

# Effects of Educational Intervention on Self Esteem among Burn patients

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## ABSTRACT

**Background:** Burns are a potentially fatal illness as well as a serious traumatic event with a high risk of complications. Burn victims must also adjust to their new body image. Burn patients face numerous challenges. Patients recovering from severe burns may experience extreme distress, with devastating physical and psychological consequences.

**Aim:** To investigate the effect of educational intervention on self-esteem among burn patients

**Method:** A quasi experimental study conducted in Pak-Italian Modern Burn Center Multan over 108 burn patients: Data were collected through Rosenberg's global self-esteem scale. Data was analyzed through Chi Square and paired t test with a significance of  $p < 0.05$ ; However data display in the form of frequency table.

**Result:** The majority of the patients (60.2%) were male aged 32 to 45, lived in cities (52.8%) and half of the patients (48.1%) were single on marital status. Patients had low self-esteem prior to the intervention, with a mean score of  $16.21 \pm 4.41$  before intervention, and  $30.72 \pm 4.49$  after intervention, with a significance of P equal to 0.002.

**Practical Implication:** Educational interventions and support systems help to enhance the psychological well-being and overall quality of life for burn patients and facilitating their journey towards physical and emotional recovery.

**Conclusion:** The current study found that providing educational intervention at the burn unit was effective when it came to educating patients to promote coping with changes, strengthening ability and enhancing self-esteem, using relaxation techniques, providing mental health, and sexual relations. Encouraged patients to be active participants in their care, which resulted in significant improvements in burn patient's self-esteem.

**Keyword:** Educational intervention, self-care management, self-esteem, Burn patients

## INTRODUCTION

Burns are in many ways the worst of all human tragedies. Severe burns carry overwhelming physical and psychological insults to the patient<sup>1</sup>. Worldwide, there are 2.4 million incidents of burn injuries each year, resulting in 650,000 patients needing medical attention, 75,000 being admitted to hospitals, and 8,000–12,000 deaths<sup>2</sup>.

The vast majority (90%) of fire-related deaths take place in low- and middle-income countries, where the poorest populations are more likely to suffer from burn deaths and injuries. Burn injuries are a major cause of injury in South Asian nations<sup>3</sup>. Incidence estimates for burn injuries in India range from 100,000 to 2,000,000 per year, of which 50,000 are thought to be fatal<sup>4</sup>. Burns are the 11th major cause of premature death and the second main cause of disability in Pakistan<sup>5</sup>. Burns can cause a number of health problems, including loss of body mass, skin tone changes, deformities caused by scar contractures, and loss of body mass<sup>6</sup>.

In addition to limiting a patient's ability to resume former activities, noticeable burn scars might make it difficult for them to interact with others, which can make them feel alone<sup>7</sup>. Physical and psychological measures are initiated in the intensive care unit and continued throughout the recovery period. However to return to a productive place in society and achieve functional and cosmetic reconstruction. Rehabilitation does not end when you leave the hospital<sup>8</sup>. It may take longer for patients to reach maximum levels of emotional and physical adaptation<sup>9</sup>. Patient involvement in the development of daily care plans, including diet selection, treatment periods, rest periods, treatment, and socialization, is critical<sup>10</sup>. It is important to note that the specific design, content, and delivery of educational interventions can vary<sup>11</sup>.

Therefore, further research and evaluation are needed to determine the most effective educational strategies for improving self-esteem among burn patients and to assess their long-term clinical implications. The outcomes of this study might be utilized as a benchmark for individuals encountering similar problems at an acute stage.

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## MATERIAL AND METHODS

A quasi experimental design, was conducted in Pak-Italian Modern Burn Center Multan; with a sample size of 108 cases of burn patients both male and female gender, having age 18–60 years, and Patients with 2<sup>nd</sup> degree burn less than 10%. While Patient with abdomen, back, groin area and legs burn Injury were excluded. A modified tool was used in this study which reliability and content validity was cronbach alpha was above 0.7 and the content validity index of the Rosenberg questionnaire 0.86. A questionnaire was used to assess and evaluate the effect of an educational intervention on burn patients' self-esteem. The data was analyzed by using dependent paired t test for display the differences between Pre and post data and chi-square test for categorical variable.

