

PERCEPTION AND UTILIZATION OF TRADITIONAL ORTHOPAEDIC SERVICES BY ORTHOPAEDIC PATIENTS IN ILORIN, KWARA STATE, NIGERIA

Abstract

Despite the relative availability of modern medical services in Nigerian urban cities, orthopaedic patients have continued to patronize Traditional orthopaedic practitioners (TOP) even in the midst of low recognition. This study focused on the persistent utilization of traditional orthopaedic services (TOS) by patients in Ilorin. Health belief model was adopted as theoretical basis for the study. Both quantitative and qualitative methods were combined. Multistage sampling technique was used to select respondents from across the study area. Questionnaire was administered to a total of 357 patients, while In-depth Interview (IDI) was conducted with 7 patients and 14 purposively selected TOP. Majority of the respondents aged between 21 and 60 years (73.1%) were males (74.5%) and had secondary and tertiary education (76.6%) which did not affect their perception of TOS. It was further revealed that incidence of orthopaedic cases was higher in urban and semi-urban areas where most of the respondents (80.2%) resided. Also, Patients also believed that the use of supernatural methods and materials gave traditional treatment higher efficacy than its modern counterpart without resulting in complications as had been argued by previous scholars. The study recommended that funding be increased, and capacity building be encouraged to equip traditional orthopaedic practitioners to fill the huge gap inherent in Nigeria's orthopaedic health care sub-sector.

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KEY WORDS: Perception, Utilization, Orthopaedic, injury, Traditional, Bone setter

BACKGROUND TO THE STUDY/STATEMENT OF PROBLEM

The occurrence of orthopaedic injuries such as fracture, dislocation and sprains dates to time immemorial. However, the higher rate of socio-economic activities in modern societies has led to increase in the incidence of cases. Hence, orthopaedic injuries constitute a major component of health problems in modern societies (Zaproudina, Hanninem and Araksinen, 2007). Prior to the incursion of western medicine into Africa, traditional medicine was the only available source of healthcare (Hoff, 1997) due partly to its evolution from the culture and tradition of the people (Owumi, Taiwo and Olorunnisola, 2013). Although the development and advancement of modern orthopaedic care which is based on biomedical and scientific principles can be perceived as a threat to traditional orthopaedic practice, patients believe that traditional bone setting is not an alternative but a preferred method even when western medical care is available. This accounts for the wide spread use of TOP and justifies health policies targeted at integrating traditional with modern healthcare systems (Federal Ministry of health, 2004). As an indigenous healthcare system, traditional medicine is acceptable as well as more accessible to the people in terms of cost, geographical proximity and availability. This partly accounts for the positive perception as well as its high level of patronage and utilization.

According to Hurst (2014), the commonest type of orthopaedic injuries are fracture, sprain, tear or stress of the tissues (muscles, tendons, cartilages or ligaments), herniated discs, degenerative disc disease/ degenerative arthritis of cervical, thoracic, or lumbar discs; cervicgia (pain in the neck) occipital headaches or occipital neuralgia, chronic pain disorders, whiplash and rotator cuff injuries. In a study conducted among orthopaedic patients in a private hospital in Ibadan, Olaitan (2001) observed that 60.7% of orthopaedic injuries result from road traffic accident; 28.6% as a result of fall and 10.7% as a result of blow. In present day Nigeria, Motor cycles, commonly called 'Okada' account for high incidence of bone fracture due to recklessness by riders (Owumi et al, 2013).

In a study conducted by Aderibigbe, Agaja and Bamidele (2013), it was observed that more than 69.3% of respondents who knew TOP as a source of treatment for orthopaedic injuries thought that the therapy is preferable to western medicine. Previous studies (Dada, Yinusa, and Giwa, 2011; Aderibigbe et al 2013 and Onyemaechi, Onwuasoigwe, Nwankwo, Schuh and Popoola (2014) have also identified the major reasons for the patronage of TOP to include cheaper fees, easy accessibility, quick service, cultural belief, utilization of incantations and concoction, fear of amputation, pressure from friends and families. In addition, perception which involves, the process of gathering and interpreting information according to Marshall (1994), is central to the analysis of social phenomena (Jegade, 2002). It determines the impression of people as well as their attitude towards traditional orthopaedic service. The preference of patients for and utilization of traditional orthopaedic service can therefore be understood by exploring the perception of orthopaedic patients about the practice.

