

Original Research

Assessment of prevalence of psychiatric illness in burn patients

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ABSTRACT:

Background: Burns are a global public health problem, accounting for an estimated 180 000 deaths annually. Hence; the present study was undertaken for assessing the prevalence of psychiatric illness in burn patients. **Materials & methods:** A total of 100 burn patients were enrolled in the present study. Once the patient was conscious and oriented, complete psychiatric evaluation with detailed history and mental status examination was done and diagnosis was made under the supervision and guidance of the consultant. The prevalence of psychiatric disorder among burn patient at the time of admission was assessed. The data collected in respect of various variables were statistically analysed. **Results:** Psychiatric illness was seen in 62 percent of the patients. Among patients with psychiatric illness, depression and anxiety was seen in 35.48 percent and 32.26 percent of the patients respectively. Post-traumatic stress disorder and substance abuse was seen in 12.90 percent and 11.29 percent of the patients respectively. **Conclusion:** Significant proportion of burn patients is associated with psychiatric illness.

Key words: Burns, psychiatric illness.

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INTRODUCTION

Burns are a global public health problem, accounting for an estimated 180 000 deaths annually. India, the second most populous country in the world with over a billion people has an estimated annual burn incidence of 6-7 million, based on data from major hospitals when extrapolated to whole of the country, which is the second largest group of injuries after road accidents. The goal of treatment in burn care is to assist individuals to recover to the pre-injury state and for them to return to their place in society with unchanged potential. Burn injury is often an unpredictable devastating event with long term physical and psychological effects. In addition, the traumatic nature of the burn accident and the painful treatment may induce psychopathological responses.¹⁻³

Burn scars after dermal injury are cosmetically disfiguring and force the scarred person to deal with an alteration in body image or appearance. Mediating variables such as low social support, avoiding coping styles and personality traits such as neuroticism and

low extroversion negatively affect adjustment after burn injury.⁴

The emotional needs of patients with burns have long been overshadowed by the emphasis on survival. Patients undergo various stages of adjustment and face emotional challenges that parallel the stage of physical recovery. Adjustment to a burn injury seems to involve a complex interplay between the patient's characteristics before the injury, moderating environmental factors, and the nature of the injury and ensuing medical care.⁵ Hence; the present study was undertaken for assessing the prevalence of psychiatric illness in burn patients.

MATERIALS & METHODS

The present study was undertaken for assessing the prevalence of psychiatric illness in burn patients. A total of 100 burn patients were enrolled in the present study. Ethical approval was taken from institutional ethical committee and written consent was obtained from all the patients after explaining in detail the entire research protocol.

Inclusion criteria

- Age group 15 years to 65 years.

Exclusion criteria

- Those patients who are unable to speak or gesture.
- Those cases that were too physically ill to undergo detailed interview

Once the patient was conscious and oriented, complete psychiatric evaluation with detailed history and mental status examination was done and diagnosis was made under the supervision and guidance of the consultant. The prevalence of psychiatric disorder among burn patient at the time of admission was

assessed. The data collected in respect of various variables were statistically analysed.

RESULTS

Mean age of the patients was 38.4 years. 40 percent and 25 percent of the patients belonged to the age group of 26 to 35 years and 36 to 45 years respectively. In 65 percent of the patients, burn was of thermal etiology. Psychiatric illness was seen in 62 percent of the patients. Among patients with psychiatric illness, depression and anxiety was seen in 35.48 percent and 32.26 percent of the patients respectively. Post-traumatic stress disorder and substance abuse was seen in 12.90 percent and 11.29 percent of the patients respectively.

