The psycho-social impact of diabetes foot damage

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Over half of all lower-extremity amputations are related to diabetes. Indeed, foot ulceration is an increasing problem worldwide and there is little evidence of a reduction in the numbers of foot ulcers and amputations in people with diabetes. In this article, Loretta Vileikyte argues that in order to alleviate the suffering of people affected by this common and disabling complication of diabetes, we must improve our understanding of the psycho-social factors involved in the development of diabetes foot ulcers; and of the ways in which people’s day-to-day functioning and their quality of life are influenced by foot damage.

One of the characteristic features of diabetes foot ulcers, distinguishing them from other chronic wounds, is that they are usually painless – the result of diabetes-provoked nerve damage to the legs and feet (peripheral neuropathy). This loss of the sensation of pain in response to injury has a profound effect on psycho-social outcomes, including non-adherence to preventive self care.

The results of a large UK and US prospective study indicate that the majority of people who are diagnosed with diabetes neuropathy believe that the development of a foot ulcer will be accompanied by pain. Furthermore, they anticipate that the foot damage from diabetes will be vascular and that this vascular damage will be reflected in poor circulation and ‘cold feet’.

These ‘folk’ beliefs falsely reassure people that their feet are healthy. This in turn leads to a failure to engage in preventive self care and results in the kind of behaviour that is appropriate to people with normal, integral sensations in their feet – such as relying on feeling the fit of shoes when buying a new pair, rather than having feet measured.

In contrast, higher levels of preventive self care are reported by people who are able to accurately interpret their health-care provider’s diagnosis of neuropathy and realize that it is possible to have a serious medical condition even if their feet are warm and apparently without symptoms. These findings strongly suggest that the ability of the health-care provider to identify people’s misconceptions and correct them – by communicating clear messages about the nature of diabetes foot complications – is pivotal for ensuring effective self care.

The ability to describe neuropathy clearly is pivotal for ensuring effective self care.

The loss of the sensation of pain results in a lack of adherence to recommended treatment for foot ulcers – such as wearing a foot ulcer-offloading device to reduce mechanical stress – and contributes significantly to the slow healing or non-healing of foot ulcers. While people with non-neuropathic foot damage avoid walking on such wounds because of the pain this produces, those with insensitive feet continue to walk on
The global impact of foot ulcers. This, in turn, prolongs people’s physical and psycho-social dysfunction, which often includes restrictions in normal daily activities and associated emotional distress.

Effects on quality of life
In research into the effects of foot ulceration on people’s physical and psycho-social functioning and wellbeing, it has been found that foot ulcers can be a source of severe disability which, in turn, has a negative impact on quality of life. One study, for example, compared the psychological status of people with chronic diabetes foot ulcers, those with lower-limb amputations, and people with diabetes with no history of foot ulceration.

It was reported that people with chronic foot ulcers and those with amputations made significantly poorer psycho-social adjustments to their situations in their domestic and social environment, and reported poorer overall quality of life, compared to the people with no foot damage.

A study from Sweden further highlighted the impact of foot ulceration on people’s physical and psycho-social functioning; when compared with the people whose foot had healed without the need for amputation or indeed those who had undergone a minor amputation, the people with current foot ulcers had lower health status.

These studies used questionnaires that were not specific to foot ulceration; the content was imposed by the investigators. It is therefore possible that their findings left a gap between foot ulceration as abstractly defined, and the reality of a person’s experience of living with foot ulcers. In order to develop effective interventions, it is essential to have an understanding of the uniquely personal experience that is quality of life. This reflects the way in which people perceive and react to their health status.

Several questionnaires were recently developed that assess quality of life from the perspective of people affected by foot ulcers. Examples include the Diabetic Foot Ulcer Scale and the Neuropathy and Foot Ulcer-specific Quality of Life Instrument. A series of interviews were conducted with people with foot ulcers and their health-care providers in order to elicit the aspects of living with foot ulcers that are important to a person’s quality of life.
These interviews demonstrated that the loss of mobility caused by non-weight-bearing treatment (using a cast, wheel-chair or crutches, for example) is central to the foot ulcer experience. It results in severe restrictions in the activities of daily living, including house work, leisure activities and employment. In one study it was reported that approximately half of the people interviewed had either retired early or lost time from work; and career opportunities were sometimes missed.7

Moreover, limited mobility causes problems with social and interpersonal relationships. People commonly suffer perceptions of diminished self-worth due to an inability to perform social and family roles. Changes in a person’s social self-perception (the ‘self’ being perceived as a family burden), in turn, leads to reduced quality of life.6

Depression

While foot ulcer-specific emotional responses are prominent and include fear of potential consequences and anger at health-care providers – stemming from a perceived lack of timely and clear explanations of the nature of foot complications – no evidence for an association between foot ulceration and depression has been found.8 This finding is somewhat unexpected in view of the evidence that foot ulcers are associated with severe restrictions in mobility, loss of work time, and other disruptions in activities of daily living.

A possible explanation as to why foot ulcers are not associated with depression could be that the level of physical disruption caused by foot ulceration does not reach those required to diagnose depression. It is also possible that people affected by foot ulcers receive sufficient social (family and medical) support, which may act as a buffer against depression.

However, it is important to remember that although foot ulceration is not associated with depressive symptoms, other experiences of neuropathy, such as pain and unsteadiness, are important predictors of depression in this group of people. Therefore, people with diabetes nerve damage have an increased risk for depressive symptoms. They should be carefully monitored to determine whether they are depressed and provided with treatment or referral as necessary.

People with neuropathy should be monitored for depressive symptoms.

Conclusion

In summary, diabetes foot ulcers are a source of severe physical dysfunction, emotional distress and poor quality of life. People often respond to diabetes foot complications by creating their own models or understanding about this condition, which are inconsistent with their health-care professional’s biomedical view, and result in a lack of foot self care. The health-care provider’s ability to understand and empathize with their patients’ common-sense perspective is therefore central to effective communication. This might potentially lead to fewer foot ulcers and better physical and psychosocial functioning of people who are at high risk for diabetes foot damage.

References


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