Previous studies had focused on the treatment failure, complications, disability and mortality attributed to TOP's treatment without recourse to the reasons why patients have continued to utilize the service. It is against this background that this paper seeks to examine the perception and utilization of traditional orthopaedic services with a view to examining the perception and investigating patients' subjective levels of satisfaction from TOS received in Ilorin

LITERATURE REVIEW

Perception about Traditional Orthopaedic Services

According to Onu (1996), health in the African context is as much a condition of the soul as it is of the body. Hence, treatment of ailments should be directed towards both ends. As had been established by studies (Erinosho, 1998; Jegede 2002, 2005; Owumi et al 2013), most African cultures support the belief that health problems are often due to spiritual causes. For most Africans therefore, a drug without proper ritual observances or even adequate divine or magical authority will be ineffective. Based on this, Bamidele (2010) observed that the organization and indeed approaches of indigenous health care is not only people-centered but also reflects patients' needs. Traditional orthopaedic service therefore meets the patient at the

very point of his/her needs. Unlike modern medicine, the practice does not have generally accepted standards by which diagnosis and treatment are carried out, practitioners personalize treatment to suit the psychological and socio-cultural peculiarities of the patient.

Olaitan (2001) reported 60.7% of orthopaedic injuries result from road traffic accidents (RTAs); 28.6% as a result of fall and 10.7% as a result of blow. However, the traditional belief that associates the root causes of orthopaedic injuries with spiritual factors encourages patients to seek treatment from sources that will not only address the physical dimension to their problem but also its spiritual underpinnings. TOP are believed to possess both physical and spiritual resources to address orthopaedic conditions. A TOP is perceived as a man of critical mind that is well informed about practical solutions to orthopaedic problems and highly dedicated to his vocation. Hence, the confidence reposed on TOP as an indigenous healthcare practitioner whose services possess very high efficacies with minimal costs. Their heavy reliance on natural and spiritual resources which according to Omonzejele (2008) possess 'active therapeutic principles, occult supernatural forces and the power to manipulate supernatural forces for desired results.

Traditional orthopaedic system is therefore unlike the hospital where according to Hinojosa (2004), patients perceive physicians and their technology as having no 'healing authority'. The natural 'community environment' in which bone setting takes place also contributes to the high level of satisfaction which patients derive from TOP's services. In a society engulfed with high level of poverty such as ours, cheap services like those offered by TOP's will certainly satisfy patients better than the very expensive services offered by modern orthopaedic hospitals especially in the face of low quality services offered in Nigerian hospitals. Moreover, it is believed that since the source of care is natural, very minimal chances are there for complications or relapse. This health belief of patients which is influenced by the cultural legitimacy conferred on traditional orthopaedic service as highly effective, account for their affirmative perception and consequently high level of patronage.

In the report of Aderibigbe, Agaja and Bamidele, (2013), 72.4% of the patients attended TOP because they perceived their treatment to be cheaper, yet healing faster than the expensive modern orthopaedic treatment. In his study, Thanni (2000) also found that many people patronize TOP because the services are cheaper. Other factors identified by scholars (Owumi et al, 2013;) as influencing the preferred choice of traditional orthopaedic service over modern hospital include: practitioners ease of accessibility, fear of surgical terror in the modern hospital (Amputation, implant, Plaster of Paris (P.O.P.) cast, and traction devices), familiarity with practitioners' culture, the use of natural and supernatural treatment methods, credit facilities and installment payment, faster healing and flexibility of bone-setter services.

Patients' subjective levels of satisfaction from Traditional Orthopaedic Services

In the view of Abodunrin, Bamidele, Olugbenga-Bello and Parakoyi (2010), the choice of facilities for healthcare by an individual is largely determined by his/her taste, satisfaction with service and the perceived quality of care provided. Patients' subjective level of satisfaction therefore refers to the extent to which patients' expectations are met in relation to the process and outcome of TOP's treatment. Studies have shown that patients generally believe in the efficacy of traditional medicine, hence their high patronage of it. Udosen, Otei and Onuba (2006) in their study on 'the role of traditional bone setters in Africa' observed that the result of treatment was assessed as satisfactory by all (100%) of both clients and practitioners. Idris, Mohammed and Basheer (2009) however attributed the high level of satisfaction with regard to TOP's services to the fact that TOP operates in consonance with the cultural beliefs of the people. Hence, patients regard it as producing 'natural healing' which is capable of restoring the affected body part to its natural state.

