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Cognitive Behaviour Therapy of Accidental Post Burn Injury Survivors: An Indian Concept

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ABSTRACT: *Stigmatising behaviour is the most commonly recorded issue when burn patients are returning into society. Many experience social isolation as a result, thus preparation for this reintegration should be carried out as part of a holistic treatment plan. There are few studies in relation to treatment of psychological issues. This is a large area which should be further developed in hospitals. Holistic care is a major aspect of nursing practice and to find few treatment studies for such issues is surprising. In conclusion psychological and psychosocial problems are recorded in a significant number of the burn population. Screening for these disorders and treatment should be carried out as part of a holistic routine in all burn centres Accidental Burn survivors experience a series of trauma both physical and psychological hence, a need to assess the psychological morbidity among 100 such individuals and enhance their self esteem to increase their fullest participation in the society through Cognitive Behaviour Therapy using the Guru shishya concept of Indian psychology was attempted in this study in a tertiary care centre in Bengaluru, India.*
Key words: *Accidental burns, self esteem, Cognitive Behaviour Therapy [CBT},guru shishya concept.*

I. INTRODUCTION

Treatment of people with burn injuries includes recovery of optimal function for survivors to fully participate in society, psychologically and physically[1]. Increased likelihood of physical survival has led to greater concern for potential psychological morbidity for the burn survivor[16]. Burn survivors experience a series of traumatic assaults to the body and mind which present extraordinary challenges to psychological resilience. An important role of the mental health professional is to ascertain the psychological and social issues and to introduce therapeutic interventions.

A burn injury, with both physical and mental aspects are regarded as the most painful experience an affected person undergoes[6]. The psychological and emotional aspects of burns patients are largely ignored, while care is concentrated on physiological recovery process. This involves a complex interplay of patient's characteristics before injury,[3] moderating environmental factors and the nature of injury and ensuing medical care. With this concept in mind, it is apt to assess Psychological co-morbidities[5] and Self Esteem[9] Cognitive Behaviour therapy will act as a suitable intervention technique to overcome the psychological co morbidities and improve their self esteem which shall help in their rehabilitation i.e., social, occupational and family achieved and emotional needs of the patient can be handled more effectively by this approach [12]. The main objective of this research was to determine the Psych Social aspects, Psychological Co Morbidities and Self Esteem as well as the effectiveness of CBT to improve their Self Esteem and bring them back to the main stream. Burn injuries are devastating traumatic experiences which place a large amount of strain on a person's psychological status[16]. Due to the improvement in morbidity rates in relation to burn victims, more and more survivors are forced to make mental alterations to their body image. Depression, anxiety and post-traumatic stress disorder are the most commonly observed psychological effects. Physical functioning plays a large role in the cause of depression which does not always reduced over time many burn survivors displayed signs of depression over 1 year post injury. Anxiety is often related to body image and grievance over ones new image or avoidance of reflection. Many burn victims display 2 or more signs of PTSD.[14] It is said that those most likely to experience PTSD are those who were found to have had pre-burn psychosocial problems.

DESIGN

This longitudinal study was conducted at a Tertiary General hospital , Bengaluru, India.

100 Accidental Post Burn Injury Survivors, 58 Female and 42 male were taken up for this study.

HYPOTHESIS

Higher the degree of accidental burns Higher the psychological morbidity and Lower the Self Esteem .

There shall be differences among the Female and Male Burn survivors in the level of self esteem.

Cognitive Behaviour Therapy will help them Increase their Self Esteem and lower their Co-Morbidities .

INCLUSION CRITERIA
Written consent was taken from all the subjects.
Women and Men above the age of 18 years up to 40 years.
Patients with 1st and 2nd degree burns up to 30% with and without facial burns.

EXCLUSION CRITERIA
Women and Men should not have any other physical co-morbidities or prior Psychiatric co-Morbidities.

II. METHODOLOGY

100 Women and Men of which 58 Female with 34 having 1st degree burns without facial burns and 24 with 2nd degree burns with 6% facial burns.

