

What is the dissemination of podiatric skills in international diabetic foot teams?

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Key words

- Diabetic foot ulceration
- Multidisciplinary diabetic foot teams
- Podiatric skills

Article points

1. Podiatric skills vary across the FIP-IFP and D-Foot networks
2. The Point competency framework for podiatric skills identifies skills across four levels that should be available to patients with diabetic foot disease irrespective of the inclusion of a podiatrist within a multidisciplinary diabetic foot team.
3. The POINT consensus document has been widely distributed and purported to be helpful for teams in planning access to podiatric skills for those suffering with diabetic foot disease.

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The provision of care within a multidisciplinary diabetic foot teams (MDFTs) is well established across international practice. Podiatrists are an important part of this team and are often heralded as the gatekeepers of the MDFT. In some countries, the presence of podiatry as a formal profession is absent and podiatric skills are performed by other members of the team. The POINT competency framework for podiatric skills identifies skills across four levels that should be available to patients with diabetic foot disease. The aim of this study was to identify which of these skills are routinely practiced across the D-Foot and FIP-IFP network in the management of diabetic foot ulceration. An online survey was sent to members of D-Foot and FIP. Sampling was purposive. Respondents were asked to identify which levels of podiatric skills existed within their daily practice and where this correlated on the POINT framework. A total of 123 responses were received, which show that there is a wide variety of practice across the globe. The results of the survey have highlighted areas of challenge for implementing podiatric skills. While the results of this survey may have identified many new challenges, respondents have shown overall support for the POINT document and its use in practice.

Foot disease in diabetes is a complication of diabetes which is responsible for the majority of non-traumatic lower-extremity amputations globally (Piaggese and Apelqvist, 2018; Frykberg et al, 2018). Diabetic foot syndrome is the combination of peripheral arterial disease (PAD) and distal symmetrical polyneuropathy (DPN) that arise secondary to poor glycaemic control in individuals with diabetes. When it occurs, ulceration presents as a consequence of either PAD, causing reduced blood flow or DPN, which leads to lack of perception of damage and infection. These factors are the ultimate cause of amputation (Apelqvist, 2018). Globally, rates of diabetes continue to rise primarily in lower- and

middle-income countries and are associated with an increase in urbanisation and a Western lifestyle leading to obesity (Roglic, 2016; Bonilla et al, 2016; Saedi et al, 2019; Harrington et al, 2020). Type 2 diabetes now accounts for 90% of the prevalence of diabetes (Roglic, 2016). Even with improvement in treatments for diabetes and their effectiveness, it can be expected that the impact of foot disease will continue to rise (Saedi et al, 2019).

The management of foot disease in diabetes is most effective when undertaken as part of a multidisciplinary diabetic foot team (MDFT) (Schaper et al, 2020). The evidence for the effectiveness of such teams is unequivocal although there is much heterogeneity in published studies

meaning that it is unclear which part of the care causes the benefit (Buggy and Moore, 2017; Musuuza et al, 2020). The make-up of such MDFTs are unique to individual centres and comprise of a variety of healthcare professionals (HCPs) (Blanchette et al, 2019; Valabhji, 2020; Musuuza et al, 2020). Podiatry is often included in such teams (Kerr et al, 2019; Bus et al, 2020; Kerr, 2020; Schaper et al, 2020). The profession of podiatry focuses on providing specialist care of the foot, lower limb and related structures. It has been defined as the profession of health sciences concerned with the research prevention, diagnosis and treatment of deformities, pathologies and injuries of the foot and associated structures — in relation with the body, as well as the manifestations of systemic diseases — by all appropriate systems and technologies using scientific and professional specialised knowledge (FIP-IFP, 2018).

Specialised foot care delivered as part of the MDFT has been shown in the literature to have positive outcomes in foot disease in diabetes (Kerr et al, 2019; Blanchette et al, 2020). Studies suggest that when podiatrists are included in MDFTs, beneficial effects are seen in the patients' quality of life, as well as improved clinical outcomes (Blanchette et al, 2020).

Podiatrists are often seen as gatekeepers to the wider MDFT, providing initial assessment of any episode of ulceration as well as having important roles in the prevention of ulceration both initially and in those with a history of disease (Schaper et al, 2020). Despite such benefits, there are many areas where the profession of podiatry does not exist. There are other areas where podiatric skills are delivered by another HCP and there are terms for foot-care professionals globally which may be open to interpretation as to whether they are podiatry or not (Szpunar et al, 2014; Veresiu, 2020)

In 2017, the International Federation of Podiatrists (FIP-IFP) and the D-Foot international (D-Foot) forged an agreement to create a standardised staged competency framework for the inclusion of podiatric skills worldwide in the management of diabetic foot disease (Van Acker et al, 2018; Wilson et al, 2018). The resultant POINT document — which is based on a multidisciplinary consensus identifies the skills needed to provide podiatric skills across four levels, irrespective of the presence of podiatrists or the terms used for such professionals (Van Acker et al, 2018). There are four discrete levels of skills identified in the

framework, each level in builds on the preceding level in terms of complexity of required skills (Van Acker et al, 2018).

