

Effect of Psychiatric Liaison Nurse Specialist Consultation On The Care Of Burns Patients

Zeinab Abd Elhamid Lotfy, Nevein Moustafa, Evon Saber Shokre

Department of Psychiatric Nursing – Faculty of Nursing, Ain Shams University – Egypt

ABSTRACT

Severe burn injury may affect the victim both physical and psychologically .Liaison psychiatry could be of major help to these patients .This study was a quasi- experimental one, aimed at developing a liaison psychiatric nursing intervention for psychosocial adjustment of patients with burns. This study was conducted at the outpatient clinic of burns at El-Demerdash Hospital. The study involved 50 patients, divided into two groups of 25 patients each. **Tools of the study involved** an interview questionnaire to assess socio demographic characteristics, description of the burn injury and the details of the incident, questions about care giving and whether the patient was caring for him/herself, coping with burns questionnaire (CBQ), these tools were used before and after implementation of the intervention program. The main result showed that, Multivariate analysis revealed that patient's baseline score of coping, age, and burn surface area were the statistically significant independent predictors of the post- intervention coping score, as for stress, it had statistically significant positive correlations with burn grade, surface area and hospital stay both pre-post intervention phases, at the post intervention phase there were statistically significant moderate to strong negative correlations between the total coping score and all of the domains stress. **This study recommended** that orientation programs should be carried out in order to increase role of liaison psychiatric nurse towards patients with burn. There is a need further research to assess the effect of liaison psychiatric nurse on the long –term psychosocial suffering of patients with burn.

Key words: Liaison psychiatric nurse; E-mail: evon.saber@yahoo.com

INTRODUCTION

Burns can be devastating injuries that result in death or lifelong scarring, disfigurement and dysfunction. Burn injuries are the third leading cause of accident death in the United States. Each year approximated 75,000 are hospitalized. Of these hospitalized, 20,000 have major burns involving at least 25% of their total body surface. Between 8,000 and 12,000 of the patients with burns die as a direct result of the injury. Half of those with burns will

have injuries severe enough to restrict daily activities in the home, school, and work (Linton and Maebius, 2007; Park et al., 2008).

The burn injury is considered one of the most serious and devastating injuries among people of all ages. It results in tissue loss or tissue damage which occurs when energy from heat was transferred to the tissues of the body as a result of direct contact or exposure to any thermal object. Burn severity depends on its depth and the

body surface affected. Thus, burns are classified according to the depth of tissue destruction and identified as superficial, partial thickness and full thickness injuries (*Edelman,2007*).

The patient with a major burn suffered one of the most severe forms of trauma. The burn injury is associated with anatomical, physical, and immunological alterations. These problems need to be identified and treated properly to prevent or minimize the extent of the damage. In recent years, advances in burn treatment have reduced morbidity, mortality and improved the quality of life (QOL) for burn survivors (*Hosseini et al.,2007*).

Burns are thus a main cause of disability and mortality throughout the world and have severe economic and social consequences. Patients who suffer from extensive burn injuries frequently die, while others suffer from painful physical recovery. They can suffer from somatic and psychological complications too. The prognosis of patients with burn is dependent, apart from adequate treatment, upon healthcare system and health care professionals, regarding not only survival, but also life-long(QOL)(*Olaitan and Olaitan,2005; Aghakhani et al.,2009*).

Burn injury results in significant physical and psychological complications that require comprehensive rehabilitation treatment and coordination with the acute care burn team. This interdisciplinary rehabilitation treatment is focused on preventing long-term problems with scarring, contractures, and other problems that limits physical functioning. Hence, adequate pain management and recognition of psychological issues are important

components of treatment after burn injuries(*Esselman,2007; Smeltzer and Bare,2004*).

Liaison psychiatry deals with the interface between physical and psychological health (*Geoffrey and Mayou,2003*). Consultation liaison psychiatry (CLP) was generally limited to the diagnostic, research, and therapeutic activities in the non-psychiatric departments of the general hospitals. It is synonymous to liaison psychiatry (*Bourgeoise et al.,2005*).

