

# Making scars worse to make patients better? The role of surgery in changing the appearance of archetypal stigmatising injuries and the concept of mechanistic stigma in scar management

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*Follow the path of the unsafe, independent thinker.  
 Expose your ideas to the danger of controversy.  
 Speak your mind and fear less the label of ‘crackpot’  
 than the stigma of conformity.*

**Thomas J. Watson, American Entrepreneur  
 and Founder of IBM, 1874–1956**

The treatment of patients with scars is always a challenge because of exactly that: we are treating patients with scars and we are not simply treating scars. A holistic approach is essential to ensure patients' needs are understood, improvements are made and no harm is done – although there is little published work on patient expectations in scar revision. Clinicians have increasingly understood and considered the psychological aspects of scarring that need to be addressed alongside the physical aspects of scar management. Similarly, there are social aspects of scarring which have been investigated and have increased our understanding of the impact of scars on the individual and their wider interactions. One social aspect of scarring that has been explored (but not extensively) is the stigma associated with scars.<sup>1,2</sup> Indeed there is evidence that healthcare professionals themselves may contribute to this

stigma,<sup>3,4</sup> and interesting blogs and web-snippets gives us stark insights into some of the issues from patients' perspectives.<sup>5,6</sup>

While we have increased our understanding of the general stigmatising effects of scars on patients, more work is needed, and one thing that we know less about is stigma arising from specific types of scarring where the stigma extends beyond the scar itself, and is related to the mechanism of that scarring.

In my clinical practice I have increasingly come to appreciate the importance of the stigmatising effect of specific types of scarring in certain patient groups, which appears to completely change the rules of the game for scar management in these patients. For certain groups, this aspect of their scarring is so important that it has implications with regards to both their assessment and management. The most relevant of these are:

- scars from deliberate self-harm
- scars from knife or glass injuries to the face
- scars from any mechanism that can look like either of the above – including surgery that might leave scars looking like either of the above



The underlying concern for many patients with deliberate self-harm scars can be the stigma associated with the implication of underlying past or current mental health issues, which are known to be associated with considerable social stigma.<sup>7</sup>

This has considerable implications for both assessment and treatment because neither our current assessments nor outcome measures formally consider the stigma related to mechanism of injury and which may influence the various domains of patient-reported outcome measures (PROMs) and quality of life (QoL) outcome measures, e.g. general mental health, social functioning and satisfaction with treatment. Indeed, the entire basis for decision-making and treatment-planning is likely to change considerably.

The consequences may be that mainstream treatments that objectively improve scars may yet result in dissatisfied patients. Similarly, treatments that make scars cosmetically worse could potentially be a complete success if the stigma from the mechanism of injury is modified to the satisfaction of the patient. Hence the following scenarios become possible:

- Excellent objective outcomes after scar treatments, very dissatisfied patient: the stigma from mechanism of injury is not disguised or removed after treatment, however objectively 'successful'.
- Poor or worsened objective outcomes after scar treatments, very satisfied patient: the stigma from mechanism of injury is modified or concealed despite ostensibly worse scarring.

This reversal, or potential reversal, of traditional logic when treating such scars is clearly important not only for the treatment of the patient but also for the consent process for any treatments. If in some cases 'success' resulted from scars that are 'worse' when assessed using every conceivable objective, clinical and PROM we clearly need to consider new tools to measure outcome in this patient group, or modification of existing tools.

### **Deliberate self-harm: the archetypal stigmatising scar**

Transverse scars on the upper limb from self-harm are the scars that I think are most relevant in this context. This is, first, because their pattern, distribution and mechanism is relatively easily recognised by most people, and second because most scar treatments cannot readily remove the features of those scars that make

them recognisable as self-harm marks (i.e. distribution, pattern and anatomical location).

One patient highlights some of these issues:

*'The problem is that I still feel like I am unable to truly embrace myself, because my body is covered in scars. I still carry a lot of shame. I feel a lot of anxiety about how other people will react to my scars, as I know that to the majority of people, self-injury is unfathomable. It is incredibly distressful because I feel like self-injury is not a part of who I am anymore, and I want to be able to embrace myself completely.'*<sup>5</sup>

I am increasingly convinced that for many patients, only interventions that change the appearance of the scar in a way that alters or disguises the mechanism of injury will result in satisfied patients. For this reason, psychological support must underpin the decision-making process for both surgeon and patient. Nevertheless, the reverse is likely to be true for others, and further perusal of the personal experiences of patients online demonstrates a wide variability of patient opinions, including from those who are proud to bear their scars as signs of having overcome adversity, and do not appear to feel stigmatised:

*'Someone told me recently that I could get plastic surgery on my arm to get rid of the scars. "I'm sure that would just make it worse," I replied. "No, they can do amazing things these days," they said. I thought about it for about 5 seconds, but really, I have no interest in hiding or getting rid of my scars. To me, it is not worth the money or the hassle. I don't feel that they affect my life at all. When I look at them, there is no emotional register. My scars may not be beautiful, but they mark the passage of time; they are a very physical record of how much my life has changed, and how much I have evolved.'*<sup>5</sup>

The implications for scar management for this patient group are significant. First, we need a reliable mechanism to pick up whether the stigma of an injury or scar is a major component of the presenting complaint. We then need to decide whether we are treating specific and physical aspects of scarring, or whether we are actually focusing on the treatment of the stigma itself and the features that allude to the mechanism of that scarring. The successful treatment of certain patient groups may therefore rely on our evolving exploration and understanding of these concepts and the underlying issues.

