

Is Diabetic Foot Ulcer Healing Enough? Factors to Consider Improving the Health-Related Quality of Life of People with Diabetic Foot Ulcers

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Received: 18-Jul-2024, Manuscript No. CRFA-24-142182; Editor assigned: 22-Jul-2024, PreQC No. CRFA-24-142182 (P); Reviewed: 05-Aug-2024, QC No. CRFA-24-142182; Revised: 12-Aug-2024, Manuscript No. CRFA-24-142182 (R); Published: 19-Aug-2024, DOI: 10.4172/2167-0846.1000003

Citation: Afonso FJA, Madrid MG, Martínez JLL (2024) Is Diabetic Foot Ulcer Healing Enough? Factors to Consider Improving the Health-Related Quality of Life of People with Diabetic Foot Ulcers. Clin Res Foot Ankle Open S5:003.

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Abstract

Patients with diabetes mellitus and Diabetic Foot Ulcer (DFU) have a deteriorating health-related quality of life. A recent study has investigated the health related quality of life of Spanish outpatients with DFU using the Diabetic Foot Ulcer Scale-Short Form (DFS-SF). This study shows that clinicians should try to work on the emotional state of patients with DFU. Patients with DFU often experience emotional uncertainty about when the ulcer will heal and whether new lesions will appear on their feet, and it may be that clinicians have to devote more attention to this domain. International Working Group on the Diabetic Foot (IWGDF) provides comprehensive guidelines that highlight the importance of a multidisciplinary team, mental health support, and the role of psychology in managing diabetic foot ulcers.

Keywords: Diabetic foot; Diabetic foot ulcer; Diabetic Foot Ulcer Scale-Short Form (DFS-SF); Health-related quality of life; Spain

Description

Patients with Diabetes Mellitus (DM) and DFU have a deteriorating Health Related Quality of Life (HRQOL) [1,2]. Additionally, DFU has been demonstrated to have the greatest negative impact on HRQOL compared to other conditions, such as ulcers that have healed, amputation, diabetic retinopathy, end-stage renal disease, and coronary disease. A recent study has investigated the health-related quality of life of Spanish outpatients with DFU using the Diabetic Foot Ulcer Scale-Short Form (DFS-SF) [3-6].

This instrument contains 29 items based on 6 subscales: Leisure, physical health, and dependence/daily life, negative emotions, “worried about ulcers/feet” and “bothered by ulcer care.” Each item is rated on a 5-point likert-type scale ranging from 1 (“not at all or none of the time”) to 5 (“most of the time, or extremely”). Individual items on the instrument were reverse coded, and high scores on the DFS-SF indicate a better (good) HRQOL. The score of each subscale was calculated based on a scale of 0 (poorer HRQOL) to 100 (higher HRQOL). The most important finding of this cross sectional study that included 141 patients with DFU was that the domain of “worried about ulcers” had the lowest score in the study population, suggesting that clinicians should try to work on the emotional state of patients with DFU. Patients with DFU often experience emotional uncertainty about when the ulcer will heal and whether new lesions will appear on their feet, and it may be that clinicians have to devote more attention to this domain. In a study by Al Ayed et al., the emotional health of patients was affected by dyslipidaemia according to the Arabic version of the 36-item Short-Form (SF-36) survey [7]. In this study dyslipidaemia was associated with lower scores in the domains of “worried about

ulcers” and “bothered by ulcer care”, highlighting the importance of managing comorbidities for these patients [6]. In this sense, it was also found that elevated Body Mass Index (BMI) had a negative correlation with the HRQOL scores regarding the items of “worried about ulcers” and “bothered by ulcer care” [6]. It is well known that obesity is a common problem among patients with DM and DFU, especially regarding lower mental component scores [1,7]. Moreover, previous studies have found that diabetic foot is associated with severely impaired HRQOL in both physical and mental health aspects [2,8,9]. In this regard, this study found that patients with ischemic DFU had significantly lower scores in the physical health domain [6].

On the other hand, the mean duration of diabetic foot was the most influential factor related to worse scores in most of the domains of DFS-SF, followed by previous amputations. Valensi et al., Confirmed that a longer duration of the DFU may be related to the duration of the care process and is associated with a worse HRQOL with regard to physical health, side effects, treatment, and financial burden according to the original form of the DFS [10].

The SINBAD DFU score had significant negative correlations with leisure, physical health, dependence/daily life, and the “bothered by ulcer care” domain, suggesting that HRQOL may be related to the severity of DFU in this study population [6]. Valensi et al., used the DFS survey with French subjects who had DFU and confirmed that a more severe Wagner grade correlated with poorer HRQOL [10]. Similar results have also been found in the study by Kontodimopoulos et al., where lower scores of the 6 domains of the DFS-SF correlated with higher scores on the University of Texas wound classification system for DFUS [11].

In this study it was also found that previous amputation events were the second most influential factor related to worse scores in more domains. Patients with previous amputation showed significant differences in five of the six analysed domains: Leisure, dependence / daily life, negative emotions, “worried about ulcers/feet,” and “bothered by ulcer care.” Moreover, the domains leisure (OR 0.98, 95% CI 0.97-0.99) and worried about ulcers/feet (OR 0.98, 95% CI 0.96-0.99) were identified as significant independent domains in patients with the experience of a previous minor amputation [6]. Al Ayer et al., demonstrated a particular impact on emotional health measured by the Arabic version of the SF-36 survey in relation to prior amputations [7]. Similarly, Perrin et al., reported higher mean scores of bodily pains among patients with a history of amputation compared to those without such a history using the same questionnaire [9]. Finally, this study showed that patients with a higher level of education had significantly higher scores in the domains of “worried about ulcers” and physical health. In the same way, Yekta et al., showed a relationship between low educational level and differences in the physical component of patients with DFU compared to those without DFU according to SF-36 [1]. Other studies also reported a relation between damage in social standing and education level [7]. In conclusion based on the results of this study, clinicians should try to work on the emotional state of patients with DFU. In this sense, the International Working Group on the Diabetic Foot (IWGDF) provides comprehensive guidelines that highlight the importance of a multidisciplinary team, mental health support, and the role of psychology in managing diabetic foot ulcers. It is recommended that healthcare providers listen for psychological distress and provide appropriate interventions, including counseling and support groups, to help patients cope with the emotional burden of their condition, manage stress, adhere to treatment plans, and make lifestyle changes necessary for ulcer prevention and management [12].

Statements and Declarations

Funding

The authors declare that no funds, grants, or other support were received during the preparation of this manuscript.

Declarations of interest

There are no relevant conflicts of interest to disclose.

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