Table 1: Distribution of subjects according to age

Age group (years)	Number of patients	Percentage
15- 25	13	13
26- 35	40	40
36- 45	25	25
46- 55	12	12
56- 65	10	10
Total	100	100

Table 2: Distribution of subjects according to type of burn

Type of burn	Number of patients	Percentage
Thermal	65	65
Electrical	25	25
Chemical	5	5
Others	5	5
Total	100	100

Table 3: Distribution of subjects according to presence of psychiatric illness

Psychiatric diagnosis	Number of patients	Percentage
Disease Present	62	62
Disease absent	38	38
Total	100	100

Table 4: Type of psychiatric illness in burn patients

Psychiatric illness	Number of patients	Percentage
Depression	22	35.48
Anxiety	20	32.26
Post-traumatic stress disorder	8	12.90
Substance abuse	7	11.29
Others	5	8.06
Total	62	100

DISCUSSION

In general, "problem focused" coping has been positively associated with health, whereas "avoidant", "self-controlling" and "support seeking" strategies have been negatively associated with health. The findings in the burn literature are somewhat contradictory with regard to problem focused coping and support seeking, while avoidant coping is more consistently associated with poorer health.^{7- 9} Hence; the present study was undertaken for assessing the prevalence of psychiatric illness in burn patients.

Mean age of the patients was 38.4 years. 40 percent and 25 percent of the patients belonged to the age group of 26 to 35 years and 36 to 45 years respectively. In 65 percent of the patients, burn was of thermal etiology. Psychiatric illness was seen in 62 percent of the patients. Among patients with psychiatric illness, depression and anxiety was seen in 35.48 percent and 32.26 percent of the patients respectively. Sveen J et al investigated whether there are different PTSD symptom trajectories after burns. Ninety-five adults with burns were enrolled in a

prospective study from in-hospital treatment until 12 months after burn. Symptoms of PTSD were assessed with the Impact of Event Scale-Revised and scores at 3, 6, and 12 months after the burn were used in a cluster analysis to detect trajectories. The trajectories were compared regarding known risk factors for PTSD using non-parametric analysis of variance. The trajectories differed regarding several risk factors for PTSD including life events, premorbid psychiatric morbidity, personality traits, avoidant coping, in-hospital psychologic symptoms, and social support. The resilient trajectory consistently had fewer of the risk factors and differed the most from the chronic trajectory. There are subgroups among patients with burns that have different patterns of PTSD symptom development. These findings may have implications for clinical practice, such as the timing of assessment and the management of patients who present with these symptoms.⁸ Malik P et al assessed quality of life and factors affecting it in patients with burn injury. All patients underwent detailed psychiatric assessment using International Classification of Disease-10 (ICD-10) and divided into two groups. Group A contains burn patients with psychiatric morbidity and remaining burn patients without psychiatric morbidity were included in Group B. Further, both groups were subjected to Quality Of Life Scale (QOL) to assess quality of life. Results: Quality of life was poor in burn injured patients and was affected by severity of burn injury. Psychiatric morbidity was found to be significant factor affecting quality of life in burn injury patients. The quality of life following burns must be assessed at every stage of their treatment for better adjustment.⁹

In the present study, post-traumatic stress disorder and substance abuse was seen in 12.90 percent and 11.29 percent of the patients respectively. Brown NJ et al assessed the sensitivity of salivary cortisol and sAA in detecting stress during acute burn wound care procedures and to investigate the body's physiological stress reactions throughout burn re-epithelialization. Seventy-seven participants aged four to thirteen years who presented with an acute burn injury to the burn center at the Royal Children's Hospital, Brisbane, Australia, were recruited. Factors which support the use of sAA over salivary cortisol to assess stress during morning acute burn wound care procedures include; sensitivity, morning clinic times relative to cortisol's diurnal peaks, and relative cost.¹⁰ Gamst-Jensen H et al compared clinical guidelines for pain management in burn patients in selected European and non-European countries. The study demonstrated variability in quality, transparency, and core content in clinical guidelines on pain management in burn patients. The most highly recommended guidelines provided clear and accurate recommendations for the nursing and medical staff on pain management in burn patients. We recommend the use of a validated appraisal tool such as the AGREE instrument to provide more consistent and evidence-based care to

burn patients in the clinic, to unify guideline construction, and to enable interdepartmental comparison of treatment and outcomes.¹¹

CONCLUSION

Significant proportion of burn patients is associated with psychiatric illness.

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