

Emotional and financial costs associated with stress and pain in two chronic leg ulcer patients

This article presents case reports relating to two very different leg ulcer patients. They were both interviewed to explore the emotional and financial costs associated with their chronic wound conditions. Their experiences of living with a chronic wound were discussed, and pain and stress levels were measured. As pain can be perceived as a stressor, potentially leading to depressive disorders (Wales, 2006; Coutts et al, 2008), the patients were asked to recount the emotional and financial costs associated of living with their chronic wounds. The case studies indicate that the financial costs to the individual and the health service relate to more than just the direct costs of wound treatment and include the psychosocial consequences of such conditions.

KEY WORDS

- ▶▶ Chronic leg ulcer
- ▶▶ Cost
- ▶▶ Quality of life
- ▶▶ Wellbeing

Chronic leg ulcers are associated with severe and continuous pain, restricted mobility, and decreased quality of life (Persoon et al, 2004; Jones et al, 2006). Studies have also shown that people living with long-term wounds can often experience poor psychological wellbeing and mood disorders (Beitz and Goldberg, 2005; Upton et al, 2012).

The psychological consequences can include negative emotions, such as stress, low self-esteem, and feelings of despair, which can lead to depression (Ebrecht et al, 2004; Guo and DiPietro, 2010), and these can vary in severity, from minor negative emotions to suicidal thoughts (Upton and South, 2011; Upton et al, 2012). Many studies have demonstrated the physiological effects that stress and anxiety can have on wound healing (Marucha et al, 1998; Cole-King and Harding, 2001; Ebrecht et al, 2004). Such effects potentially prolong treatment, further increasing patient stress and impacting on health and social services expenditure.

The financial cost to the NHS of chronic wounds has been estimated at £2–3 billion per annum, approximately 3% of the NHS budget, based on figures for 2005/6 (Posnett and Franks, 2007). Approximately 20% of leg ulcers fail to heal after two years and these patients can be responsible for 80% of the total costs associated with leg ulcers (Rippon et al, 2007). In addition, it is estimated that between 27% and 57% of people with chronic wounds suffer from mood disorders related to their chronic wound

(Jones et al, 2006; Upton et al, 2012), while the additional cost of treating mood disorders could be between £40.5 million and £85.5 million per annum, according to the authors' research.

CASE REPORTS

Case 1

Mrs S, an 88-year-old female, is typical of many older leg ulcer patients in that she has had venous leg ulcers on both lower legs for 18 years. At the time of her interview, the ulcer on the left leg was infected and causing her considerable pain.

Despite her discomfort, she appeared to be coping remarkably well as the main carer for her husband, who has dementia. However, apart from occasional hospital appointments and visits to family, she considered herself housebound.

Mrs S explained that the infected ulcer was causing her constant and considerable pain and rated her constant daily pain at 8 ("really hurts"). At dressing change, she rated the pain at the maximum 10 ("worst pain ever"). Pain was also affecting her ability to sleep and, consequently, her wellbeing. She admitted she got frustrated and sometimes "lost her temper" with her husband, but stated she tried not to let the pain dictate what she could and could not do, although mobility was proving a "big problem, even around the house."

When questioned about the stress her wounds were causing her, she initially responded that she

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was determined not to be affected. However, when questioned further using a stress scale (where 0 = “no stress” and 10 = “full panic”), she admitted that, on a normal day, she would rate her mood at 5 (“anxious/agitated”), but at dressing change, despite the increased pain, she considered her stress level to be lower – around 2 (“calm”). She attributed this to the reassurance of the district nurse, who had become “more of a friend now because it has been so long.”

Stress was also responsible for sleep disruption, as Mrs S admitted she worried about how she could continue to cope with the responsibility of looking after her husband, and whether she would be able to attend an upcoming family wedding.

It was apparent that Mrs S’ leg ulcers had had a massive impact on her quality of life for almost two decades. While she openly spoke of the pain she was encountering, there was initially no acknowledgement of the stress that accompanied this pain. However, with the use of the stress scale and throughout the interview, it became apparent she was living with constant anxiety, frustration, and sadness.

The personal financial impact arising from Mrs S’ leg ulcers are, on first inspection, limited, as she was already retired from her job when the first ulcer appeared and so encountered no direct loss of income. However, although her income was not affected, there was a significant impact on her outgoings. This included taxi fares to the hospital for appointments, and the purchase of specialist clothing/slippers, for example.

Treatment costs associated with Mrs S’ wound included consultations and district nurse home visits three times per week, as well as daily home help. The financial burden of treating her chronic wounds over the course of 18 years was considerable, even before taking into account treating comorbidities, such as anxiety and depression.

In addition, the costs to society were considerable. For example, many active older people contribute to society through voluntary work or participating in social clubs – both of which Mrs S expressed a desire to do. Economically, “grey consumers” are considered to be a substantial and lucrative consumer group (Lu and Seock, 2008).

However, when a patient becomes housebound and socially isolated, whether that is through physical disability, pain or psychological depression,

that can arise from a chronic wound, they are unable to actively contribute to society and their role as a consumer is limited, as they are unlikely to be dining out or taking holidays.

