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DIABETIC Medicine

LETTER

Diabetic ulcer alert: Time to rethink our approach to patient adherence

Efforts to prevent diabetic foot ulceration (DFU) are undermined by a disconcerting paradox; people with diabetes and diabetic foot complications are advised to avoid wearing inappropriate footwear which can severely injure their feet, but they still keep wearing them anyway.[1] The current consensus is that this paradox can be resolved through effective education.[2] Even though the importance of patient education is undisputed, in this opinion piece, we argue that this is not enough and that clinical research and interventions beyond patient education are urgently needed. Drawing insights from the domain of obesity prevention,[3] we propose that adjustments to the environment in which individuals with diabetes select their footwear should be also considered. A possible method to achieve this, is by empowering the people who sell footwear to become part of the solution.

When it comes to shoes, it is not uncommon for people (not just for people with diabetes) to prioritise aesthetics, societal norms, or economic considerations over comfort and to end up using inappropriate shoes that can harm them.[4] Hallux valgus, hammertoes, plantar fasciitis, increased risk for falling and low back pain are only a few examples of the problems caused by the prolonged use of inappropriate footwear.[4]

Even though inappropriate shoes can be harmful to anyone,[4] the level and seriousness of harm they can cause to people with diabetes is on a completely different scale. This is because diabetes can blunt and even eliminate the protective sensation of pain in the feet. In the absence of pain, people with diabetes tend to repeatedly injure their feet until the complete breakdown of the injured tissue and the development of diabetic foot ulceration (DFU). DFU is an open wound that does not heal easily, it can get infected and even lead to amputation.[5] In the United Kingdom, 169 people have an amputation every week due to DFU. The severity of this fact becomes better understood considering that eight out of ten people die in five years of having an amputation[6] (survival rate lower than prostate or breast cancer). Moreover, DFU costs to healthcare systems worldwide more than the three most common cancer types together.[7]

It is estimated that almost half of all DFUs are caused by injury due to inappropriate footwear.[8] Because of this fact, current national and international guidelines for DFU prevention focus on patient education, highlighting the significance of appropriate footwear selection, and on the utilisation of prescription insoles or footwear.[2] This approach places a substantial onus on patient responsibility and adherence, presuming that education alone will incite behavioural transformation. As a result, when a person with diabetes uses inappropriate footwear, this is seen as a poor choice from their part due to ignorance or unwillingness to follow medical advice. There is clear evidence that this model has failed leading to preventable serious harm for people with diabetes and mounting costs for health care systems.[1]

In the literature, there is compelling evidence that the strongest driver behind healthy or unhealthy choices is the environment in which the choice is taken. For example, it is accepted that the most effective way to prevent obesity is to change the food environment to promote healthier food choices.[3] In stark contrast, the environment in which people with diabetes decide which shoes to wear is poorly understood and there is no research on potential changes that could promote healthier footwear choices.

Moving away from a mindset of recrimination we believe that the people who, without knowing it, end up providing the inappropriate shoes have a key role to play in this process. So far, vendors of consumer footwear have been seen as part of the landscape regarding diabetic foot care. Engaging with them to raise awareness about diabetic foot and to co-create ways to support their diabetic customers can make them part of the solution. At this point, it is important to emphasise that this does not imply a transfer or sharing of the roles and responsibilities of healthcare professionals. Rather, it suggests that they can introduce a distinctive perspective to address this prevailing issue. Following the example of successful interventions to prevent obesity, the role of footwear vendors

could be to facilitate, accommodate, remind and motivate appropriate behavioural changes.[9] This type of support could be adapted for physical stores and online vendors.[10]

Activating this additional element of support at the point of decision-making can transform the footwear environment to promote healthier footwear choices. Having a structured framework for training and certification could also create a relationship of trust which would be beneficial for people at risk of DFU and for footwear vendors. Adopting this collaborative and more holistic strategy could pave the way for a significant reduction in DFU incidents and their associated complications, particularly in regions with diverse socio-cultural dynamics.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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