



Effect of motivational interviewing combined with digital shoe-fitting on adherence to orthopaedic shoes: study protocol

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Background

Diabetic foot ulcers are a leading cause of hospitalization, amputation and high treatment costs. Personalized orthopaedic shoes are considered essential to prevent (re)ulcerations, and therefore adherence to this footwear is crucial. However, adherence to orthopaedic footwear is often low and there is a lack of insight into the (long-term) benefits of methods that might improve this adherence.

Aim: to assess the (cost-)effectiveness of a novel care procedure (motivational interviewing (MI) combined with digital shoe-fitting) compared to usual care (no MI and traditional fitting).



Fig 1. Podiatrist applying motivational interviewing.

Method (1)

In a randomized controlled trial, 220 participants with diabetes mellitus, with or without previous ulcer, who are prescribed custom-made orthopaedic shoes will be included and randomized over the intervention (novel care) or control condition (usual care). A temperature sensor will be built in participants' custom-made shoes to continuously measure wearing time throughout 12 months.

More information

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Methods (2)

Daily activity will be measured using logdata with a stepwatch, and combined with the wearing time to calculate adherence. The primary outcome is the proportion of participants who adhere, that is, take at least 80% of their total steps with custom footwear.

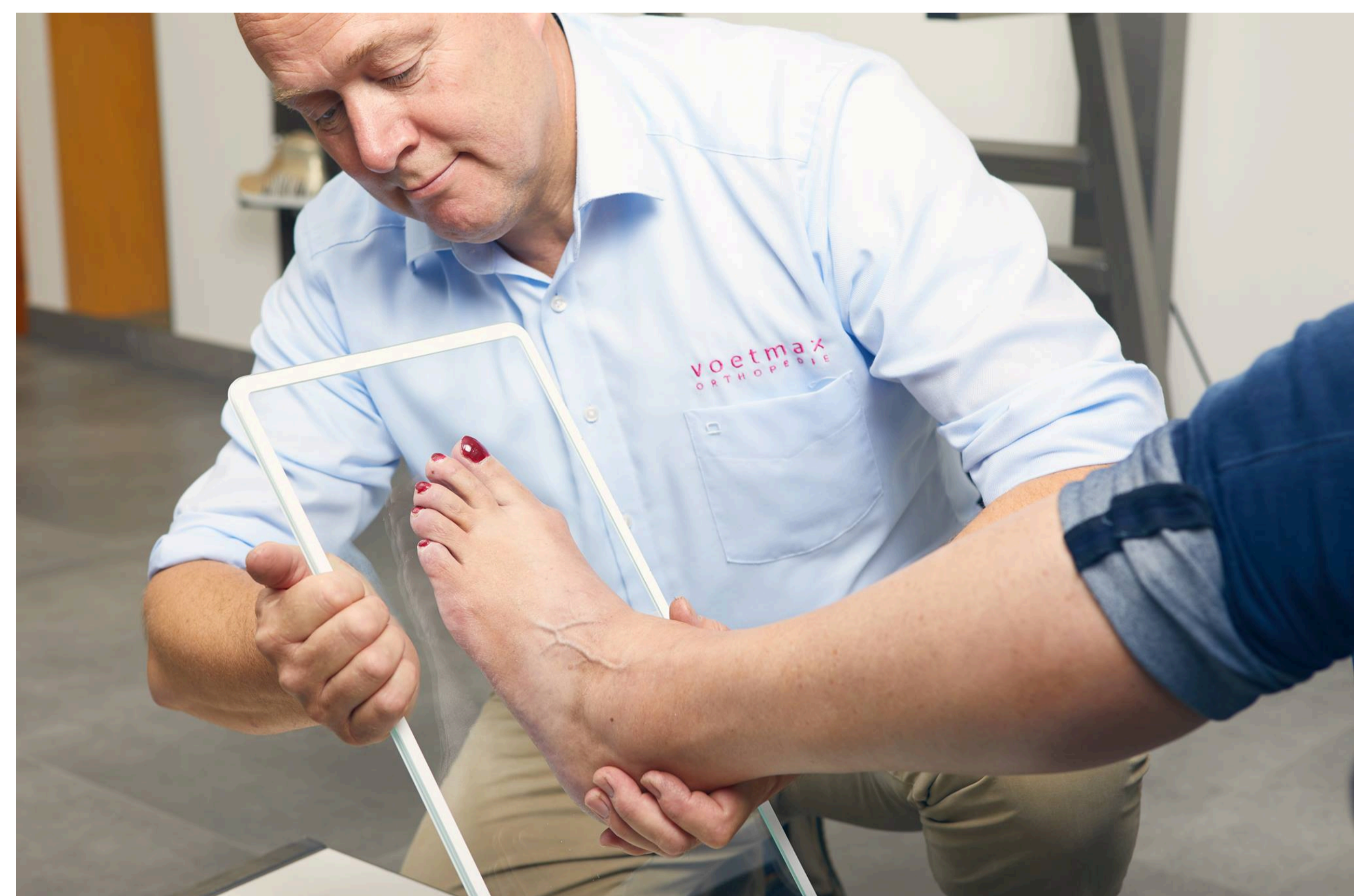


Fig 2. Podiatrist applying digital shoe-fitting.

Results

Results will consist of sensor-based and objective assessment of differences in adherence to orthopaedic shoes, quality of life, productivity, costs and quality-adjusted life years, over one year. In addition, the patient perspective; the experience on orthopaedic footwear, use and usability, will be described. This trial will generate insights into the socio-economic and wellbeing impact of the novel care procedure resulting from improved adherence to orthopaedic shoes.



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