## Case example

This illustrative case has been selected from a group of 20 patients with a variety of complex scars referred over the last 18 months from outside the catchment area of our regional burns and plastic surgery service.

A female patient in her mid-30s presented as an out-of-region referral with extensive bilateral classical transverse self-harm scars on her upper arm and forearm, in addition to other areas of her body including abdomen and both thighs (Figure 1). She had an extensive psychiatric history with ongoing support, but had recovered from most of her past mental health issues, found a stable partner and was planning to get married. A variety of scar management modalities were offered, each addressing some component of her scars including erythema and contour. Some laser test patches were undertaken with a variety of ablative and non-ablative lasers to demonstrate what potential improvements could and could not be achieved.

It became clear during the course of early treatment that regardless of the degree of improvement of her scars, they would always look like self-harm scars, and it was simply release from this stigma that the patient was seeking. When the prospect of more radical treatment was raised, such as excision and skin grafting, the patient saw this treatment modality as dramatically altering the appearance of her scars in such a way as they could be ‘explained away’ – as a burn injury for example – and an intervention that drew a line under her past. After extensive counselling and discussion, it was agreed that the arm would be excised and skin grafted and if she was satisfied with the outcome, consideration would be given to treat the forearm.

Figure 2 demonstrates the process of her excision and grafting and early final result, with which she was delighted and I less so, purely from a cosmetic perspective at least. In my view, the scarring was ostensibly (but expectedly) worse simply by nature of the chosen intervention. The patient was nevertheless very happy with the outcome, and felt that the scarred area no longer looked like, or attracted the stigma of, self-harm scars and is now pursuing similar surgery to her forearm.

## Discussion

Not only does the potential exist for what I term mechanistic stigma to be an important factor in relation to self-harm scars, it could also be a factor in other scars. Personal correspondence with colleagues in addition to my own experience has



**Figure 1.** Preoperative multiple upper arm self-harm scars. Similar scars are replicated across both arms, both thighs and the entire lower abdomen.



**Figure 2.** Intraoperative, immediate postoperative and 3-month postoperative photographs of excision and sheet skin grafts to upper arm transverse self-harm scars.

provided further anecdotal examples of patients with scars not related to self-harm where stigma from the mechanism was the primary concern:

- A woman from Africa with facial scarification relocating to the UK
- A man with a facial wound from a knife assault who felt the injury stigmatised him as having a criminal past
- Patients with elective surgery that leave scars on the forearm or face (e.g. excision of a volar wrist ganglion, removal of facial or forearm skin lesions)
- Similar scars in these anatomical locations from trauma or assault

## Discussion

It appears that the concept of making scars potentially ‘worse’ to make patients ‘better’

might be the solution in specific patient groups where stigma relating to the mechanism of injury is their primary concern, rather than specific or measurable aspects of the physical scar itself. A simple one-liner could provide an effective screening tool for mechanistic stigma:

*‘Is it the scars you are most concerned about or the fact they look like self-harm scars?’*

However, there are many potential hazards with this strategy and there is much more we need to understand to minimise the potential for harm. Any such surgery in this vulnerable patient group should always be conducted with involvement of psychological and psychiatric services and support. It is also important to consider functional aspects of treatment as ‘worsening’ scars may include the potential for reducing function, not only cosmesis, including from scar-related complications initially absent from the presenting scars.

I urge my esteemed colleagues in their diverse fields of endeavour to further and more extensively (and certainly more scientifically) explore these concepts. I invite and welcome development of these ideas, hypotheses and opinions further with well-conducted studies and robust evidence and which we would be delighted to consider for publication in *Scars, Burns & Healing*.

*‘Life is about choices. You can choose to be embarrassed or ashamed of your past, or you can choose to accept it and move forward. I have chosen to see my scars as part of my journey towards something beautiful.’<sup>5</sup>*

## Summary

This article explores the hypothesis that some patients with scars seek treatment not necessarily to improve physical aspects of their scarring (such as redness or thickness) but to disguise the mechanism of the scarring. It is suggested that this is most relevant where the pattern of scarring carries with it some stigma – such as from self-harm scars. The idea that in some cases the only treatments that can disguise stigmatising scars actually look worse than the original scars, but may be the only satisfactory solution for some patients is explored, and a case example provided. The wider context of stigma arising from the mechanism of scarring, rather than the scars themselves are explored. The readership is invited to explore this concept with evidence-based research.

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