Kontagora Journal of Science and Technology (KONJOST)
2025, Vol. 18, No.1-2, pp.115-119 | ISSN:1118-9673 (print)
https://doi.org/10.5281/zenodo.17962754

Research Article

Evaluation on the patronage of Traditional Bone Setting practices in Nigeria: A community-based appraisal in Kano state

T. A. Garba*

Department of Orthopaedic Cast Technology, School of Health Sciences, Federal Polytechnic Kabo, Kano State, Nigeria.

Abstract

The study aimed at evaluating the patronage of traditional bone-setters' (TBSs) practices among clients with fracture/trauma in Kano, Nigeria. A survey research design was adopted, with a sample of 120 community respondents drawn from four of the 44 metropolitan local government areas of the state using accidental sampling procedure. A researcher-based Questionnaire, and Focus Group Discussion Checklist Guide, were developed, validated and administered accordingly. Frequency tables and percentages were used to analyze the data. Findings revealed majority of the respondents (52, 43.3%), responded with a combination of reasons, ranging from; 'they are easily accessible, cheap, respect clients and their culture, while only and 4 respondents (3.3%) responded on fear for amputation respectively. This is not withstanding the multiple complications usually experienced by the clients from TBSs' interventions resulting to dependency, and its subsequent physical, economic, socio-psychological trauma on the lives of the victims among others. A need for the establishment of orthodox Neuromuscular-skeletal healthcare facilities that is accessible, cheap and patient centered should be considered. Furthermore, synergy between the orthodox practitioners and the TBSs, and public awareness creation among the members of the community on the importance of positive health seeking behaviour using all the available means and resources, becomes imperative with a view to enlightening the communities against undesirable consequences following TBSs' interventions. This can be done through, series of engagements with stakeholders, symposium/workshops, and showing of mutual respect for one another among the orthodox practitioners and the TBSs among others.

Keywords: Fracture, Traditional, Bone -setting, Patronage, Consequences, Nigeria

1. Introduction

Among Nigerians, culture and religious beliefs and practices among others, especially as they relate to health care delivery system are strong and hence influence the people's health seeking behaviour, often in favour of traditional medical care (Eze, Eze,, Chuka-Okisa and Uche (2009). A study reported that the density of orthopedic surgeons is 0.22 per 100,000 in Nigeria, which is very low compared to the 9.2 per 100,000 population in the United States of America (Onyemaechi, 2020). Furthermore, in Nigeria, there is a shortage of orthopedic surgeons, so the TBSs play a vital role in filling this gap (Onyemaechi, Menson, Goodman et al 2021). Indeed, the practice of TBS is partly rooted in wrong socio-cultural beliefs; there are pervading sentiments and beliefs that traditional bone-setting treatment is more effective than modern bone setting (Onyemaechi, Lasebikan, Elachi, Popoola, and Oluwadiya, 2014). In a study conducted by the above-mentioned researchers, they found that 0ther factors influencing or patronizing TBAs by the members of the community were fear of amputation/operation (51.0%), lack of knowledge (32.0%), the attitude of health personnel (28.0%), and fear of the application of plaster of Paris (25.0%). It is interesting to note that, the study continues, that 48.3% of the patients in this study were initially taken to hospitals before they eventually took their discharge to the TBSs. The study further highlighted that other factors that influenced the decision to patronize TBS were mainly the advice of relatives and friends and the perceived cheaper cost of TBS treatment (Onyemaechi, Onwuasoigwe, Nwankwo, et al (2014).

Further reasons for the patronage of TBSs also include; cheaper fees, easy accessibility, quick service, cultural beliefs, utilization of incantations and concoction, and pressure from friends and families (Dada and Yinusa,2011).

