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The patient–body relationship and the "lived experience" of a facial burn injury: a phenomenological inquiry of early psychosocial adjustment

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Background: Throughout development and into adulthood, a person's face is the central focus for interpersonal communication, providing an important insight into one's identity, age, sociocultural background, and emotional state. The face facilitates important social, including nonverbal, communication. Therefore, sustaining a severe burn, and in particular a facial burn, is a devastating and traumatizing injury. Burn survivors may encounter unique psychosocial problems and experience higher rates of psychosocial maladjustment, although there may be a number of potentially mediating factors.

Objectives: The purpose of this phenomenological study was to examine the early recovery experience of patients with a facial burn. In particular, this study focused on how the injury impacted on the participants' relationship with their own body and the challenges of early psychosocial adjustment within the first 4 months of sustaining the injury.

Methods: In 2011, six adult participants encompassing two females and four males ranging from 29 to 55 years of age with superficial to deep dermal facial burns (with background burns of 0.8%–55% total body surface area) were recruited from a severe burn injury unit in Australia for participation in a Burns Modified Adult Attachment Interview. Narrative data were analyzed thematically and informed by Colaizzi's method of data analysis.

Results: Three overarching themes emerged: relationship to self/other, coping, and meaning-making. Themes identified related to how the experience affected the participants' sense of relationship with their own bodies and with others, as well as other challenges of early psychosocial adjustment. All participants indicated that they had experienced some early changes in their relationship with their body following their burn injury.

Conclusion: These findings highlight the struggle burn survivors experienced with postburn adjustment, but expressed altruism and optimism around their recovery. Past trauma was observed to be a significant finding in this sample. Understanding the "lived experience" supports the way clinical and family systems can foster positive adjustment and coping. Consequently, multidisciplinary burn teams and health care professionals need to understand the principles of trauma-informed care and translate these into practice in the treatment of this group of patients.

Keywords: facial burn, body image, psychosocial adjustment, complex trauma, posttraumatic growth, phenomenology

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Introduction

Early psychoanalytic literature examines the important function of the skin as both a physical and psychological container for the infant during its early development.[1] The skin and face are documented as an avenue for communication and bonding

between an infant and the mother.[2] Throughout development and into adulthood, a person's face is the central focus for interpersonal communication, providing an important insight into one's identity, age, sociocultural background, and emotional state. The face facilitates an array of important nonverbal communications.[2,3] Many Western societies place an emphasis on the significance of one's facial appearance and associated level of attractiveness,[3] with the stigmatization of those with facial disfigurement famously described by McGrouther as "The Last Bastion of Discrimination".[4]

Sustaining a severe burn, and in particular a facial burn, is a devastating and traumatizing injury. Partridge and Robinson's[5] research on psychosocial aspects of burn injury reported that a significant proportion of patients who sustained a severe burn were left to contend with noticeable scars throughout their lives. Furthermore, patients with a facial burn found becoming aware of, and seeing their altered appearance, both painful and distressing.[6–8] However, there remains a small body of literature pertaining to the specific psychological challenges of changes to body image following a facial burn injury. Sainsbury's[3] review on the effects of a facial burn on body image found that patients may encounter unique psychosocial problems and experience higher rates of psychosocial maladjustment, although there may be a number of potentially mediating factors. Rahzani et al's[9] qualitative study of those who sustained a facial burn highlights some of the psychological and societal challenges of living with "disfigurement." In particular, a recent study has identified emotional distress being the highest among people with facial burns.[7]