Case 2

The second case report involves a less typical leg ulcer patient. Mr D, a 53-year-old self-employed male, lives alone, and has reoccurring leg ulcers on his right lower leg. He explained he had a serious motorcycle injury to his lower leg during his early 20s, and the skin-graft and scar tissue are easily traumatised, often resulting in ulcers that take many months to heal.

At the time of his interview, Mr D was recovering from the latest of three ulcers he had suffered over the previous few years. Pain was not cited as a major issue (he rated it as 3, which was “a bit sore” at both dressing change and during a normal day. However, pain and discomfort did affect his sleep on occasion, but he did not believe pain affected his moods. The wound had a negative impact upon his social life, preventing him from swimming because he was conscious of its unattractive appearance.

Similarly to Mrs S, he also initially stated that the wound did not cause him stress, but rated his daily stress at 3 (“minor fears and worry”) rising to 5 (“anxiety”) at dressing change. The stress also caused some sleep disruption due to his anxiety over long-term prognosis, as well as the stress and tiredness he believed made him “short with people”. While he did not state that stress directly affected his daily routine, Mr D admitted to being “a little introverted these days” and that it probably had a negative effect on his self-confidence.

In contrast to Mrs S, the direct financial impact to this individual has been considerable. He stated: “There are times when I have not been able to work at all when this occurs,” and when asked about the personal financial impact his wound had caused him, he replied it had been “devastating.” Asked if there were any particular low points that stood out, his reply was “many”, but that he was currently coping with his condition and “hanging on in there”.

DISCUSSION

What is apparent in both case reports discussed in this article is that psychological stress experienced as a direct consequence of the wound is not

immediately acknowledged. Although in both cases, the patient admitted that stress was detrimentally affecting quality of life.

The economic costs associated with the stresses of living with a chronic wound appeared to be equivalent, if not more, to economic costs associated with the care of the wound for Mr D. While not being able to quantify the extent that this may be an issue for others with chronic wounds, it is likely that a significant proportion of individuals with wounds suffer emotionally and financially because of the stress of living with a wound.

Mrs S was housebound, socially isolated and admitted to feeling frustration and sadness. The emotional costs as a consequence of a chronic wound, and the stresses of the wound and its management, can be seen to be having a considerable impact in different ways on both patients.

Figure 1 illustrates the financial and emotional costs that can result from the pain and stress associated with chronic wounds. Pain and stress have been shown to have physiological effects that can delay healing (Cole-King and Harding, 2001) and, in turn, this can elicit psychological effects increasing stress and perception of pain (Upton et al, 2012; Leistad et al, 2006).

CONCLUSION

The emotional costs for the patient, as illustrated in the case studies here, can include anxiety and self-esteem issues, potentially leading to depression and an inability to work. The financial costs to the health service relate to more than just the direct costs of wound treatment and social care, because psychological consequences arising from chronic wounds can also have a significant financial impact. These include: the costs of treatment for psychological disorders; the loss of tax revenues to the state if the individual is unable to work and the subsequent increased benefit expenditure; and the personal negative financial and emotional impact for the patient.

Therefore, it is important to appreciate the larger economic picture when treating chronic wounds, the potential devastating emotional consequences, and the potential domino effect on financial costs.



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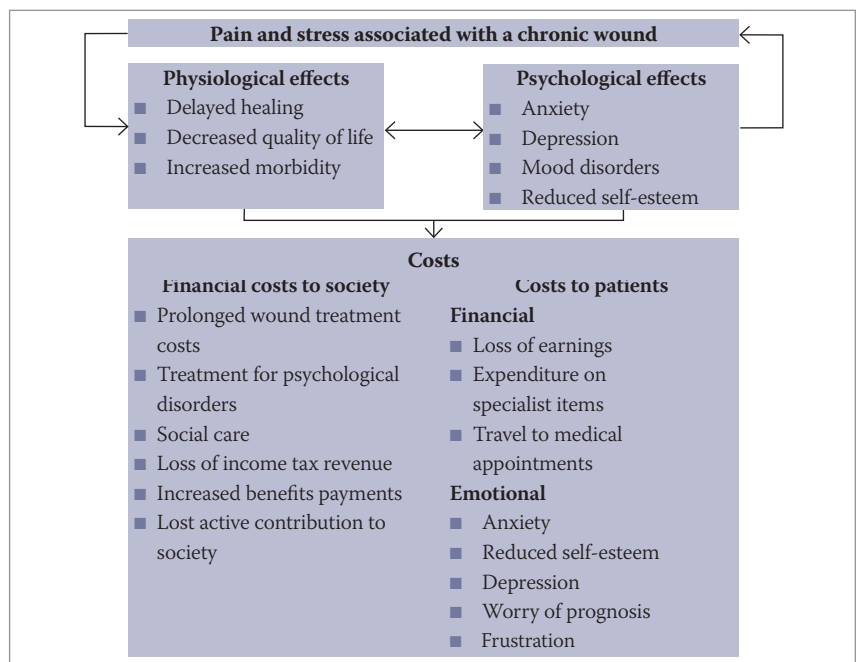


Figure 1. The potential physiological, psychological and financial costs resulting from the pain and stress associated with chronic wounds.