The liaison nurses in burns units, as well as psychiatric nurses, have important roles in dealing with patients with burn, not only during the acute event, but also after wards. Many of the psychological and social problems of burns develop weeks or months after the incident. The patient should be prepared in dealing with these problems even before they develop. This could be only achieved through coping. The nurse should help patients with burn in utilizing coping, and should teach and train them on various patterns and strategies of coping, especially the more positive ones(*De jonge et al.,2000*).

Furthermore, liaison psychiatric nurses have important roles in facilitating the presence and involvement of family and friends in the recovery and rehabilitation of burn survivor. They should view patient education as the most effective means of returning control to the patient by reducing the feelings of hopelessness and enhancing the ability to return normal activity (*Moiet et al.,2008*).

One of the liaison nurses' responsibilities is to support the patient and family

members to be instructed in ways that they can support the patient as adaptation to burn trauma occurs. Referrals for social services or psychological counseling should be made as appropriate. Both the patient and the family need through information about both patients burn care and expected course of treatment. However, it is important to assess the ability of the patient and family to grasp and cope with the information (Sheridan,2003).

Significance of the study

In Egypt, injuries are a significant source of morbidity and mortality. They are the fifth leading cause of death and the leading cause of hospitalization, and account for at least a quarter of all out-patient visits (El-Megeed *et al.*, 2000). As for burn injuries , the statistics from the burn unit at Eldemrdash Hospital indicated that in the year 2010 , the number of cases who had burn injuries accounted for 550 cases from total admission (**Hospital Records in Eldemrdash Hospital ,2012**).Patients with burn injuries suffer serious problems that alter the bio psychosocial conditions . Consequently, liaison psychiatric nurses face a challenge in implementing strategies for relevant effective care of these patients . This study will provide burn patients with knowledge and skills , which are of great importance in implementing their intervention and ultimately assist patients with burn to improve their psychosocial adjustment .

Aim of the work

This study aims at developing a liaison psychiatric nursing intervention for psychosocial adjustment of patients with burns through: Assessing the psychosocial problems and identified needs of patients with burns,

Accordingly, developing a Liaison psychiatric nursing intervention for psychosocial adjustment of patients with burns, Implementing the structured Liaison psychiatric nursing intervention for meeting the identified needs of patients with burns, And evaluating the effect of the liaison psychiatric nursing intervention for psychosocial adjustment of patients with burns.

Hypothesis:

It is hypothesized that the liaison psychiatric nursing intervention will have a positive effect for psychosocial adjustment of patients with burns through psychological intervention empowering them by adaptation skills against psychological problems.

Subjects And Methods

A-Research design:

A quasi -experimental research design with pre –post assessment was utilized in the study.

B-Research setting

This study will be conducted at out-patient clinic of burns hospitals at El-Demerdash Hospital at Ain Shams University, The researcher met with each group twice per week on Sundays, Monday, Tuesday, Thursday from 8.30 am to 12.00 pm

C- Subjects:

***Sample type:**

Purposive Sample will be obtained from patients who are ranged 18-45 years after 3-6 months of discharge from the hospital, discharged from hospital meet inclusion criteria during their follow-up visits to the previously mentioned setting.

Sample Size:

Sample will include 50 patients who will meet the inclusion criteria that was discharged 3-6 months from the hospital.

Inclusion criteria:

- Burned patients who are aged from 18 -45 years.
- Discharged from the hospital three to six months before the time of the study.
- Sex: both sexes (male & female).
- Willing to participate in the intervention program

Exclusion criteria:

- Free from any previously diagnosed psychiatric disorders.

• Tools of data collection:

Data were collected using two different tools, namely an interview questionnaire form, and the coping with Burns Questionnaire (CBQ).

- **Interviewing questionnaire sheet** (Appendix): the designed this tool after reviewing relevant literatures. It consists of following parts:

- **Part I:** Socio-demographic characteristics of the patients such as age, sex, education, marital status, and occupation, income, residence, as well as details of the crowding index.
- **Part II:** This part was for the description of the burn injury and details of the incident, such as cause of the burn, its circumstances, location (visible and invisible sites), grade, accompanying trauma, infection, as well as the consequences of the burn as disfigurement or disability. It also asked the patient about the history of chronic diseases and their types.

