THE ATTACK ON PSYCHOSOMATIC INTEGRITY: A STUDY OF THE PSYCHOLOGICAL SEQUELAE OF BURN TRAUMA

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SUMMARY. Burns pathology is characterized not only by insidious damage to the patients’ outward appearance but also by the equally painful emotional difficulties they encounter as they reorganize their identity and their personal history. This exploratory survey, combining research work with medical action, considers the cases of 41 outpatients who were hospitalized and subjected to skin grafting. The patients were recruited through the database of the Palermo Civic Hospital Plastic Surgery and Burns Therapy Operative Unit. The questionnaires were compiled 6 and 12 months post-burn (12 months’ observation). The main objective of the research was to investigate the quality of life of burn patients in relation to the way they handled their condition on the emotional level, in order to cope with the stress caused by the burn.

Introduction

Burns are a threat to a person’s psychosomatic integrity - they are an attack on the skin, which saves and protects the individual from external attack and thus becomes a symbolic boundary between the “inner world” and the “outer world”. The skin, in this light, is something that envelops the body and guarantees the individual’s identity. We know from Freud¹ that the ego is first and foremost an ego of the body, and Melanie Klein² tells us that our somatic organization represents one of our earliest processes of mental functioning.³ A burn trauma, especially if it is extensive and suffered when young, constitutes a violent attack on this mental organization and requires from the persons concerned (and from their network of relational support) an intense activity of reappropriation and mentalization of the somatic experience that will markedly affect their perception of their body image and thus of their global identity.

The psychological reaction of severely scarred burn victims is extremely complex. Mechanisms of psychological adaptation are triggered that make it even more difficult for therapists to take these subjects in charge because of the need to consider not only their physical damage but also specific aspects of their personality that will condition their strategies for adapting to their painful condition and their new self-redefinition. It is a common experience to see patients with severe scars who are emotionally well contained and others with relatively minor scars who are highly disturbed and debilitated.⁴ Therapists therefore have to act on the assumption that a feeling of true well-being lies in the creation of a balance between the patients’ real image, the mental image they have of themselves, and their positive way of adapting to their suffering; patients have to be seen in their overall organic, emotional, and relational dimension if we are to be able to respect and take account of their complexity and their uniqueness - only in this way can we achieve the most appropriate level of taking in charge of their condition.

The main aim of the present research work, in the light of these considerations, is to investigate the quality of life of burn patients in relation to the manner of emotional management they adopt in order to cope with the stress produced by their burns. It is hypothesized that these patients may develop an elevated degree of psychological distress that prevents them from recovering an adequate quality of life.

Patients and method

The investigation concerned 41 seriously burned patients recruited through the database of the Department of Plastic Surgery and Burns Therapy, a section of the G. Di Cristina and M. Ascoli Civic and Benfratelli High Specialization Medical Centre of National Importance, Palermo. During routine check-ups patients were invited to fill in a specially prepared case history form regarding their age, education, occupation, marital status, and the circumstances of their burn accident, plus details of their scars. In addition, the following tests were carried out:

• Hospital Anxiety and Depression Scale (HADS):⁴ a self-assessment scale of anxiety and depression levels in patients with somatic diseases
• Symptom Check List 90 (SCL 90):⁷ a symptomato-
A logical check list devised to assess mental disorder symptoms

- **Short Form Health Survey 36 (SF 36):** a scale designed to assess patients’ health by monitoring eight basic parameters
- **Body Uneasiness Test (BUT):** a psychometric questionnaire for assessing discomfort with the image one has of one’s body

To analyse the data, we used a descriptive statistical method. First we analysed frequency distribution, considering separately various groups, i.e., men vs. women; patients who had returned to work vs. those who had not; patients who had been discharged for 6 months vs. those who had been discharged for 12 months; married vs. unmarried; and patients with scars on visible parts of their body vs. patients without such scars.

Data processing was based on calculation of the mean and standard deviation in order to obtain from these values the relative differences between two or more clusters.

**Results**

Starting from an analysis of the answers to the **HADS** questionnaire, and using the instructions contained in the instructions manual for interpreting the scores, it was found that the entire study group had high scores on the **Anxiety** scale (Fig. 1).

![Fig. 1 - Overall results of HADS questionnaire.](image1)

With regard to the results obtained from analysing the **Symptom Check List 90** scores, it was found that these patients had high scores on the **Somatization** and **Anxiety** scales. These findings are consistent with the **HADS** results: the presence of anxiety symptoms seems prominent in these patients. The **Somatization** scale expresses the suffering due to the perception of somatic dysfunction, i.e. it indicates the difficulties encountered in mentalizing a trauma to the body. Analysis of the **BUT** questionnaire answers indicates that the **Weight Phobia** and **Body Image Preoccupation** scales approached significant values. The **Short Form 36**, on analysis, showed higher than average scores on eight scales but lower than average scores in two scales, namely the **Physical Health Index** and the **Mental Health Index**; this may be explained by the lower scores achieved on the **Limited Physical Role** and the **Limited Emotional Role** scales than on the rest of the other scales, and indeed this affects the results of the two scales in question.

