

Point of View: Physiotherapy in Malawi – a step in the right direction

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Abstract

Physiotherapists in Malawi are in short supply and the demand for this service is increasing. This profession is instrumental in the rehabilitation of patients following accident and disease. Early input from a physiotherapist can be life changing; for example, timely physiotherapy could prevent a patient from becoming wheelchair-bound for life. This article explores the role of physiotherapists, in the context of what they do, the medical conditions that benefit from physiotherapy and the services available in Malawi. The clinical focus will be on orthopaedic, musculoskeletal and neurological conditions, since those are the specialties of the authors. With the start of the physiotherapy degree programme at the College of Medicine, University of Malawi, huge steps have been taken to address this neglected profession.

Introduction

The World Health Organisation estimates that one billion people worldwide have some form of disability and are in need of health and rehabilitation services; they report that disability is more prevalent in low-income countries.¹ Malawi's population was just over 13 million at the time of the 2008 population and housing census.² Four per cent (498 122) of the population were living with a physical disability, of which 108 870 have problems with walking.³ In Malawi, 75% of the population live below the poverty line.³ The challenging living conditions require a certain level of physical ability for survival; any form of physical disability will undoubtedly have an impact on an individual's level of independence, earning capacity and mental health. The impact of this could be far reaching especially if the individual is the main earner for a large family; this is not unusual in Malawi. Timely access to physiotherapy is not only valuable to the person concerned but also to their families and society as a whole. A national survey in 2003 found that people with a disability in Malawi have a lower standard of living and more worryingly, only a fraction (23.8%) of those that expressed a need for rehabilitation actually receives it.⁴

The role of a Physiotherapist is focused around restoring movement, function and quality of life when someone is affected by disease, injury or other disability.⁵ The need for physiotherapy services in Malawi is clear and the incidence of neurological, musculoskeletal and orthopaedic problems in countries like Malawi is showing no sign of decreasing. Physiotherapy services do exist, however (as is common in many low-resourced countries) they are scarce, disproportionate to need and unequally distributed. A contributing factor to the unequal distribution of health workers in sub-Saharan Africa is the migration of workers from the public to the private sector and from rural to urban areas.⁶ Many district hospitals have no therapy services at all. Attempts were made to bridge this gap by the introduction of the Rehabilitation Technician School in 1999. Although these technicians have not been trained to the level of a physiotherapist, they harbour generic therapy skills, which can make a significant difference to patients who need rehabilitation across the country.

Currently in Malawi, physiotherapy is provided by a number of different professionals with different levels of training. This includes rehabilitation assistants, rehabilitation technicians and physiotherapists. Until now there has been no formal physiotherapy training available in Malawi and the few physiotherapists currently working in the country

(a total of 34 in 2011) were trained abroad. The lack of physiotherapists in this country is remarkable; at present there is 1 physiotherapist per 483, 870 individuals in Malawi, in contrast to 1 per 1685 individuals in England (estimation based on the number of members of each country's Physiotherapy Professional Body and the current population in each country). These figures are corroborated by work from Gupta et al; they found large differences in the number of rehabilitation professionals between countries and showed that low-income countries have the lowest supply.⁷ The Malawian government has recognised the need for the development of physiotherapy and recently funded the first Physiotherapy School in Malawi, led by Mrs Kambalametore at the College of Medicine, University of Malawi, Blantyre.

The aim of this article is to give an overview of Physiotherapy in Malawi, highlighting the demand for this specialty, the resources available in Malawi (limited) and the recent initiative taken by the government to improve rehabilitation.

Role of Physiotherapists

Physiotherapists are commonly known for treating problems due to movement dysfunction arising from trauma, sports injuries, and congenital disabilities as well as providing rehabilitation following a fracture. There is less awareness amongst medical professionals and the general public about the benefits of physiotherapy in treating conditions that affect the nervous, cardiovascular and respiratory systems. Physiotherapists assess and treat acute, sub-acute and chronic conditions with modalities such as manual therapy (which may include joint mobilisations, manipulation and soft tissue techniques), exercise therapy, electrotherapy and splinting. Treatment can help restore the patient to full function following a soft tissue injury or fracture.

