

Humanitarian Scholar – Ghana

**Training Traditional Bonesetters in Basic Principles of Fracture Treatment:  
A Proof of Concept in Ghana**

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**Purpose:** Traditional bonesetters (TBS) provide most of the primary fracture care in Ghana and other low- and middle-income countries (LMICs). They are widely patronized, and their services are commonly associated with complications. The aim of this study was to establish the feasibility of formal training of TBS on basic principles and techniques of fracture treatment and to determine the chain in knowledge after the training intervention.

**Methods:** Traditional bonesetters from 4 regions in Ghana underwent a 4-day training course designed to teach basic principles of fracture care, with the use of local tools, from April to December 2021. The levels of knowledge of TBS before and after training were determined on the last day of training and at 6 months following training with the use of a structured questionnaire, focus group discussions, and in-depth interviews. The change in practice of trained TBS was assessed at 6 months using a structured questionnaire and a checklist. TBS received refresher training courses during follow-up sessions.

**Results:** In total, 157 TBS were trained in 5 training sessions over a 9-month period from April to December 2021. Most (87.9%) were males, who practiced in rural areas (59.2%) with a mean duration of practice of 20 years. Most (51.6%) had no formal education and acquired the skill of traditional bonesetting through family inheritance (86.0%). There was improvement in knowledge in all modules of training delivered, with an overall knowledge gain of 19.7% (from 67.2% to 86.9%). Knowledge on fracture splintage and limb bandaging increased from 55.7% to 80.4%, on recognition of fracture complications rose from 67.1% to 93.8%, in pain management from 69.3% to 90.5%, healing of fractures from 66.8% to 81.8%, and on patient rehabilitation principles from 45.9% to 68.2%. At 6-month follow-up, areas of TBS practice most improved by the training were observed in recordkeeping, hand hygiene, and patient rehabilitation. Gaps in TBS practice observed at follow-up sessions were related to fracture splintage and pain management.

**Conclusion:** This study demonstrates the feasibility of providing formal training to TBS by trauma and orthopaedic surgeons to improve the quality of services and outcomes of TBS treatment. The training received by TBS resulted in a significant gain in knowledge on fracture splintage, limb bandaging, recordkeeping, hand hygiene, and patient rehabilitation.