

***Social Support and Life Satisfaction of Burns Survivors: Relationship with Demographics***

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The Asian Conference on Psychology & the Behavioral Sciences 2019  
Official Conference Proceedings

**Abstract**

Burn survivors are facing many challenges which are affecting their life satisfaction. Even at discharge from hospital, majority of burn survivors reported extra misery and lesser satisfaction with life than the normative samples (Patterson, Ptacek, Cromes, Fauerbach, & Engrav, 2000). Present study was conducted to study the social support and life satisfaction, with specific role of demographic among burn survivors. 60 participants (26 males, 34 females) with an age range of 15-70 years were taken from the Rawalpindi and Islamabad (Pakistan) burn centers. Life satisfaction was assessed with Satisfaction with Life Scale (SWLS) (Mussaffa, Ghani & Khan, 2014) and social support was assessed with Multi-dimensional Scale for Perceived Social Support (MSPSS) (Akhtar et. al, 2010). It was hypothesized that there is a significant positive relationship between life satisfaction and social support among burn survivors. Results revealed that there is a significant positive relationship between the life satisfaction and multidimensional scale of perceived social support (including significant others, family support and friends support). There are no significant differences on life satisfaction and social support among male and female burn survivors. The level of life satisfaction is significantly high among those females burn survivors who got burn with the thermal whereas dissatisfaction is high among chemical burn survivors, whereas the level of life satisfaction is not significantly different among males burn survivors having different types of burns. The present study results help in providing an awareness to the doctors and caregivers of burn survivors about the importance of social support in increasing life satisfaction among burn survivors.

Keywords: Social Support, Life Satisfaction, Burns Survivors, Demographics

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Burn is explained as an injury to the body part which is caused by heat, skin contact with chemical, mechanical, thermal, electrical, and radiation (World Health Organization, 2018). The term “burn” encompass not only the physical injury but also the psychological pain or misery and feelings associated with burning event. Burn may causes puffiness, blistering, shock and even death can occur. According to American burns Association (2010), the most common burn injury types includes; chemical, mechanical, thermal, electrical, and radiation. Conferring the World Health Organization, (2015) disability adjusted life years the annual loss due to burn is almost 18 million, other than 7.1 million injuries and more than 250,000 deaths worldwide (Cited in Megan, Jesse, Courtney, Shashank, Pavan, Kamna, Lucas, & Gabrielle, 2017).

Burn is a major concern for many underdeveloped countries. Like others, Pakistan is also one of those countries where incidences of burn injuries are quite frequent. Karachi is the largest and densely populated city of Pakistan, burn is the major cause of death. At least 8 to 10 burn patients are brought to burns ward of the civil hospitals every day. Among those patients majority are 3<sup>rd</sup> degree high body surface burns. Most common causes of burn injuries are related to the wide use of natural gas and liquefied petroleum gas (LPG) for cooking, space heating, water heating, electricity and the use of chemicals in homes. It is also due to lack of awareness and ill-defined preventive measures (Ibran, Rao, Ali, & Saleem, 2012). In Pakistan, events of stove burns, household brutality and unplanned burns are at a steady increase (Nasrullah, & Muazzam, 2010). Domestic problems are mostly the main cause of burn injuries in Pakistan. Like increasing frequency of accidental burns in Rawalpindi are related to misuse of charcoal fuel oven, lack of knowledge about save process techniques, lack of education, and low socioeconomic status (Farooq, 2011). Highlighting the issue of intentional burns, the Progressive Women’s Association has documented 7,800 cases of women who were deliberately burnt, scalded or subjected to acid attacks in the Islamabad area (PAV, 2016). Many studies have reported a very high incidence of mental morbidity in these victims and also identified the risk factors in their genes but most of these studies were from the developed world (Wiechman, Ptacek, Patterson, et al., 2001).

At discharge from hospital settings and following six months, majority of burn survivors reported extra misery and lesser satisfaction with life than the normative samples. (Patterson, Ptacek, Cromes, Fauerbach, & Engrav, 2000). A wide range of incidence such as depression, sleeping disorders, low quality of life, sexual dysfunction, anxiety, substance abuse, post-traumatic stress disorder (PTSD) and agoraphobia have been reported in these patients (Davydow, Katon, & Zatzick, 2009; Loey & Son, 2003). These incidents, not only scar the physical appearance of an individual but also impact one’s mental well-being, self-esteem, and social support (Wiechman, Ptacek, Patterson, et al., 2001). Burn injury is a serious and life-altering event that can cause significant physical pain and varying degrees of psychological distress. Difficulties resulting from a burn injury can includes: financial strain, relationship problems, inability to care for children, loss of physical functions, emotional dysfunction, disfigurement and body image concerns (Esselman, Thombs, Magyar-Russell & Fauerbach, 2006; Sproul, Malloy, & Abriam-Yag, 2009). Individuals may lose significant part of their bodies, like loss of limb(s), immobility and recurrent infections. Due to burn, skin lose immunity and in case of 3<sup>rd</sup> degree burn muscle or tissue damage may occur (Johns & Hopkins, 2016).

During this tough time social support is both directly and indirectly related to post-burn adjustment and moderates the progress of rehabilitation independently of the severity of the burn. Social support is often directly related to life satisfaction and overall quality of life for this population (Li, 2005). Social support (SS) is defined as the acceptance, heed, and support of the significant others, family, and the world (Noronha, Faust, 2007; Williams, Reeves, Cox, & Call, 2004). Perceived social support (PSS) is the insight about the hidden accessibility of the support in time of need (Brüggeman, Garlipp, Haltenhof & Seidler, 2007). On physical and/or emotional sufferings, an individual seek help from his associates and resultantly feels relieved. Being burn is a stressful event which needs social support and effective/adaptive coping skills to manage its devastating effects.