Equally, there is a general belief in most African communities that TBS are better at fracture treatment than orthodox practitioners and that there is a supernatural influence in their management of fractures (Udosen, Otei and Onuba, 2006). This might explain the reason why most patients with fractures present first to the traditional bone-setters before coming to the hospital; (Ogunlusi, Ikem, and Oginni, 2007). It is therefore apt the study continues, that we

*Corresponding Author: T. A. Garba
Email: tijjanig26@gmail.com (T. A. Garba)
ORCiD: https://orcid.org/0009-0009-1379-9329

Received: 19/10/2025; **Accepted:** 18/11/2025; **Published:** 30/11/2025

do not ignore this level of care. This practice is usually within the family circle from father to son and sometimes extended family members with other people being trained through apprenticeship (Ogunlusi, 2007, Nwachukwu, Okwesili, Harris, Katz, 2011). The challenge of the orthopedic surgeon is the attendant complications that are presented to him after the patient has been mismanaged by the TBSs (Omololu, Ogunlade, Alonge, 2002). Some of these complications include limb gangrene following very tight local splints, mal-union, non-union, osteomyelitis, contractures, and limb length discrepancies (Omololu, Ogunlade, Alonge, 2002, Dada, Giwa, Yinusa, 2009). However, despite these complications, the demand for TBS services remains on the increase with some patients on admission in orthodox hospitals opting for treatment by a TBS. (Udosen, Otei and Onuba, 2006, Dada, Giwa, & Yinusa, 2009, and Solagberu, 2005).

In their study, Ogunlusi, 2007, Nwachukwu, Okwesili, Harris, Katz, 2011)), found out that most people visit traditional bone setters because they wanted cheaper and quicker services than modern treatment. Another study revealed that eighty-five percent of patients who presented with femoral fractures to an Orthopaedic Hospital had been to traditional bone-setters (TBSs) prior to going to the hospital (Olaolorun, Oladiran, Adeniran, 2001).

The most important factor for preference of the TBS was the beliefs of people. People feel better when treated by TBS than treated by orthodox medical personnel. Studies also showed patients have the belief that TBS treatment is cheap to them (Nkele, 2004, Thanni, Akindipe, Alausa, 2003). In Nigeria, the traditional bone setters perhaps more than any other group of traditional care-givers enjoy high patronage and confidence by the society (Thanni and Ogini, 2000) Indeed, the patrons of this service cuts across every strata of the society including the educated and the rich (Thani and Ogini, 2000). Many reasons account for this including the belief that diseases and accidents have spiritual components that need to be tackled along with treatment (Thanni and Ogini, 2000). The study however, concluded, that the outcome of their interventions in trauma care frequently leads to loss of limbs, lifelong deformities and sometimes death.

In the same talking, study also shows that 18.3% patients considered it cheaper and 11.7% patients consider it quicker treatment. This is comparable to the study by Thanni, who pointed out that TBS services are cheaper that attract many patients (Thanni, 2000). Another study also shows that one of the important factors for preferring the TBS is the opinion of family and friends. It was found that 98.3% of patients were forced by their family members and friends to TBS; which is comparable with Solagberu, Dada, Giwa, et al studies, where they found 75% and 25% of patients were referred by relative or friend respectively (Solagberu, 2005, Dada, Giwa & Yinusa, 2009). Family or friends are influential in referring a patient for treatment because of the existing social system in Pakistan where they will normally contribute towards cost of treatment. Therefore, this study is justified as it aims to generate evidence-based recommendations that can contribute to safer musculoskeletal care, bridge gaps between traditional and modern practices, and ultimately enhance patient outcomes within the Nigerian health system.

The study's main objective was to determine the reasons(s) for the patronage of traditional bone-setting interventions by community members clients with fracture/trauma in Kano State Metropolis, Nigeria.

2. Methodology

The study was conducted in Kano Metropolis, which comprises eight (8) Local Government Areas (LGAs). Four (4) LGAs Nassarawa, Tarauni, Fagge, and Municipal were randomly selected for the study. A survey design was adopted, utilizing a structured interviewer-administered questionnaire (n = 120) to obtain information on respondents' socio-demographic characteristics and their reasons for patronizing traditional bone setters. An accidental sampling procedure was employed to select participants.Additionally, data collection was supplemented with a focus group discussion (FGD) guided by a structured checklist. Data were analyzed using frequency distributions and percentage tables.

3. Results

Table1 Showing the demographic characteristics of the community members' responses.

The majority of the respondents (48, 40%) fall within the age bracket of 40-49 years, 103 (85.8%) were males, 83, 69.2 %, married, 35 (29.2%), attended Qur'anic education, 22 (18.3%) however attended tertiary institutions and 48,(40%) were civil servants. The 21 respondents (17.5%) were either unemployed, drivers or casual workers.