In addition to this, low treatment cost, quicker healing and ease of access to practitioners are factors contributing to patients' satisfaction. Unlike the hospital where the relationship between patient and practitioner is strictly contractual, regulated by formal-rational rules and procedures which dictates the obligations and duties of each party, traditional orthopaedic service is informally organized, based on the culture of the host society. The language of conversation is indigenous, well understood by both patient and healer; materials used are locally sourced from nature and patients do not feel alienated from the treatment process. All these provide social-emotional support which facilitates the recovery process, therefore, contributing to patients' subjective level of satisfaction. Like traditional medicine generally, the practice of bone setting is organized in a flexible manner which allows for mobility of either practitioner or patient. In the words of Alubo (1995), 'the patient was either brought to the therapist or the latter implored to visit the former in his sick bed'. Such flexibility does not only contribute to patients' subjective levels of satisfaction but further provide a basis for his/her further integration into the cultural system. This does not only treat the injury but improves patients' overall well being, contributing to his/her subjective level of satisfaction.

While modern medicine operates a mechanical approach to the human body, objectifying it as an entity that can be surgically manipulated, provided that the ultimate aim – healing of the affected part is achieved, traditional orthopaedic practitioners view the human body with some sense of 'sacredness', so that the body is not reduced to the level of a mere object. Hence, practitioners are more concerned with patients' overall condition, taking their feelings, beliefs, and preferences into account. This perception about bone healers as they are popularly called, inspires a level of confidence in patients regarding the bone setter. The practitioners also utilize methods and materials that are culturally acceptable to the patients (Abodunrin et al, 2010) and patients are treated not as passive recipients but as active collaborators in the treatment of their own body. As argued by Owumi et al (2013), traditional orthopaedic service takes place in flexible, community-like environments where patients are not constrained by formal rules such

as characterise the hospital. Rather, patients have intimate interactions with practitioners and formal patients. This does not only satisfy their social need as humans, but provides an avenue for the healer to monitor patients' conditions and make therapeutic adjustments where necessary.

THEORETICAL FRAMEWORK

Health Belief Model (HBM)

Health Belief Model is a psychological model that attempts to explain and predict health behaviours. It focuses on the perception and beliefs of people as it affects their health seeking behaviour. Developed in the 1950s by Hochbaum, Rosenstock and Kegels who are social psychologists working in the U.S. Public Health Service, HBM uses six major concepts to explain health behaviour. These are: perceived susceptibility, perceived severity, perceived benefit, perceived barriers, cue to action and self efficacy. The concepts are briefly defined below:

Perceived Susceptibility: This has to do with an individual's assessment of their risk of being affected by a particular ill-health condition. For example a person who perceives himself susceptible to a disease may get himself vaccinated against such disease.

Perceived Severity: This refers to an individual's assessment of the seriousness (severity) of his ill-health condition, and its potential consequences. Individual differences influence perceived severity which varies greatly between people.

Perceived Barriers: This describes an individual's assessment of the influences that enable or incapacitate his adoption of particular health behaviour. Perceived barriers are a person's own thoughts about the obstacles in the way of utilizing a health service. The perceived barriers are the most influential construct because they determine whether someone will adopt a treatment type or not.

Perceived Benefits: This concept has to do with one's belief in the efficacy of a potential action to reduce risk or seriousness of impact. Perceived benefit is based on an individual's assessment of the positive consequences of adopting behaviour or utilizing a health service.

Cues to Action: This refers to strategies to activate readiness, by way of providing information, raising awareness or even enacting social networks towards a particular Health behavior or treatment service.

Self Efficacy: This refers to confidence in one's ability to actually perform a particular Health action.

HBM offers explanation as to the perception and utilization of traditional orthopaedic services by orthopaedic patients. Due to the attribution of orthopaedic problems to spiritual causes (Owumi et al 2013), the theory believes that patients' perceived severity of orthopaedic conditions is very high and they perceive that only TOP possess effective approaches (such as use of sacrifice and incantations) for addressing their problem. This perceived efficacy of TOP treatment promotes high level of patronage and utilization. Patients also believe that perceived barriers such as cost,

distance and bureaucratic bottlenecks which characterised the hospital are absent in traditional orthopaedic settings. This does not only enhance the perceived benefits with regards to the utilization of traditional orthopaedic service, it also promotes their cue to action by activating their readiness and making them harness relevant social networks to facilitate contact with traditional orthopaedic practitioners (Onyemaechi, Onwuasoigwe, Nwankwo, Schuh and Popoola, 2014). Thus, the persistent utilization of traditional orthopaedic services can be attributed to factors such as lack of access to modern orthopaedic services in terms of cost, proximity and availability which constitute 'perceived barriers' and naturally makes patients prefer or resort to TOP. Patients' assessment of and belief in the efficacy of TOP's treatment constitute 'perceived benefits' which motivates their utilization of traditional orthopaedic services, while the social network that mediates the contact between TOP and patients such as the role of family members, friends, relatives and significant others constitute 'cues to action'.