## RESULTS

According to the findings, 38.3% of study participants were between the ages of 18 and 31, 40.3% were between the ages of 32 and 45, and 30.7% were between the ages of 46 and 60. Gender distribution was 65(60.2%) male and 43(39.8%) female. According to the patients' residence, 57(52.8%) were urban and 51(47.2%) were rural. The marital status of the participants was 45(41.7%) single, 52(48.1%) married, 2(1.9%) and 9(8.3%). It means that the majority of the patients were males (60.2%), aged 32 to 45, lived in cities (52.8%), were single on the basis of marital status (48.1%), as shown in table 1.

Table 1: Demographic Variable of the Burn patients

Demographic Variables	Frequency	%age	
Age in year	18-31	38	35.3
	32-45	40	37.0
	46-60	30	27.7
Sex	Male	65	60.2
	Female	43	39.8
Residence	Urban	57	52.8
	Rural	51	47.2
Marital status	Single	45	41.7
	Married	52	48.1
	Widow	2	1.9
	Divorce	9	8.3

Analyzed by frequency (n) and percentage (%) CI: 95%, d: 5%

Table 2: The effect of educational intervention on self-esteem of burn patients

Self Esteem	Pre Intervention			Post Intervention		
	n	%	Mean	n	%	Mean
Low=<20	91	84.3		2	1.9	
Moderate =20-30	14	13.0	16.21	39	36.1	30.72
High=>30	3	2.8		67	62	

P value 0.002

Analyzed by paired T test with P&lt;0.05

This result revealed that prior to the intervention, approximately 91(84.3%) patients had a low self-esteem score of less than 20, 14(13%) had a moderate self-esteem score of 20 to 30, and 3(2.8%) had a score greater than 30. This result also revealed that approximately 2(1.9%) patients had a low self-esteem score of less than 20, 39(36.1%) had a moderate self-esteem score of 20 to 30, and 67(62%) had a score greater than 30. Before intervention, the calculated mean was 16.21, and after intervention, it was 30.72. This indicated a p is equal to 0.002 significant difference between the mean score before and after intervention. It means that the intervention helps patients with burn injuries improve their self-esteem.

Table 4: Comparison between pre &amp;post self-esteem of burn patients

	Pre Intervention		Post Intervention		P-Value
	Mean	S.D	Mean	S.D	
Self-esteem of burn patients					
On the whole, I am satisfied with myself.	1.32	0.470	2.99	0.619	0.000
At times I think I am good at all.	2.09	1.09	3.19	0.618	0.001
I feel that I have a number of good qualities.	1.44	0.646	3.05	0.689	0.000
I am able to do things as well as most other people.	1.32	0.470	2.06	1.058	0.031
I feel I have much to be proud of.	2.04	1.032	3.06	0.687	0.002
I certainly not feel useless at times.	1.41	0.642	3.32	0.593	0.000
I feel that I'm a person of worth	1.33	0.474	3.29	0.627	0.003
I have more respect for myself.	2.12	1.083	3.24	0.625	0.042
I am not inclined to feel that I am a failure.	1.33	0.474	3.30	0.645	0.000
I take a positive attitude toward myself.	1.33	0.474	3.31	0.618	0.004

Analyzed by paired T test with P&lt;0.05

According to the analysis of these results, self-esteem significantly improved following the education intervention; For example, they were satisfied with themselves (0.001); they believed they were good all the time (0.001); they believed they had a number of good qualities (0.000); they were able to do things as well as other people (0.031); study participants believed they had a lot to be proud of themselves (0.002);they certainly did not feel useless at times (0.003); they believed they had some value (0.003),They had a positive outlook (0.004), self-esteem (0.042), and were less likely to feel like failures (0.000) after intervention.On the basis of sub-category questions, there was a significant mean difference between the person's self-esteem before and after intervention; before intervention, they didn't accept their image, weren't satisfied with himself/herself, didn't think they were good at all, didn't have a number of good qualities, couldn't survive like other people, they felt themselves a useless person with no worth at all, and they felt themselves a failure;However, following educational intervention, we revealed a significant change in their self-esteem with a p< 0.05 in each subcategory, as shown in Table 4.

This analysis basically indicated that there was a significant relationship between the patients' age and self-esteem p is equal to (0.014). Those aged 18 to 31 reported having poorer or lower

self-esteem than those aged above 31. Similarly, females reported the most (49 out of 108), with a lower self than males. In terms of burn site, approximately 60 patients with visible burns had lower self-esteem than other burn sites with p equal to (0.000). It means that the patients with young female with face burn injury had a lower self-esteem than other burn patients; there was a significant correlation between the age, gender and site of burn with self-esteem with p <0.05 as shown in Table 5.