Of the 42 male patients 36 having 1st degree burns without facial burns and 06 having 2nd degree burns with 4-6% facial burns were chosen for this study, after a written consent. A Semi structured proforma was used to collect the socio-demographic data.

Self Esteem levels was analysed using Self Esteem Inventory by Mackinnon [1985]

MINI Plus by Sheehan DV, Lecrubier Y [2012]was used to assess psychological co morbidity[13].

Establishing therapeutic rapport, diminishing anxiety, and assessing the psychosocial strengths and needs of the patient. Assurance of good care was done at the preliminary level.

These stages were identified as phases of Recovery[16]

- Admission,
- critical care,
- In-hospital recuperation, and,
- Reintegration.

After Admission procedure was done came the second phase,

III. CRITICAL CARE PHASE

Intensive medical and surgical care to resolve physiological crisis[1].

A multitude of organic factors stemming from both the injury and its treatment, as well as pre morbid condition, all contributed to psychological symptoms of disorientation, confusion, sleep disturbance and delirium[8].

IV. RELAXATION AND COMFORTING

Techniques of relaxation with focused imagery was done. Objects that are familiar and comforting was placed in the patient's view or so that the patient can touch them[11]. (toys, photos)

A schedule which approximates a regular wake/sleep cycle helped the patient begin to feel normal.

Visits from family and friends provided familiarity and reassurance to a patient.

IN-HOSPITAL RECUPERATION STAGE

Patients at this stage just begin to comprehend the extent of their injury and to realize that their bodies are changed forever[17].

Their anxieties now are increasingly about the future and less about the past and present.

Emotional lability was typically observed.

V. RESULTS

100 Female and Male Accidental Post burn Injury Survivors were identified
Age group was 18 to 40 years
SOCIO DEMOGRAPHIC RESULTS :Of the 58 female patients 49 were from rural areas and 9 were from Bangalore while, in the Male patient category of the 42, 32 were from rural areas and 10 were from Bangalore.
34 Women had completed education up to 10th standard 24 had completed 8th standard they were from a low to middle socio economic status , 42 of them belonged to Hindu religion and 16 were Muslims. While, 22 Men had completed 10th and they were Hindus 15 had completed 11th std and remaining 5 had finished 12 th std and belonged to Muslim religion.

MINI PLUS[13] results indicated that 34 women with 1st degree without facial burns had PTSD { Post Traumatic Disorder}, and mixed Anxiety Depression while, 20 women with 2nd degree burns and Facial burns had very high scores on Depression independently,3 had Mental Retardation and 1 had Seizure disorder. TABLE I

TABLE I

MINI PLUS RESULTS FOR WOMEN BURN INJURY PATIENTS

No	TYPE	RESULTS
34	1ST DEGREE WITHOUT FACIAL BURNS	PTSD, MIXED ANXIETY DEPRESSION
20	2ND DEGREE WITH FACIAL BURNS	SEVERE DEPRESSION
03	2ND DEGREE WITH FACIAL BURNS	MENTAL RETARDATION
01	2ND DEGREE WITH FACIAL BURNS	SEIZURE DISORDER

In 36 1st degree without facial burns Male category had PTSD and Anxiety while ,the remaining 06 patients with 2nd degree with facial burns had Depression, Anxiety and Alcohol Dependence Syndrome TABLE II.

TABLE II

INDICATES THE MINI PLUS RESULTS FOR MEN BURN INJURY PATIENTS

No	TYPE	RESULTS
36	**1ST DEGREE WITHOUT FACIAL BURNS**	**PTSD, ANXIETY**
06	**2ND DEGREE WITHOUT FACIAL BURNS**	**DEPRESSION ANXIETY AND ALCOHOL DEPENDENCE SYNDROME**

PRE THERAPY ASSESSMENT

Pre CBT intervention assessment for Self Esteem was done using Self Esteem inventory by Mackinnon.
Self Esteem Inventory has 12 statements rated on a 5 point scale , with 1 as strongly agree and 5 being strongly disagree. (min 12, max-60) lower the score higher the self esteem[5].

The scores for Females was 45-48 on a total score of 60, while the scores for Men was between 40-44 on a total of 60 indicating very low self esteem. They were counselled and an intensive Cognitive Behaviour Therapy was Initiated.