Thus, the affirmative perception of traditional orthopaedic service by patients positions practitioners to play significant roles in the provision of orthopaedic services especially in developing countries in spite of civilization and existence of modern healthcare services (Dada et al, 2011).

METHODOLOGY

This study was conducted in Ilorin, Kwara state, in North-central Nigeria. TOP abound in urban and semi-urban Communities where they offered services to patients. These included Okelele, Odota, Oko-olowo, Ganmo, Oja-Gboro, Adangba, Sango, Oke-Ose, Jimba-Oja, Aboto, Ote, Afon and Alore areas. Although there were no official statistics on the number of TOP available in these communities due to poor documentation by relevant authorities, Aderibigbe et al (2013) observed that traditional orthopaedic service is well utilized in the area.

Both quantitative and qualitative methods were adopted in the study. For the quantitative data, multi-stage sampling technique was adopted in selecting 357 patients to whom questionnaire was administered. In the first stage, all the four (4) LGAs (Ilorin west, Ilorin East, Ilorin South and Asa) constituting Ilorin in Kwara state were purposively selected. In the second stage, snow-balling method was used to identify TOP clinics in each cluster (LGA). In the third stage, systematic sampling technique was used to select respondents from each of the eighteen (18) TOP centres based on their relative size. Qualitative data was collected using In-depth Interview (IDI) which was conducted with purposively selected participants including 7 patients (who had received TOP treatment for a period not less than two months) and 14 practitioners (who were aged 40years and above).

The questionnaire was organised into sections which included questions on respondents' socio-demographic characteristics, knowledge and belief about TOP's treatment, social networking process that linked patients with practitioners, and factors responsible for preference for TOP's treatment over the modern hospital. On the other hand, the IDI guide for patients

comprised of questions based on the sections in the questionnaire while IDI for practitioners included questions on practitioners' socio-demographic characteristics, history of and belief about practice, acquisition of knowledge and skill, diagnostic and therapeutic methods and their perceived factors for the continued relevance of TOS.

Quantitative data were analysed at the Univariate and bivariate levels using SPSS and findings were presented using frequency distribution and percentage. For the qualitative data, IDI responses were content-analysed. In recognition and adherence to ethical considerations, participants' consent was sought before the research commenced. Respondents were allowed to the rights to voluntary withdrawal, privacy and confidentiality.

FINDINGS

Patients' Socio-demographic Characteristics

Similar to findings of previous studies (Onyemaechi et al, 2014; Aderibigbe et al, 2013; Owumi et al, 2013), the socio-demographic characteristics of respondents as presented in Table 1 shows that most (73.1%) of the patients fell within the active age categories of the population. This made them socially and geographically mobile, and hence exposed them to leading causes of orthopaedic injuries such as RTAs (See Table 2). Similarly, majority (74.5%) of patients were males, which can be attributed to the instrumental roles that characterize their gender (lifting heavy items, geographically mobile occupations which further exposed them to the leading causes of RTAs, sporting activities and other strenuous tasks), unlike the females. More than half (58.8%) of respondents were single, which increases the possibility of their geographical mobility and therefore exposure to RTAs and other causes of injury. It was also observed that only 19.8% of the respondents were resident in the rural areas, while majority of them lived in urban and semi-urban areas, where due to the complex nature of socio-economic life, people are more vulnerable to orthopaedic injuries. Occupationally, most (74.7%) of the respondents belonged to categories that are associated with orthopaedic injury-related hazards. This notwithstanding, most of them belonged to low-income groups, which makes them unable to afford the highly expensive, specialized orthopaedic treatment of modern medicine. Hence, majority of the patients possessed socio-demographic characteristics that exposed them to the causes of orthopaedic injury.

Table 1: Socio-demographic Characteristics of patients (N=357)

CHARACTERISTICS	FREQUENCY	PERCENTAGE
Age		
20years and below	77	21.7
21-30years	98	25.0
31-40years	70	19.7
41-50years	49	13.9
51years and above	27	19.9
Sex		
Male	266	74.5
Female	91	25.5
Ethnic Affiliation		
Yoruba	224	62.7
Hausa	84	23.5
Igbo	21	5.9
Others	28	7.8
Marital Status		
Single	196	54.9
Married	147	41.2
Separated/Divorced/Widowed	14	3.9
Religious Affiliation		
Christianity	112	31.4
Islam	224	62.7
Traditional/others	21	5.9
Level of Education		
Non-formal	49	13.8
Primary	35	9.8
Secondary	147	41.2
Tertiary	126	35.3
Residence		
Urban	189	52.7
Semi-Urban	98	27.5
Rural	70	19.8
Occupation		
Civil Servant	63	35.3
Business	70	33.3
Farmer	63	19.6
Artisan	77	5.9
Student/Apprentice/Unemployed	84	5.9
Income		
#10,000 and below	126	35.3
#11,000-#50,000	119	33.3
#51,000-#100,000	70	19.6
#100,000-#150,000	21	5.9
Above #150,000	21	5.9