- **Part III:** This part was consecrated to questions about caregiving and whether the patient was caring for him/herself. It also asked about the sources of financing the treatment and health care fees

- **Coping with Burns Questionnaire (CBQ).** (Appendix): This scale was designed to measure coping after discharge from hospital over 3-6 months. It is based on the theory of coping as a process (Folkman *et al.*, 1997). It has been validated, and its reliability proved to be high (Willebrand *et al.*, 2002). It consists of 33 questions about the strategies used by patient with burn in common life situations. The questions are grouped into six subscales that represent the following coping pattern: emotional support seeking, optimism /problem solving, avoidance or withdrawal, re-evaluation/ Adjustment, self control and instrumental action or positive action.

Scoring system:

Each question has five possible responses ranging from "not at all" to "always". For each coping pattern, the scores of the items were summed –up and the total divided by the number of the items, giving a mean score for the pattern. These scores were converted into a percent score. The patient's coping was considered high, i.e., using the pattern always or often if the percent score was 60% or more and "low" meaning sometimes /never if less than 60%.

Teaching program (study intervention)

The study intervention consisted of a Liaison Psychiatric nursing program for psychosocial adjustment of patients with burns. This was developed by the researcher to help the burned patients in meeting their psychosocial needs accordingly they can adjust psychosocial patterns. This was to be achieved through teaching the patients how to identify, plan and participate in positive attitude to cope and deal

with life after burn. The intervention program was designed based of reviewing past and current related literature (*Willebrand et al, 2002*) and in the light of the patients needs as identified in the pre-intervention assessment phase. It was planned to cover the gaps of knowledge and practice for burn patients aiming to improve their health status. The content of program covered the following areas: burn definition, causes, types, complications, proper diet, relaxation techniques, exercise, stress management, anger management, patterns of adjustments, communication skills, problem-solving techniques, and coping strategies.

1- Preparatory and designed phase:

This phase aims at planning for the objectives, preparing the activities, and designing the methodology and media such as booklet in Arabic language.

2- Implementing phase:

This phase was begun by data collection, then implementation of the intervention program among 50 patients with burn who have met the inclusion criteria. The study subjects were divided into two groups of 25 patients each. The researcher introduced herself to patients, explained to them the aim and procedures of the study and invited them to participate. At the beginning of every session, a brief revision of the objectives and content of the previous sessions was done. Then the objective of the new session was presented. At the end of every session, the content was summarized to correct any misunderstanding.

3- Evaluation phase:

Upon completion of the intervention program, the posttest was done the sample pretest tools.

Operational design

Pilot study

A pilot study was conducted on ten patients with burn from the outpatient clinic of El-Demerdash hospital at Ain Shams University. The aim was to ensure the clarity of the questions, applicability of the tools and the time needed to fill them out. Modifications were done according to the analysis of the pilot data. The subjects who shared in the pilot study were not included the main sample.

Administrative design:

Before conduction of study, an official letter was sent from the Dean of the faculty of Nursing, Ain Shams University to the Director of Eldemerdash hospital, Ain Shams University to obtain approval. The researcher then met with the director, explained the purpose of the study, and obtained from him a written permission letter to the Head of the Department.

RESULTS OF THE STUDY:

Table 1 shows that the study sample consisted of 49 burn patients mostly males (61.2%) in the age range between 18 and 45 years. The highest percentage had preparatory /secondary education (62.2%), with 28.6% having university degrees. Slightly less than one-third (30.6%) were not working. More than half of them were married (53.1%), were having sufficient income (55.1%), and were living in a crowding index of 2 or more (55.1%).

Table 2 describes the burns characteristics and demonstrates that the duration of these burns ranges between 2 and 12 months, with median 5. The main causes were flames (36.7%) and hot fluids (30.6%).

Slightly more than half were second degree burns (53.1%), with a surface area of 30% or more (59.2%).

Table 3 shows that patients had generally low levels of use of coping strategies before the intervention. This was evident in almost all types of coping strategy. The only exception was that of avoidance, which was used by more than three- fourth of them (77.6%). At the post-intervention phase, all types of coping strategies demonstrated statistically significant increases except for those of avoidance and self-control.

