

Prosthetics and Orthotics Education in Sub-Saharan Africa: Issues and Challenges

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Received: March 27, 2017; **Published:** May 03, 2017

According to the World Health Organization, the disability population in the low-income countries represents 80% of the 650 million worldwide living with some form of disability. Projection has been made that by 2035 the population of disabled in low-income countries in needs of rehabilitative service will reach 125 million [1]. The Sub-Saharan Africa population of disabled represents approximately 78 million [2]. Thus, the development and promotion of rehabilitation service in the sub-Saharan African region is necessary. Few colleges across Africa offer courses in prosthetics and orthotics (P and O). At present five Prosthetics and Orthotics education programmes in Africa have been accredited by the International Society of Prosthetics and Orthotics (ISPO): the Tanzania Training Centre for Orthopaedic Technologists; the Ecole Nationale des Auxiliaires Médicaux (ENAM), in Togo; the Sudanese Diploma in Prosthetics and Orthotics; the Orthopaedic Technique Vocational and Educational Training Programme in Ethiopia and the University of Rwanda. To our knowledge there is not sufficient published data regarding the prosthetics and orthotics services and education in sub-Saharan Africa countries. Current study in Ghana highlighted some challenges in P and O education related to lack of trained professionals, lack of infrastructure and lack of machines and material [3]. The purpose of this article is to give the international readers an overview of the P and O education in Africa. Emphasizing the current challenges that are faced by the educational system and providing some points for sustainable P and O education reform and research development.

Ecole Nationale des Auxiliaires Médicaux of Lomé for instance is the only training school in Togo and only Francophone institution in West Africa accredited by ISPO in 2004. Since its establishment in 1945 the school offers courses in Nursing, Hygiene Technicians, Physical Therapy, Language Therapy and Prosthetics and Orthotics. The P and O department was established in 1977 and has trained so far 234 P and O technicians including 89 Togolese [4]. Togo is a low-resource Francophone country with more than 7 million population where about 73% of the rural households live below the poverty line [5]. There are approximately 630 thousand people or 10% of the Togolese population lives at least with one disability [6]. The Diploma course offered at ENAM is a three year cycle programme which does not allow desired students to enroll at P and O department each year. While there is a high demand of P and O professional in the sub-Saharan Africa region, a sustainable education for constant supply of graduates is necessary.

One of the challenges of P and O education in Africa is providing appropriate research facilities to teachers and students to upgrade their skills. This is because of the lack of adequate research expertise in addition to a limited number of teaching staff and facilities. Due to unavailability of post-graduate programme, the students find it difficult to earn Masters and PhD degrees in the field.

Solutions suggested in view of challenges in P and O in sub-Saharan Africa

Key conditions associated with the challenges of P and O education in Sub-Saharan Africa is complex and determined by many factors including financial matter, planning and management. A strategic plan to develop the educational system is then necessary. For example,

incorporation into the curriculum the course of universal design and new technology such as silicone prosthesis manufacturing technology. Constant training of P and O students and yearly admission of new students into the programme. Introduction of virtual learning library portal for students will be beneficial for self-teaching and research. Collaboration with other Universities in the developed countries for technology transfer. Elaboration of the exchange programme for students in order to experience research methodology and modern facilities. Establish seminars for students from their first year. Develop more specialized courses in the current curriculum such: human wear shoes, applied biomechanics. Establishment of national journal related to P and O education and service in sub-Saharan Africa. Promote visiting faculty members from reputable universities in P and O programme and foster research and development of local materials. Develop specialty centres to train local staff. Search for strategies to improve teaching quality for ISPO category I and Master Degree programme because graduates who desire to upgrade their skills have to face language barriers before getting admission into graduate course in foreign countries. Establishment of new state-of-the-art P and O research centres and institution in order to avoid brain drain that could be a significant resource in educating the next generation of P and O African professionals.

Gaining adequate knowledge to serve as a healthcare professional is very important. Establishment of new prosthetics and orthotics training schools with modern facilities in other African countries will be an asset to promote and develop P and O education and services in the sub-Saharan Africa.

Acknowledgement

The author would like to thank Prof Yoshihiro Ehara of Niigata University of Health and Welfare for editing and proofreading this manuscript.

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Volume 6 Issue 2 May 2017

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