(Source: Survey, 2014)

PERCEPTION ABOUT TRADITIONAL ORTHOPAEDIC SERVICES

Patients identified various factors as responsible for their orthopaedic conditions. These factors were highly influenced by patients' socio-demographic characteristics, - which not only predisposed them to the causes of orthopaedic injury but further influenced the nature of injury as well as their coping resources. Table 2 below presents the factors responsible for patients' orthopaedic conditions.

Table 2: Predisposing factors to orthopaedic Injury

Cause of Injury	Frequency	Percentage
Road Traffic Accident (RTA)	266	74.2
Fall at work	49	13.8
Fall at home	21	6.0
Sports	14	4.0
Gun shot	7	2.0
Total	357	100

(Source: Survey, 2014)

RTAs accounted for over 74.2% of the cases. This confirms the findings of previous studies previous studies (Onyemaechi, Onwuasoigwe, Nwankwo, Schuh and Popoola, 2014; Aderibigbe et al 2013 and Solagberu, 2005), patients further believed that the causes of injury do not always operate in isolation but are often influenced by underlying spiritual factors which serve as their root causes. This belief is shared by both practitioners and patients alike. A patient's observation lent credence to this view:

...even in my own case, spiritual factors were responsible for the occurrence of the accident. You will understand if I tell you how it happened...I however believe that God knows and permits anything before it can happen to a human being. (Male Patient/IDI/Asa LGA/September 7, 2014)

The belief that spiritual factors influence health problems and their causes is generally upheld in most African societies (Owumi et al, 2013). Africans believe that orthopaedic injuries are often orchestrated by enemies or 'the gods' whom they (victims) might have offended through their actions or inactions. Such spiritual factors often served as underlying influences for the direct causes of orthopaedic injury earlier identified by patients in table 2.

However, the attribution of injuries to spiritual factors which may be due to cultural reasons can also be a misconception of the actual human factors (such as negligence and poor maintenance of vehicle, reckless behaviour, illiteracy and psycho-social problems) that might have been responsible for their occurrence. Road traffic accidents which are the leading causes of orthopaedic injuries (Aderibigbe, Agaja and Bamidele, 2013; Onyemaechi et al, 2014) often results from nonchalant attitude of motorists and pedestrians. These include poor maintenance of

vehicles, non-compliance with traffic rules, deliberate removal and non-usage of important vehicle parts like side-mirror in the case of motor cycles are human factors which contributes to why motorcycles are the leading causes of road traffic accidents (Onyemaechi et al, 2014). This is buttressed by further evidence from qualitative data:

...whenever the cause of an accident is not understood, people attribute it to the work of their enemies...overlooking their own mistakes. Over-speeding, poor maintenance of vehicles can lead to brake failure, over taking at a bend or before a hill can lead to head-on collision....yet they attribute resulting accidents to God or their enemy. (Male TOP /IDI/ Ilorin East LGA/ September 27, 2014).

Such attribution accounts for 'perceived susceptibility', a major concept in HBM which is the theoretical anchor for this study. Orthopaedic injuries generate a considerably high level of discomfort, often leading to patients' dependence on care givers even for the most basic tasks. As such, orthopaedic conditions often result in patients' inability to perform social roles or carry out economic activities. In addition, as the illness is perceived to be influenced by spiritual factors, patients generally perceived their conditions with high level of severity and desperately desire adequately competent help. This is revealed in Table 3 below.

Table 3: Patients' perceived severity of their conditions

Extent of perceived severity	Frequency	Percentage
Very severe	259	72.7
Moderately severe	42	11.7
Not severe	56	15.7
Total	357	100.0

(Source: Survey, 2014)

The severity with which majority of the patients perceived their condition can be attributed to the fact that most of the patients' orthopaedic injuries were, by their very nature life-threatening. This is because in addition to the physiological pain, high social economic costs, and (semi-) chronic nature, injuries affect patients' means of livelihood by their potential to produce permanent or temporary disabilities in patients. As posited by HBM, the level of severity (seriousness) of their condition which patients perceived to be generally high contributed to their utilization of TOS, especially where spiritual factors were believed to be involved in a case:

Perceived severity has been identified as a factor influencing pathway to the utilization of healthcare services (Jegede, 2005; Erinosh, 1998). This is because it enables the patient to carry out a self assessment of his own condition and harness relevant socio-economic resources for proper treatment. Thus, the generally high perception about the severity of their condition makes patients do everything possible within their power to avoid undesirable outcomes such as

prolong or permanent disability. Patients' perception of their injury as very severe, requiring competent intervention is a major factor in their choice of TOS which they believed will not only cure the physical condition, but also address any underlying spiritual component of their injury. They believed TOP are capable of meeting this perceived need because in addition to the physical methods, the practice further possesses supernatural approaches to diagnosis and treatment. Table 4 presents patients' perception of practitioners' methods of diagnosis.

