

## Why Patients Patronize Traditional Bone Setters?

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Traditional bone setting is an old practice found almost in all communities of the world and in Bangladesh there is high degree of confidence in bone setter's art. Ophthopaedic Surgeons in developing countries are faced with diverse challenges posed by the complications resulting from management of fracture by Traditional bone setters. Modern orthopedic treatments have made traditional bone setting obsolete in developed countries, the practice is still much with under developed and developing countries and in Bangladesh in particular. This study was conducted with the objective of finding out why patients patronize the traditional Bone setters despite complications associate with it and to make recommendations.

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Key words: Traditional bone setters

### Introduction

**T**raditional bone setting is an old practice found almost in all communities of the world<sup>1</sup> and in Bangladesh there is high degree of confidence in bone setter's art. Ophthopaedic Surgeons in developing countries are faced with diverse challenges posed by the complications resulting from management of fracture by Traditional Bone Setters.<sup>2,3</sup> Modern orthopedic treatments have made traditional bone setting obsolete in developed countries, the practice is still much with under developed and developing countries and in Bangladesh in particular.<sup>2</sup> TBS services are well preserved as a family practice, and the training is by apprenticeship. Records are kept strictly by oral tradition.<sup>4</sup> The principal and common mode of immobilization is application of tight splint at the fracture site.<sup>5</sup> The traditional fracture splints are made from bamboo. These materials are knitted together to form a mat like splint which are usually wrapped round the fracture site tightly. The immobilization is done most of the time without basic knowledge of Anatomy, Physiology

and Radiology which makes the limb and life threatening complications inevitable. These complications varies from acute compartment syndrome, tetanus, deformities, chronic osteomyelitis, gangrene, amputation and death<sup>1,3,5</sup> but these complications do not seem to deter other patients from Patronizing the TBS.

### Methods

This is a prospective study done in the chamber of the author at Dinajpur. 150 consecutive patients who attended at the private chamber after treatment at TBS centers were selected. It was a 9 months study conducted between January 2010 to September 2010. Duration of Treatment ranges at TBS center from 3 days to 3 months and was as OPD patients. 102 patients attended TBS directly after accident/trauma, 48 attended after initial hospital treatment.

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Information about pt's bio-data, nature and types of injuries, initial X-ray done, limb involved, duration of treatment at TBS centers reasons for patronizing TBS, were asked and filled in to the predesigned questionnaire. The types of complications with which the patients presented and the duration of treatment administered by the TBS were recorded. The data obtained were analyzed manually.

### Results

Distribution of patients in different age group is shown in the table I. Majority of the patients were in the age group of 2<sup>nd</sup> and 4<sup>th</sup> decade. Pathologies treated by traditional bone setters are shown in the table II. Supracondylar fractures were mostly treated by TBS.

Table I: Age Distribution of Patients (n-150)

Age Group	Number of Patients	Percentage (%)
1-10	15	10
11-20	35	23.33
21-30	30	20
31-40	35	23.33
41-50	20	13.33
51-above	15	10

Table II: Pathologies treated by Traditional Bone Setters (TBS)

Pathology	Site	Number
Fracture	Femur	06
	Trochanter & Neck	15
	Tibia	14
	Patella	05
	Humeral shaft	06
	Radius – Ulna	16
	Colles fracture	15
	Supracondylar	20
	Clavicle	9
	Misc fracture	25
Soft tissue trauma	Soft tissue trauma	20
Dislocation	Hip	03
	Shoulder	05
	Elbow	07
Total		150

Means of contacts contact with TBS is shown in the table III. Old patients were main means of contacts. Cheaper service was the most common reason for patronizing shown in table IV. The causes of coming back to orthopedic surgeon is shown in the table V. Mal-union & joint stiffness were main causes of coming back to Orthopaedic Surgeon.