Wiechman and Patterson[10] suggested that adjustment to a severe burn is complex and involves an interaction between premorbid characteristics, psychosocial circumstances, the type and nature of the injury, environmental issues as well as postburn medical care. Tedstone et al[11] also highlight the complexity of factors involved in identifying those at greatest risk of developing "psychological comorbidity" postburn injury. Consequently, burn survivors who place significant value on their physical appearance are at a greater risk of a poorer adjustment secondary to physical changes and scarring postburn.[12,13] High "body image dissatisfaction" is an important predictor of overall psychosocial functioning following a burn injury in the longer term,[12,14] but this may also be apparent in the early postburn period.[12,15] A study of body image in burn survivors concluded that "body image adjustment" and the development of depression may not necessarily relate to the site or the size of the burn injury.[16] However, these observations have not been consistent across all studies. Other researchers have suggested that facial burn adjustment may be related to increased rates of depression, anxiety, as well as persistent difficulties with interpersonal interactions that may be more pronounced in women.[16–21] Furthermore, Hobbs[22] reported that women who experience a burn injury are at a higher risk of posttraumatic stress disorder. Dahl et al[23] reported that trauma experience from a burn injury and the subsequent hospitalization were "life-changing events" that altered the participant's "perspective on life." Importantly, Dahl et al[23] found that even participants who had sustained minor burns experienced psychological problems for up to 8 months postdischarge. This is echoed by Gullick et al[7] who found that for participants experiencing substantial emotional trauma, the burn size or severity was an unrelated factor.

Rumsey and Harcourt[24] note that psychosocial research in the area of disfigurement is methodologically difficult and remains challenging. Research within this area is likely to contribute important insights into factors affecting adjustment and rehabilitation following a facial burn, and given the challenges to positive outcomes detailed in prior research, further exploration is deemed necessary. Therefore, the purpose of this study was to gain a greater insight into the "lived experience" of these individuals, with a focus on the possible changes to relationship with the body and early psychosocial adjustment.

Methods

Design

The study utilized a descriptive phenomenological methodology informed by Colaizzi's[25] method of data analysis. The aim of phenomenology is to explore and capture the meaning of the phenomenon through analyses of participants' "lived experience." This enabled a rich and in-depth understanding of the burn survivors' "lived experience" of a facial burn. The term "lived experience" refers to a participant's narrative account or the story of their experience, told in their own words. Fundamentally, phenomenology seeks to understand the essence of the individual's experiences.

Ethical considerations

Ethical approval for this study was obtained from the hospital's Human Ethics Committee prior to commencement. Approval was granted in the context of a broader ethics application for the Australian research project: "Adjustment to Severe Burns Study".[26] Potential participants were given a comprehensive participant information sheet and consent form regarding the study, describing its purpose and processes and explaining

that participation was voluntary and they could withdraw from the study at any time without repercussions to their current or future care. Written consent was obtained from all participants prior to the interview. Protection of confidentiality was assured through the deidentification process and secure storage of all information. As part of the deidentification process, some details, such as sex, ethnicity, and local landmarks, have been altered without comprising the essence and quality of the study. These alterations are indicated in quoted transcript by an asterisk (*). Participants' transcripts were coded as participant A–F.

Study setting

This study was conducted within an inpatient severe burn injury unit in a tertiary teaching hospital in New South Wales (NSW), Australia, and forms part of the Statewide Burn Injury Service. This tertiary referral service manages patients with severe burns from metropolitan, rural, and remote areas of NSW including the Northern Sydney, Central Coast of NSW, Hunter/New England region, and the North Coast of NSW.

Participants and recruitment

Participants (N=6) were purposefully selected over a 6 month period at the beginning of 2011. Purposeful sampling is the dominant sampling strategy in qualitative research[27] and refers to the acquisition of a representative sample of the phenomenon of interest. Participants should be 18 years of age or older, have sustained a facial burn of any thickness, possess the ability to provide informed consent, and be able to read and speak English so as to impart their experiences and comprehend all necessary study information. Burn survivors who currently experienced a delirium, had intellectual disability, or experienced gross cognitive impairment were excluded from the study as this would have affected their ability to impart their experiences. Participants with superficial dermal burns to the face were included as changes in facial appearance can be significant and cause marked distress in the early postburn period. During the time frame of the study, there was only one patient admitted with a full-thickness facial burn, who, however, did not meet inclusion criteria. All participants had a visible facial burn injury at the time of their interview, and their facial burn injury had not yet healed.

