Intrusive Mental Imagery and Psychological Distress Following Traumatic Burn Injuries

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BACKGROUND

- Many burn survivors experience Axis I disorders (especially depression and PTSD) following their injury (e.g., Palmu, Suominen, Vuola, & Isometsä, 2011; Ter Smitten, de Graaf, & Van Loey, 2011).
- Some burn patients report recurrent injury-related intrusive memories and images during hospitalisation (e.g., Taal & Faber, 1997) and several years after their accident (Tengvall, Wickman, & Wengström, 2010; Williams, Davey, & Klock-Powell, 2003).
- Vivid intrusive mental images related to past adverse experiences may contribute to the onset and maintenance of disorders such as depression and PTSD by triggering negative emotional and behavioural responses (see Brewin, Gregory, Lipton, & Burgess, 2010; Čili & Stopa, 2015).
- The nature of these images and their influence on burn survivors has not yet been studied in detail.
  - This study aimed to investigate burn survivors’ memories of their injury, associated intrusive images, and potential relationships between these images and psychological distress.

METHOD

- 19 burn survivors (8 females, 11 males) aged 32 to 84 years (M = 8.36, SD = .47) were identified in a UK National Health Service burns unit in 2010.
- Exclusion criteria included age <18 years, self-harm, and severe injury.
- Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996)
- Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988)
- Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1996)
- Postraumatic Diagnostic Scale (Foa, Cashman, Jaycox, & Perry, 1997)
- A semi-structured interview (Hackmann, Clark, & McManus, 2000) that explored the characteristics of their memory of the burn injury and associated intrusive images (e.g., vividness, intrusion frequency)
- Exclusion criteria included age <18 years, self-inflicted injury, and a total body surface area (TBSA) affected greater than 40%.
- Ethical approval was obtained by the School of Psychology at the University of Southampton and by the UK National Research Ethics Service.

RESULTS

- Examples of injuries: flash burns (e.g., gas explosion), flame burns (e.g., house fire), scalds
- Time elapsed since the injury had occurred: 5 to 36 months (M = 20.22 months, SD = 7.20)
- Depression: minimal in 13 participants (68.4%), mild in 4 (21.1%), moderate in 1 (5.3%), and severe in 1 (5.3%)
- Anxiety: minimal in 15 participants (78.9%), mild in 3 (15.8%), and severe in 1 (5.3%)
- Three participants (15.8%) met criteria for PTSD
- Injury memories were associated with very vivid images (M = 8.36, SD = 2.24)
- Eleven participants (57.9%) reported ongoing intrusive imagery related to their burn accident
- Burn scars often acted as triggers for intrusive imagery which was associated with a sense of threat:

  - Intrusion frequency correlated with posttraumatic symptoms as measured by the IES-R avoidance subscale (r(17) = .68, p = .001) and the IES-R total score (r(17) = .47, p = .04)
  - Intrusion-elicited emotion intensity correlated with depression (r(17) = .53, p = .02), avoidance (r(17) = .67, p = .002), intrusive re-experiencing (r(17) = .72, p < .001), and hyperarousal (r(17) = .61, p = .006)

DISCUSSION

- Burn survivors may retain vivid memories of their burn injury and experience related intrusive images.
- Burn memories may be associated with distressing emotions (e.g., fear, helplessness, horror) and cognitions revolving around perceived threat to physical integrity (e.g., injury or death).
- Burn scars may act as triggers for the intrusions.
- Intrusions may contribute to patients’ depression and posttraumatic symptoms by eliciting negative affect and avoidance behaviours which prevent the processing of the trauma memory.
- Limitations: Small sample size, self-report
- Implications: Post-burn psychological care should focus on accident-related intrusions (e.g., involve imagery rescripting) and scar management.

REFERENCES


