

Role of Traditional Bone Setters in Africa: Experience in Calabar, Nigeria

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Abstract

Background: It is a known fact that majority of bony injuries in our society are treated by traditional methods. Even the elite often-times shows evidence of doubt in the efficacy of orthodox methods of bone treatment.

Method: Interviews using questionnaires were administered to owners of traditional bone centres and their clients respectively. Eight (8) of such centres were visited in Calabar and their environs.

Results: Results showed that all the practitioners had little or no formal education. All of them claimed ancestral/supernatural inheritance of the trade and do not want to disclose any secret. There was complete lack of knowledge of anatomy, physiology and the sources of complications. They lack basic knowledge of investigations and wound care. Most of the clients found themselves at the Traditional bone centres (TBC) because of poverty, ignorance and superstitious beliefs. The traditional bone setters (TBS) do record some success in simple fractures and dislocations but all of them see orthodox bone treatment as rivalry.

Conclusion: It may be difficult to stop traditional bone setting in our society but may be easy to stop the complications by drawing the TBS together for the purpose of basic education and restriction. Training of more specialists in the area of Orthopaedics and Traumatology and provision of adequate basic equipment/appliances in our health institutions may reduce the rate of “Leaving hospital to the Traditional bone centres against medical advice”.

Key words: Bone setting, traditional

Résumé

Introduction : c'est connu par tous que la majorité des fractures d'os sont traitées de manière traditionnelle dans notre société. Même nos élites ont le plus souvent montré certaines évidences de doute concernant l'efficacité des manières orthodoxes utilisées pour ce genre de traitement.

Méthode : Les interviews utilisant des questionnaires ont été effectuées à l'encontre des propriétaires et pratiquants de l'orthopédie traditionnelle et ainsi qu'à leurs clients. Environ 8 (huit) de ces centres ont été visités à Calabar et ses environs.

Résultat: Les résultats ont montré que aucun ou très peu sont éduqués. Tous soutiennent un héritage ancestrale ou de fer ce super naturel guidant cette pratique et ne veulent en aucun cas en révéler le secret. Nous avons eu à observer un manque total de connaissance en anatomie, physiologie d'où la source des complications qui en découle, les manquent de notions élémentaires pour diagnostiquer et traitement des plaies. La plus part de leurs clients y viennent à cause de la pauvreté, l'ignorance et les croyances superstitieuses. L'orthopédie traditionnelle enregistre certains succès dans le traitement des fractures simples et dislocations, mais nous voyons cette pratique comme rival à l'orthopédie moderne.

Conclusion : Nous voyons qu'il est nécessaire de rapprocher les praticiens de l'orthopédie traditionnelle ensemble pour le besoin de leurs pratiques une éducation élémentaire. Voir restreindre leurs pratiques si nous tenons à revoir en baisse le taux de complication survenant de leur pratique. La formation de plusieurs spécialistes en domaine d'orthopédie et traumatologie, et aussi l'approvisionnement en équipement élémentaire et adéquate pour diagnostiquer dans nos centres de sont pourront réduire considérablement «l'abandon des hospitalités en faveur des tradi-praticiens malgré leur contre indication promulguée par les conseils médicaux».

Mots-cles : Ensemble le besoin, traditionnelle

Introduction

Traditional bone setting is a known procedure among Africans, although it is associated with severe complications, such as pain, gangrene, malunion, nonunion, joint stiffness and infections, people still prefer this method of treating fractures.¹ This continued use of TBS by Africans is based on the belief that it is cheaper, more available and results in faster healing than orthodox measures.¹⁻⁴

The objective of this study was to highlight the experience with traditional bone setting in Calabar, Nigeria.

Materials and Methods

Eight traditional bone setting centres (TBC) in Calabar metropolis were studied. Questionnaires were administered by a medical social worker and an Orthopaedic technician to both the TBS and their clients. The media of communication were English and Efik languages. Parameters on the questionnaire included the Biodata, reason for patronage of TBS, methods of pain relief and assessment of outcome of treatment. The TBS among other things also answered questions relating to their trade and mode of acquisition of knowledge.