A more detailed analysis of the sample reveals the existence of significant differences between males and females with regard to certain scales in the questionnaires used in the study. Starting with a sex-based comparison of results, it was found that the **HADS** questionnaire scales indicated a significant sex-based factor in relation to the **Anxiety** scale. The results achieved in Symptom Check List 90 show that there are differences between the two groups as regards **Somatization**, **Anxiety**, and **Phobic Anxiety**.

Women achieved higher scores on the **Somatization** and **Phobic Anxiety** scales, while men had higher scores for **Anxiety**. The results of the **Body Uneasiness Test** showed differences between males and females in the **Weight Phobia** and **Body Image Preoccupation** scales, while the **Short Form 36** questionnaire indicated differences between males and females on the **Limited Physical Role** scale, with men achieving lower scores than women; the converse was found with regard to the **Mental Health Index**, on which women got lower scores than men.

![Fig. 2 - Sex variable and results of HADS and BUTS questionnaires with regard to Anxiety and Depression.](image2)

![Fig. 3 - Sex variable and results of HADS and BUTS questionnaires with regard to other factors.](image3)
With regard to the *Time* variable, this was found to have a significant effect in some of the scales used in the questionnaires, with the *HADS* scale presenting a significant difference on the *Anxiety* scale. This last finding is confirmed by the scores obtained by the two groups of subjects on *Symptom Check List 90*. The scales where there was found to be a significant difference with regard to the time interval since hospital discharge were those for *Somatization, Obsessiveness/Compulsiveness, Sensitivity, Anxiety, Hostility, and Psychotic Behaviour*. 

As for the *BUT* scales, tendentially significant differences regarded *Weight Phobia, Body Image Preoccupation, and Compulsive Checking of Personal Image*. The *General Symptomatic Index (GSI)* was tendentially significant in subjects who had more time elapsed. The patients in these two groups also presented differences in their perception of health, as is clear from the scores in *Short Form 36*. The scales displaying the greatest difference were *Limited Physical Role* and *Limited Emotional Role*. The *Mental Health Index* was lowest in patients who had been affected longest. A higher score was recorded only on the *Physical Activity* scale. With regard to the variable *Work*, the parametric technique employed made it possible to highlight substantial differences associated with concrete facts in cases where the subjects had returned to work after their accident or had not yet gone back to their job. The *Symptom Check List 90* scores show that there was an indicative difference between subjects working and those not working on the *Somatization, Obsessiveness-Compulsiveness, Sensitivity, Anxiety, Hostility, and Psychotic Behaviour* scales. Analysis of the *BUT* results indicates the difference between the two groups under consideration as regards the scales *Weight Phobia, Body Image Preoccupation*, and *Compulsive Checking of Personal Image*. The *GSI* was tendentially significant in subjects who had not returned to work. As for the *Short Form 36* scores, these tended to be higher in individuals who worked, while in subjects not working the scale with the lowest score was the *Limited Physical Role* scale.

With regard to the variable *Visible Scars*, a comparison was made of findings regarding subjects exhibiting and not exhibiting visible scars. As regards *HADS*, the two groups of subjects achieved slightly different scores on the two scales in the questionnaire. With regard to *Symptom Check List 90*, some scales - *Somatization, Obsessiveness/Compulsiveness, Anxiety, Hostility* - produced significant scores in the group of subjects not exhibiting visible scars. As regards *BUT*, slightly different answers were given on the various scales. These differences occurred on the *Weight Phobia, Body Image Preoccupation*, and Com-
pulsive Checking of Personal Image scales, where subjects without visible scars achieved high scores. The Short Form 36 results were substantially alike in the two groups of subjects. The scales that deviated were Physical Activity, Limited Physical Role, Physical Pain, Vitality, and Mental Health, where visibly scarred subjects achieved the highest scores, while on the General Health, Social Activities, and Limited Emotional Role scales non-visibly scarred individuals scored highest.

With regard to the Marital Status variable, the analysis clearly shows that a consolidated relationship, not affected by the burn accident and characterized by the family's capacity of understanding the burn victim, contributed to a better final recovery, also from the psychological point of view. On the HADS scale the two groups had significantly different scores on the Anxiety scale, on which unmarried subjects developed a significant anxiogenic component compared to the other group. In the Symptom Check List 90 questionnaire there were notable differences between the two groups of subjects on the Somatization, Obsessiveness/Compulsiveness, Anxiety, Phobic Anxiety and Psychotic Behaviour scales. On the BUT scale the scores for Weight Phobia, Body Image Preoccupation, and Compulsive Checking of Personal Image were significant in the group of unmarried subjects. The Short Form 36 scores indicate that in the two groups the perception of health was within mean values.