In order to identify and recruit patients with a facial burn, potential participants were identified by members of the multidisciplinary burn team who provided them with a participant information sheet and consent form. Details of potential participants who met the inclusion criteria and expressed an interest to be involved in the study were forwarded to the organizing researcher (VR). After obtaining the details of potential participants, the researcher met with each participant and further discussed the details of the study to determine whether they met the inclusion criteria.

Demographics

Participants included were two females and four males whose ages ranged from 29 to 55 years, with a mean age of 43 years. Three had sustained their burn injury during paid work, one during nonpaid work in a rural setting, one in a recreational setting, and the other at home. Participants were from varied sociocultural backgrounds, but further demographic information has been withheld to ensure participant confidentiality. The facial burn injury sustained by all six participants was either superficial or partial thickness, although in the context of an overall severe burn injury. Some of the burn injuries extended to the head, neck as well as other regions of the body ranging from superficial to deep dermal burns with the total body surface area (TBSA) ranging from 0.8% to 55% (Table 1).

Data collection

In 2011, the organizing researcher (VR) and other experienced members of the research team (LM, JK) conducted the six interviews utilizing the Burns Modified Adult Attachment Interview (BMAAI)[26,28] as the framework for the interviews. BMAAI is a modification of the Adult Attachment Interview (AAI).[29,30] The AAI is a semistructured interview and is regarded as the gold standard identification of attachment state of mind and is scored by trained experts.[30,31] An attachment state of mind or style refers to the way a participant organizes emotional, relational, and cognitive information about themselves, others, and traumatic events in the interview narrative.[30–32] The focus of this substudy was not the attachment data, but the accounts that the interview provided on the burn injury sustained and the early posttraumatic

Table 1 Summary of demographic data

Characteristics	Mean (range)
Age, years	43 (29–55)
Total burn size, %TBSA	16.3% (0.8%–55%)
%TBSA grafted	11.8% (0%–55%)
Total number of operative procedures	1.5 (0–4)
Length of stay in hospital, days	20.3 (3–60)
Length of stay in ICU, days	7.8 (0–24)
Period of intubation in ICU, days	6.7 (0–21)

Abbreviations: ICU, intensive care unit; TBSA, total body surface area.

adjustment and the BMAAI facilitated this information gathering. The interviews lasted between 69 and 142 minutes, with an average of 95 minutes, were digitally audio-recorded and subsequently transcribed verbatim. In addition to the BMAAI, each participant had a comprehensive psychiatric assessment while they were admitted to hospital, conducted by the Consultation-Liaison Psychiatry Service. This clinical assessment encompassed a review of current mental state as well as past psychiatric history, drug and alcohol use, and an exploration of personality, coping style, and psychosocial circumstances. Five participants were interviewed while still inpatients and one participant was interviewed a few weeks postdischarge but within 4 months of the burn injury. This was due to illness while in hospital and participant's preference to proceed with the interview as an outpatient.

Data analysis

Participants' narratives were explored utilizing thematic analysis. The organizing researcher (VR) and senior researcher (LM) analyzed the transcripts that were informed by Colaizzi's[25] method of data analysis (Table 2). Colaizzi's method aims to uncover the meaning of the "lived experience" through the analysis of the transcribed text, with the primary goal of enriching the understanding of the meaning of the experiences.[33] Prior to analysis, each interview was cross-checked with the digital audio recording by the organizing researcher (VR) for accuracy. Analysis of the data entailed extracting significant statements or phrases relating to the objectives of the study from participants' transcripts. Formulated meanings, representing the significant statements, were constructed. A formulated meaning is a phrase or a statement formed by the researcher to capture the essence of significant statements. Formulated meanings were then arranged into a cluster and further incorporated into higher order emergent themes, providing a rich and descriptive picture of the participants' "lived experience." Given the unique circumstances of this cohort of participants (recent trauma, persistent medical issues, geographical location subsequent to the interview, psychosocial circumstances, and psychiatric comorbidities), validation of the exhaustive description from the participants involved in the research could not be returned to the participants for verification. Two separate researchers (VR and LM) instead reviewed transcripts to ensure consistency of thematic analysis and interpretation of data; the cluster themes and emergent themes were reviewed with a third researcher (MTP). A clear audit trail was implemented via coding of data. This served to demonstrate openness by the disclosure of decisions made throughout the course of the study, enabling others to assess the significance of the reported research.[34]

