#### JPRAS Open 16 (2018) 109-116



Contents lists available at ScienceDirect

JPRAS Open



journal homepage: http://www.journals.elsevier.com/ jpras-open

# Deliberate self-harm scars: Review of the current literature

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#### ARTICLE INFO

Article history: Received 16 November 2017 Accepted 5 March 2018 Available online 9 April 2018

*Keywords:* Scar Cicatrix Deliberate self-harm Wound surgery

#### ABSTRACT

*Introduction:* Deliberate self-harm (DSH) can be defined as selfinflicted injury without suicidal intent. Treatment of DSH scars may involve a lengthy process and is not commonly treated in its initial stages to allow scar maturation. This review aims to assess the challenges behind scar treatment and outcomes of different surgical methods used to resurface DSH scars.

*Methods:* A review of the literature using CENTRAL, Cochrane, Medline and Embase from January 1990 to February 2016 was conducted. Our search strategy incorporated a combination of MeSH terms "Deliberate self-harm scars" and "self-inflicted scars". Relevant bibliographies of literature were manually reviewed for additional resources. Non-English studies, non-human studies and studies prior to 1990 were excluded.

*Results:* A variety of techniques were described with including excision and full thickness skin graft reconstruction, excision with Integra resurfacing followed by split-thickness skin graft reconstruction, multiple excisions and laser therapy. A detailed summary of these findings is outlined. All studies reviewed show improved cosmetic outcome in treatment of DSH scars to some degree and no studies reported repeated self-harm.

*Discussion:* The literature surrounding the treatment of DSH scars is limited. There is a lack of use of reproducible and standardized scoring systems to compare between studies. The psychology behind DSH and their resultant scars adds another dimension of complexity beyond simple scar reconstruction.

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#### https://doi.org/10.1016/j.jpra.2018.03.001

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*Conclusion:* When considering treatment, patient expectations must be carefully evaluated. Research in this area is lacking but understandable due to the nature of the self-harm.

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#### Introduction

Deliberate self-harm (DSH) can be defined as self-inflicted injury without suicidal intent.<sup>1,2</sup> Various methods of DSH have been described in the existing literature, with self-initiated cutting behaviour and substance misuse being identified as the most common modalities.<sup>3</sup>

In recent decades, the rates of DSH have increased worldwide<sup>4</sup> and, notably, DSH has been found to be most prevalent amongst female adolescents.<sup>1,4–6</sup> It is well documented that patients suffering from depression and anxiety due to a traumatic experience (such as physical or sexual abuse) are more likely to self-inflict injuries,<sup>6</sup> as the act of DSH is believed to confer upon the individual a sense of relief from a "terrible state of mind" and suffering.<sup>7</sup>

Following self-inflicted injuries, patients are often left with scars. Scar treatment may involve a lengthy process and is not commonly treated in its initial stages to allow scar maturation.<sup>8</sup> Depending on the nature and surface area of the scar, different treatment options exist, which include steroid injections, silicone gel therapy, surgical revision, laser therapy and camouflage.<sup>3</sup> However, given that DSH scars are often flat, multiple and linear, responses to steroid injections are often less than satisfactory.<sup>9</sup> These features also make surgical revision challenging.<sup>3</sup>

Several techniques have been devised as temporary measures to hide the scar or reduce its prominence using camouflage make up and silicone gels respectively.<sup>10</sup> These methods primarily address symptomatic features of DSH scars (e.g. itch and erythema) but are only temporary measures and do not address the cosmetic appearance of the scar.<sup>10</sup>

This review aims to assess the psychological challenges behind and decisions to treated DSH laceration scars, along with outcomes of different surgical methods used to resurface DSH scars.

#### Methods

A systematic search of all relevant articles published on Cochrane Central Register of Controlled Trials (CENTRAL), Cochrane Database of Systematic Reviews (CDSR), Medline, Embase from January 1990 to February 2016 was conducted. This search was limited to publications in English. Our search strategy incorporated a combination of terms "Deliberate self-harm scars" and "self-inflicted scars" and included all publications on DSH laceration scars. In addition, relevant bibliographies of literature were manually reviewed for additional resources. The literature search was repeated by the first and senior authors. Exclusion criteria included non-English studies, non-human studies and studies prior to 1990.

A total of 79 publications was found. After applying the relevant inclusion and exclusion criteria, five case studies and series were selected for review. Information on patient demographics, scar revision techniques, outcomes and repeat DSH were collected from each study.

#### **Results and Discussion**

#### Deliberate self-harm scars and the patient

Scars from DSH can vary from lacerations most commonly found on the flexor aspect of the nondominant forearm or wrist to burn scars on the face. There is a wide variety of options available for treatment of scars, and can be implemented for symptomatic or complicated scars, or for aesthetic Download English Version:

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