

## Experiences of lower limb prosthetic users in a rural setting in the Mpumalanga Province, South Africa

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### Abstract

*Background:* Ambulation with a prosthesis is the ultimate goal of rehabilitation for a person with a major lower limb amputation. Due to challenges with prosthetic service delivery in rural settings, many patients with amputations are not benefitting from prosthetic interventions. Inaccessibility to prosthetic services results in worse functional outcomes and quality of life. Learning from the experiences of current prosthetic users in this setting can assist to improve prosthetic service delivery.

*Objectives:* To explore the experiences of lower limb prosthetic users and to understand the importance of a lower limb prosthesis to a prosthetic user in a rural area of South Africa.

*Study design:* A generic qualitative approach and an explorative design were utilised in this study.

*Methods:* A semi-structured interview guide was used to collect data from nine prosthetic users in a rural area in the Mpumalanga province of South Africa. Interviews were audio-recorded, transcribed verbatim and analysed thematically. Demographic details and information related to acute in-patient rehabilitation were analysed descriptively.

*Results:* All participants were independent in activities of daily living with their prosthesis and participated actively in their community. Participants reported that their prosthesis was essential to their functioning. High travel cost was highlighted as a barrier to the maintenance of their prosthesis. Patients were dissatisfied with being unemployed.

*Conclusion:* Prosthetic intervention positively influences function, independence and community participation. Challenges relating to the accessibility, cost and maintenance of prosthetics should be a priority to ensure continued functional independence for prosthetic users.

### Clinical relevance

Understanding the importance of a prosthesis to a prosthetic user validates prosthetic intervention for persons living with an amputation in a rural setting and is vital in establishing and remodelling effective systems for prosthetic service delivery.

### Background

The World Health Organization (WHO) estimates that more than 1 billion people are in need of one or more assistive products.<sup>1</sup> The number of people with disabilities is increasing as a





























15. Godlwana L, Nadasan T and Puckree T. Global trends in incidence of lower limb amputation: a review of the literature. *South Afr J Physiother* 2008; 64(1): 8–12.
16. Sinha R, van den Heuvel W and Arokiasamy P. Factors affecting quality of life in lower limb amputees. *Prosthet Orthot Int* 2011; 35(1): 90–96.
17. Godlwana L and Stewart A. The impact of lower limb amputation on community reintegration of a population in Johannesburg: a qualitative perspective. *South Afr J Physiother* 2013; 69(4): 48–54.
18. Zidarov D, Swaine B and Gauthier-Gagnon C. Quality of life of persons with lower-limb amputation during rehabilitation and at 3-month follow-up. *Arch Phys Med Rehabil* 2009; 90: 634–645.
19. World Health Organization (WHO). *Towards a common language for functioning, disability and health ICF (ICF)*. Geneva: World Health Organization, 2002.
20. Tebbutt E, Brodmann R, Borg J, et al. Assistive products and the Sustainable Development Goals (SDGs). *Globalizat Health* 2016; 12: 79.
21. *UN convention on the rights of persons with disabilities*. New York: United Nations, 2006.
22. World Health Organization (WHO). *Global research, innovation and education in assistive technology: great summit 2017 report*. Geneva: World Health Organization, 2017.
23. Ennion L and Johannesson A. A qualitative study of the challenges of providing pre-prosthetic rehabilitation in rural South Africa. *Prosthet Orthot Int* 2017; 42: 179–186.
24. Wegner L and Rhoda A. The influence of cultural beliefs on the utilisation of rehabilitation services in a rural South African context. *Afr J Disabil* 2015; 4(1): 128.
25. Rural Health Advocacy Project (RHAP) and Partners. The WHO global policy recommendations on increasing access to health workers in remote and rural areas through improved recruitment and retention: The South African Context (Version 2 Discussion document), 2013. <http://www.rhap.org.za/wp-content/uploads/2014/03/Human-Resources-for-Rural-Health-Guidelines-WHO-SA-Context-Discussion-Document-April-2013.pdf> (accessed 5 November 2017).
26. Kelly M. The role of theory in qualitative health research. *Fam Prac* 2010; 27: 285–290.
27. Creswell JW. *Qualitative enquiry and research design: choosing among five approaches*, 2013. 3rd ed. London: SAGE.
28. Gailey RS, Roach KE, Applegate EB, et al. The Amputee Mobility Predictor: an instrument to assess determinants of the lower-limb amputee's ability to ambulate. *Arch Phys Med Rehabil* 2002; 83(5): 613–627.
29. Kahle J, Highsmith J, Schaepper H, et al. Predicting walking ability following lower limb amputation: an updated systematic review. *Technol Innov* 2017; 18(2–3): 125–137.
30. Menon S. SA's unemployment rate hits a 13-year high. *Sunday Times Live*, 1 June 2017. <https://www.timeslive.co.za/news/south-africa/2017-06-01-sas-unemployment-rate-hits-a-13-year-high/> (accessed 3 January 2018).