individual with fractured bones. The emphasis on the expensiveness of hospital treatment also show as the traditional healers are not as expensive as revealed in the previous responses. About fourteen percent withdrew because of fear of amputation in modern hospital, while about six percent withdrew due to their quest for better service as shown in table 6. Responses from the qualitative study also revealed how patients had been prevented from amputation as a result of their patronage of traditional bone-setters. A respondent reported thus:

My leg was already marked to be cut off when they took me to see the baba that later treated me without having to cut the leg. Today I can walk with they because the baba knew his work very (male patient/IDI/Agbowo/June, 2012)

Again the above response underscores the relevance and effectiveness of traditional medicine and confirms the views of Owumi (2005) that the effectiveness of some indigenous healing practices in the management of a variety of ailment are indisputable.

Table 6. Respondents response for the reason for withdrawal from the modern hospital.

Variables	Labels	FREQUENCY	PERCENTAGE
Reason for the withdrawal of patients from the hospital	**Fear of amputation**	**4**	**13.8**
	Quick service	**2**	**6.9**
	No improvement	**23**	**79.3**
	Total	**29**	**100.0**

Source; Field work, 2012

Similarly, about thirty-one percent of the respondents who have never visited a modern hospital responded that they were brought to the clinic when they are still not conscious of what happened to them. About twenty-five percent of the respondents did not visit a modern hospital because of the fear of amputation, about nineteen percent were of the opinion that they have better service in the clinic, about fourteen percent did not visit a modern hospital because the clinic is nearer to their place of residence, while about twelve percent chose higher fee that may be charged by a modern practitioner as the reason for their non-visitation of a modern hospital when the injury occurred. Table 7 shows respondents responses for their reasons for non-visitation of a modern hospital when the injury occurred.

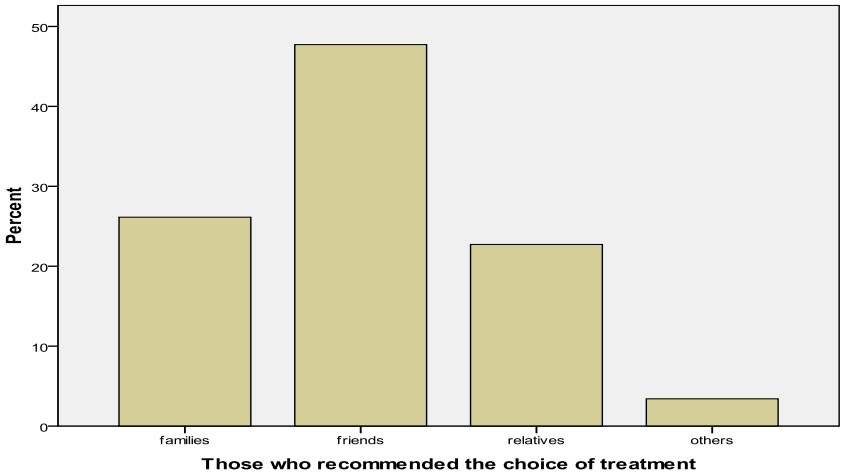
Table 7. Respondent responses for their non-visitation of a modern hospital when the injury occurred

Variables	Labels	FREQUENCY	PERCENTAGE
Reason for non-visitation of a modern hospital when the injury occurred	**Fear of amputation**	**15**	**25.4**
	No better service	**11**	**18.6**
	Unconsciousness	**18**	**30.5**
	Nearer	**8**	**13.6**
	Cheaper fee	**7**	**11.9**
	Total	**59**	**100.0**

Source; Field work, 2012.

Further findings in the study revealed that friends have the greatest influence in the recommendation of the mode of treatment for patients. In the research, it was found out that about forty-eight percent of the respondents chose the clinic because their friends recommended the place for them. The friends may have been treated before, or know someone who have been treated in such clinic in the past

Respondent responses about those who recommended their choice of treatment for them.



Source; Field work, 2012.

About twenty-six percent of the respondents chose the form of treatment due to recommendation by family members, while about twenty-three percent of the respondents chose relatives as those who recommend their choice of treatment for them. These relatives are neighbours, friends, e.t.c, while about three percent were recommended through other means. This other means depicted that the patients do not have any form of relationship with those who recommended the choice of treatment for him/her. Table 7 shows the responses of respondents about those who recommended the clinic to them as a form of treatment.