Table 2 Colaizzi's method of data analysis

Colaizzi's method of data analysis consists of seven steps
1. Read and reread all the participants' verbatim transcripts of the phenomena to acquire a feeling for them.
2. Significant statements or phrases are extracted from participants' transcripts pertaining directly to the research phenomena.
3. Formulated meanings are constructed from the significant statements.
4. Formulated meanings are arranged into themes.
5. Incorporation of the results into a rich and exhaustive description of the lived experience.
6. Validation of the exhaustive description from the participants involved in the research.
7. Incorporation of any new or pertinent data obtained from participants' validation, and adapted to attain congruence with the lived experience of the participants' studied.

Results

The framework that emerged from the data analysis is listed in Table 3. Ten cluster themes were arranged into three overarching themes, termed emergent themes depicting the patient–body relationship: relationship to self/other, coping, and meaning-making. These themes relate to how the experience affected the participants' sense of relationship with their own bodies and with others, as well as other challenges of early psychosocial adjustment and are further described.

Emergent theme 1: relationship to self/other

This emergent theme was of changes to the relationship to self or others arising in this early period of adjustment after the burn injury: changes in self-image and body awareness; changes in a sense of connectivity to others; and displays an expression of altruism.

Cluster theme 1: early self-image changes and an increased body awareness

These experiences were of the shift in the participants' view of themselves and their bodies following a facial burn. All participants indicated (directly and indirectly) that they experienced changes in how they viewed themselves and that there had been a change in their relationship with their bodies during the early postburn recovery period. Some of these changes appeared to be directly related to the burn and others appeared to be the result of reflection following the burn experience. Some change in body perception or appraisal was found in each case, suggesting the ubiquity of the experience. Female participants expressed distress about their change in appearance, whereas men tended to express a heightened awareness of their bodies as a whole

Table 3 Cluster and emergent themes and accompanying description

Cluster theme	Emergent theme	Description
1. Early self-image changes and an increased body awareness	A. Relationship to self/other	The challenges of adjusting to an altered self and body image and postburn injury.
2. Change to interpersonal relationships		
3. Altruism		The impact of these changes on how the participants viewed themselves and how it affected interactions and relationships with others.
4. Hopefulness about recovery	B. Coping	Psychological tools and strategies utilized to assist with the physical and psychological adjustment to the burn injury.
5. Positive rationalizations, resilience, and reflection		
6. Humor as a coping strategy		
7. Retelling the traumatic tale: fear, panic, and psychological shock	C. Meaning-making	Making sense of and coming to terms with a major trauma and a potentially life-threatening event: integrating this and, at times, past traumas into a narrative.
8. Trying to make sense of the accident		
9. History of previous trauma		
10. Spirituality		

rather than specifically relating to their facial burn injury or the nature of their broader burns. This included the aging process, being overweight and deconditioned, and concerns around a reduced capacity to heal.

In terms of direct changes following the burn, participants stated:

> I had a bit of a problem with my vanity […] with my hair, um that really upset me […] [Participant A, L: 96; 98]
>
> Oh I know people are going to do the look at me funny thing […] [because of my facial burn] I don't like the look of myself in the mirror at the moment. [Participant B, L: 282; 293]
>
> Still I don't feel that much strong like I did before; Obviously the scars are very bad […] [they are] very dark. [Participant E, L: 174; 193]
>
> I'm probably scarred […] [Participant D, L: 88]

Cluster theme 2: change to interpersonal relationships

This theme referred to the experiences of altered relationships following burn injury. A strong thread was descriptions of an increased sense of connectedness to family and friends postburn injury, thinking of home and talking to others, and reporting that this was a positive outcome:

> It has been absolutely amazing. I used to always think to myself if I died I wondered if many people would come to my funeral. I'll never think that again; Um, it's bought me a lot closer to my immediate family. [Participant A, L72–73; 110]

Two participants did not feel the burn injury experience was likely to have any effect (positive or negative) on their current relationships. However, one of these participants did describe receiving increased attention and support from a family member since the incident, but did not feel that this was meaningful.

