

Pain-induced stress: a barrier to wound healing

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INTRODUCTION

- Pain is a common experience for people with chronic wounds and can be a result of underlying pathology and /or can arise from trauma during wound care interventions, e.g. dressing changes.
- Pain from chronic wounds can be intense and have a deleterious effect on physiological functioning, cause psychological distress and reduce the quality of everyday living.
- The minimisation of both trauma and pain should be key objectives in the care of patients with chronic wounds, but unfortunately this is not always so.

AIMS

- To summarise what is known about chronic wound pain: when it occurs, its assessment, management, and the importance of preventative measures to reduce pain
- To review the literature examining the hypothesis that reducing psychological stress by minimising pain will improve chronic wound healing.

KEY POINTS

Pain associated with chronic wounds

- Pain is a complex and multidimensional sensation (Figure 1). It can be acute or persistent (chronic) and can arise from one of two mechanisms: nociceptive (the normal physiological response to a painful stimulus) or neuroleptic (neuropathic pain resulting from nerve damage or dysfunction in the peripheral or central nervous system).
- Patients with chronic wounds may experience one or both types of pain.
- Identifying the type of pain is important, as interventions may not be effective in both types of pain.

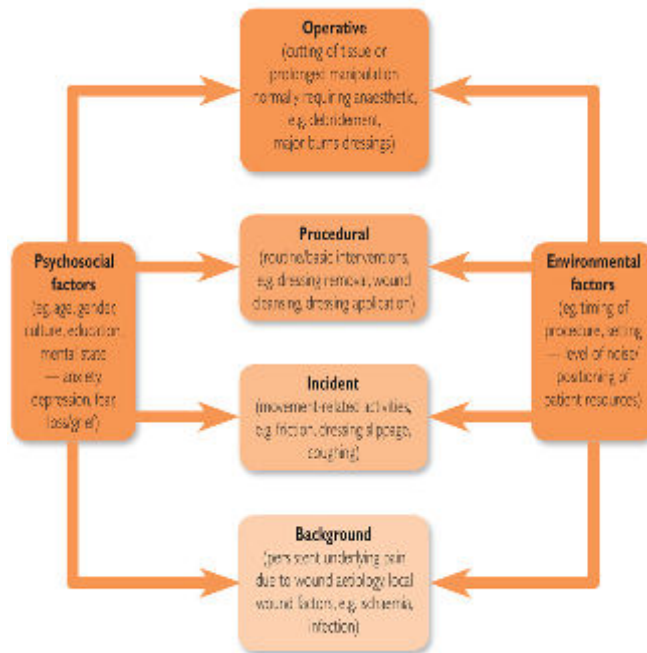
Psychological stress and wound healing

- Persistent wound pain is extremely distressing and psychological problems may become evident if pain lasts for a continuous period of time. Chronic stress can result in the suppression of the immune system, which is important for the prevention of infection, but its disruption can have an adverse effect on the processes involved in tissue repair and wound healing.
- A number of clinical studies link psychological stress with adverse effects on the healing of acute wounds supporting the involvement of depressed immune function and the resultant depression of proinflammatory cytokines. However, the relationship between pain, psychological stress and adverse chronic wound healing requires more research.

Managing psychological stress and pain

- Pain during dressing change is a frequent factor contributing to the pain of chronic wounds and should be considered a priority with effective assessment, management and continuous re-evaluation.
- Consensus documents promote principles of best practice for minimising pain in wound-dressing related procedures. Dressings are recommended to promote moist wound healing, e.g. hydrogels and hydrofibres, comfort when in situ and to be atraumatic on removal, e.g. soft silicones.
- Dressings using soft silicone adhesives are ideal for treating most types of wounds where the problem of adherence or secondary trauma has been identified and are beneficial for patients who experience pain during dressing changes.
- Furthermore, the consideration of non-pharmacological interventions, e.g. relaxation strategies, distraction and time-outs during dressing changes may influence the pain experience resulting in major improvements for the patient.

Figure 1: Factors and causes affecting wound pain



CONCLUSIONS

Wound pain is a common cause of psychological stress in patients with chronic wounds and can severely impact on quality of life.

Increasing evidence suggests that psychological stress causes the dysregulation of immune function and this can impair the normal wound healing process. Therefore a key priority in wound management should be to minimise pain, with dressing regimes designed to reduce trauma to the wound and surrounding skin.