PATIENTS' SUBJECTIVE LEVELS OF SATISFACTION FROM TRADITIONAL ORTHOPAEDIC SERVICES

The adoption of traditional orthopaedic treatment by patients is based on the belief that practitioners have a comprehensive method of diagnosis by which they are able to establish whether or not a particular case has spiritual components. This determined the regimen that is adopted by the practitioner. Fig 1 below presents a case that is believed to be influenced by spiritual factors, which did not only influence the cause of injury but have delayed healing in the hospital for several months until the patient was withdrawn for TOP's intervention.

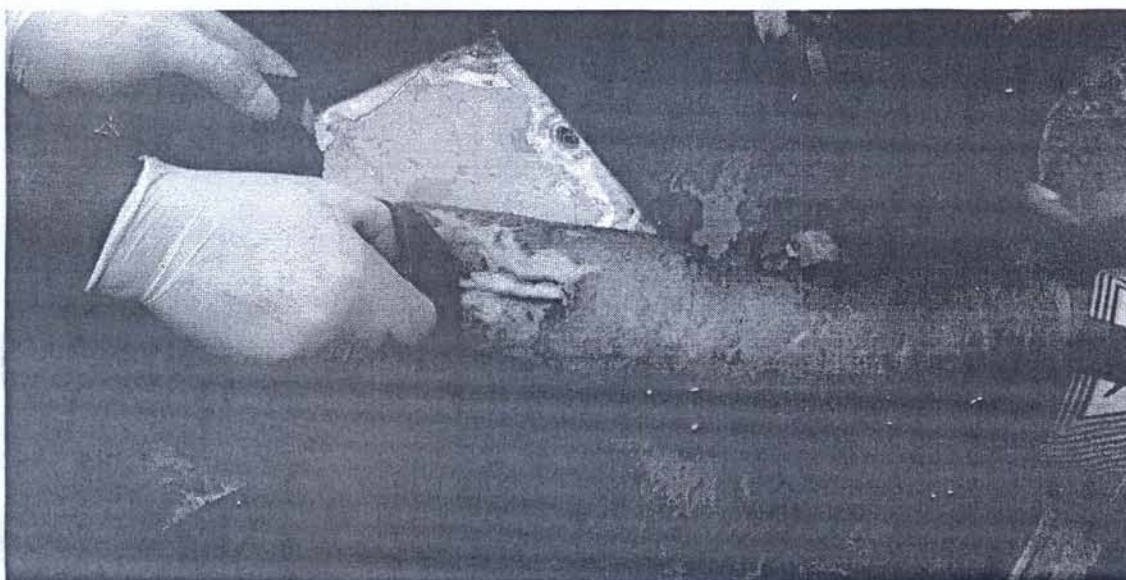


Figure 1: Complex Orthopaedic Injury (Bone fracture) believed to be influenced by spiritual factors

According to the practitioner, no amount of western treatment can cure cases like this. In the same vein, patients believed that the traditional orthopaedic clinic is the last resort for cases that have defied treatment under western medicine. This is because traditional medical practitioners are generally perceived as having *ase* (healing authority) which is divinely conferred on them by God. Contrary to the report of previous studies (Solagberu, 2005; Dada et al 2011; Aderibigbe et al, 2013; Onyemaechi et al, 2014), patients believed that TOP's treatment

did not result in complications. A particular patient whose case had been condemned to amputation in a modern hospital expressed his views as thus:

...the body is naturally created by God, and the medicines that Baba (TOP) uses for treating injuries are also naturally sourced from nature (as revealed by God), not from any man-made chemical.... Hospital treatment often result in complications due to P.O.P and the rusting of the iron that they (modern hospital) normally put inside broken bone (inplant), which makes the treatment unnatural.(Male patient/Yoruba/38/IDI/ Ilorin South LGA/ September 16, 2014).

