Prosthetic and Orthotic Services in Developing Countries

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Akademisk avhandling

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Opponent:

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ABSTRACT

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Aim: The overall aim of this thesis was to generate further knowledge about prosthetic and orthotic services in developing countries. In particular, the thesis focused on patient mobility and satisfaction with prosthetic and orthotic devices, satisfaction with service delivery, and the views of staff regarding clinical practice and education. Methods: Questionnaires, including QUEST 2.0, were used to collect self-reported data from 83 patients in Malawi and 139 patients in Sierra Leone. In addition, 15 prosthetic/orthotic technicians in Sierra Leone and 15 prosthetists/orthotists in Pakistan were interviewed. Results: The majority of patients used their prosthetic or orthotic devices (90% in Malawi, and 86% in Sierra Leone), but half of the assistive devices in use needed repair. Approximately one third of patients reported pain when using their assistive device (40% in Malawi and 34% in Sierra Leone). Patients had difficulties, or could not walk at all, with their prosthetic and/or orthotic device in the following situations; uneven ground (41% in Malawi and 65% in Sierra Leone), up and down hills (78% in Malawi and 75% in Sierra Leone), on stairs (60% in Malawi and 66% in Sierra Leone). Patients were quite satisfied or very satisfied with their assistive device (mean 3.9 in Malawi and 3.7 in Sierra Leone out of 5) and the services provided (mean 4.4 in Malawi and 3.7 in Sierra Leone out of 5), (p<0.001), but reported many problems (418 comments made in Malawi and 886 in Sierra Leone). About half of the patients did not, or sometimes did not, have the ability to access services (71% in Malawi and 40% in Sierra Leone). In relation to mobility and service delivery, orthotic patients and patients using above-knee assistive devices in Malawi and Sierra Leone had the poorest results. In Sierra Leone, women had poorer results than men. The general condition of devices and the ability to walk on uneven ground and on stairs were associated with both satisfaction of assistive devices and service received. Professionals’ views of service delivery and related education resulted in four themes common to Sierra Leone and Pakistan: 1) Low awareness and prioritising of prosthetic and orthotic services; 2) Difficulty managing specific pathological conditions and problems with materials; 3) The need for further education and desire for professional development; 4) Desire for improvements in prosthetic and orthotic education. A further two themes were unique to Sierra Leone; 1) People with disabilities have low social status; 2) Limited access to prosthetic and orthotic services. Conclusion: High levels of satisfaction and mobility while using assistive devices were reported in Malawi and Sierra Leone, although patients experienced pain and difficulties when walking on challenging surfaces. Limitations to the effectiveness of assistive devices, poor comfort, and limited access to follow-up services and repairs were issues that needed to be addressed. Educating prosthetic and orthotic staff to a higher level was considered necessary in Sierra Leone. In Pakistan, prosthetic and orthotic education could be improved by modifying programme content, improving teachers’ knowledge, improving access to information, and addressing issues of gender equality.