There is an implied understanding that individual practitioners at any level are aware of their own limitations of knowledge and practice and that they practice within the regulations of their individual locations (Austin and Gregory, 2017).

The POINT framework provides guidance for three groups, firstly: for diabetic foot teams in identifying areas of strength and weakness; secondly, for teams without podiatrists to identify the podiatric skills needed; finally, for decision makers to be informed of the skills, which can be provided by podiatrists.

Aim

The aim of this study was to identify which podiatric skills are routinely practiced across the D-Foot and FIP network in the management of diabetic foot ulceration.

Research design and methods

An online survey consisting of 10 questions utilising the Survey Monkey platform was sent to all members of D-Foot and FIP-IFP networks. This convenience purposive sample was selected based on the membership of both D-Foot and FIP-IFP. These two international organisations are involved in the promotion of both podiatric skills and improving diabetic foot care for patients. The survey was designed by members of both D-Foot and FIP-IFP. Respondents were asked to identify which levels of podiatric skills existed within their daily practice and where this correlated on the POINT framework. Respondents were also asked about the provision and integration of professional footcare in MDFTs, as well as their options on the POINT framework. Copies of the framework were made available to anyone who had not reviewed the document.

The following overarching definitions of podiatric practice were circulated with the survey to aid respondents in completion of the survey. The POINT skills escalator for podiatric skills can be seen in *Figure 1*.

POINT level definitions

POINT Level 1

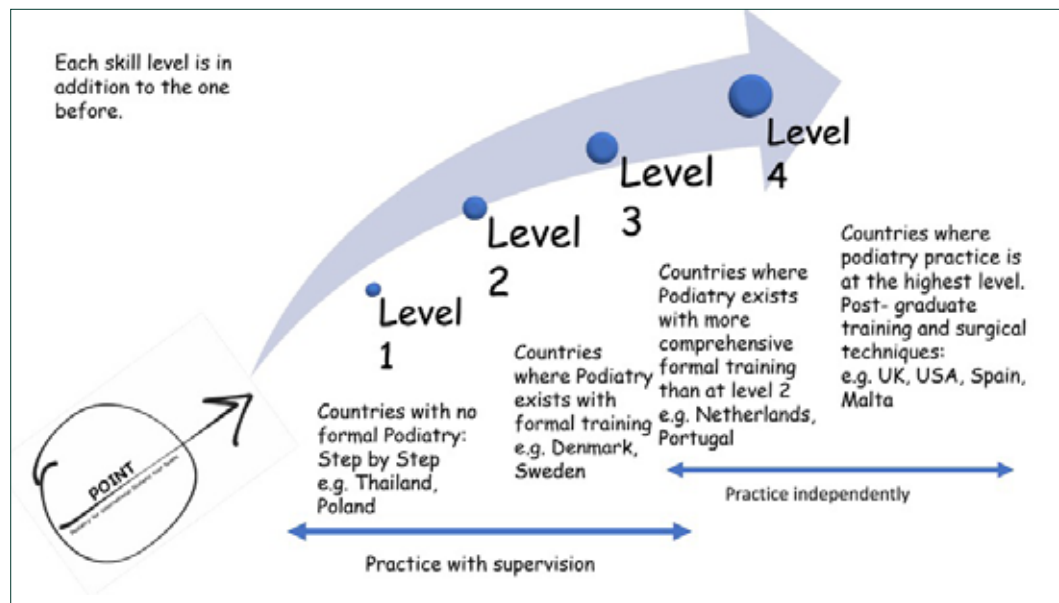
This stage is most likely in countries where the

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Figure 1. Podiatric skills escalation in line with the POINT framework.



formal existence of podiatry as a profession does not exist. The provision of foot care in this instance may be more aligned to social services than as a medically trained professional. The skills needed for diabetic foot assessment and management are most likely performed by other professionals, such as nurses or care attendants, under the supervision of the medical team.

POINT Level 2

The level of practice is most likely within teams where access to podiatry exists but not to a breadth of skills seen at higher levels. Some forms of podiatric practice are likely/probably do exist, but the scope of practice needs enhancing, in order to provide the skills for patients to be assessed/treated independently. Such skills may well be provided by other healthcare professionals, such as specialist nurses or other member of the team. Practitioners at this level will most likely be supervised by the other members of the team.

POINT Level 3

Formal podiatry is integrated in the healthcare system and the multidisciplinary team. This level of practice is most likely within teams where access to podiatry exists and the skills needed to provide a comprehensive level of care is achieved before the threshold qualification of practice is reached. Certain skills may not be available to teams by podiatrists at this level but may be provided by

other members of the team. Practice at this level is likely to be independent with close referral links and pathways to other members of the team. Supervision is not generally required.