Cluster theme 3: altruism

A number of participants demonstrated acts of altruism or concern for others at the time of the incident leading to the burn injury. All participants also indicated they had concerns about how the incident and/or their burn injury had impacted or would impact on others in the future. This appeared to be part of a sense of values, including valuing others and reflecting on others. Given the severity of the injuries, this altruism was a notable and unexpected finding.

One participant described concern for bystanders during the acute incident as well as for family members prior to discharge from hospital:

> I said no, no, I've got to move away I don't want to distress the [bystanders]; the main concern about that is, is how my [kids] are going to express that [and cope with seeing me disfigured] […] I think they are going to be ok because they have seen a photo of when my skin [on my face] was all still black and puffy. [Participant B, L: 105–106; 293–295]

With respect to the ongoing effect of the incident on others involved, another participant commented:

> I think [they] are going to punish [themselves] enough, in fact [they] will need to be supported. [Participant F, L: 48–49]

Emergent theme 2: coping

This emergent theme spoke to significant strategies in the experience of coping with the facial burn injury: hopefulness about recovery; positive rationalizations, resilience, and reflective appraisal; and the use of humor.

Cluster theme 4: hopefulness about recovery

All participants described some optimism that they would recover from their burn injury and that life would gradually return to normal. Most participants indicated that they were approaching the recovery process pragmatically, one day at a time:

> As doctor says it will go fainter and come closer to my skin so fingers crossed for that […] [Participant E, L: 199–200]

There was a sense of focusing on the current task, perhaps to avoid becoming overwhelmed.

Cluster theme 5: positive rationalizations, resilience, and reflections

This theme related to perceived positive aspects of the experience, experiencing oneself as robust and resilient in the face of trauma or using the experience as a stimulus for reflection. Four participants rationalized some good had come from the experience. Three participants reflected that it had strengthened their interpersonal relationships and enhanced their desire to live well and live life to the fullest. One participant reflected positively on their own capacity for survival in adverse circumstances and associated resilience. Another was quite philosophical about the incident using the experience as a chance to reflect and refocus on personal priorities in life:

> I'm taking advantage of the situation to say right, reset button; A major event like this can be a trigger, an opportunity to do something, take a positive step; I guess it reminds you of your own mortality ah […] we are not all here forever, make the most of every day. [Participant F, L: 148; 150–151; 180–181]

Cluster theme 6: humor as a coping strategy

All participants utilized humor to cope with emotionally laden and traumatic events, despite background differences in coping, attachment, and personality style. The broadness of the use of humor during these accounts seems an important finding. Dark and self-deprecating humor appeared to be the most widely utilized:

One participant joked:

> I want to talk to people. Having the tube down my throat almost killed me! [It nearly killed] me not being able to talk! (laugh) [Participant B, L: 205–206]

Emergent theme 3: making-meaning

Meaning-making here is considered a higher order coping strategy that involves attempts to integrate the experience and give it significance. The following cluster themes all appeared relevant to this task, at times invoking new or larger frames of meaning, including religion and/or spirituality for some.

Cluster theme 7: retelling the traumatic tale: fear, panic, and psychological shock

Five of the six participants recalled in detail the feeling of intense fear of death or dying, panic, and not being able to escape or access help. These participants reported a range of intrusive memories and images relating to the burn. The following accounts conveyed the sense of shock around the incident:

> And I got burns, I was running around […] and I was you know shouting, not shouting what is it[?]; […] screaming, I was praying "please God save me." [Participant E, L: 29–30; 32; 39]

The high prevalence of these traumatic accounts speaks to the intensity of the experience and the need for subsequent psychological recovery. One participant also recounted the feelings of terror experienced during an episode of delirium characterized by a fluctuating level of consciousness, disorientation, perceptual disturbances, persecutory ideations while medically unstable in the intensive care unit (ICU). This participant continued to have intrusive thoughts and memories relating to the period of delirium for weeks after the event further compounding the trauma of the burn injury:

> Absolutely terrified and I felt so terrified cause I couldn't move; and I said "why are you trying to kill me?" [Participant A, L: 169; 171]

Cluster theme 8: trying to make sense of the accident

The experience of trying to make sense of the accident was present in all transcripts. All participants reported reflecting on various possible attributions of blame (eg, self, others, God, alcohol, and accident) with varying degrees of certainty:

> You wouldn't choose to do this to yourself; That's all […] just an accident yeah […] [Participant C, L:11; 16]
>
> Don't know […] I was probably under the influence […] [Participant D, L: 13–14]

Cluster theme 9: history of previous trauma

Remarkably, all participants reported a history of previous significant physical and psychological trauma, including one participant who had sustained a previous severe burn injury. This aspect of the findings was determined by examining

earlier parts of the interview that inquired into past significant events of loss or trauma. Other earlier traumatic experiences included a near death experience, witnessing the death of a family member, a history of childhood abuse, and being the victim of a violent crime. This remains an important part of the findings: that for these participants, the experience was a new trauma overlaid on past trauma.

Cluster theme 10: spirituality

Four participants demonstrated they were actively engaging in trying to make sense of their recent trauma and to find some meaning by attributing religious or spiritual significance to the incident, their burn injury, and the recovery process itself:

> I'm thankful for being here, so if that means I've got to thank Him, Her, whatever. [Participant B, L: 348]
>
> I think you know, like uh I got much strength; From God. [Participant E, L: 183–184; 186]

Several participants also demonstrated that they felt free to speculate and wonder from a secular position.

Discussion

This qualitative study explored the early "lived experience" of six adult participants who sustained a facial burn injury. The study examined how this affected their sense of relationship with their own bodies and the challenges encountered during the early phases of their psychosocial adjustment. Our findings suggest varied responses with some commonalities. Ten cluster themes emerged, which were encapsulated by three major emergent themes of relationships to self/other, coping, and meaning-making.

Coming to terms with an altered appearance as well as uncertainty around cosmetic outcome in the early phase of recovery were significant as were the challenges of integrating trauma. Early changes in the acceptability of appearance to self and other were noteworthy. The female participants expressed distress with respect to the changes to their facial appearance, consistent with previous literature.[3,14] One of the female participants expressed specific concerns about the cultural implications of her burn injury, questioning her acceptability in her community of origin. Two participants highlighted their concerns about the responses of others and the potential stigma they may attract within the broader community as a result of their facial and other bodily changes, while several other participants indicated some concerns about longer term facial scarring, echoing McGrouther's[4] finding relating to facial disfigurement and societal stigma. Furthermore, Madianos et al[35] demonstrated a significant relationship between the risk of being disfigured and a psychiatric disorder. The male participants' more broad bodily awareness may in part reflect issues pertinent to men in the wider population, spanning from their early 40s to mid-50s and is reflected in Moi et al's[36] study that explored the experience of life after a burn injury.

Important as the changes to face and body were, they appeared to be only one aspect of the challenges experienced in integrating overarching traumatic experiences. The narrative accounts provide insights into the inner world of participants who were contending with a range of posttraumatic stress responses. Additionally, a period of postburn delirium and the experience of being cared for in an ICU while critically ill were a further traumatic experience for several participants. The distorted recall of events while in a delirious state further compounded the traumatic memories and imagery. This led to persistent psychological distress, which required additional psychological input and care for some participants. In particular, it should be noted that preexisting psychological issues are risk factors for delirium.[37] These findings are in keeping with the current calls for more psychological support for burn injury survivors and that such support should promote resilience.[8,38,39] The desire to make meaning and sense of the traumatic experience was evident across all participants. In the early postburn period, participants searched for an explanation, a causal factor, or the apportioning of blame to self or others. This appeared to be an emergent and fluctuating process and is in line with the process of resolving trauma, whereby a speaker will try to reorganize their experience to make it understandable or acceptable.[8,31,40]