Table 5: The association of demographic variable with self-esteem of the burn patients

Demographic Variables		Self Esteem			P-value
		Low <20	Moderate= 20-30	High >30	
Age in year	18-31	34	0	0	0.014
	32-45	28	10	2	
	46-60	29	4	1	
Sex	Male	49	13	3	0.008
	Female	42	1	0	
Site of burn	Face	60	1	0	0.000
	Head	11	5	3	
	Neck	7	7	0	
	Hand	13	1	0	

Analyzed by chi-square test with a significance&lt;0.05

## DISCUSSIONS

According to the findings of this study, the majority of the patients (60.2%) were males, having aged 32 to 45, lived in cities (52.8%), half of the patients (48.1%) were single on the basis of marital status. This findings are supported by study cited by Mehrabi and falakdami showed among the 53% of men, 30% were between the ages of 36 and 45, 95% of people were married and 38% were unemployed<sup>12,13</sup>. However, more than half of the patients in the study by Abd Elalem and Shehata were female, came from a rural area (58.8%), and had a mean age of 40 years. More than one third (41.2%) of the patients had completed their secondary education, and 50% of them were married<sup>2</sup>.

The educational intervention helps patients with burn injuries improve their self-esteem, according to this study; the calculated mean was 16.21 before intervention and 30.72 after intervention. This indicated a p = 0.002 significant difference in mean score before and after intervention. Similarly, Abd Elalem and Shehata discovered similar results, finding that only 23.5% of patients had low self-esteem at post-intervention, compared to 85.3% who had low self-esteem before the intervention<sup>2</sup>. Furthermore, Elsherbiny and ElFahar discovered significant differences in mean self-esteem between the pre-intervention and post-intervention groups, with the intervention group having higher mean scores. Patients in the study group scored significantly higher (p=0.001)<sup>14</sup>.

These findings were supported by Gojowy and kauke found that education is essential for motivating burn patients to accept responsibility for their rehabilitation because it enables them to follow through with the recommended therapy, manage their symptoms, spot the signs of complications, and seek medical attention as soon as they are faced with any new circumstances<sup>15</sup>.

From the prospective of our study, after educational intervention, the patients were satisfied with themselves, they believed they were good all the time, they believed they had a number of good qualities, they were able to do things as well as other people do, they believed they had a lot to be proud of themselves, they certainly did not feel useless at times, they believed they had some value, they had a positive self-esteem, and they were less likely to perceive themselves as failures after intervention. Based on the findings of recent studies, Spronk and Legemate examine the significance of patient education in burn rehabilitation in preventing burn complications, as well as its impact on self-esteem and health-related quality of life<sup>16</sup>. Also, the findings of the study by Eller and Lev revealed that the educational intervention raised adaptability, decision-making, and stress

reduction<sup>17</sup>. The quality of life can also be improved by practicing better self-care<sup>18</sup>.

This study analyzed that indicated that there was a significant correlation between the age, gender and site of burn with self-esteem with  $p < 0.05$ . While there was no significant relationship between the patients' age, gender and in the site burn with self-care of the burn patients with  $p > 0.05$ . Similarly the study of Faisal and Amjad examined self-esteem and its relationship with several demographic characteristics in patients with face burn injuries<sup>19</sup>. The total score of the State of Self-esteem Scale of burn sufferers with facial injuries was found to be poor, with 66% of individuals scoring below average and 34% scoring above normal. At  $p$ -value 0.001, there is a significant link between face burns and poorer self-esteem. Tehranineshat and Mohammadi also found a strong correlation<sup>20</sup>; while the results of the present study differ from those of Spronk I, Edgar DW et al<sup>21</sup>.

## CONCLUSION

This study concluded that majority of the patients (60.2%) were males, having aged 32 to 45, lived in cities (52.8%), half of the patients (48.1%) were single on the basis of marital status, Study identify that female in young age with face burn injury had a lower self-esteem than other burn patients; there was an association between the age, gender and site of burn with self-esteem with  $p < 0.05$ ; however no association with self-care of the burn patients. The educational intervention helps patients with burn injuries improve their self-esteem, according to this study, approximately 2.8% had high esteem. Which improve as a result of educational intervention to 62% with high self-esteem. The overall findings of this study demonstrated that educational intervention at the burn unit was effective to promote coping with the changes, and strengthening the ability to cope. Burn patients' self-care management and self-esteem improved significantly as a result of encouraging them to be active participants in their treatment.

**Conflict of interest:** Nil

**Ethical consideration:** Permission was granted by hospital ethical committee

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