VIII. CONCLUSION

Traditional bone-setters have contributed immensely to the treatment and cure of bone-related diseases and fractures. There relevance is not only revealed in their effectiveness and efficacy but also on the fact that they are affordable and close to the patients in the community. Unfortunately the poor recognition and support the traditional healers deserve still remains a huge challenge in their bid to contribute their own quota to the health care system in Nigeria. Thus, while complications in traditional health care systems are overemphasized and their efficacy down-played, the complications and loss of lives that occur in modern health care are excused and their efficiency overemphasized.

Recommendations

- The study recommends that traditional bone-setter as well traditional healers as be given maximum support from individuals, communities and other health stake holders in order to bring out the best in them.
- It is expedient that the government, in collaboration with modern practitioners to organize trainings for the traditional bonesetters. This will go a long way in ensuring a cordial relationship between both practitioners and will also assist in referrals to the modern practitioners when treatment cannot be guaranteed by the traditional bone setters.
- The government also needs to set up a guideline for the establishment of traditional bone setters' clinics, stating the minimum standard that must be met by the practitioners. This will reduce the rate through which the clinics are being established and may possibly reduce the rate of complications that do arise from treatment. There is the need to set up training institutes where the art of bone setting can be learn, without necessarily going through the rigours of tertiary education. This will ensure that the traditional bone setters are trained in the art of modern care fracture management and will aid in the reduction of establishing clinics by quacks.
- The road traffic managers should ensure that road traffic rules are obeyed by road users. This is necessary so as to reduce the high rate of road traffic accidents, especially by motor-cycle riders.
- Finally, the populace needs to be enlightened on the risk involved in seeking for treatment from practitioners who are not certificated. This is necessary so as to ensure that complications that do arise

from wrong treatments are reduced while the government should ensure that only those who are certified and registered are allowed to practice.

REFERENCES

[1]. Agarwal, A. and Agarwal, R. 2012. "The Practice and Tradition of Bone-setting" Journal of Education for Health, Volume 23(1), Pg 1-5.

[2]. Alonge, T., Dongo, A., Nottidge, T., Omololu, A., Ogunlade, S. 2002. "Traditional Bonesetters in South Western Nigeria-Friends or Foes", WAJM, Volume 23(1), Pg 81-83.

[3]. Benedict, U., Nwachukwu, I., Ikechukwu, C., Okwesili, C., Mitchel, B., Harris, D., Jeffrey, N., Katz, F., 2011. "Traditional Bonesetters and Contemporary Orthopaedic Fracture Care in a Developing Nation: Historical Aspects, Contemporary Status and Future Directions" Journal of Open Modern, Volume 5, Pg 20-26.

[4]. Chowdury, M., Khandkher, H., Ahsan, K., Mostafa D., 2011. Complications of Fracture Treatment by Traditional Bonesetters at Dinajpur, Dinajpur Medical Journal, Volume 4 (1), Pg 15-19.

[5]. Chris, M., Kwaja, A. 2011. "Setting the Bones of Traditional Bone Setting". Journal of West African Insight.

[6]. Dada A., Yinusa, W., Giwa, S., 2011. "Review of the Practice of Traditional Bone Setting in Nigeria,"Journal of African Health Science, Volume 11 (2), Pg 262-265.

[7]. David, A., Spiegel, M., 2003. Bibliography of Orthopaedic Problems in Developing Countries, Journal of Global-HELP Organization at www.global-help.org

[8]. Dime, C., 1995, African Traditional Medicine: Peculiarities, Edo State University Publishing house.

[9]. Eshete, M., 2005. " The Prevention of Traditional Bonesetter's Gangrene" The Journal of Bone and Joint Surgery, 2005; 87-B: 102-103

[10]. Evandro, S., Coutinho, K., Vergetti, B., Laura, C., Rodrigues, F., 2009, "Characteristics and Circumstances of Falls Leading to Fractures in Elderly People in Rio de Janeiro, Brazil", Journal of Cad. Saude Publica, Volume 25 (2), Pg 455-459.

[11]. Faheem, A., M, Gulzac, S., Bilal, F., Irshad, B., Ayoob L., Khaleeque,. A., Siddique, A.,"Rahman. Shaikh (2009), Complications of Fracture Treatment by Traditional Bonesetters at Hyderabad", The Journal of Pakistan Orthopaedic Association, Volume 21(2), Pg 58-64

[12]. Giddens, A. 1994. Sociology, Polity Press

[13]. Gordon Scott, Henry Marshall (2009), Oxford Dictionary of Sociology, Oxford University press.