Table 4 As regards stress, Table 4 indicates that the highest type of stress experienced by patients at the pre-intervention phase was related to friends /peers issues (49%) and avoidance issues (49%). On the other hand, the lowest type was that related to physical /somatic changes (28.6%). After implementation of the intervention, all types of stress demonstrated statistically significant decreases, with none of the patients having stress related to family issues, and few ones having other types of stress.

Table 5 Concerning the relation between coping and stress, no statistically significant association either at the pre or at the post-intervention phases.

Table 6 demonstrates at the pre-intervention phase positive weak to moderate statistically significant correlations between the score of self – control coping strategy and the scores of assessment, avoidance, and emotional support. Also, the strategy of positive action had positive moderate statistically significant correlations with emotional support and optimism strategies. At the post – intervention phase, stronger statistically significant correlations

with emotional support and optimism strategies. At the post-intervention phase, stronger statistically significant positive correlations were revealed between the assessment and positive action strategies and most of the other coping strategies.

Concerning the correlation between coping and stress, the same table indicates a statistically weak negative correlation with optimism at the pre-intervention phase. At the post-intervention phase, stress had weak to strong statistically significant negative correlations with all types of coping strategies except avoidance.

Table 7 reveals the presence of statistically significant moderate to strong correlations among the scores of various domains of stress both at the pre- and post-intervention phases. It also demonstrates a lack of any statistically significant correlations between coping score and various domains of stress at the pre-intervention phase. Conversely, at the post-intervention phase there were statistically significant moderate to strong negative correlations between the total coping score and all of the domains of stress.

Table 8 The multivariate analysis for the stress score identified patients baseline score of stress as the only statistically significant independent negative predictors, while the burn surface area was a positive predictor of this score. The model explains 36% of the variation in stress score.

Table (1): Socio-demographic characteristics of burn patients in the study sample (n=49)

	Frequency	Percent
Age: <30	15	30.6
30+	34	69.4
Range	18.0-60.0	
Mean ± SD	35.3±10.4	
Median	35.00	
Gender: Male	30	61.2
Female	19	38.8
Education:		
Illiterate	1	2.0
Read/write	2	4.1
Primary	2	4.1
Preparatory	12	24.5
Secondary	18	36.7
University	14	28.6
Education:		
Below preparatory	5	10.2
Preparatory/secondary	30	61.2
University	14	28.6
Job:		
Employee	18	36.7
Worker	16	32.7
Unemployed/housewife	15	30.6
Marital status: Single	17	34.7
Married	26	53.1
Divorced	4	8.2
Widow	2	4.1
Current marital status: Unmarried	23	46.9
Married	26	53.1
Income:		
Insufficient	22	44.9
Just sufficient	25	51.0
Saving	2	4.1
Income:		
Insufficient	22	44.9
Sufficient	27	55.1
Residence: Urban	34	69.4
Rural	15	30.6
Crowding index: <2	22	44.9
2+	27	55.1

Table (2): Characteristics of the burns among patients in the study sample (n=49)

	Frequency	Percent
Duration of burn injury (months): <6	28	57.1
6+	51	42.9
Range	2.0-12.0	
Mean±SD	5.6±2.9	
Median	5.00	
Cause:		
Flame	18	36.7
Hot fluids	15	30.6
Electrocution	10	20.4
Chemical/radiation	6	12.2
Incident: Suicide	3	6.1
Homicide	3	6.1
Accident	43	87.8
Grade: First	6	12.2
Second	26	53.1
Third	17	34.7
Surface area (%): <30	20	40.8
30+	29	59.2
Range	10.0-65.0	
Mean±SD	31.1±12.1	
Median	30.00	