Patients perceive traditional orthopaedic service has certain advantages over modern orthopaedic practice. These are presented in Table 5 below:

TABLE 5: Perceived Advantages of Traditional Orthopaedic Service (N357)

Reasons	Frequency	Percentage
Faster healing	82	25.9
Spiritual approach	73	23.2
Lasting solution	69	22.0
Use of natural medicine	91	28.9
Affordability	101	28.2
Effective treatment	80	22.4
TOP are merciful	72	20.0
Faster healing	54	15.3
Proximity	50	14.1

(Source: Survey, 2014)

Some patients believed that apart from the fact that hospital treatment often resulted in amputation, treatment and healing process is faster under traditional orthopaedic treatment. This was corroborated by the view of one practitioner:

Fracture treatment in the hospital usually involves the use of cement (P.O.P) which is not removed until after 6months. During that period, the patient's leg may be tied to the bed so that it does not shake. The condition of the leg after the 6months will determine the next thing...but if it is the bone setter, the patient would have started using walking stick (crutches) within 2 months and started walking normally by the third month... (Male Practitioner/ Nupe/45/IDI/ Ilorin west LGA/ September 19, 2014).

About 23.2% of patients also believed that practitioners offered better treatment than modern hospital the former utilized spiritual approaches which supersede western methods in the diagnosis and treatment of orthopaedic injuries. These included the use of prayers, incantations, rituals, sacrifices which TOP often adopt in consultation with other traditional medical experts, especially diviners. It is these spiritual components of TOP's services that are responsible for addressing supernatural causes of injuries and factors that may impede the healing process. Another 22.0% of the patients also believed that traditional treatment cures better because they offers a lasting solution to orthopaedic injuries. Patients identified the use of implants in modern orthopaedic care as producing relapse that often requires multiple surgeries to address. Evidence from qualitative data corroborated this view:

Bone setters' treatment heals better than hospital because they don't put any iron (implant) inside the patients' bone. Hospitals used to put iron into the bone of people who have fracture but after some time, the iron will get weak or it begins to rust, which means that the patient will have to do another operation (surgery) that will cost him pain as well as a lot of money. (Male Patient/ Ebira/38/IDI/ Asa LGA/ September 19, 2014

The use of traditional medicine was another reason given by patients (28.9%) for their belief that traditional orthopaedic treatment cures better than western treatment. This may be attributed to the increasing loss of confidence in the efficacy of modern drugs partly due to the spread of fake and substandard drugs which could undermine treatment efficacy. However, patients generally believed that traditional medicine is highly efficacious in tackling health problems including orthopaedic injuries. This view may also be attributed to the fact that TOP do not use radiological and surgical procedures in their diagnosis and treatment.

Other perceived advantages of traditional orthopaedic service included affordability of TOP's treatment (28.2%), effective treatment (22.4%), the belief that TOP are merciful (20.0%), relatively faster healing (15.3%) while 14.1% identified geographical proximity. Similar to the findings by Owumi et al (2013), affordability of TOP's service is a leading factor that influences orthopaedic patients' choice of their treatment. As posited by Jegede (2002), the cost of service in health facilities vis-à-vis patients' socio-economic status is a major factor that influences access to care. This can be understood from the perspective of patients' generally low level of income and socio-economic status.

Most events that resulted in patients' condition were spontaneous, unplanned and unexpected so that they were not prepared to pay the bills immediately. Unlike modern hospitals that are operated based on formal principles that do not accommodate excuses for not being able to pay for any exigencies, traditional practitioners did not demand for money immediately patients were presented. The testimony of one patient attests to this:

They did not ask for money when I arrived here. They were first concerned with my wellbeing. It was on the second or third day that they told us our bill. Yet, we could not pay immediately until the following week when we made our initial deposit. The first payment I made was less than half of the total bill, and they continue to treat me until I had more money to give to them. Hospital can never allow this 'laye laye' (never) (Patient/Male/Fulani/40/IDI/ Ilorin East LGA/ September 28, 2014).

Some patients (22.4%) opined that the effective treatment accounted for their preference for TOP. The case of a patient whose right leg was to have been amputated but later left the hospital to utilize TOP's treatment where he was treated, discharged and was visiting practitioners for periodic check-up at the time of the study, had this to say:

These people (TOP) are really trying...their treatment is very effective because God is with them. I was admitted at the teaching hospital and after spending two months, the doctors said my leg had 'died' and that they had to cut it so that it does not affect other parts of my body. It was at this stage that my family began to look for alternative. When somebody advised us to come here. I didn't spend up to 6 months here before I was discharged and today, I have even stopped using crutches. (Male patient/Yoruba/42/IDI/ Asa LGA/ September 19, 2014).

