

then guidelines may be considered for individual implementation as an outcome, rather than a prerequisite, of ethical decision making.

Conclusions: Ethical decision making may be enhanced by reconsidering the education of character virtues including empathy. Empathy is a basic condition and source of morality. As a central component of phronesis, empathy may enable understanding of a service user's needs and increase motivation for HCPs to act in a caring way, thus making the service user the bearer of an ethical interaction.

Trial registration: This research was given ethical ratification via the University of Huddersfield School Research Ethics Panel. There were further approvals granted from local R&D RECs in NHS Trusts.

003

Work participation, mobility and foot symptoms in people with Systemic Lupus Erythematosus: Findings of a UK national survey

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Journal of Foot and Ankle Research 2018, **11(Suppl 1)**:003

Background: Employment is a key measure of self-worth, granting independence and social esteem. Non-participation in work is associated with poorer health, higher rates of consultation in primary care and higher rates of indebtedness and mortality[1]. Musculoskeletal (MSK) disorders are one of the two biggest causes of long-term work absenteeism in the developed world [2]. Inflammatory rheumatic disorders in particular have been shown to be associated with high levels of work disability such that 20-70% of people with rheumatoid arthritis have become work disabled within 5-10 years of symptom onset [3]. A recent study by Cherry et al [4] has demonstrated that lower limb and foot problems are highly prevalent among people with SLE. Previous work has also shown that these symptoms are associated with substantial morbidity and functional impairment; 61% of people reported that foot pain adversely affected their lives [5-7]. However, to our knowledge, no research to date has specifically investigated the prevalence of, and relationship between, lower limb or foot related complications, mobility and work non-participation in this patient group.

Main aim: The aim of this study was to investigate whether foot and lower limb related symptoms were associated with work participation and mobility in people with Systemic Lupus Erythematosus (SLE).

Method: A quantitative, cross-sectional, self-reported survey design was utilised. People with SLE from 6 UK treatment centres and a national register were invited to complete a survey about lower limb and foot health, mobility and work participation. Data collected included work status and the prevalence of foot symptoms including the Manchester Foot Pain Disability index (MFPDI). The focus of the analyses was to explore potential relationships between foot health, mobility, sickness absence and work participation.

Results: In total 182 useable surveys were returned; 79 (43%) participants reported themselves as currently employed, 71 (39%) not in work for non-health related reasons, and 32 (18%) as retired/long-term absent from work due to SLE and foot symptoms. Work non-participation due to SLE/foot symptoms was significantly associated with difficulty walking ($p=0.024$), past episodes of foot swelling ($p=0.041$), and past episodes of foot ulceration ($p=0.018$). There was a significant increase in MFPDI scores amongst those not working (mean 18.13, 95% CI: 14.85 to 21.41) compared to those remaining in employment (mean 10.16, 95% CI: 8.11 to 12.21).

Conclusions: 29% of people with SLE eligible to work report themselves as being on long-term sick leave or having retired early

because of SLE and lower limb or foot problems. Foot symptoms may contribute importantly to work disability in SLE patients. Further research and clinical time should focus on foot symptoms in SLE patients.

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004

The temporal progression and natural history of intermittent claudication: a review of current evidence

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Journal of Foot and Ankle Research 2018, **11(Suppl 1)**:004

Background: Intermittent claudication (IC) is the most common symptom of peripheral arterial disease. Due to the benign prognosis in the majority of patients, treatment is generally aimed at risk factor control. However, approximately 15% of patients with IC deteriorate to critical limb ischaemia (CLI), with increased risk of adverse cardiovascular events, amputation and death. Understanding the natural history and the temporal progression of IC, would help in identifying those with increased likelihood of developing CLI. This information is crucial in the clinical decision whether to offer surgical revascularisation. A structured review of the current knowledge related to the temporal progression of symptomatic PAD and the prognosis of IC was conducted.

Methods: The PRISMA checklist for systematic reviews was followed. A literature search for potentially relevant articles was performed up to April 2017, in MEDLINE, Cochrane database of systematic reviews, HyDi and ScienceDirect. HyDi is a search portal provided by the University of Malta that allows users to perform a single search through all the library's resources. No restrictions on publication date or status were applied. Reference lists of review articles were also searched for relevant literature. Search terms were identified after reading publications related to the subject area. Eligible articles published in English, needed to report the natural history of IC with a minimum review period of 12 months, documenting temporal progression of PAD and identification of prognostic factors. Prospective cohort studies are most suitable to investigate the natural history of events however, other methodologies were also considered. Titles and abstracts were first assessed for relevance and design. Full articles were retrieved if they were eligible. Methodological quality of each study was assessed using the Cochrane collaboration checklist. Data retrieved included trial, details of baseline measurements and IC diagnostic criteria, trial outcomes reporting temporal progression and prognostic factors.

Results: Overall, 479 articles were retrieved by electronic and hand search. Of these, 63 articles were considered relevant on the basis of title and/or abstract. However, only 7 full-text articles met the selection criteria (5 Prospective cohort studies, 1 randomised trial and 1 retrospective study), reporting temporal progression and prognostic factors. Only one study reported yearly haemodynamic decline (ABPI decline by 0.014), while the rest reported decline at the end of the trial (up to 12 years) with varied results. This method resulted in most studies reporting data only of survivors, possibly leading to selective survival bias with subsequent underestimation of the extent of the progression of atherosclerosis.

Conclusions: This review highlights existing inconsistencies and a paucity of scientific evidence related to the temporal progression of IC. The prognosis and progression of PAD is still not clear in published literature. There is a distinct lack of high quality evidence in the literature to guide appropriate decision making in the context of revascularisation in IC. More evidence is needed to be able to not only identify who will deteriorate to CLI, but also to distinguish those who will deteriorate more rapidly than others and accurately predict the time interval until development of CLI.