Table 3: Pre-post changes in caregivers' coping strategies

Coping strategies	Time				X ² test	p-value
	Pre		Post			
	No.	%	No.	%		
Assessment/evaluation	13	26.5	42	76.4	34.85	<0.001*
Avoidance	38	77.6	44	89.8	2.69	0.10
Emotional support	15	30.6	34	69.4	14.73	<0.001*
Optimism/problem-solving	7	14.3	42	85.7	50.00	<0.001*
Self-control	24	49.0	25	51.0	0.04	0.84
Positive action	11	22.4	45	91.8	48.17	<0.001*
Total coping:						
High (1.8+)	10	20.4	42	85.7		
Low (<1.8)	39	79.6	7	14.3	41.95	<0.001*

(*) Statistically significant at $p < 0.05$

Effect Of Psychiatric Liaison Nurse Specialist Consultation on The Care Of Burns Patients

Table (4): Pre-post changes in caregivers' stress.

Stressors	Time				X ² test	p-value
	Pre		Post			
	No.	%	No.	%		
Psychological changes	20	40.8	1	2.0	21.88	<0.001*
Social changes	19	38.8	2	4.1	17.52	<0.001*
Physical/somatic changes	14	28.6	2	4.1	10.76	0.001*
Family issues	17	34.7	0	0.0	20.57	<0.001*
Friends/peers issues	24	49.0	1	2.0	28.41	<0.001*
Psychological consequences	15	30.6	1	2.0	14.64	<0.001*
Avoidance issues	24	49.0	4	8.2	20.00	<0.001*
Body image changes	20	40.8	3	6.1	16.42	<0.001*
Total stress:						
High (2.4+)	17	34.7	1	2.0		
Low (<2.4)	32	65.3	48	98.0	17.42	<0.001*

(*) Statistically significant at $p < 0.05$

Table (5): Relation between caregivers' coping and stress before and after the intervention.

	Coping				X ² test	p-value
	High		Low			
	No.	%	No.	%		
Pre:						
Total stress:						
High (2.4+)	4	23.5	13	76.5		
Low (<2.4)	6	18.8	26	81.3	Fisher	0.72
Post:						
Total stress:						
High (2.4+)	1	100.0	0	0.0		
Low (<2.4)	41	85.4	7	14.6	Fisher	1.00

Table (6): Correlation matrix of burn patients' scores of coping strategies and with their total stress score throughout intervention

Coping strategies	Stress score	Spearman's rank correlation coefficient					
		Coping strategies					
		1	2	3	4	5	6
Pre:							
1.Assessment/evaluation	-0.15						
2.Avoidance	0.04	0.20					
3.Emotional support	0.19	-0.04	0.24				
4.Optimism/problem-solving	-.315*	-0.11	0.20	0.17			
5.Self-control	-0.10	.299*	.486**	.352*	-0.05		
6.Positive action	-0.04	-0.25	0.27	.512**	.556**	-0.11	
Post:							
1.Assessment/evaluation	-.636**						
2.Avoidance	-0.21	0.22					
3.Emotional support	-.335*	.418**	0.22				
4.Optimism/problem-solving	-.574**	.736**	0.09	0.23			
5.Self-control	-.358*	0.27	0.15	-0.03	.390**		
6.Positive action	-.707**	.761**	0.18	0.27	.772**	.374**	

(*) Statistically significant at $p < 0.05$ (**) Statistically significant at $p < 0.01$

Table (7): Correlation matrix of burn patients' scores of types of stress and with their total coping score throughout intervention

Stress Domains	Spearman's rank correlation coefficient								
	Coping score	Stress domains							
		1	2	3	4	5	6	7	8
Pre:									
1.Psychological changes	0.05								
2.Social changes	-0.10	.789**							
3.Physical/somatic changes	-0.02	.613**	.765**						
4.Family issues	-0.10	.601**	.716**	.717**					
5.Friends/peers issues	-0.13	.563**	.663**	.663**	.875**				
6.Psychological consequences	0.01	.674**	.729**	.714**	.857**	.806**			
7.Avoidance issues	0.01	.573**	.623**	.688**	.830**	.822**	.888**		
8.Body image changes	0.03	.522**	.666**	.684**	.772**	.722**	.795**	.709**	
Post:									
1.Psychological changes	-.734**								
2.Social changes	-.720**	.832**							
3.Physical/somatic changes	-.608**	.727**	.692**						
4.Family issues	-.631**	.834**	.827**	.706**					
5.Friends/peers issues	-.505**	.602**	.573**	.568**	.680**				
6.Psychological consequences	-.440**	.676**	.564**	.598**	.749**	.674**			
7.Avoidance issues	-.741**	.757**	.679**	.639**	.609**	.465**	.530**		
8.Body image changes	-.579**	.787**	.739**	.683**	.795**	.588**	.667**	.549**	

(**) Statistically significant at $p < 0.01$

Table (8): Best fitting multiple linear regression model for the improvement in coping score after the intervention.