POINT Level 4

This is the highest level of practice identified in the framework and is likely provided by podiatrists who have a very comprehensive training in the area of management of diabetic foot problems. This practice level is fully autonomous as an equal member of the MDFT team. Supervision is not required. Legislative and practice frameworks support independent practice at this level.

Initial email invitations were followed up by reminders circulated to all members of both organisations by the relevant secretariats over a 4-month period between January and April 2019.

Results

A total of 123 responses to the online survey were received. The survey was composed of 10 questions, the first and last were demographic based with responses received from all D-Foot regions and FIP-IFP members were also well represented. There was also an opportunity to leave qualitative comments.

The second question related to the knowledge of the point document, 64% of respondents had read the document and felt that it would be of benefit to diabetic foot teams within their country.

Concern was expressed in the comments section as to the amount of work needed in realising the implementation of such a project of this nature.

Question 3 related to the definition of podiatry as stated by the FIP-IFP. Twenty-five percent of respondents had podiatric practice according to this definition and were recognised by the regulatory authority of the country in question. Other responses indicated that in some areas podiatrists exist but either are unable to train in the country or are not recognised by the regulatory authority. Still further, responses revealed that patients were in receipt of podiatric care but this was not delivered by podiatrists. Overall, respondents identified the need for podiatrists where they do not currently exist.

The next question addressed the funding of podiatric care and its availability to those suffering with active diabetic foot disease. Thirty-six percent of responses indicated that podiatric care was reimbursed either in full or in part by the government of the country. An additional 39% have access to podiatric care in the country but this care was not reimbursable. The remainder of respondents have no access to podiatric care.

Respondents was asked about access to preventative foot care either for prevention of first ulceration or for recurrent ulceration. Similar results showed that in 35% of responses such care was reimbursed either in full or part by government, leaving 65% of respondents whose countries do not have access to free preventative care.

The next three questions were in relation to multidisciplinary foot teams and national organisation. Sixty-four percent of respondents reported that such teams exist in their country. The practice of direct referral between these teams and podiatrists was however, only available to 14% of respondents. Seventy-four percent of respondents reported the presence of some form of national diabetes working group although this varied from country to country.

Finally, the authors asked country respondents to rate current practices in their locality against the POINT document and indicate which healthcare professional delivered podiatric care. Only 12% of respondents reports podiatric care at level 4 provided by podiatrists. There is a wide variety of

healthcare professionals providing care at varying levels, many are restricted by either training or resources. There also appears to be many different names for the profession delivering foot care.

Discussion

The results of this survey show for the first time the disparity among country respondents in the provision of foot care for diabetic foot disease. This disparity is seen across both the D-Foot and FIP-IFP networks. The current literature supports the delivery of professional foot care, such as that provided by podiatrists as part of MDFTs in ensuring positive outcomes for people with diabetes and foot disease (Thompson, 2018; Schaper et al, 2020)

The results suggest individual practitioners and centres around the world who are providing outstanding care need support to continue to deliver this care with more recognition. The lack of support from national government and the absence of training programmes for podiatrists and professional foot care continues to be challenging for many respondents (Frykberg et al, 2018; Fayfman et al, 2020). The inconsistency in names and scope of practice of podiatry globally is an area for concern as it has the potential to cause confusion between patients and providers when travelling between locations. This finding supports the work of Buggy and Moore (2017) who found much heterogeneity in MDFT practice.

The presence of a framework of podiatric skills in diabetic foot care may help to identify areas of strength and weakness in the delivery of professional footcare for the prevention of diabetic foot disease, as well as part of the MDFT may help to increase consistency between centres and countries across the FIP-IFP and D-Foot networks. The findings of the 'getting it right first time' (GIRFT) report in the UK has highlighted the need for consistency in care delivery in diabetes management (Rayman and Kar, 2020).

Limitations

As the survey did not identify individuals it is possible that multiple responses may have been received by individual teams or respondents. The anonymity of response may, however, have enabled The survey focused on those with an interest in both the POINT framework or podiatric skills

generally and, as such, may not be reflective of podiatric practice outside such interested parties. The authors acknowledge that a small purposive survey of this nature is not representative of global practice and, therefore, any results need to be interpreted with this caveat.

Conclusions

The results of the survey have highlighted the areas of challenge for countries in implementing podiatric skills. While the results of this survey may have identified many new challenges, respondents have shown overall support for the POINT document and its use in practice. The publication of the POINT document may be of use for some individuals to overcome some of these obstacles that were highlighted in the survey but further support is needed. The form of such support and where D-Foot and FIP-IFP can help is as yet unclear. Further efforts are needed in order to promote the inclusion of podiatric skills as advocated for in current guidelines in order to reduce the burden of diabetic foot disease on individuals and health services alike.

It is acknowledged that further work has to be done to validate these results, but this survey gives an indication as to work and skills of diabetic footcare practitioners from an international perspective across the D-Foot and FIP-IFP networks. ■

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