Table III: Means of contact with Traditional Bone Setters (TBS)

Contact	No of patients (%)
Old patients	55 (36.7%)
Middle man	48 (Hospital) (32%)
Direct contact (accident site)	15 (10%)
Family member & friends	32 (21.3%)
Total number of Patients	150

Table IV: Reasons for patronizing TBS

Reasons	Number (%)
Quick service	110 (73.3%)
Cheaper service	130 (86.67%)
Traditional belief	120 (80%)
Fear of operation/amputation	12 (08%)
Non availability of qualified doctor	42 (28%)
Pressure from family and friends	60 (40)

Table V: Reasons for coming back to Orthopaedic Surgeon

Reasons	No ( % )
Deformity & Unsatisfactory follow up X-ray	60 (40%)
Superficial infection & Blister formation	20 (13.3%)
Mal union	65 (43.33%)
Non-union	10 (06.65%)
Infection (Osteomyelitis)	15 (10%)
Joint stiffness	90 (60%)
Hand deformity (VIC)	10 (06.65%)

### Discussion

The study showed that the patronage of the TBS complications due to their treatment remains an important and complex issue in our society (Health care system) This study revealed that males accounted for large portion of patients seeking TBS treatment

and young adult patients mostly patronize the bone setters, the duration of management at TBS center was as long as 5 months in a patient with closed femoral shaft fracture delayed union and shortening. 15(10%) patients went directly to TBS centers from the site of accident, Family member & friends took 32(21.3%) patients to the centers. In our study contact with the TBS in 103 (68.7%) of patients is mainly through middlemen and old TBSs patients, this closely agree with the study of

Solagberu's who found that the initial idea of visiting TBS was mooted by an external person in 75% of cases<sup>6</sup> in another study by J D Ogunlusi<sup>7</sup> showed that (85%) patients visited TBS motivated by relatives, friends and old patients. In this study, TBS manage different kinds of fractures and dislocation with manipulation without analgesia & immobilize by using typical bamboo splints and herbal medicinal paste without consideration of reduction and alignment. Diagnosis usually done by history of trauma and visible swelling without the help of any X-ray in most cases.

The TBS start treatment with an X-ray only in 10 cases out of 150 patients. All the patients in this study had a check X-ray done by the patients themselves. 60 had displacement in their X-ray not corrected by the TBS treatment and returned back to Orthopedic Surgeon and 25 had normal X-ray .

In this study 130 (86%) patients visited TBS centers for financial reasons and this fact is supported by previous studies.<sup>4,5,8,9</sup> In a survey by Thanni by means of administered questionnaire supports this factor.<sup>10</sup> This study also showed that patients wanted quicker service for their acute problems so as to go back to work early and visited the centers, unfortunately they ended up with the

primary poorly treated and complicated despite long period of treatment. Non availability of doctors for fracture management is also a factor for patronage in 42(28%) cases.

Another important patronage determinant factor included opinion of family and friends. 60 (40%) were influenced by this group of people to seek treatment from TBS, Influence of this groups important in our society because family and friends normally contributes the cost of treatment. In a study by Solagber<sup>6</sup> in Ilorin 74% of the patients urged to visit TBS by family members.

Fear of amputation was the reason of patronage in 12 (08%) cases though this is a small percentage. Education of the peoples is important to let them know that Orthopedic Surgeon does primarily conserve limbs and amputation is carried out on limbs that can't be conserved or dead limbs.

Complications of the TBS treatment were mainly mal union 65 (43.33%) and or joint stiffness which accounts for 90 (60%) of the cases. Improper reduction technique fails to achieve good reduction. Massage of Herbal oil & forceful stretching of the joints causing haemorrhage in soft tissue and further fibrosis of soft tissue resulting stiffness of the joints. Education of public and patients, letting them to be aware that quick and cheaper services do not equate to good functional outcome. In southern Ethiopia, instructional courses to bone setters lead to significant reduction of gangrenous limb and amputation within two years.<sup>8</sup>

#### *Conclusion*

The study revealed that patients attending TBS centers want cheaper medical care and more importantly quicker service and quicker union of the fracture which they believed that the bone setter can offer. There is lots of criticism and antagonism from Othodox

medical practitioner, still the TBS practice is well patronized by our people. Though there are many complications associate with their treatment majority of the peoples still we still have a strong belief in their capability. In order to grantee safety and efficiency of the TBS practice in primary fracture care service delivery in Bangladesh there is, therefore, a need both to educate public and patients and to train the TBS. Affordable and accessible hospital services should be provided to reduce the TBS patronage.

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