BURNS XXX (2016) XXX–XXX

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/burns

Social challenges of visible scarring after severe burn: A qualitative analysis

Lisa Martin [a,*], *Michelle Byrnes* [b], *Sarah McGarry* [c,d], *Suzanne Rea* [a,c,d], *Fiona Wood* [a,c,d]

[a] *University of Western Australia, Burn Injury Research Unit, 35 Stirling Highway, Crawley, Western Australia 6009, Australia*

[b] *University of Western Australia, Clinical Psychology Research Unit, Western Australian Neuroscience Research Institute, Level 4, A Block, QEII Medical Centre, Nedlands, Western Australia 6009, Australia*

[c] *Fiona Wood Foundation, Fiona Stanley Hospital, MNH (B) Main Hospital, Level 4, Burns Unit, 102-118 Murdoch Drive, Murdoch, Western Australia 6150, Australia*

[d] *Burn Service of Western Australia, Fiona Stanley Hospital, MNH (B) Main Hospital, Level 4, Burns Unit, 102-118 Murdoch Drive, Murdoch, Western Australia 6150, Australia*

ARTICLE INFO

Article history:
Accepted 28 July 2016

Keywords:
Burn
Posttraumatic growth
Social
Visible scarring
Coping
Interpersonal relationships

ABSTRACT

Introduction: Visible scarring after burn causes social challenges which impact on interpersonal connection. These have health impacts which may worsen outcomes for burn patients and reduce the potential for posttraumatic growth (PTG).

Aim: The aim of the study was to investigate adult burn survivors' experiences of interpersonal relationships as potential barriers to posttraumatic recovery following hand or face burns.

Method: This qualitative study explored patient experiences of interpersonal situations. A purposive sample ($n = 16$) who had visible burn scarring were interviewed more than two years after their burn.

Results: Emotional barriers included the fear of rejection, feelings of self-consciousness, embarrassment and humiliation. Situational barriers included inquisitive questions, comments and behaviours of others. Responses depended on the relationship with the person, how they were asked and the social situation. Active coping strategies included positive reframing, humour, changing the self, and pre-empting questions. Avoidant coping strategies included avoidance of eye contact, closed body language, hiding scars, and learning to shut down conversations.

Conclusion: Emotional and situational barriers reduced social connection and avoidant coping strategies reduced the interaction of people with burns with others. Active coping strategies need to be taught to assist with social reintegration. This highlights the need for peer support, family support and education, and social skills training.

* *Corresponding author at*: Fiona Stanley Hospital, MNH (B) Main Hospital, Level 4, Burns Unit, 102-118 Murdoch Drive, Murdoch, Western Australia 6150, Australia. Fax: +61 861524410.
E-mail address: Lisa.Martin3@health.wa.gov.au (L. Martin).

http://dx.doi.org/10.1016/j.burns.2016.07.027
0305-4179/

1. Introduction

Visible scarring to the hands or face is common following a burn. In Australia, there is facial involvement in 29.6% of patients and hand involvement in 34.3% of patients admitted due to burn [1]. The incidence of scarring after burn has been reported to be between 32 and 72% [2] and thus, by combining these figures, we suggest that the likelihood of scarring to the face or hands after burn could potentially lie between 10 and 25% of all burn admissions. Scarring after a burn is dependent on patient characteristics such as female gender, young age, genetic factors, and individual physiological response to injury, as well as the depth, size and clinical details of the wound itself [2,3]. Social challenges arise from the presence of visible scarring which have the potential to affect interpersonal relationships and social connection [4].

Social isolation is described as 'the distancing of a person from their network of desired or needed relationships with others' [5] and adversely affects physical and mental health [6]. It has been reported that physically, increased levels of stress hormones can cause immune dysfunction, cardiovascular dysfunction and hypertension [7,8]. In addition, mentally, social isolation is associated with higher levels of clinical depression and suicidal ideation [9]. In addition to the recognised risk of Post-Traumatic Stress Disorder (PTSD) [10,11] following burn, those who have visible scarring are at greater risk of depression [12], distress and of becoming socially isolated [13] including associated adverse health sequelae.

Within our society, individuals use different strategies to cope with various traumatic life events. Carver et al. [14] describe 14 different coping strategies and these have been broadly classified into approach and avoidant focussed strategies [15]. Approach strategies are believed to be adaptive and more effective for the resolution of stress in the long term; these involve active coping, planning, seeking instrumental support, seeking emotional support, religion, venting, positive reframing, humour, and acceptance. Avoidant strategies are believed to reduce distress in the short-term, but ineffective in the long-term; these involve self-blame, self-distraction, denial, behavioural disengagement, and substance use. In order to promote optimal recovery, it is important to understand the relationship between coping, interpersonal connection and how this impacts on the potential for posttraumatic growth (PTG) after a burn which results in visible scarring.

Posttraumatic growth is 'the subjective experience of positive psychological change reported by an individual as a result of the struggle with trauma' [16]. Posttraumatic growth after burn is largely congruent with PTG after other types of trauma [17], and is culturally specific [18]. A major component of PTG are the strengths of interpersonal relationships and social connections. If these interpersonal connections are impacted significantly then the potential for PTG may also be impacted. It has been documented that interpersonal connection after burn is dependent on trust and loyalty, long-term support, emotional transparency, the drive for independence, compassion and community response. Some friendships break down as trust is breached, however valued relationships survive and core support networks become smaller, closer and stronger [17]. Interpersonal considerations of psychosocial adjustment and PTG have both been identified as an area for further research in a recent literature review [19].

The aim of the study was to investigate adult burn survivors' experiences of interpersonal and social relationships as potential barriers to PTG after visible scarring to either hands and/or face from severe burn.

2. Method

A phenomenological qualitative approach was used to facilitate the interpretation and exploration of meanings and assess the lived experience of burn survivors in relation to their interpersonal relationships. This approach uses thick descriptions to understand the phenomenon of interest. The philosophy of this is that the consciousness of human experience determines what this means to an individual, and was therefore the most suitable to investigate this research area. This was part of a larger mixed methods study which explored PTG after burn. Those who had sustained burn (≥15% total body surface area) at least two years previously were invited to participate for an interview by letter. Their responses to questions about interpersonal relationships in relation to difficult social encounters are reported here.

To increase the trustworthiness and credibility of the information, multiple strategies were used. The interviews were initially audiotaped, then transcribed verbatim by the first researcher, with each interview listened to and read several times. Thematic analysis was conducted by the first researcher and confirmed by the second researcher using Tesch's eight steps of coding (Table 1). Member checks were completed to

Table 1 – Tesch's eight steps of coding.

1. Get a sense of the whole: read all transcriptions carefully. Jot down ideas as you read.
2. Pick one document (interview) go through thinking "what is this about?" Write thoughts about the underlying meaning in the margin. Complete for several participants.
3. List all topics and cluster into similar topics. Form into columns e.g. – major, unique, left over *(in this case relevant, not relevant, other)*
4. Take list and return to data. Abbreviate topics as codes and write next to appropriate segments of text. Organise to see if new categories or codes emerge.
5. Find the most descriptive wording for your topics and turn them into categories. Look for ways of reducing your total list by grouping topics that relate to each other. Perhaps draw lines to show interrelationships.
6. Make a final decision on the abbreviation for each category and alphabetise
7. Assemble the data material belonging to each category in place and perform a preliminary data analysis
8. If necessary recode your existing data

Please cite this article in press as: Martin L, et al. Social challenges of visible scarring after severe burn: A qualitative analysis. Burns (2016), http://dx.doi.org/10.1016/j.burns.2016.07.027