All participants indicated some sense of optimism about their future recovery, and some the desire to work toward returning to their preinjury status as soon as possible. A significant challenge with respect to fostering the sense of optimism and motivation is balancing realistic goals and expectations relating to the gradual process of rehabilitation.[8,41,42] Encouragingly, four of the participants were able to reflect positively on aspects of the burn injury experience despite their recent trauma, discomfort, change to appearance, and hardship. Reflections were made on the preciousness of life, resilience, family values, and the strength of an enhanced sense of interpersonal connectedness. Notable previous studies have also found that patients described strong positive attributes such as optimism, self-efficacy, and perceived social supports.[39,43] These may be important avenues to explore further while supporting

ongoing adjustment and recovery. Four participants were also able to extend this, reporting that their burn injury experience to date may have provided them with the impetus to make significant and necessary life changes. This has been echoed in other findings, where posttraumatic growth may be a possible outcome of severe burn injury.[26,44–46] Trauma breaks down personal integration at every level of organization and then reintegration is then required. The current notion of posttraumatic growth suggests that real recovery demands a creative transformation, whereby a person moves beyond mere restoration of prior functioning and develops positively in the wake of trauma.[47] This study does give examples of the way participants were managing difficult sequelae of trauma with humor,[8] the support of others, the invocation of hope, or a spiritual practice[48] or a meaning-making narrative,[49] perhaps in efforts to repair a sense of personal/interpersonal breakdown and positively move forward.[50] Focusing on a pre-existing religious faith and/or on a heightened sense of spirituality enhanced interpersonal connectedness for some participants. Askay and Magyar-Russell[48] highlight that religion and spirituality play an important role in survivors' quality of life, coping mechanisms and searching for meaning after a significant trauma or life event. Furthermore, Arnoldo et al's[51] survey of hospitalized burn survivors with burns greater than 10% TBSA found that 65% of participants would have liked their doctor to speak to them about religion and 75% wished to pray with them.

Of note, thinking of home and talking with others were mentioned by participants as important aspects of support and strength during the early postburn period and were considered to be recovery-promoting experiences. Concern for others and altruistic acts were also common among participants as was the use of humor in the context of traumatic material. Altruism and humor are classified as mature, adaptive, and healthy defenses.[52] Kornhaber et al[8] also found that humor was used as a means to accept and cope with the burn injury.

Closely resonating with themes identified in our study, Davis et al's[49] findings of six adult burn survivors in a Burn Peer Support Group setting identified a number of themes concerning the process of adjustment and meaning-making. In particular, "acceptance of self", comprising also a self-narrative exploration aspect; "perspective change", including hopefulness and the learning of new coping skills; "the value of community", which broadly valued relationships; "reciprocity", which involved aspects of altruism and providing support to others. Overall both Davis et al[49] and Kornhaber et al's[39] findings suggest that participation in a Burn Peer Support Group had a perceived positive impact on psychosocial recovery, a task they described as the need to "integrate their injury into their identity within an encouraging and safe environment".[49] The traumatic aspects of our participant's experience echoes this need for integration.

The history of significant previous physical and/or psychological trauma in all our participants was an important and initially surprising finding. Comparing this with the literature, McCoy et al[53] investigated the concept of a past physical trauma history or "trauma recidivism" in a large sample of trauma patients presenting to a sizeable, urban level one trauma center. The review found high rates of "trauma recidivism", with 25.2% of patients having a past history of severe injury. Those most likely to be "trauma recidivists" were those who had consumed alcohol or illicit drugs on the day of the injury as well as those who were victims of interpersonal violence. Keough et al[54] found that 36% of the trauma patients they studied were "recidivists" and identified a number of risk factors for "trauma recidivism" including males who were under the age of 45 years, single people, being uninsured, having a lower level of education, and being a member of a racial minority. Furthermore, risk factors included a past history of police arrests, illegal drug use, and having witnessed past violence.