Table 4.1.6 presents communities' members responses on factors influencing the patronage of TBSs' interventions. Six (6) items were arranged to gather the responses. Majorityof the respondents (52, 43.3%), responded on 'all of the above', which is the combination of; 'they are easily accessible, cheap, respect clients and their culture. Only 30 (25%), 21 (17.5%), 7 (5.8%), 6 (5%), and 4 (3.3%) respondents, responded on; 'they are easily accessible, cheap, understand clients' culture, respect clients and fear for amputation respectively. The 99.9% is due to rounding error.

4. Discussion

The majority of the respondents (52, representing 43.3%) indicated that their reasons for patronizing traditional bone setters (TBSs) fell under the category of "others," which included a combination of factors such as easy accessibility, affordable services, understanding of clients' culture, and respect for clients. This contrasts with 30 (25%), 21 (17.5%), 7 (5.8%), 6 (5%), and 4 (3.3%) respondents who selected reasons such as fear of amputation, among others.

Clients and patients therefore tend to patronize traditional bone setters over modern or orthodox orthopedic services largely due to the low cost of treatment. A significant proportion of these clients or patients, however, are not educated.

Table 1. Showing Demographic Characteristics of the Community Members

Variable	Value	Percentage
Age		
18-29	23	19.2
30-39	39	32.5
40-49	48	40
50 & above	10	8.3
Total	**120**	**100**
Marital Status		
Married	83	69.2
Single	32	26.7
Divorced	1	0.8
Widowed	4	3.3
Others	0	0
Total	**120**	**100**
Educational Status		
Qur'anic	35	22
Primary	28	23.4
Basic Literacy	11	9.2
Secondary	24	20
Tertiary	22	18.3
Others, (specify)	0	0
Total		**100**
Occupation		
Civil servant	48	40
Trader	36	40
Farmer	15	12.5
Others, (specify)	21	17.5
Total	**120**	**100**

Source: Field Data 2025.

Table 2. showing responses on factors influencing the patronage of traditional bone setters.

Variable	(Value)	Percentage
Reason(s) for patronizing TBSs.		
They are easily accessible	30	25
services are cheap	21	17.5
They understand clients' culture	7	5.8
They respect our clients	6	5
All of the above	52	43.3
Others (specify)	4	3.3
Total	**120**	**99.9**

Source: Field Data 2025

Similarly, many of the practitioners lack sufficient knowledge regarding the importance of orthodox fracture treatment. Despite this, it may be challenging to discontinue the activities of TBSs given the considerable level of trust and assurance they enjoy from their clients.

This suggests that accessibility, affordability, cultural understanding, and respect for individuals play crucial roles in driving the patronage of TBSs among community members, regardless of the potential undesirable consequences or complications that may result from their interventions.

This finding aligns with that of Eze, Eze, Chuka-Okisa, and Uche (2009), who discovered that cultural and religious beliefs and practices, particularly those connected to the health care delivery system, strongly influence people's health-seeking behaviours, often in favour of traditional medical care. Kano is therefore not different in this regard.

In support of this, Onyemaechi, Menson, Goodman et al. (2021) reported that Nigeria has an orthopedic surgeon density of only 0.22 per 100,000 population, compared to 9.2 per 100,000 in the United States of America. This significant disparity illustrates acute shortages and limited accessibility to orthodox practitioners, leading communities to patronize TBSs.

In another study, Onyemaechi, Lasebikan, Elachi, Popoola, and Oluwadiya (2015) identified additional factors influencing the patronage of TBSs, including fear of amputation or surgery (51.0%), lack of knowledge (32.0%), negative attitudes of health personnel (28.0%), and fear of the application of plaster of Paris (25.0%). The study further revealed that 48.3% of patients who initially sought orthodox intervention eventually discharged themselves in favour of TBSs. This underscores how inaccessibility and poor attitudes among orthodox healthcare practitioners significantly affect the community's health-seeking behaviours.

Similarly, Dada and Yinusa (2011) found that cheaper fees, easy accessibility, quick service, cultural beliefs, the use of incantations and concoctions, and pressure from friends and family also contributed to the patronage of TBSs. Accessibility issues therefore require serious attention in order to mitigate the unacceptable consequences associated with traditional bone-setting interventions.

