



A Meta-analysis of Foot Care Education's Impact on Diabetes Patients' Self-Efficacy and Self-Care

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Commentary

Adult diabetes prevalence grew globally from 4.7 percent in 1980 to 8.4 percent in 2017. Diabetic foot ulceration is a serious consequence of diabetes (DFU). DFU is a leading cause of disability and death, as well as a prevalent cause of inpatient hospitalisation. The lifetime incidence of DFU among diabetics is believed to be between 15% to 25%, with re-ulceration rates of 65 percent after five years. DFU care might be complicated further by poor wound healing and re-ulceration due to associated peripheral artery disease, infection, and neuropathy [1]. Leg amputation can be caused by non-healing or infected ulcers. Individuals with diabetes without chronic kidney disease have a seven-year mortality rate of over 50%, and those with chronic kidney disease have a seven-year mortality rate of over 70%. Individuals with DFU-related amputations also have a lower quality of life and are more likely to experience psychological distress. DFUs have been proven in studies to affect not just the patients, but also their caregivers' quality of life. The clinical and financial costs of DFU are enormous, with the National Health Service in the United Kingdom estimating a cost of £580 million ten and in the United States of America, between \$9 and \$13 billion is spent [2].

Effective diabetes foot care education should provide patients with critical, understandable information about their disease, allowing them to be active participants in their own care and encouraging understanding of how to attain personal health objectives. Individuals will engage in healthcare behaviors when they feel able and confident to do so, according to the self-efficacy theory, and in the context of diabetes, self-efficacy is important for increasing self-care behavior [3].

Self-efficacy can be measured by determining how confident people with diabetes are in their ability to perform suggested self-care behaviors. Previous evaluations focused on clinical outcomes like ulceration rates or amputation rates, and found insufficient quality evidence to conclude that patient education alone is an effective way to reduce the occurrence of diabetic foot ulceration and amputation [4]. The purpose of this paper is to conduct a systematic review of the literature to determine the impact of patient foot care education on foot care knowledge, foot self-care behaviour, and self-efficacy in diabetics. From 1946 until March 13, 2019, the Medline and EMBASE databases were carefully searched. There were no time constraints. Search domains were created by combining basic search queries with Medical Subject Heading terms.

The condition: diabetic foot; the intervention: patient education; and the primary outcomes: self-care behaviour, self-care knowledge, and self-efficacy were all domains. To find any further relevant papers, we searched the reference lists of major articles by hand. The search was carried out independently by two writers, who compared the results at each stage. The title/abstract screen was completed independently by authors JE and RG, followed by the full text screen. Conflicts were addressed by discussion or, if necessary, referral to a third author. The protocol's inclusion criteria were established during its development. Randomized controlled trials examining the impact of patient foot care education treatments on self-care and self-efficacy behaviour in people

with type 1 and type 2 diabetes were included; full text, available in English, and involving 10 or more subjects were required. Individuals in the included research were not given an age limit. Non-RCTs were omitted, as were studies focusing solely on people without diabetes, educational treatments that were not centred on foot care, and studies in which foot care education measures were not the only intervention [5].

Foot self-care behaviour, knowledge, and self-efficacy were the primary outcomes. Effects on quality of life, mood, ulcer incidence, and amputation incidence were among the secondary outcomes. Authors of reviews JE and RG independently assessed the risk of bias in studies for the following domains: sequence generation, allocation concealment, blinding of outcome assessment, incomplete outcome data, selective outcome reporting, and additional sources of bias using the Cochrane Risk of Bias Tool. For each RCT, domains were rated as high risk, low risk, or unclear risk of bias, and results were reported along with reasons for the classification. Because the nature of the intervention made participant blinding impossible, no assessment of participant blinding was conducted. When necessary, disagreements were settled through dialogue. The effect of foot-centered education initiatives on knowledge of foot care Individuals who received a single customised foot care education session scored higher on the Foot Care Knowledge Questionnaire at a twelve-week follow-up than controls. Rönnemaa found that participants receiving a series of tailored podiatrist-delivered foot care education sessions over the course of a year had considerably superior improvements in diabetic foot care knowledge than those receiving merely written instructions. There were no significant changes between controls and intervention participants after seven years of follow-up data on 530 patients from the same cohort were analysed separately for males and females.

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