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	-1.52	0.36		-4.23	<0.001	-2.24	-0.79
Age	0.01	0.00	0.32	3.11	0.003	0.00	0.02
Married	-0.22	0.08	-0.28	-2.66	0.011	-0.38	-0.05
Pretest coping score	0.78	0.14	0.64	5.82	<0.001	0.51	1.06
Burn surface area	0.01	0.01	0.43	2.82	0.007	0.00	0.02
Associated problems	-0.27	0.11	-0.34	-2.43	0.019	-0.49	-0.05
Permanent disability	-0.52	0.16	-0.37	-3.20	0.003	-0.85	-0.19

r-square=0.59; Model ANOVA: F=12.39, p<0.001

Variables entered and excluded: sex, education, burn grade, duration, stress score

DISCUSSION:

The present study found that there was a male preponderance in the sample of patients. This sex distribution of burn cases is similar to those reported in industrialized countries, where males generally have a significantly higher risk (Meyer et al, 2004). Nonetheless, this study findings is in disagreement with the study of Khajuria et al. (2009) where a predominance of female victims was reported. Similarly, in India, Ahuja and Bhattacharya (2004) found that females represented 61% of burn cases in all age groups, except in the extremes of age. According to the present study, the majority of burn injuries were due to accidents, with only few cases of suicide or homicide. This might be attributed to the lack of safety and fire measures in most of the houses in our community. (Olaitan and Olaitan, 2005).

Concerning the cause of the burn injury, fire or flame was the cause underlying approximately two –fifth the cases of the present study. This result might be attributed to

the use of flammable liquids and gas stoves, which are the most common source of flame burns. The finding is consistent with the results of the study of Hemedat et al. (2003) in Egypt.

The ultimate goal of the present study was to improve the coping skills of patients suffering from burn injuries. The study findings revealed generally low levels of coping among these patients at the pre-intervention phase. This was evident in almost all types of coping strategy. Only the negative coping strategy of avoidance was used by most of them. In agreement with this, it has been reported that many patients afflicted by burn injury use avoidant coping strategies (Sundin and Horowitz, 2002; Wu et al., 2009).

Moreover, Willebrand et al. (2002) showed that avoidant coping has a strong relationship with all aspects of poorer perceived health and psychosocial problems. On the same line, an avoidant coping strategy was related to bad outcomes (Schnyder et al., Rajpura,

2002; Schoutrop et al., 2002), while emotional support was the most beneficial strategy (Kildala et al., 2005).

The present study has also assessed the psychosocial stress experienced by the patients with burn. The results revealed moderate levels of stress at the pre-intervention phase. The highest type of stress was related to friends /peers and to avoidance issues, whereas the lowest type was that related of physical /somatic changes. The findings reflect the higher suffering from the social consequences of the burn injury, much more than the somatic effects. This is why such patients are in real need for social support besides the medical treatment of their strategies (Sundin and Horowitz, 2002; Wu et al., 2009).

Moreover, Willebrand et al. (2002) showed that avoidant coping has a strong relationship with all aspects of poorer perceived health and psychosocial problems. On the same line, an avoidant coping strategy was related to bad outcomes (Schnyder et al., Rajpura, 2002 ; Schoutrop et al., 2002), while emotional support was the most beneficial strategy (Kildala et al., 2005).

Moreover, those using avoidance have been shown to have maladaptive premorbid personality traits that add to their emotional distress due to burn (Willebrand et al., 2002).

