

Treatments following a lesser toe amputations in patients with diabetes mellitus

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Introduction

- Patients with Diabetes Mellitus (DM) undergo a lesser toe amputations¹.
- The effect this has on foot function is not understood.
- Footwear, orthoses and toe dividers are provided with the belief that foot function will be retained and the development of further foot ulcerations reduced²
- Currently no research or guidelines are available on how to treat patients with DM following a lesser toe amputation.
- Guidelines are evidence-based recommendations designed to encourage consistency in treatment provision and to help professionals and patients make informed evidence-based choices³.
- The aim of this study was to explore the current clinical management of patients with DM who have had a lesser toe amputation. It forms part of the researcher's PhD.

Further information

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Method

- Ethical approval from the School of Human and Health Sciences, University of Huddersfield was sought and granted (SREIC/2024/047).
- An online questionnaire was developed to ascertain the current treatments provided for patients with DM and lesser toe amputations and which healthcare professionals provided them.
- To recruit a diverse range of professionals as possible from the UK, the online questionnaire was shared on social media, e-mail and at workshops.

Results

- 267 questionnaires were completed and returned.
- 18 different health care professional groups responded including advanced clinical practitioners, general practitioners, general surgeons and radiologists (see figure 1).

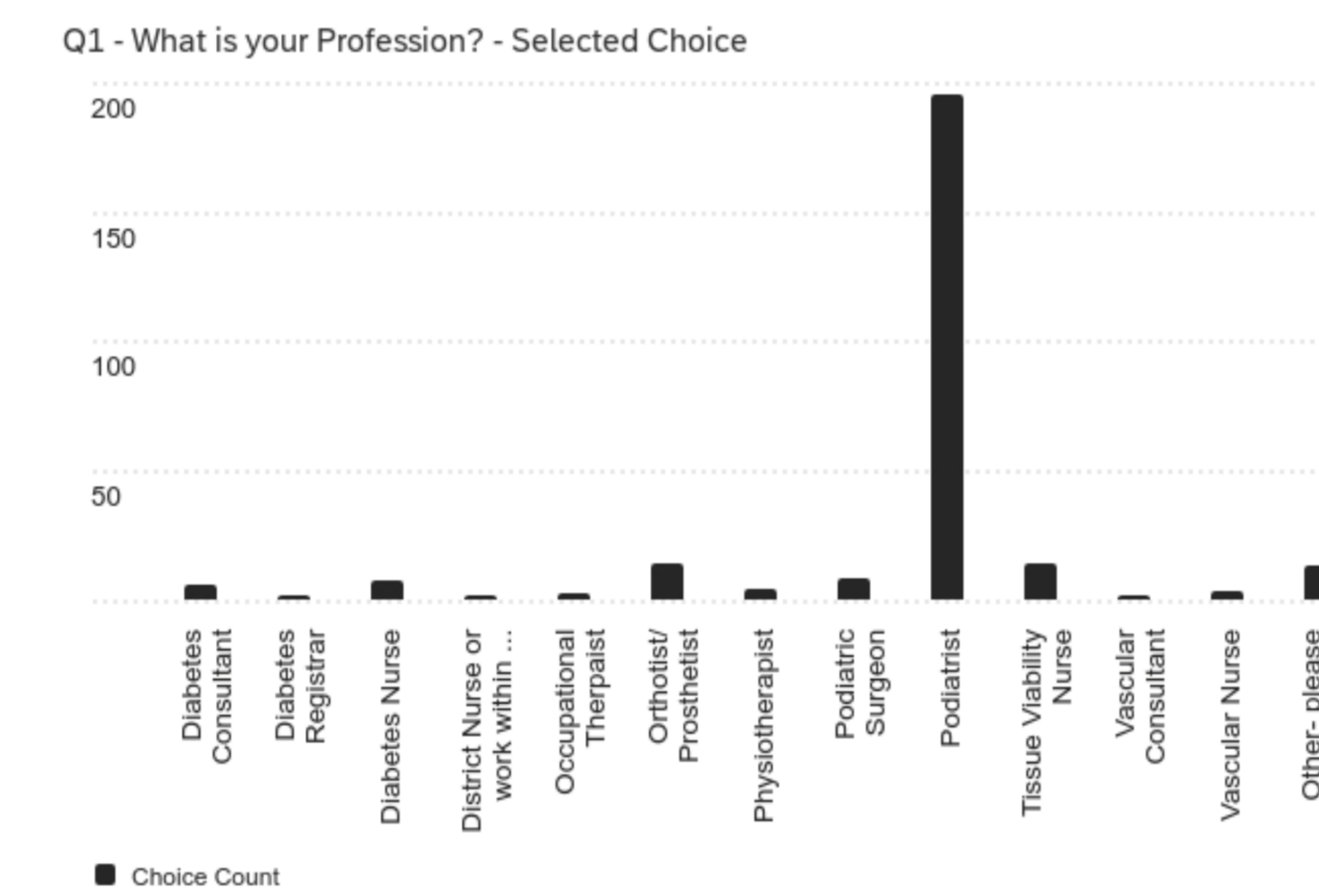


Figure 1 Health care professional groups

- 41 treatment strategies were identified. 10 were identified in the questionnaire .
- The other option identified a further 31 treatments including antibiotic therapy, debridement, diabetes management, education, larvae, negative pressure dressings, phantom limb pain management and psychological support (see figure 2).

