

## Patients preference for traditional bonesetters in Northern Ghana

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**Abstract:** *Background:* Traditional Bone Setter (TBS) practice is the most common form of musculo-skeletal injuries management in the Northern part of Ghana despite reports of severe complications associated with the practice. The aim of the study was to elicit factors that influence patient's preference for TBS. *Method:* This was a facility-based descriptive study involving a Specialist orthopaedic hospital (Tania Specialist Orthopaedic Hospital, Tamale) and a Traditional Bone Setting centre in Loagri. A total of 80 respondents; 51 (63.7%) males and 29 (36.3%) females aged between 7 and 70 years were involved in the study. The socio-demographic profile of the patients, type of injuries and the anatomical part involve, reasons for TBS patronage, duration of TBS treatment, and outcome of treatment were studied. *Results:* Out of the 80 patients involved in this study, majority (63.7%) were males with majority (45.0%) of the patients falling between the age of 21 years to 30 years. Most of these patients had no formal education (43.8%) and were unemployed (23.8%) but were registered with the National Insurance Scheme (70.0%). Superstitious beliefs was the most common reason for the continue patronage of TBS services (37.5%) follow by affordability of medical cost (31.3%). Other reasons were the belief that TBS treatment is natural and heal fast (12.5%), easy accessibility (7.5%), fear of amputation (6.3%), and advice of relatives/ friends 5.0%. These reasons however had no significant correlation to the educational status, age, marital status, religious affiliation and the employment status of the patients. A significant number of these patients (75.0%) had reported first to orthodox medical facilities before discharging themselves against medical advice for TBS management. *Conclusion:* The high patronage of TBS in Northern Ghana despite the reported high complications associated with it is influence by superstitious beliefs and high cost of orthopaedic medical care.

**Keywords:** Preference, Traditional Bone setters, Northern Ghana, Superstition.

### Introduction

Traditional bone setting is a part of Traditional medical practice in many developing countries and has existed in Africa long before orthopaedic medical care [1-2]. Studies have shown that in Sub-Saharan Africa, over 80% of the people rely on traditional medicines for their Primary Health care including fractures [1-2].

Traditional bone setting is an age old practice in many African societies and is usually family practices that is pass on from one generation to the other within the family and enjoyed high patronage across social status, educational level and religious affiliations although this practice is often associated with several failures and complications including mal-union, non-union and infections [3-5]. In Ghana it is estimated that about 78% of all patients with fractures resort to the traditional bone setters for care [4, 6]. Several reasons have been attributed to the continued

patronage of TBS by many Africans including non-availability and accessibility to modern orthopaedic facilities, cost and fear of amputations at the orthodox centres and the belief that every disease or accident/misfortune has a spiritual undertone [6-9].

The practice of TBS is very common in the Northern part of Ghana. Studies have indicated that Northern Ghana has a high rate of Road Traffic accidents and other domestic related accidents [10-11]. These accidents usually results in severe musculo-skeletal injuries and these patients often end up in the TBS centres rather than orthopaedic hospital for proper orthopaedic and trauma care [4, 6, 10]. However most of the people who patronised the TBS services later return to orthopaedic hospitals with several complications sometimes very fatal making orthopaedic management very complicated and costly and sometimes leading to limb

amputations which regrettably strengthens the belief of the people that the only treatment option by the orthopaedic methods is amputation [4-5, 8]. Even though the practice of the TBS is very common in the Northern part of Ghana, there has not been, to the best of our knowledge any scientific study to evaluate reasons why patients prefer TBS to orthodox orthopaedic services in Northern Ghana. The present study was thus undertaken to evaluate reasons for patient's preference for TBS in Northern Ghana.

**Material and Methods**

This was a facility-based descriptive study involving 80 patients who reported to Tania Tamale and a Traditional Bone Setting centre in Loagri for fracture management. The socio-demographic profile of the patients, type of injuries and the anatomical part involve, reasons for TBS patronage, duration of TBS treatment, and outcome of treatment were studied using a standardised observer-administered questionnaire.

The Tania Specialist Orthopaedic Hospital is one of two orthopaedic hospitals serving patients from the Northern part of Ghana and the neighbouring countries such as Burkina Faso. The Loagri Traditional bone setting centre is renowned for TBS management attracting patients from all over Ghana and other countries in the Sub region. It is located on the Tamale/Bolgatanga highway about 36 km from Tamale in the Northern Region attracting patronage from patients across the Sub Region.

*Statistical Analysis:* The quantitative data were entered into SPSS version 18 and analysed. Pearson chi-square values and p-values were used as test of statistics. P-values were considered statistically significant when found to be less than 0.05 at 95% confidence level.

**Results**

Out of the 80 patients involved in this study, majority (63.7%) were males with majority (45.0%) of the patients falling between the ages of 21 years to 30 years (Table 1).

Most of these patients had no formal education (43.8%) and were unemployed (23.8%) but were registered with the National Insurance Scheme (70.0%) (Table 2).