As for the burn injury characteristics and their effect on the improvement of coping, the present study multivariate analysis demonstrated that the larger the burn surface area the higher was the improvement in the coping score. On the contrary, those patients who suffered from associated problems and permanent disability had less improvement of

their coping. This might be explained by a higher need for an adaptive mechanism among those having large injuries, hoping for cure. However, once they have additional problems like ulcers or infection or a permanent disability, they may turn into hopelessness. This might negatively impact their coping abilities. In line with this, Willebrand et al. (2002) and Bras et al. (2007) found differences between patients with large and smaller burns.

Lastly, although the present study may have suffered the limitation of volunteer bias, this might not affect its external validity and possibility of generalization of its results. In fact, according to the Australian Centre for Posttraumatic Mental Health (2011) not all trauma victims want or need professional assistance. Those who refuse help may not be in denial, but may see themselves as more resilient or able to rely on the support of family and friends. Therefore, nurses should support patients who want to talk about their experience, but not push those who prefer not to (Scott et al., 2010).

CONCLUSION

Burn injuries have a negative impact on patients in the form of psychosocial suffering and stress, and these patients have generally low levels of use of coping strategies. The implementation of the psychiatric nursing intervention showed success in effecting psychosocial adjustment among these patients. The use of coping increased after the intervention, with subsequent decrease in patients' stress, and these were negatively correlated. The improvement in coping is positively influenced by patient's baseline score of coping, age, and burn surface area and

negatively by being married, having associated problems or permanent disability. Meanwhile, the improvement in stress is negatively influenced by the baseline score of stress and positively by the burn surface area. Therefore, the findings support the set research hypothesis.

RECOMMENDATIONS

In the light of the study findings, the following recommendations are proposed.

-Multidisciplinary approach is crucial in burn management. Collaborative and coordinated efforts should be directed towards bringing together physician, psychologist, liaison psychiatric nurse, clinical nurse specialist, social worker, psychiatrist, and the patient for understanding and implementing up to date knowledge for burn management.

- Orientation programs should be carried out in order to increase role of liaison psychiatric nurse towards patients with burn.

- Patients with burn need to be trained in coping, particularly the positive patterns of coping, as coping is associated with less psychosocial suffering.

-The liaison psychiatry nurse should have an active role in helping patients with burn and alleviating their psychosocial suffering through proper education and counseling, with emphasis on the use of positive coping patterns.

- Training programs in communication and counseling and in coping strategies are urgently needed for liaison psychiatric nurses and those working in burn units to acquire the needed

skills for providing better care for patients with burn.

- Implementation of burn rehabilitation program for patients with burn injury is necessary through the collaboration of various rehabilitation team members.

REFERENCE

AghakhaniN.,RahbarN., and Feizi A. (2009): Epidemiology of Burn Injuries in West Azerbaijan Province, Western Iran.

IRCMJ.IranianRedCrescentMedicalJournal;11(1):85-89.

Ahuja R.B., and Bhattacharya S. (2004): Burns in the developing world and burn disasters. BMJ; 329: 447-49.

Australian Centre for Posttraumatic Mental Health .(2011): Australian guidelines for the treatment of adults with acute stress disorder and posttraumatic stress disorder. <http://www.acpmh.Unimelb.edu.au/resources/resources-guide-lines.html> . Accessed June 30,2011.

Braš M., Lončar Z., BrajkovićL., Gregurek R., and Mičković V. (2007): Coping with Severe Burns in the Early Stage after Burn Injury. Coll. Antropol.;31(1):159–163.

Bourgeois J.A., Wegelin J.A., Servis M.E., and Hales R.E. (2005):Psychiatric diagnoses of901 in patients seen by consultation-liaison psychiatrists at an academic medical center in a managed care environment. Psychosomatics; 46(1):47-57.