O05

Foot orthoses prescription habits amongst podiatrists: An international survey

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Journal of Foot and Ankle Research 2018, **11(Suppl 1)**:O05

Background: Foot orthoses (FOs) are frequently used to treat a variety of foot and lower limb conditions, and are recommended in several national guidelines. Functional FOs aim to systematically alter abnormal foot mechanics to alleviate symptoms, and are available in either fully customised or prefabricated forms. Prefabricated FOs can significantly reduce manufacturing and clinical costs, but can have comparable mechanical and clinical effects. Despite this, little is known about which types of orthoses are used and the only published survey dates from 2001. Our study aimed to describe the types of FOs currently in use across the United Kingdom (UK), Australia, and New Zealand, and to determine whether the type of FO prescribed varies between common conditions.

Methods: This international cross-sectional, online survey hosted on Bristol Online Surveys explored FO prescribing habits of podiatrists and was distributed through professional bodies in the UK, Australia, and New Zealand. Respondents were asked to report which FOs they prescribed most frequently for patients with 24 common presentations and conditions.

Results: Two hundred and sixty-four respondents practising in 19 different countries completed the survey; the majority practised in the UK (124), Australia (79) and New Zealand (32). All podiatrists qualified between 1968 and 2016 and 147 (56%) were female. Podiatrists worked in different healthcare sectors and this varied between countries. For example, 64 (81%) of Australian podiatrists worked solely in the private sector compared to 14 (44%) of New Zealand podiatrists and 44 (36%) of UK podiatrists. Forty-two (34%) of UK podiatrists worked solely in the public sector, compared to 3 (4%) of Australian podiatrists and 2 (6%) New Zealand podiatrists.

UK podiatrists prescribed more prefabricated FOs (mean 5.5 pairs per week) than simple FOs (2.7) and customised FOs (2.9). Podiatrists in New Zealand also prescribed more prefabricated FOs per week on average (7.7) than simple (1.4) and customised FOs (2.8), whilst those in Australia prescribed more customised FOs per week (4.5) than simple FOs (0.8) and prefabricated FOs (1.9). UK respondents were more likely to prescribe prefabricated FOs than any other type of FO for 21 presentations and conditions, although customised FOs were more

likely to be prescribed for diabetes with peripheral neuropathy, neurological diseases, and neuromuscular conditions. Podiatrists from New Zealand were more likely to prescribe prefabricated FOs for every presentation and condition except tibialis posterior dysfunction, where customised FOs were more likely. In contrast, customised FOs were more likely to be prescribed for most presentations and conditions by podiatrists practising in Australia, although prefabricated FOs were more likely for Morton's neuroma, forefoot pain, diabetes without peripheral neuropathy, gout, connective tissue disease and falls prevention.

Conclusions: FO prescription habits vary depending on the presentation or condition that orthotic management is targeting, and the podiatrist's country of practice. Overall, prefabricated FOs were more frequently prescribed in the UK and New Zealand, where more podiatrists undertook public sector work, compared to respondents in Australia, where most worked solely in private practice and customised FOs were more common.

O06

Sensory Profiles of 60 children who have idiopathic toe walking gait

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Journal of Foot and Ankle Research 2018, **11(Suppl 1)**:O06

Background: Idiopathic toe walking (ITW) is a diagnosis of exclusion. It is diagnosed when children over the age of three walk on their tip toes in the absence of a medical condition known to cause, or be associated with toe walking. Sensory Processing Disorder is identified when children and adults are neurologically inundated with sensory input and unable to process and respond in a way enabling learning and socially acceptable behaviours [1]. People who have this disorder may avoid certain encounters or actively seek out experiences to gain sensory input. There is some evidence that children with ITW process sensory input differently to their peers [2]. This research seeks to explore the sensory profiles of children who have attended podiatry services for ITW.

Method: A retrospective file audit was undertaken of children diagnosed with ITW across two podiatry departments between 2011 and 2016. The Sensory profile is 125 questions designed to understand sensory processing behaviours of children between the ages of 3 and 14. The scoring template converts raw scores, indicating if the child has a typical performance, more or less probable or definite difference to a normative population group. Performance scores were described in quadrants, Sensory Seeking, Low Registration, Sensory Avoiding or Sensory Sensitivity.

Results: There were 60 files sensory profiles extracted. While more children had presented for ITW, not all podiatrists were trained in administration and scoring of the Sensory Profile. The mean(SD) age of children was 5.4 (1.2) years, and there were 29 males, 20 females. The remaining genders were indeterminable due to extraction method. Four children had typical performances on all four quadrants and six scored a more probable or definite difference on all four quadrants. The majority scored a more probable or definite difference on the Sensory Seeking quadrant ($n=43$, 72%), and Low Registration quadrant ($n=37$, 62%). Fewer scored a more probable or definite difference in the Sensory Avoiding ($n=19$, 32%) and Sensory Sensitivity ($n=23$, 38%). Many children also scored a more probable or definite difference on two or more quadrants ($n=36$, 60%).

Discussion: Few children displayed a ITW gait and typical sensory processing behaviours. Many children displayed more than one cluster of behaviour patterns, particular relating to sensory seeking behaviours like; touching of people or objects excessively, pursuing movement, taking excessive risks or lacking awareness of risk. This potentially points to some children developing a toe walking gait in response to a need for excessive movement, therefore bouncing from toe walking gait may be a stimulus. The different sensory profiles may impact the success or acceptability of different treatment options. Future research on sensory gating measurement in this population should be considered.