

Senior Podiatrist Awarded PhD

Karl Landorf, a former Senior Lecturer and Head of the Podiatry Program at the University of Western Sydney, successfully completed his Doctorate (PhD) – a randomised trial evaluating the effectiveness of foot orthoses in the treatment of plantar fasciitis – in December of last year, with the assistance of an Australian Podiatry Education and Research Fund (APERF) grant.

Two other studies were also completed prior to the randomised controlled trial that helped inform its design. The first study, a large survey of 617 members of the Australian Podiatry Association and New Zealand Society of Podiatrists, was conducted to ascertain what types of foot orthoses members of the profession commonly prescribed.

Karl said, “The results of this survey meant that we could incorporate commonly prescribed orthoses into the randomised controlled trial, making the trial as pragmatic as possible. The orthoses used reflected those that were most commonly prescribed in the profession in Australia and New Zealand.”

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He added that, “although some podiatrists prescribe variations on these devices, we were wanting to find out what the majority of podiatrists prescribed. In addition, we needed to reduce the number of variables associated with the devices to ensure we could make sensible conclusions at the end of the study.”

The second study included a comparison of two foot-health outcome measuring instruments (The Foot Function Index and The Foot Health Status Questionnaire).

This smaller trial included 17 participants and was designed to find out which of the instruments was best suited to measuring foot health status in people with plantar fasciitis. Dr Paul Bennett’s Foot Health Status Questionnaire was determined to be the most appropriate instrument (Dr Bennett, an Australian podiatrist from the Queensland University of Technology, developed and validated this questionnaire for his PhD).

Randomised Controlled Trial

After these two trials were complete, Karl focused on the randomised trial. This trial, using the most rigorous controlled trial methodology, followed 135 participants while they wore one of three types of foot orthoses for 12 months. Due to the staggered nature of recruitment, data collection took nearly two and a half years to complete.

“It was a mammoth task and one that I’m not in a hurry to do on my own again,” Karl said. “Clinical trials unfortunately take a lot of planning and coordination. Nevertheless, they are incredibly important to evaluate our interventions in the most controlled and valid way possible.”

Previous research has demonstrated that non-randomised trials consistently overestimate the effect of an intervention highlighting why good quality randomised trials are necessary. Karl’s randomised trial found that over the 12 months there was no difference in effectiveness between the prefabricated and the customised orthoses used in the study. However, in the short-term (up to 3 months), both the customised and prefabricated devices produced small but significant benefits for people with plantar fasciitis when compared to the sham orthosis.

The results of this trial – the main study of his PhD – have been presented at past Australian Podiatry Association conferences (Canberra, 2001 and Perth, 2003), as well as international conferences (in the UK at the Society of Chiropodists and Podiatrists, 2002, and in Prague at the International Society for Quality of Life Research in 2003). Karl and his PhD supervisors are currently in the process of publishing the findings of this study in an international, peer-reviewed medical journal.



Karl Landorf

Karl has now resigned from the University of Western Sydney. In April 2005 he will take up a new position in the Podiatry Department at La Trobe University as a Senior Lecturer and Coordinator of Research.

New Research Position

“I’m extremely excited about this position,” Karl said. “It is a newly created post and the potential is huge. I’m hoping with the help of the other staff at La Trobe to create a research centre that is focused in its research efforts and is in a position to collaborate with other researchers from around the world. This will assist our ability to attract large grants to conduct ongoing research. Most funding agencies, such as the National Health & Medical Research Council, now reward larger research centres that conduct collaborative projects focused on certain areas of research excellence.”

As well as APERF, Karl would particularly like to acknowledge the hard work and expertise of his three supervisors: Anne-Maree Keenan from the University of Leeds, UK (formerly from Australia); Associate Professor Robert Herbert from the University of Sydney; and Associate Professor Godfrey Isouard from the University of Western Sydney. He says mention also needs to be made of three companies that provided him with materials or orthoses for the trial – The Orthotic Laboratory, Foot Science International and Otto Bock/Allied Health Industries, all of whom have been long-term supporters of the profession and its research efforts. •