[14]. Isiugo-Abanihe, U., Isamah, A., and Adesina, J., (eds.), 2002, "Currents and Perspectives in Sociology" Malthouse Publishing Limited.

[15]. Gureje, O. 2005 " The de-facto health of Nigerians." University of Ibadan Postgraduate school Interdisciplinary Research Discourse.

[16]. Krug, E., Sharma, G., Lozano, R. (2000), The global burden of injuries. American Journal of Public Health, Volume 90:523-526,

[17]. Mock, C. 2001. "Injury in the developing world" West Journal of Medicine, Volume 175:372-374

[18]. Nantulya, V., Reich, M. 2002. "The neglected epidemic: Road traffic injuries in developing countries". British Journal Medic 324:1139-1141,

[19]. Nwadiaro, H., Nwadiaro, P., Kidmas, A., Ozoilo, K.2006. "Outcome of traditional bone setting in the Middle belt of Nigeria" Nigerian Journal of Surgical Research, Vol. 8, No. 1-2 , 2006, pp. 44-48.

[20]. O'Gbenga, A. 2001, Handbook on Ibadan North Local Government, Ibadan, Segab Press.

[21]. Odero,W,, Garner, P., Zwi, A. 1997. "Road traffic accidents in developing countries: a comprehensive review of epidemiologic studies". Tropical Medicine and International Health 2:445-460

[22]. Ogunlusi, J., Okem, I., Oginni, L., 2007 "Why patients patronize traditional bone setters". The Internet Journal of Orthopaedic Surgery.

[23]. Olaolorun, D., Oladiran, I., Adeniran, A. 2001 "Complications of fractures treatment by traditional bonesetters in southwestern Nigeria" Oxford Journals of Medicine, Volume 18(6), Pg 635-637.

[24]. Omololu, B., Ogunlade, S., Alonge, T. 2002. "The Complications seen from the treatment by traditional bone setters" WAJM, Volume 21(4), Pg 335-337

[25]. Omonzejele, P. 2008. "African Concepts of Health, Disease, and Treatment: An Ethical Inquiry,"The Journal of Science and Healing, Volume 4 (2), Pg 120-126.

[26]. Owumi, B. 1989. Physician Patient Relationships in an Alternative Health Care System. (An published Ph.D Thesis submitted to University of Ibadan).

[27]. ----------, 1996. Society and Health in Readings in Medical Sociology (eds) Oke E.A. and Owumi, B.E Resource Management Development (RDMS) Ibadan, Nigeria.

[28]. ----------, 2005. "Africa Values/Beliefs and the Polemics of Developing Traditional Medicine in Contemporary Times." A paper presented in the Faculty Lecture of the Social on 25th of November. 2006

[29]. Owumi, B.and Taiwo, P.A. 2012. Traditional Healing Practices and Health Reforms in Nigeria in Peoples and Cultures of Nigeria (eds) Jegede, A.S., Olutayo, O.A. and Owumi, B.E, Samlad Press, Nigeria. LIMITED.

[30]. Saw, A, Sallehuddin,. A, Chuah, U., Ismail, M. 201. "Comparison of Fracture Patterns between Rural and Urban Populations in a Developing Country,"Singapore Medical Journal, Volume 51(9), Pg 702-708.

[31]. Sofowora, A. 1982. "Medical Plants and Traditional Medicine in Africa". Spectrum Books Limited in Association with John Wiley and Sons.

[32]. Thanni, L., Tade, A. 2007 "Extremity amputation in Nigeria — a review of indications and mortality", The Surgeon,Volume 5 (4),, Pages 213-217

[33]. Adefolaju, T. 2011. "The Dynamics and Changing Structure of Traditional Healing System in Nigeria", International Journal of Health Research, Volume 4(2), Pg 99-106.

[34]. Udosen, A., Otei O., Onuba, O. 2006. "Role of Traditional Bone Setters in Africa; Experience in Calabar, Nigeria", Journal of Annals of African Medicine, Volume 5 (4), Pg 170-173.

[35]. Umaru, H., Ahidjo, A. Madziga, A., 2006. "Highway Armed Robbery: A major Cause of Extremity Gunshot Injury in North Eastern, Nigeria" International Journal of Modern Surgery, Volume 5, Pg 20-26