This is a complex finding, however, clinically important. Keough et al[54] and McCoy et al[53] suggest that prior trauma is likely to be an important phenomenon in this group. Given that new trauma often leads to a reworking of old trauma,[30,31] it is perhaps less surprising that in a group where five out of six required an ICU admission and gave accounts consistent with noticeable posttraumatic symptoms and three out of six had posttraumatic diagnoses. The risk factors noted in the literature for "trauma recidivism" are highly represented in our sample. Clinically, the prevalence of prior complex trauma is a daily issue for burns multidisciplinary team and requires a thoughtful and integrated and individual approach to recovery, for which the principles of trauma-informed care are relevant.[55] These principles emphasize the construction of a safe and collaborative treatment relationship with health professionals and health care teams as well as a refined awareness of traumatic states of mind and how they can present in health settings and impact on the recovery process.

Strengths and limitations

Although these findings add to the body of the burn knowledge concerning facial burn injuries, this study may have some limitations. The applicability and transferability of the results may be limited as utilizing a qualitative methodology may be perceived as being less objective and generalizable.

However to ensure trustworthiness, a protracted encounter with the transcripts, the use of extracts from the participants' narratives to support findings, maintaining an audit trail, and continual debriefing about the conduct and decisions with the coauthors were implemented. One possible limitation is the use of different researchers to conduct the interviews as this may not allow for consistency in the interviewing process. However, all those involved in conducting the interviews were experienced in the field of burns trauma rehabilitation and the junior researchers had been trained in the interview and had their practice reviewed prior to these interviews by the senior researcher (LM) as part of the larger study. Furthermore, two of the interviewers were Burn Unit clinicians and at times reflective ethical conduct of the research demanded an interviewer not too close to clinical care in the interests of maintaining an empathic equipoise.

The final steps of returning transcripts and an exhaustive description to participants was not able to be carried out, which may have provided important corrections to the narratives. However, follow-up needs to be carried out cautiously as there are reported risks in engaging in participant feedback. These include participant's experiencing difficulty recalling events and consequent perceived obligation to concur with the researcher's findings.[56]

Although the study had the strength of incorporating participants across sex and sociocultural backgrounds, it only captured participants who had sustained superficial and partial thickness facial burns. Future studies may benefit from including patients with deeper facial burns and from tracking and reviewing a longer period of adjustment to a burn injury. It is likely that the experience of a more extensive and deep dermal facial burn is an important and somewhat different phenomenon from that examined here.

Participants in our sample had universally experienced significant prior trauma. While this is clinically a common picture in burn injury patients, the ubiquity of this experience was not anticipated in our sampling design. It may well be that our sample's experience is a phenomenon that differs from those without this significant trauma history who constitute the subgroup of burn injury patients who do not report marked prior trauma. It may also be that significant trauma calls for a reappraisal of all past trauma in all those injured.[30,31] Careful thought will need to be given to this aspect of prior trauma and its re-examination and need for resolution in future research designs.

Lastly, this study was conducted in the state of NSW, Australia. However, according to the World Health Organization, 90% of all burn injuries happen in developing countries.[57] Therefore, the experiences highlighted in this research may not be representative of the global population.

Conclusion

Our study highlights and reinforces the early challenges of coming to terms with an altered physical appearance, changes in the relationship with the body, and psychosocial aspects of early adjustment following a facial burn and suggests that the essential nature of the experience of recovering from such an injury is intense and complex. Understanding the "lived experience" is fundamental to the way supportive clinical and family systems can foster positive adjustment and coping. This study concurs with others, suggesting that psychosocial support, tailored to the individual's needs, might be warranted. Additionally, this highlights the need for a clearer understanding and awareness of the role of trauma in psychosocial adjustment, including prior trauma, the direct trauma of the burn injury, and subsequent trauma accrued during the course of treatment as trauma requires processing and integration. Consequently, multidisciplinary burn teams and health care professionals need to understand the principles of trauma-informed care and translate these into practice in the treatment of this cohort of patients.[55] A greater understanding of this process of adapting to trauma will facilitate burn clinicians to support the rehabilitation of this unique group of patients and facilitate the design of important longitudinal research, especially for those patients with prior significant and/or complex trauma histories.

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Disclosure

The authors report no conflicts of interests in this work.

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