However, a troubling question remains: despite the availability and accessibility of orthodox centres in Kano metropolis—the primary focus of this research—including the presence of a referral centre such as the National Orthopaedic Hospital Dala, as well as other orthodox facilities in the area, why do a significant number of respondents still opt for TBSs?

5. Conclusion

In line with the findings of the study, the researcher concluded that culture and religious beliefs and practices among others, especially as they relate to health care delivery system are strong and hence influence the people's health seeking behaviour, often in favour of traditional medical care- traditional bone setters in this regard. Furthermore, accessibility, being cheap, and respect for individuals among others, play an important reason for the patronage of the TBSs by members of the communities notwithstanding the undesirable consequences or complications that the interventions may result to. Steps should therefore be taken, which will among others, but not limited to, include, upgrading, and where possible, establishing new orthodox Neuromuscular-skeletal healthcare facilities that are more accessible to communities, cheaper, patient centered, and above all, community mobilization and sensitization on the importance of patronage of orthodox healthcare facilities with a view to preventing undesirable consequences that might result following traditional bone setters interventions. Attempt should also be made towards improving and paying considerable attention on traditional bone setters' knowledge of basic human anatomy and physiology and principles of infection prevention and control, and recognition of the need for mutual respect and dignity between them and the orthodox practitioners. These steps were equally considered and implemented with the traditional birth attendants (TBAs), and a lot has been achieved in their performances in preventing and reducing maternal and perinatal morbidity and mortality in the communities.

Recommendations:

- More Orthodox Neuromuscular-skeletal healthcare facilities in the urban areas (and also in the rural areas), should be established to make services more accessible, cheaper and patient centered to ensure community patronage.
- Synergy/collaboration should be established between the orthodox healthcare practitioners and the TBSs with government support, to complement each other based on capacity, respect and mutual understanding with a view to easing tension between the two parties and prevent complications.
- Government and other stakeholders should employ measures directed at improving formal education through adult literacy program with a view to enhancing TBSs literacy levels and awareness creation that will impact on their performances in the community,
- Orthodox healthcare practitioners, with government support, should develop techniques and strategies towards modernizing the TBSs crude and unscientific ways of treating fracture/trauma to a scientific and more sterile methods through seminars and workshops with a view to preventing sepsis or infection.

Abbreviations

TBSs	Traditional bone-setters'
LGAs	Local Government Areas
FGD	Focus Group Discussion

Author Contributions

Garba, Tijjani Alhaji: Conceptualization and Design. Material preparation and Methodology, Writing original draft, Analysis of results, data collection,

Conflicts of Interest

The author(s) declare that they have no known competing financial interests, professional affiliations or personal relationships that could have appeared to influence the work reported in this paper,

Funding

This work was supported by the Tertiary Education Trust Fund (TETFund), Institution Based Research (IBR).

References

Abang, I., Asuquo, J., Ngim, N., Ikpeme, I., Agweye, P., Urom, S., Anisi, C., &Mpama, E. (2016).Reasons for patronage of traditional bone setters.*Nigerian Journal of Surgery*, *22*(2), 102.https://doi.org/10.4103/1117-6806.188993

Ikpeme, I., Agweye, P., Urom, S., Anisi, C., &Mpama, E. (2016).Reasons for patronage of traditional bone setters.*Nigerian Journal of Surgery*, *22*(2), 102.https://doi.org/10.4103/1117-6806.188993

Dada, A., Yinusa, W., &Giwa, S. O. (2011). Review of the practice of traditional bone setting in Nigeria. *African Health Sciences*, *11*(2), 262–265.