Results

Ninety-two trauma patients from 8 traditional bone centres (TBC) were involved in this study. The male/female ratio of the clients was about 4:1 (72:20). Fifty-four (59%) of the clients were youths aged between 21 and 40 years. Demographic and other characteristics of the clients are presented in tables 1 and 2.

Forms of pain relief used by the TBS included herbs in 9 (10%), mixture of herbs and pharmaceutical agents in 17 (18%) while 66 (72%) had no analgesics. The result of treatment was assessed as satisfactory by all (100%) the clients and practitioners. All the TBS and majority of their clients claimed that traditional bone setting is more effective.

Out of the 8 TBS, only 6 cooperated to respond to our questions. Of the 6, four of the practitioners acquired the skills through family inheritance while 2 got theirs by training on the job. All of them used pulling/massage, herbal bandage and wooden splints during the process. Only 2 had knowledge of the existence/importance of orthodox fracture treatment. Two were willing to refer patients to hospitals but all claimed that investigations such as X-rays are not necessary. Five of the bone setters were males and one female, all aged >43 years; 2 had no formal education, 2 primary education and 2 secondary education.

Table 1: Age and occupation of 92 clients at traditional bone centre

Demographic	M	F	Total (%)
Age (years)			
<20	1	1	2 (2.2)
21 – 40	41	13	54 (58.7)
41 – 60	30	6	36 (39.1)
>60	-	-	-
Occupation			
Motorcyclist	46	-	46 (50.0)
Business man/woman	18	13	31 (33.7)
Civil servant	6	3	9 (9.8)
Student/others	2	4	6 (6.5)

Table 2: Reasons for patronage of traditional bone setter by clients

Reason	Response (%)
It is cheaper	74 (80.4)
It is natural and heals faster without delay	9 (9.8)
Fear of operation or amputation	5 (5.4)
Fear of medical jargon and plaster cast	5 (5.4)
Total	92 (100)

Discussion

Traditional bone setting is a well recognized and age long practice in African tradition.^{5,6} The treatment of

bone injuries is associated with much mythology and superstition.^{2,6,7} It is a known fact that the repeated manipulation and massage of fractured bones cause severe pain and result in complications such as nonunion, malunion, joint stiffness and infections.^{1,7-9}

In this study, it was found that despite the painful experience by all “patients” and the high rate of complications, 100% of them preferred native bone setting to orthodox treatment. The reasons for this included high cost and delay in treatment in hospitals, fear of operation/amputation and “fear of medical jargons and application of plaster of Paris in the specialist centres”.¹⁰⁻¹³ There is an erroneous belief in traditional Africa that the only available option for treatment of fractures in hospitals is amputation. It is also believed that the application of plaster

of Paris (POP) usually results in atrophy and gangrene of affected limbs. Patient/relations are warned not seek orthodox care when they have fractures/dislocations. These behaviours have placed a great burden on the orthodox traumatologists who spent their expertise in correcting complications rather than practice modern Orthopaedics.^{1,5,7} These wrong beliefs can only be eradicated through education, public enlightenment and functional health insurance for all citizens.^{1,7}

There has always been an attempt by the setters to introduce some forms of pain relief into their practice.¹⁴ This may be as a result of alliance with quack Medicine dealers and some hospital staff.^{1,5} This has been noted by some researchers that some hospital workers do offer some services or collaborate with them for some gains.^{1,4,12, 14} It should be noted that the application of analgesics without proper reduction and immobilization of fractures is a futile exercise.^{14,15} Ignorance was a major disadvantage among the TBS because the highest educational level attained by the TBS was secondary education in 33% of them. The study shows that it is predominantly a male trade. Only one out of the 6 practitioners was a female. Out of the eight centres visited, only 6 reluctantly cooperated. Majority of them claimed that the trade is hereditary and do not see any need of collaboration with or make referrals to orthodox Practitioners. This attitude is also seen among Indians and the Yorubas.^{7, 8, 11}

In general, they saw orthodox practitioners/researchers as intruders into their business. Furthermore, majority (50%) of those patronizing them were motor cyclists who were predominantly illiterates. This agrees with the findings of other workers in the sub region.^{1, 4, 5, 11, 12} All the TBS use the same method of herbal cream application, native bamboo splinting, frequent pulling and massage. Complications such as tetanus, gangrene and nonunion are usually attributed to charms and witchcrafts. They lack basic knowledge of anatomy and physiology.