COGNITIVE BAHAVIOUR THERAPY

Behavioural approach based on learning principles, was used where improving self esteem was the target of intervention as they experienced their bodies as incompetent and disfigured.
Educating the community (fly and significant others) [11,12]in a developmentally sensitive fashion about the intellectual and emotional aspects of burn injury. Providing generic information about burn injuries and burn treatment,[2] and emphasize a survivor's abilities as well as clarify the ways in which a survivor may need assistance was done .
Indian Guru Shishya[15] concept of therapy using stories from the Ramayana Agni pariksha [10]of Sita by Sri Rama were told along with the stories of Burn Survivors who volunteered to narrate their incidences and how they over came it.[6]
A training program called "3-2-1-GO!" was initiated. James Partridge of *Changing Faces*, an NGO recommends a brief social skills training program called "3-2-1-GO!"[9]

- 3 things to do when someone stares at them,
- 2 things to say when someone asks them what happened (to cause the scars), and
- 1 thing to think if someone turns away from them.

This program proved very effective in boosting their morale since it added as Imagery and acting out phenomenon took place at this juncture.
The Therapy sessions lasted for three times a week each session lasted for 45 minutes for a period of 8 weeks. These techniques were used to lower Depression and enhance Self Esteem.

POST INTERVENTION ANALYSIS

The Post Intervention Self Esteem Scores was considerably significant with women have a score of 15-18 and Men having a score of 13-15 which indicate that their self esteem levels had increased Leaps and bounds. Clinically they denied having depression and other anxiety related symptoms.

PRE AND POST COGNITIVE BEHAVIOUR THERAPY INTERVENTION SELF SCORES FOR BOTH THE GROUPS WITH "t" ANALYSIS

TABLE III

INDICATES THE LEVEL OF SIGNIFICANCE OF PRE AND POST INTERVENTION FOR FEMALE SURVIVORS

PRE INTERVENTION	POST INTERVENTION	SIGNIFICANCE
45-48	15-18	0.001 level

TABLE IV

INDICATES THE LEVEL OF SIGNIFICANCE OF PRE AND POST INTERVENTION SELF ESTEEM SCORES FOR MALE SURVIVORS

PRE INTERVENTION	POST INTERVENTION	SIGNIFICANCE
40-44	13-15	0.001 level

POST INTERVENTION

After the behavioral therapy there was a significant improvement in the self esteem levels MINI PLUS scores indicated decrease in the levels of severity of Depression, anxiety and PTSD.
A regular follow up was advised under the department of Psychiatry.
A regular De addiction program for ADS {Alcohol Dependence Syndrome}patients was initiated.

VI. DISCUSSION

Higher the degree of accidental burns Higher the psychological morbidity and Lower the Self Esteem .

There has been differences among the Female and Male Burn survivors in the level of self esteem.

Cognitive Behaviour Therapy definitely helped them Increase their Self Esteem and lower their Psychological Co-Morbidities .

VII. REINTEGRATION

There was a major difference in the degree of burns among the two groups i.e., Female and Male. A 3 month follow up has shown good turn out and there has been regular follow up among this population with no deaths reported . NGO's have extended their helping in getting these survivors a job placement as well which is a very positive sign.
About 6 women and 2 men have been placed as computer operators.

VIII. CONCLUSION

This study enhanced the hypothesis that there is a strong relationship between the Degree of Burns psychological co morbidity and Self Esteem.

The female population showed symptoms of higher levels of Job oriented ness and male Population showed high Self esteem and high motivation to quit alcohol.
8 weeks of Cognitive Behaviour Therapy helped them to lower their comorbidities and improve their self esteem.[11]
A follow up of 3 months duration ensured they had been motivated to prove their might.
Despite the differences among the Female and Male categories, the Cognitive Behaviour Therapy was effective in lowering depression and other co morbidities and improving self Esteem suggested by a regular follow up among both the groups.

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Conflicts of Interest: None declared

LIMITATIONS

The sample was mainly from the population who were admitted to MBCC ward.

DISCLAIMER

There was no funding received for this study from any agency**.**

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