The perception by 20.0% of patients that traditional orthopaedic practitioners are merciful could be understood by the limitless efforts that TOP make towards ensuring that their patients were attended to, regardless of the latter's inability to meet financial obligations. Unlike the hospital where professional ethics and formal bureaucratic red-tapism delay prompt intervention even in emergency cases, TOP were considerate of the pain that patients were undergoing and therefore acted as soon as patients were presented. Furthermore, traditional orthopaedic service has no standard universal criteria for every case but practitioners considered patients' peculiar

character such as socio-economic status while dealing with them. Thus, practitioners sometimes write off patients' treatment bills when such patients are unable to pay. This was supported by evidence from qualitative data:

Alfa (the TOP) is truly God-sent. There are many things that he does for me free of charge. Although, they don't have wards like the hospital, he made arrangement with one of the villagers to accommodate me free of charge. He also told his wife to be giving me food whenever she cooks, since my people are in far away Niger state...and they cannot be coming to see me every time. (Male patient/Yoruba/47/IDI/ university graduate/ Ilorin west LGA/ September 14, 2014).

The perceived benevolent posture of practitioners was also observed to have reflected in their attitude and ways of relating with patients. Practitioners often cracked jokes with patients and sometimes relaxed with them in the evenings. This contributed to the restoration of patients' health which according to WHO is not merely the absence of disease or infirmities. Although practitioners could not afford to build wards for patients as obtained in western hospital settings, they offered them free accommodation to all in-patients even if it meant begging members of their community to accommodate patients as a humanitarian gesture. However, such accommodation was mostly located in dilapidated or uncompleted buildings such as presented in Fig-2 and Fig-3 below.



Figure 2: Dilapidated building used as ward for TOP Patients



Figure 2: Uncompleted building used as ward for TOP's patients

According to practitioners, most simple fractures healed in less than four months possibly due to non-use of plaster of paris (POP). It was therefore easy to constantly assess the healing process as well as massage the injury as the case may be from time to time. This probably accounted for the 15.3% of patients who preferred TOP due to faster healing associated with its treatment. This was attributed to the use of wooden splints by practitioners to provide necessary support/guard that facilitated healing within a couple of weeks; unlike the modern POP which does not allow for ventilation and yet takes several months before the cast is removed. The fact that TOP are located in the communities and allowed for home-service promoted access to care and accounted for the 14.1% of patients who identified nearness as their reason for preferring TOP.

Similarly, there are no extra-charges for any material, other than the initially agreed amount, even if treatment ends up being costlier than envisaged by the practitioner. Although practitioners are well respected by patients, due to the healing authority believed to be possessed by them, they never used their position to exploit patients nor coerce them to pay any amount of money. Rather, practitioners sometimes went out of their way to ensure that patients enjoyed some basic comfort. The realization that the hospital would have charged higher than TOP was a major factor that influenced the preference for and choice of practitioners in most cases. It must have also influenced the rational decision on the part of hospital patients (46.9%) who opted out of the modern hospital for traditional treatment.

CONCLUSION

Orthopaedic injuries are a major component of health problem in developing countries like Nigeria. However, exposure to their causes varies across socio-economic strata, and is highly influenced by patients' socio-economic status which also influenced patients' coping resources. In the face of fragile health infrastructure, traditional orthopaedic practitioners are a major provider of orthopaedic care in Nigeria. This is due to their cultural acceptance by patients who also perceive traditional orthopaedic service as having some advantage over modern orthopaedic service. Unlike their modern counterpart, TOP considered patients' subjective experiences which varies from one individual to another, in carrying out both diagnosis and treatment. This accounted for high level of subjective satisfaction of care among patients, as well as the continued relevance of traditional bone setters in a modern era like we are in. Hence, there is the need to view TOS from dimensions other than those of complications, treatment failure, morbidity, disability and mortality, as had been the beam of previous studies (Omololu et al, 2002; Dada et al, 2011; Aderibigbe et al, 2013; Oboirien and Khalid, 2013 and Onyemaechi, 2014). consolidate the existing feat attained by practitioners. This would help explore and optimize healthcare as well as multiplier socio-economic advantages that would accompany the development of traditional orthopaedic sub-sector. The ultimate outcome would be improved quality of service and strengthening of TOP to provide better treatment to their teeming patients.

RECOMMENDATION

1. Scholars, especially those from modern bio-medical background should be more accommodating, open minded and objective, in investigating issues relating to TOS. This will not only help realize the science and medical technology in the practice but provide deeper understanding as well as common ground for integrating both systems of care.
2. Traditional orthopaedic practitioners should be given higher priority and accorded better attention in the nation's overall health plan and financing. This will better position their service as a viable tool, especially with a view to filling the huge deficit due to dearth of and access to specialized modern medical treatment like orthopaedic services.

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