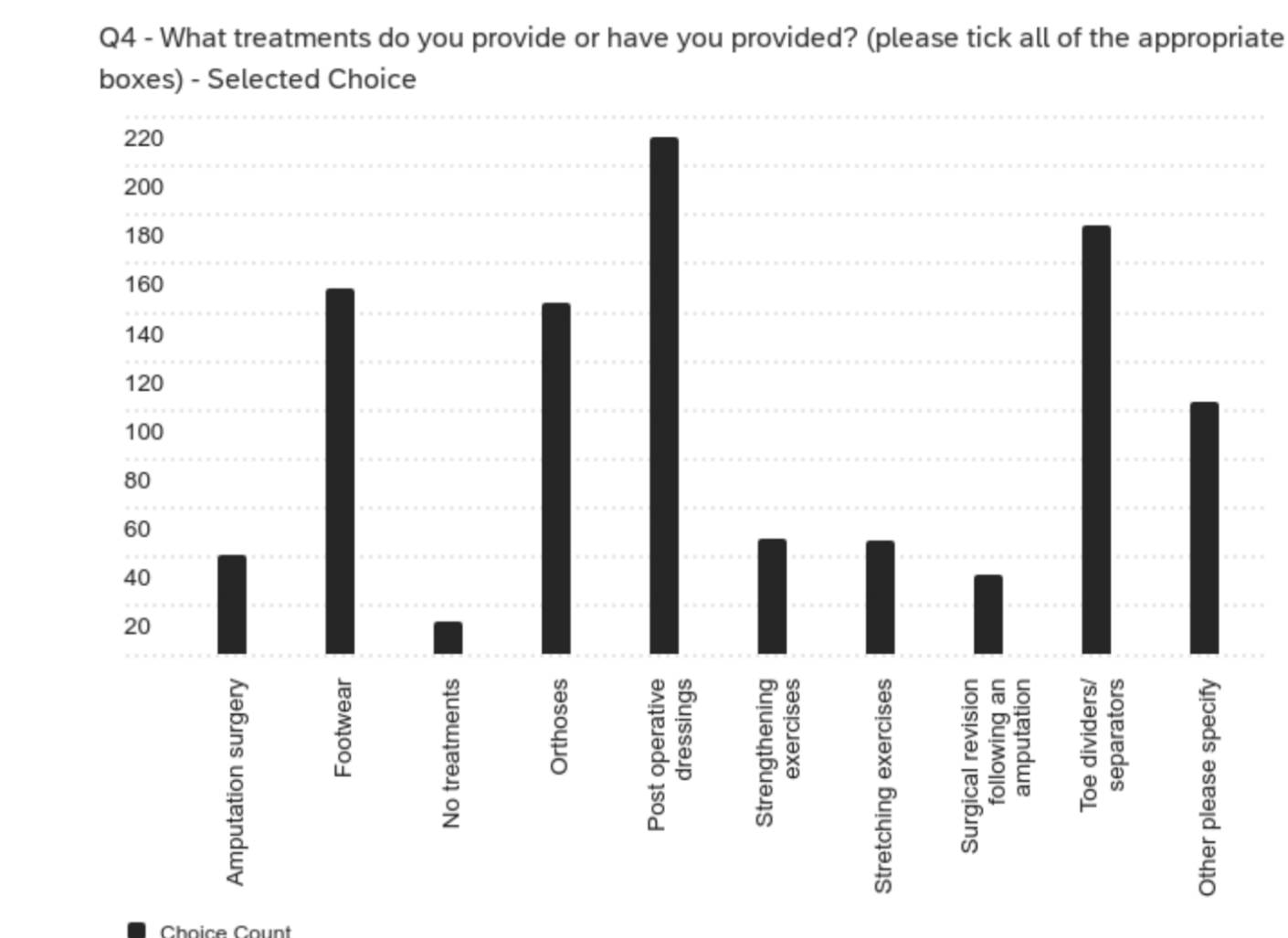


Figure 2 Treatments provided

Conclusions

- 18 different health care professional groups are involved in the management and rehabilitation of patients with lesser toe amputations
- 41 different treatments were provided to treat patients with lesser toe amputations with no consistency.
- Further research into foot function and treatment provision is required.

Literature cited

- 1) Schaper, N. C., Netten, van, Apelqvist, J., Bus, S. A., Fritridge, R., Game, F. L., Monteiro-Soares, M., & Senneville, E. (2023). Practical Guidelines on the Prevention and Management of Diabetes-Related Foot Disease. <https://doi.org/10.1002/dmrr.3657>
- 2) Unterfrauner, I., Octavian Andronic, Arnd Viehöfer, Wirth, S., Berli, M., & Waibel, F. W. A. (2023). Ulcer Occurrence on Adjacent Toes and Hallux Valgus Deformity after Amputation of the Second Toe in Diabetic Patients. *Journal of Orthopaedic Surgery and Research*, 18(1). <https://doi.org/10.1186/s13018-023-03577-z>
- 3) National Institute for Health and Care Excellence. (2024). Benefits of Implementing NICE Guidance | into Practice | What We Do | about | NICE. NICE. <https://www.nice.org.uk/About/What-we-do/Into-practice/Benefits-of-implementing-NICE-guidance> accessed 18/10/2024