Apologies to Darwin: Evolution of foot screening and the creation of foot-health education

Alistair McInnes

Louise Stuart

Alistair McInnes is a Senior Lecturer, University of Brighton, Eastbourne, and Louise Stuart MBE is a Consultant Podiatrist, NHS Manchester, Manchester Community Health.

Thursday 12 February 2009 marked 200 years since the birth of one of the world's greatest creative thinkers, Charles Darwin. At Edinburgh University, he initially intended to study medicine, but changed course and became an eminent geologist and naturalist.

Darwin's evolutionary theory was promulgated in his 1859 publication, *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*. Evolution involves a gradual change into a more complex or improved form; this is also true of diabetic foot screening. The identification of risk factors has evolved over the years into an evidence-based practice that helps to stratify people with diabetes into well-defined risk groups. Following identification of risk category, these people may receive structured foot care accordingly.

The strength of the evidence to support the methods of assessment has been debated in the literature (Armstrong, 2000; Booth and Young, 2000). Yet, national guidelines suggest that the use of clinical neuropathy disability scores, 10 g monofilaments, or vibration perception thresholds are all appropriate methods for neuropathy screening (SIGN, 2001). Other risk factors have been identified, including peripheral arterial disease, foot deformity and the presence of callus. The latter two factors are observed, while the identification of peripheral arterial disease is identified by palpation of foot pulses. There are additional risk factors that feature in many guidelines (National Collaborating Centre for Primary Care, 2004).

The foot-screening programme, however, does not include a reference to foot health education at this stage, and perhaps this may be a lost opportunity to engage with people to explore their fears, health beliefs and health behaviours. There is an implication that those we treat are passive recipients of the foot-screening process, and that their involvement is merely a set of responses to the battery of tests that are performed on them. Certainly the time constraints in a busy screening clinic may lead merely to a brief explanation of the purposes of the tests only. However, this could lead to an explanation about the complications of peripheral neuropathy and may not be the most strategic approach for the facilitation of sound foot self-care! It could be argued that the skills required to determine risk status need to be accompanied by the skills to assist people in adopting positive self-care foot-health behaviours. This is a complex task and involves an appreciation of the relationship between beliefs and behaviour. Leventhal and Diefenbach's (1991) self-regulatory model arguably offers the best system for identifying the determinants of self-care behaviour.

Determining risk factors for foot ulceration may be straightforward, but determining the health behaviour risk for foot ulceration is a more challenging proposition. We must not miss the opportunity to initiate psychologically-based interventions to promote better diabetic foot self-care. Now is the time to remind ourselves of Darwin's theories and adapt our behaviours to improve the survival of our patients. ■

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