In cases of more chronic conditions, such as osteoarthritis, the aim of treatment is to enable self-management through education, advice and exercise.⁸ In conditions that have permanent deficits such as stroke or spinal cord injury, the focus becomes one of promoting function and independence using exercise therapy and adaptive devices (e.g. ankle foot orthoses, crutches, wheelchairs).

Physiotherapy is provided in a variety of environments, for example, hospital, inpatient rehabilitation centres, outpatient clinics and community settings.

Burden of some medical conditions requiring physiotherapy in Malawi: Orthopaedic and musculoskeletal disease

According to the World Health Organisation, road traffic injuries are a leading cause of death for persons aged between 5 and 44 years of age and are an important cause of disability worldwide.⁹ Similar observations are seen at Queen Elizabeth Central Hospital (QECH), where a significant proportion of orthopaedic conditions are trauma related, for example lower limb and spinal fractures; this often follows a road traffic accident or fall. These conditions are managed conservatively or surgically and require physiotherapy at the initial stages to maintain the full range of motion of unaffected joints, prevent contractures, minimise disuse atrophy and promote independent mobility. During the later stages of rehabilitation the aim is then to restore full functional range of movement and strength; this is achieved through manual and exercise therapy.

Chronic mechanical back pain is common in Malawi; patients with this condition often saturate the outpatient department. Physiotherapy has been proven to be effective in this group of patients.¹⁰⁻¹⁴

Neurological disease

Common neurological conditions requiring rehabilitation in Malawi are stroke, traumatic spinal cord injury and non-traumatic spinal cord injury (often presumed to be tuberculosis of the spine). The burden of stroke is increasing in Sub Saharan Africa. Not only has there been a rise in

the incidence as described recently in urban Tanzania but we are also seeing an increase in vascular risk factors as these countries urbanise¹⁵ suggesting that the burden of stroke is not going to go away quickly.

A Stroke is a clinical syndrome that is the consequence of an arterial occlusion or haemorrhage in the brain and often leads to permanent disability. It is well recognised that immediate and intense physiotherapy after a stroke can reduce some of this disability and improve independence in performing activities of daily living.¹⁶ Physiotherapy input can also be long lasting and of continued benefit years after a stroke.¹⁷

Due to the high HIV prevalence, spinal TB is much more frequently occurring when compared to a western industrialised country. It can affect any level of the spinal cord resulting in bilateral leg weakness (paraplegia) or bilateral leg and arm weakness (tetraplegia). In principle, TB spine is a reversible condition but anecdotally we see much more advanced disease with permanent deficit; this is likely the consequence of delayed presentation. Nevertheless, intervention with physiotherapy has major benefit.

Patients should be assessed as soon as possible after a neurological event/diagnosis in order to begin the rehabilitation process and minimise the risk of complications such as pressure sores or contractures. The aim of physiotherapy input is to improve impairments such as loss of strength or balance and to maximise the functional outcome so that a person can live as independently as possible. The amount of input will depend on the level of deficit and the potential for improvement. Patients with neurological conditions however, often require follow-up inpatient or outpatient rehabilitation after discharge from hospital.

Who provides rehabilitation in Malawi?

The government recognised the shortage of rehabilitation personnel in the 1999-2004 Malawi National Health Plan.¹⁸ A needs assessment was done and the outcome of this was a formal rehabilitation training programme; first through a Rehabilitation Technician School (opened in 1999 at Kachere Rehabilitation Centre) and then a degree programme for physiotherapists (opened in 2010 at The College of Medicine).

The rehabilitation technician school initially offered a two year rehabilitation assistant training programme. By 2002 the school produced thirty-five rehabilitation assistants. During the mid-term evaluation the Malawi Medical Council recommended that the course be developed into a three year diploma, and graduates qualified as rehabilitation technicians. The course consists of generic therapy training, which allows them to provide basic physiotherapy, occupational therapy and speech and language therapy. The school also offers a two year upgrade course for those already working in health care.