de JongeP., Huyse F. J., Ruinemans G. M.,

- Stiefel F. C., Lyons J.S., and Slaets J.P.(2000): Timing of psychiatric consultations: the impact of social vulnerability and level of psychiatric dysfunction. *Psychosomatics*; 41(6):505
- Edelman,(2007): Aims and objectives. The purpose of this retrospective study was to explore and investigate the factors that may be responsible for children.:85(7):927-31.
- El-Megeed H.S.A, EL-Dins M.A., Kotb S. A., EL-Oteify M.A. (2000): A study of burns among workers in Assuit cement factory Egypt, 1998. *Annals of burns and fire disasters*; x11(1).
- Esselman P. C. (2007): Burn Rehabilitation: An Overview—Archives Of Physical [www.archives-pmr.org/article/S0003-9993\(07\)01607-3/abstract](http://www.archives-pmr.org/article/S0003-9993(07)01607-3/abstract)byCitedby49-Relatedarticles88Issue12(Supplement2): S3–S6.
- Folkman S., Lazarus., Dunkel – Schetter C., DeLongis A., and Gruen R.J. (1997): Dynamic of a stressful encounter ; Cognitive appraisal, Coping and encounter outcomes. *Journal of personality and social psychological* ; 50: 992-1003.
- Geoffrey G., and Mayou R.A. (2003): Liaison psychiatry or Psychological medicine? *British Journal of Psychiatry*;183:5- 7.
- Hemeda M., Maher A., and Maboruk A. (2003): Epidemiology of burns admitted to AIN Shams University burns unit, Cairo, Egypt. *Burns* ; 22: 177-81.
- Hospital Records in Eldemerdash Hospital (2012): Appendix B to hospital resources document : guidelines for service standards and severity classifications in the treatment of burn injury .
- Hosseini et al., (2007): The aim of this study was to determine the effect of honey on healing of burn. *Burns*:25(6):499-504.
- Khajuria B., Sharma R., and Verma A. (2009): The Mortality Profile of Burn Cases in Jammu. *Journal of Clinical and Diagnostic Research* ;(3): 1608-1610.
- Kildala M., Willebrand M., Andersson G., Gerdin B., and Ekselius L. (2005): Coping strategies are more dependent on life situation and personality traits. *Injury* ;36(Issue 4):511-518.
- Linton and Maebius, (2007): Activities in the home, school, and workplace Burn severity depends on its depth and the body. *The Journal of American Science* burn;740-746. www.jofamericanscience.org/journals/.../047_6310a_m0708_427_434.p.
- Meyer W.J., Blakeney P., Russell W., Thomas C., Robert R., Berniger F., and Holzer C.(2004): Psychological problems reported by young adults who were burned as children. *J Burn Care Rehabil* ; 25: 98-106.
- Moi et al.(2008): Burn injuries are devastating traumatic experiences which place a large. In a qualitative study discuss the findings of their 20 open, in depth;5(2)117-129.
- Olaitan P.B., and Olaitan J. O(2005): Burns and Scalds-epidemiology and prevention in a developing country. *Niger J Med* ; 14: 9-16.

Schnyder., Moergeli H., Klaghofer R., and Rajpura H.(2002): Incidence and prediction of posttraumatic stress disorder symptoms in severely injured accident victims . Am J Psychiatry ;158:594-9.

Schoutrop M. J., Lange A., Hanewald G., Davidovich U., and Salomon H.(2002): Structured writing and processing major stressful events: controlled trial. Psychotherapy Psychoses; 71:151-7.

Scott J.M., Nipper N., and Smith R.(2010):Clinical inquiries :what is the most effective way to relieve symptoms of acute stress disorder ? J Fam Pract ; 59(8) :463-464.

Sheridan R. (2003): The evolution of burn centers and burn care systems:ProblemsinGeneralsurgery.Criticalcaremedicine;20(1):1-6.

Smeltzer and Bare's (2004): This adaptation of Tenth Edition of Textbook. Lippincott Williams &WilkinsPty,Limited,pp.528-534.

Sundin E.C., and Horowitz, M.J.(2002): Impact of Event Scale: psychometric properties.Br J Psychiatry. 2002 Mar;180: 205-9.

Willebrand M., Kildal M., Andersson G., and Ekselius L. (2002): Long –term assessment of personality after burn trauma in adults. J Nerv Ment Dis; 190: 53-56.

Wu J., Zhai J., and LiuG X.(2009):Coping strategies of eight patients with significant burn injury. J Burn Care Res.;30(5):889-93.