This study shows that it may be difficult to stop traditional bone setting in our society but may be easy to stop the complications associated with this procedure. Training of more specialists in the area of Orthopaedics and Traumatology and provision of adequate basic equipment/appliances in our health institutions may reduce the rate of "Leaving hospital to the Traditional bone centres against medical advice".

For now, the activities of the TBS is a great hindrance to the practice of modern Orthopaedics in Nigeria and Africa in general.^{9, 13, 16} It is advocated in some quarters that traditional bone setters should be trained and integrated into our community health system as is done for traditional birth attendants.^{1, 7,8,14} This may not be may not offer the desired solution.

The national and International organizations including the Nigerian Orthopaedic Association, primary health/Community health providers should take urgent steps to help prevent the complications arising from traditional bone setting.^{1, 4,7,11} This can be

achieved through eradication of poverty and ignorance as well as making appropriate legislation to restrict this menace.

Secondly, initiation of community projects that would create awareness among the traditional bone setters and patients could discourage these harmful practices.^{4, 10, 14 - 16} One way of achieving this is to train rural orthopaedic assistants whose primary duty would be to disseminate information, provide emergency trauma care and refer of difficult cases.⁷

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References

1. Onuminya JE, Onabowale BO, Obekpa P, Ihezue CH. Traditional bonesetters gangrene. *Int Orthop (SICOT)* 1999; 23:111-112
2. Nkele CN. Pattern of occurrence, management and prevention of trauma in Nigerian oil industry *Nigerian Journal of Orthopaedics and Trauma* 2000; 2:97-100
3. Thanni LOA, Akindipe JA, Alausa OK. Pattern and outcome of treatment of musculoskeletal conditions by traditional bonesetters in Southwest Nigeria. *Nigerian Journal of Orthopaedics and Trauma* 2003; 2:112-115
4. Thanni LOA. Factors influencing patronage of traditional bonesetters. *West Afr J Med* 2000;19:220-224
5. Iwegbu CG (ed). Principles and management of acute orthopaedic trauma. AuthorHause Publishers, Bloomington, 2004; 54-55
6. Hulth A. Fracture healing - a concept of competing healing factors, *Acta Orthoped Scand* 1980;51:5
7. Udosen AM. The role of orthopaedic and trauma assistants in improving rural orthopaedic and trauma care. *Annals of African Medicine* 2004; 3:150-152
8. Ademuwagun ZA. The relevance of Yoruba medicine men in public health practice in Nigeria. *Pub Health Rep* 1969; 84:1085-1091
9. Oyebola DDO. Yoruba traditional bonesetters: the practice of orthopaedics in a primitive setting in Nigeria. *J Trauma* 1980; 20:312-322
10. Abdul H, Suma TS. Monumental heritage. *Indian health traditions. Sunday Magazine* 2000; 1-4
11. Garba ES, Deshi PJ. Traditional bone setting: A risk in limb amputation. *East Afr Med J* 1998; 75:553-555 Ademuwagun ZA. The challenge of the co-existence of orthodox and traditional medicine in Nigeria. *East Afr Med J* 1976; 53: 21-32
12. Smith JA. Best of the old and new. *BMJ* 1974;2: 367 - 370

13. Udosen AM Eshiet AI, Ilori IU, Ngim OE, Akpan SG. Method of pain management by traditional bone setters: experience in the South-South zone of Nigeria. *Nigerian Journal of Orthopaedics and Trauma* 2004; 3: 176-184
 14. Udosen AM, Ugare G, Etiuma AU, Akpan SG, Bassey OO. Femoral artery aneurysm, a complication of traditional bone setting (case report). *Nigerian Journal of Surgery* 2004; 2:63-65
 15. Udosen AM, Ugare G, Ekpo R. Generalized tetanus following mismanaged lower limb fractures by traditional bonesetters. *Trop Doct* 2005; 35:237-239
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