There are key elements within the physiotherapy and rehabilitation technician training that differ. Physiotherapy training includes the use of manipulative and manual therapy and includes a more in depth training in the assessment and treatment of patients with cardio-respiratory dysfunction. It also places strong emphasis on being able to independently formulate a differential diagnosis, select and modify treatment appropriately whilst also recognising conditions that require referral to other services. It is this component of training that gives physiotherapists the autonomy to work independently and treat without medical referral.

The Kachere Rehabilitation School now boasts 76 rehabilitation technician graduates. In an ideal setting, rehabilitation technicians should work under the supervision of a graduate physiotherapist but due to the lack of physiotherapists, this is often not the case. At this early stage it is difficult to know what impact this has had on the delivery of physiotherapy in Malawi.

The Physiotherapy School opened in January 2010 with an intake of 26 students in its first year. The students complete a foundation year before embarking on a four year degree programme. Not only will this physiotherapy school increase the number of qualified physiotherapists to adequate levels, it will potentially allow development of services so that high quality physiotherapy can be administered in a timely fashion, at the necessary intensity, for as long as it is appropriate.

There is also a small group of physiotherapy assistants, with basic training, either formal or on-the-job. They often have specialist skills in areas such as splinting and work to support other physiotherapy staff.

Aside from trained staff, there is an important group of people who provide physiotherapy care to patients in Malawi, the guardians. The full time presence of a family member or friend is a resource, which is usually not available in developed countries, and a significant responsibility is given to the guardians to supplement formal physiotherapy sessions. Whilst guardians cannot provide skilled physiotherapy, a willing and competent guardian is invaluable in view of the shortage of trained staff.

Physiotherapy services available in Malawi

Currently, physiotherapy services are available in government institutions, parastatals, private hospitals and private clinics. The provision of care at each institution varies significantly depending on availability of staff and resources.

Government services

Rehabilitation services are either provided by a physiotherapist, rehabilitation technician or both and exist at the main regional hospitals including QECH, Kamuzu Central Hospital, Zomba General Hospital, and Mzuzu Central Hospital. District hospitals do not provide any government run rehabilitation services but a few have outreach physiotherapists (visiting once every two months) or rehabilitation technicians. Government run services are particularly under-resourced with often out-dated equipment. Heavy reliance on donated equipment and voluntary expatriate physiotherapists often means that provision of care can be inconsistent and is currently not sustainable.

Parastatals

The major parastatal providing rehabilitation services in Malawi is Malawi Against Physical disability (MAP). It manages the only adult inpatient rehabilitation centre in Malawi, Kachere Rehabilitation Centre. This is a 40-bedded unit providing intensive multidisciplinary treatment to adults with significant rehabilitation needs. MAP receives partial funding from the government but Kachere generates additional money through private inpatient beds and private outpatient services.

MAP provides outreach services all over the country, with units serving Northern, Central and Southern regions in a hospital or community setting.

Other NGOs providing services include SOS Children's Village, Feed the Children, Children of Blessings, Sue Ryder Foundation and St John of God.

Malawi Council for the Handicapped (MACOHA), much like MAP, is managed by parastatals but funded by the government. It consists of two rehabilitation centres providing job specific training for those with disability.

Private Hospitals

Some private hospitals offer physiotherapy e.g. Beit Cure International Hospital, Blantyre. This hospital also offers free care and therapy to children with orthopaedic conditions.

Private Clinics

There are a number of private physiotherapy clinics, centred within Blantyre and Lilongwe.

Conclusion

Physiotherapy interventions promote restoration of function and independence impacting positively on economic activity and quality of life. At present, the demand for physiotherapy services cannot be met by the current workforce. The opening of the Physiotherapy School brings great hope for the expansion of services and delivery of rehabilitation to the people of Malawi. Although huge steps have been made in the right direction to develop this specialised rehabilitation service, much consideration at an early stage is needed to sustain and retain the physiotherapists of the future.

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