The differences between the two groups are to be seen on the following scales: Physical Activity (unmarried scored more than the other group); Limited Physical Role (married scored more); and Physical Pain, General Health, Vitality, and Mental Health (high scores in the married group); and Limited Emotional Role (highest scores in non-married subjects). To conclude, the Mental Health Index was lower in the non-married group.

### Discussion

Our findings show that the Anxiety component is as marked as that of Depression. Dissatisfaction and Body Uneasiness are key symptoms in severely burned subjects, who are in a perennial state of anxiety with regard to their affective needs, which they attempt to stifle by denying or rationalizing them.

Despite the severe trauma they had suffered, the subjects participating in our clinical investigation had a satisfactory quality of life, with scores on the Short Form 36 questionnaire above or on average levels, with respect to health as generally perceived in Italy.

We must however at this point take into account the concrete reality that the subjects in the sample population investigated received psychological assistance throughout their period of hospitalization and post-hospital care.

This suggests that from the very beginning of their experience they were able to cope with their trauma and the transformation of their body, and that their return to satisfactory conditions of life was made possible also thanks to their course of rehabilitation, which included psychological supervision from the first moment of entry into hospital.

The difference between the ways men and women cope with their changed appearance may be due to the attention that women have always paid to their aesthetic beauty as an influential factor in their emotional relationships - it is absolutely imperative to have a pleasant appearance, since the established ideals of health and beauty imposed by modern culture and fashion require, in this day and age, that we are accepted by others and by ourselves.

In this context, people's work helps them to regain their roles in their social and work setting, giving them a feeling of personal achievement and autonomous efficiency and dispelling the danger of social exclusion and loss of self-esteem.

Our findings indicate that having a consolidated marital relationship affects people's reaction to a trauma and helps to overcome the state of distress and anxiety associated with loss of aesthetic beauty. Other members of the family become a valuable resource - the more burn victims feel that their new condition is accepted by their family, the more they will feel helped to accept it themselves.
These findings also indicate the unimportance - in terms of feelings of uneasiness - of the visibility of scars. In matters of self-evaluation, whether in health or in sickness, we have to consider the decisive role of the structure of the personality, as well as the defences an individual uses to cope with anxiety; we have to emphasize the link between people’s individual perception of their objective condition and their needs, values, and expectations; and we also have to take into account people’s attitude towards their body before the accident, i.e. whether they paid little or great attention to physical appearance.

Finally, it is interesting to note that this research work demonstrates that the passing of time is an indicator of growing uneasiness in burn victims, as they realize that their need to come to terms with what has happened to their bodies and to mentalize the experience is a cause of suffering that will continue even after many months.

Conclusions

The data provided by this exploratory investigation help us to trace out ways of moving within the complex but as yet little studied network of relationships between experiences related to changes in the body and in the quality of life in victims of severe burns, who constitute a very special population.

Our findings also enable us to propose an explanatory hypothesis regarding the phenomenon of burns, suggesting that the key factor is not so much the actual gravity and visibility of scars as a combination of factors that include people’s mental attitude towards the change they have been through, the trauma itself, the social support perceived to be given, individual personality structure, the return to family and working roles, and the feeling of being accepted and loved by other surrounding people. It is therefore necessary to adopt a scientific model providing a multidimensional view that respects people’s complexity.

Another consideration that comes out of this study is the fact that, in burn patients, physical healing does not always coincide with psychological healing and a perception of general well-being. This is shown by the fact that six months after being discharged from hospital and their physical recovery, the subjects considered in our survey felt better than those who had been discharged twelve months previously.

RÉSUMÉ. La pathologie des brûlures est caractérisée non seulement par les dommages insidieux évidents dans l’aspect extérieur des malades mais aussi par les difficultés émotives également douloureuses qu’ils doivent affronter quand ils réorganisent leur identité et leur histoire personnelle. Cette étude exploratrice, qui associe le travail de recherche à l’activité médicale, considère les cas de 41 patients en consultation externe qui ont été hospitalisés et traités avec des greffes cutanées. Les patients ont été recrutés à travers la base de données de l’Unité Opérative de Chirurgie Plastique et Thérapie des Brûlures à l’Hôpital Civique de Palerme. Les questionnaires ont été compilés à 6 et à 12 mois après la brûlure (observation de 12 mois). Les Auteurs se sont proposés principalement de considérer la qualité de vie des patients brûlés par rapport aux modalités de gestion qu’ils ont adoptées pour affronter le stress causé par la brûlure.

BIBLIOGRAPHY


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