Dada, A., Giwa†, S. O., Yinusa, W., Ugbeye, M., &Gbadegesin, S. (2009). Complications of Treatment of Musculoskeletal Injuries by Bone Setters.*West African Journal of Medicine*, *28*(1), 133–137. https://doi.org/10.4314/wajm.v28i1.48426

Eze, B. I., Chuka-Okosa, C. M., &Uche, J. N. (2009). Traditional eye medicine use by newly presenting ophthalmic patients to a teaching hospital in south-eastern Nigeria: socio-demographic and clinical correlates. *BMC Complementary and Alternative Medicine*, *9*(1), 40.https://doi.org/10.1186/1472-6882-9-40

Nkele, C. (2004). Pattern Of Occurrence, Management And Prevention Of Trauma In Nigerian Oil Industry. *Nigerian Journal of Orthopaedics and Trauma*, *2*(2), 97–100. https://doi.org/10.4314/njotra.v2i2.29208

Nwachukwu, B., Okwesili, I., Harris, M., & Katz, J.(2011). Traditional bone-setters and contemporary orthopaedic fracture care in a developing nation: Historical aspects, contemporary status and future directions. *Open Orthop J*, *5*, 20–26.

OlaOlorun, D., Oladiran, I., &Adeniran, A. (2001).Complications of fracture treatment by traditional bone setters in southwest Nigeria.*Family Practice*, *18*(6), 635–637. https://doi.org/10.1093/fampra/18.6.635

Oginni LM. (1995). Traditional Bone Setting in Western Nigeria. . . *In: Adediran B, Editor. Cultural Studies in Ile-Ife Institute of African Studies, Obafemi Awolowo University Ile-Ife*, *13*, 202–208.

Ogunlusi, J., Okem, I., &Oginni, L. (2007). Why patients patronize traditional bone setters. *Internet J OrthopSurg*, 4(2).

OlaOlorun, D., Oladiran, I., &Adeniran, A. (2001). Complications of fracture treatment by traditional bone setters in southwest Nigeria.*Family Practice*, *18*(6), 635–637. https://doi.org/10.1093/fampra/18.6.635

Omololu, B., Ogunlade, S., &Alonge, T. (2002).The complications seen from the treatment by traditional bone-setters.*West African Journal of Medicine*, *21*(4), 335–337. https://doi.org/10.4314/wajm.v21i4.28014

Onyemaechi, N. O. C., Onwuasoigwe, O., Nwankwo, O. E., Schuh, A., &Popoola, S. O. (2014). Complications of musculoskeletal injuries treated by traditional bone setters in a developing country. Indian Journal of Applied Research, 4(3), 313-316.DOI:10.15373/2249555X/MAR2014/93

Onyemaechi, N.O., Menson, W. N.A., Goodman X., Slinkard, S., Onwujekwe,O. E., Enweani, Nwankwo,O. E., Nwomeh, B.C., Fiemu E. Nwariaku, F. E., Ezeanolue, E. (2021): Complications of traditional bone-setting in contemporary fracture care in low- and middle-income countries: A systematic review, Trop Med Int Health. 2021; 26:1367–1377. DOI: 10.1111/tmi.13662.

Onyemaechi NO, Lasebikan OA, Elachi IC, et al. (2015) Patronage of traditional bone setters in Makurdi, North-central Nigeria. Patient Prefer Adherence 2015; 9:275-9.)

Nwachukwu, B., Okwesili, I., Harris, M., & Katz, J.(2011). Traditional bone-setters and contemporary orthopaedic fracture care in a developing nation: Historical aspects, contemporary status and future directions. *Open Orthop J*, *5*, 20–26.

Sina OJ, Taiwo OC, Ayodele IM. (2014); Traditional bone-setters and fracture care in Nigeria. Merit Res J Art Soc Sci Humanit 2014; 2:74-80.

Solagberu BA. (2005). Long bone fractures treated by traditional bone setters: A study of patients' behaviour. *Trop Doct*, *35*, 106–108.

Thanni, L. O. (2000). Factors influencing patronage of traditional bone setters.*West African Journal of Medicine*, *19*(3),220–224. http://www.ncbi.nlm.nih.gov/pubmed/11126089

Thanni, L., Akindipe, J., & Alausa, O. (2004). Pattern and Outcome Of Treatment Of Musculoskeletal Conditions By Traditional Bone setters In Southwest Nigeria. *Nigerian Journal of Orthopaedics and Trauma*, *2*(2), 112–115. https://doi.org/10.4314/njotra.v2i2.29211

Udosen, A., Otei, O., & Onuba O. (2006). The role of traditional bone setters in Africa: Experience in Calabar, Nigeria. *Ann Afr Med*, *5*, 170–173.