OPINION

ROLE OF RURAL ORTHPAEDIC AND TRAUMA ASSISTANTS IN IMPROVING RURAL ORTHOPAEDIC AND TRAUMA CARE

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Abstract
In recent times it is quite obvious that bone and joint ailments have almost been forgotten about in our primary health care scheme. Yet this is the problem that is most prevalent in our rural/urban communities. The dearth of specialist in this area and the concentration of the few in specialist centres have left the rural areas solely to the hands of “traditional bone setters” (TBS). This unfortunate pattern of health arrangement has left the specialist with the option of receiving more of complicated cases already mismanaged by our “TBS”. This report highlights the problem and proffer suggestions on how to improve the outcome of our rural orthopaedic and trauma practices in line with government policy of primary health care and health for all by the year………!

Key words: Rural, orthopaedic care, traditional bone setters

Problems associated with orthopaedic and trauma disease

Myth and ignorance
Almost all the ailments associated with musculoskeletal system have mythical and supernatural interpretations and acclaimed methods of treatment. It is rare to see such problems presenting in our hospitals early; However, even if superstitious barriers were removed, the proper management of these cases are rather poor in the rural areas because the government policies have not addressed this important aspect of health care. Orthopaedic and trauma problems that affect urban dwellers also affect the rural dwellers (Table 1). These ailments have their traditional names and methods of treatment. Enormous mortality and morbidity result from these preventable and treatable conditions.

Problems of inadequate orthopaedic and trauma personnel in rural areas

In Nigeria with a population of about 120 million people the total number of qualified orthopaedic and trauma specialists is about 400. Other professionals in including orthopaedic nurses and plaster technicians cluster around the specialist centres. It is rare to find them in the primary care centres and programmes, and yet the problem of trauma is so enormous and should take a prime place in such schemes.

Table 1: Orthopaedic and trauma problems in urban and rural dwellers

| Congenital and developmental problems |
| Club foot | Multiple digits | Contractures | Amelia, hemimelia | Spina bifida |
| Degenerative and inflammatory processes |
| Osteoarthritis | Tendonitis | Osteoporosis | Rheumatoid arthritis | Poliomyelitis |
| Infections |
| Bacterial osteomyelitis and septic arthritis | Tuberculosis of bones and joints | Gangrene and tetanus |
| Metabolic diseases |
| Ricketts | Gout | Osteomalacia |
| Trauma |
| Fractures | Dislocations | Gun shot injuries | Spinal and head injuries from falls |
Problems of inadequate orthopaedic and trauma facilities and centres

Apart from the three National Orthopaedic Hospitals in Enugu, Lagos and Kano, which are fairly equipped, the teaching hospitals and specialists centres are not specifically equipped to handle the burden of orthopaedic and trauma problems (both fresh and complicated). A typical orthopaedic and trauma centre should have at least the following;

1. A well set out accident and emergency unit well equipped to handle all Orthopaedic emergencies.
2. Well equipped theatres with image intensifiers. This is not the case in Nigeria.
3. It is important to note that the general hospitals and health centres have no basic facilities for management of orthopaedic and trauma ailments.

Cost of orthopaedic and trauma care

The treatment of orthopaedic and trauma problems require large sum of money if a proper treatment must be given. It involves several facets such as implants and other appliances, drugs, operation fees, prosthesis, orthosis and prolonged admission charges. It is a costly exercise that should be handled by the Government and not individuals. There is therefore a need for a workable health insurance policy for Nigerians; some poor results from Trauma care are due to the use of substandard appliances and substandard practices.

How to improve rural orthopaedic and trauma care

To improve this aspect of health care, the following are necessary;

1. There must be a consistent health education programme aimed at changing the wrong beliefs associated with bone and joint ailments.
2. There should be in place a coordinated programme to train adequate personnel that would work in the rural setting (orthopaedic nurses and plaster room assistant who may be otherwise called rural orthopaedic assistants).
3. A well planned financing system in form of health insurance scheme to cater for all Nigerians including the rural dwellers as seen in other countries.
4. The provision of basic facilities for trauma care in the health centres in all the three tiers of health care.

Role of orthopaedic and trauma technicians (rural ortho-trauma assistants – ROA) in rural practice

The orthopaedic plaster room technicians are trained specifically in the art of plaster cast application. They are sufficiently trained to recognize common orthopaedic ailments and their managements. A trained technician would recognize the following problems;

1. All types of fractures.
2. All types of dislocations.
3. Congenital deformities such as talipes equinovarus.
4. Paraplegia resulting from trauma or tuberculosis.

They have basic knowledge of anatomy and functions of the musculoskeletal system. The orthopaedic technician knows the indications, contraindications, complications of non-treatment or wrong treatment of the above ailments. Their major role is in the use of splints, cast, orthosis, and traction in the conservative management of such ailments.

The basic entry requirement for training of this category of staff is West African Examination Certificate. If these categories of staff are trained in good number it would serve the following purposes;

1. Enhance prompt emergency management of bony injuries and prompt referral.
2. Reduce the increasing rate of complications arising from wrong treatment by TBS.
3. Enhance health education among the rural dwellers since this category of workers can mix freely with them.
4. Encourage the TBS to come out and acquire basic knowledge that will help them in their trade.
5. Create employment opportunity for the teeming youth population in our rural areas.

Their presence in the rural communities and successful treatment of ailments such as correctable talipes, simple fractures may go a long way to removing the superstitious thoughts associated with bone and joints problems. These are some of the reasons why we must train rural orthopaedic assistants.

Role of other orthopaedic and trauma personnel

1. The presence of orthopaedic nurses in addition to the technician provides an additional advantage of proper wound care and reduction in harmful practices that result in limb gangrene and amputations.
2. If properly organised, some rural health centres may be assigned to designated orthopaedic and trauma surgeons to visit from time to time and possibly do some intermediate procedures such as external fixation and Debridement as well as organize enlightenment programmes.
3. Establishing a proper Regional Ambulance and involvement of trustworthy health practitioners in the National Health Insurance scheme will go a long way to saving more lives both in the rural and semi-urban areas.
4. Our general hospitals, medical centres and health posts should have orthopaedic nurses and or orthopaedic rural assistants in their employ.
5. Today, young nurses and doctors spend four to five years jobless after graduation. If this category of young health workers are sensitised
and mobilised to spend some of these wasted years in the rural areas, they could help in this enlightenment campaign and rural trauma care.

**Conclusion**

Trauma and orthopaedic problems are major causes of morbidity and mortality among urban and rural dwellers in Nigeria. It is a high time that these problems be included in the primary health care scheme so as to create enlightenment on the methods of prevention and prompt treatment of such problems to reduce the increasing rate of complications from them.

A need to train and decentralize orthopaedic nurses and plaster technicians (rural orthopaedic assistants) is highlighted. Discouragement of harmful practices by traditional bone setters by training, certification and incorporation into rural health care programmes is advocated.

**References**