**Table-1: Socio-demographic characteristics of Respondents**

Variable	Frequency	Percentage
<b>Sex</b>		
Male	51	63.7
Female	29	36.3
<b>Age</b>		
0 - 12	4	5.0
11,20	20	25.0
21 - 30	36	45.0
31 - 40	8	10.0
41 - 50	6	7.5
51 - 60	4	5.0
> 60	2	2.5
<b>Marital Status</b>		
Married	52	65.0
Single	28	35.0
<b>Religion</b>		
Christianity	20	25.0
Islam	58	72.5
Traditional African Religion	2	2.5

**Table-2: Distribution of patients stratified by Occupation**

Variable	Frequency	Percentage
<b>Occupation</b>		
Unemployed	19	23.75
Civil servant	3	3.75
Craftsmen/artisans	5	6.25
Farmer	5	6.25
Trader	8	10.0
Driver/Driver-mates	40	50.0

About 50.0% of the patients were either drivers or driver mates and 10.0% of them were traders with only 6.3% of them being farmers and Craftsmen/artisans. Superstitious beliefs was the most common reason for the continue patronage of TBS services (37.5%) follow by affordability of medical cost (31.3%) (Table 3). Other reasons were the belief that TBS treatment is natural and heal fast (12.5%), easy accessibility (7.5%), fear of amputation (6.3%), and advice of relatives/

friends 5.0% (Table 4). These reasons however had no significant correlation to the educational status, age, marital status, religious affiliation and the employment status of the patients. A significant number of these patients (75.0%) had reported first to orthodox medical facilities before discharging themselves against medical advice for TBS management (figure 1).

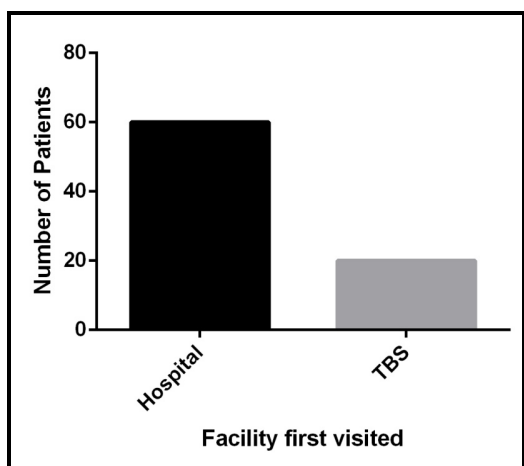
**Table-3: Distribution of patients by education and insurance policy**

Educational level	Frequency	Percentage
No formal educ.	35	43.75
Basic educ.	20	25.00
Secondary educ.	19	23.75
Tertiary educ.	6	7.50
NHIS		
Registered	56	70.00
Non - registered	24	30.00

**Table-4: Reasons for patients patronage of TBS**

Factors	Frequency	Percentage
Affordable/cost effectiveness	25	31.25
Natural and fast healing	10	12.5
Fear of amputation	5	6.25
Easy accessibility	6	7.5
Superstition/beliefs	30	37.5
Advice of relative/Friend	4	5
<b>Total</b>	<b>80</b>	<b>100</b>

**Figure-1:** Number of patient’s stratify by first point of call after injury



**Discussion**

The male predominance (63.7%) in this study goes to confirm fact that males are predominantly injured due to their involvement in injury-prone activities. In this part of Ghana the major occupation of the people is farming and agricultural related activity where men all the mainly involve. In addition majority of them were within the most productive age group (21-30 years). This age group belongs to the productive age group of the society. This implies that economic productivity may be adversely affected by TBS practice with its attendant complications and socioeconomic consequences.

This finding is in conformity with the findings of Onyemaechi et al [8] in where about 70% of the patients were male and were also within the age of 31-40 years. Majority of the patients were uneducated (43.8%) and unemployed (23.8%) indicating that most of them were financially dependents and low income earners indicating that TBS patronage is highly influence by the financial status of the patients. This finding is similar to the works of Onyemaechi et al [8]; Aderibigbe et al [4, 11-12] and Dada et al [3] whereby occupation and income level significantly influence the patronage of TBS.

On the factors that influence the patronage of TBS services, the study revealed that superstitious beliefs and affordability of cost of treatment were the major factors influencing the choice of TBS. In most parts of Africa it belief that every disease or accident has a spiritual connotation. Studies have shown that most of the musculo-skeletal injuries in Northern Ghana are due to road traffic accident [4, 11].

Therefore these patients may want to go through some form of spiritual healing at the TBS before returning to the hospital for orthopaedic management. The majority of the patients in this study were low-income earners as indicated. This finding supports previous reports that the income level of patients significantly influences the decision to patronize TBS [3, 6, 12]. This group of people will find it difficult to pay for orthopaedic treatment and will rather opt for TBS. It is

however difficult to conclude that affordable and accessible trauma care service may help to discourage TBS patronage in this part of the country. This is because about 70% of the patients had functional health insurance scheme and it is therefore possible that patients patronized TBS service because of their belief not cost.

Other reason for the continue patronage of TBS was the fear of operation and amputation in the orthopaedic hospitals. It is regrettable to note that people irrespective of their social and educational status still erroneously belief in this part of country that the only available option for treatment of fractures in hospital is amputation. It is therefore imperative to educate the populace

about modern orthopaedic services in order to erase these wrong beliefs.

In conclusion, the high patronage of TBS in Northern Ghana despite the reported high complications associated with it is influenced by superstitious beliefs, fear of amputation and high cost of orthopaedic medical care. There is thus the need to educate the populace about modern orthopaedic services in order to erase these wrong beliefs.

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