Burn wounds are a serious cause of stress and can significantly affect wellbeing and life satisfaction of these survivors. Multiple factors play an important role in the life satisfaction of the said population like age, gender, family structure and employment etc. Different researches reported individuals with burn injuries returned to work up to a year post injury reported physical limitations, psychological factors and employment conditions as significant barriers (Esselman, Askay, Carrougher, Lezotte, Holavanahalli, Russell, Fauerbach, & Engrav, 2007) and their perception is also affected (Dowda, & Li, 2014). Similarly, Pallua, Kunsebeck, and Noah (2003) ascertained that early retirement of burn survivors, who did not return to work was influenced by functional limitations, extent of body surface burned, and the age of individual. Dyster-Aas, Kildal, and Willebrand (2007) also affirmed that 69% of their participants after a burn injury reported low quality of life and not returning to work. Majority of participants with disabilities or chronic illnesses identified as “satisfied without work”. In this case, although participants scored high on measures of life satisfaction if unemployed, a result that was significantly different from the general population in which unemployment tends to positively correlate with low level of life satisfaction (Van Campen & Cardol, 2009). According to Waqas, Naveed, Bhuiyan, Usman, Inam-ul-Haq, and Cheema (2016) these survivors perceived low social support which consequently contribute negatively in their life satisfaction. Sveen, Ekselius, Gerdin, & Willebrand, (2011) described social support as a factor in resilience post-burn injury, but only in terms of the presence versus absence of others to provide support. Paralyzed individuals meet obvious common hurdles, like prejudice in dealing, shame, gazing, unwanted inquiring regarding looks, and even in terms of taunting behavior (Thompson & Kent, 2001). Thus, lack of social support has been linked with different disorders like anxiety and PTSD (Mehnert, Lehmann, Graefen, Huland, & Koch, 2010) depression (Waqas, Raza, Lodhi, Muhammad, Jamal, Rehman, 2015) and general well-being (Chu, Saucier, & Hafner 2010).

Social support increases life satisfaction and acts as a buffer against undesirable life events. Researches revealed that social support is differently perceived among people with reference to gender and marital status (Zanini, Moura, & Queiroz, 2009). Burn survivor men and women affect differently for example female experience problems related to their physical appearance more than males (Meyer et al., 2004). Likewise it was found that females receive more support from friends than their male counterparts; females are more sentimental than males as they share feelings to the friends more freely/openly to get emotional support. On the other hand sharing of feelings is considered to be a sign of weakness among the males thus, they seek less support (Cumsille & Epstein, 1994). Agbenorku (2013) scrutinized the contributory

social factors affecting the wellbeing of burn survivors are; nurturing family environment, negative societal interactions, caretaker's time and financial constraints. Likewise, female gender, increasing age, burn injuries following suicide attempts and greater surface area involvement predict poor outcome (Ali, Hamiz-ul-Fawwad, Al-Ibran, Ahmed, Saleem, Mustafa & Hussain, 2016). Shahid, Ismail, and Khan (2018) also reported low life satisfaction among post burn survivors and the contributory factors encompassed; female gender, young age, low socio-economic status along with clinical parameters related burns. Employment may also contribute to life satisfaction through its correlation with income level, and ranked/position (Boyce, Brown, & Moore, 2010). Although it is generally accepted that employment helps individuals with disabilities to live more satisfactory lives (Wu, 2008).

## **Method**

### **Objectives**

The main objective of the present study was to explore the social support and life satisfaction among burn survivors. Additionally it also explored the relationship of demographics with study variables.

### ***Hypotheses***

1. Social support would be positively correlated with life satisfaction among burn survivors.
2. Social support would be a significant predictor of life satisfaction among burn survivors.
3. There would be a significant gender difference on the variable of perceived social support among burn survivors.
4. There would be a significant difference on the scores of life satisfaction between un-employed and employed burn survivors.

### **Sample**

Sample size of the current study comprised of 60 participants with an age range of 15-70 years, all were burn injury survivors. The data was collected from the Rawalpindi and Islamabad burn centers. Individuals belong to the age group of 15-70 years of burn survivors because in different age group the issues faced are different. Both male and female patients of burn injury survivors were included. Patient with fourth degree of burn, with other medical illness and psychological disorder were excluded. Children and below 15 years individuals were also excluded.

### **Operational Definitions of the Study Variables**

#### ***1. Perceived Social Support***

Perceived social support is defined as the approval, heed and concern, from the significant others, family, and society (Noronha, & Faust, 2007; Williams, Reeves, Cox, & Call, 2004).

## ***2. Life Satisfaction***

It is related to general appraisal of one's attitudes, behaviors, and feelings, either positive or negative (Diener, 1984).

### **Instruments**

#### ***1. Demographic Information sheet***

Demographic information sheet was used which included questions about current age, age at the time of burns, years elapsed since burns, gender, salary, education, nature / reason/ types/ degree of burns, part of body (burned), TBSA burned percentage, duration and length of stay in hospital, injuries sustained at, type and duration of treatment, marital status, number of siblings and birth-order etc.

#### ***2. Multi-dimensional Scale for Perceived Social Support (MSPSS) Urdu Version (Akhtar, Rahman, Husain, Chaudhry Duddu & Husain, 2010).***

The MSPSS questionnaire is a 7-point rating Likert scale ranging from, 1 = very strongly disagree to 7 = very strongly agree). It is designed to measure the perception of social support pertaining following areas: Cronbach's alpha of MSPSS-Urdu is 0.92, and items 3, 4, 8, and 11 in the family, items 6, 7,9, and 12 in friends, and Items 1,2,5, and 10 incorporated in significant others subscale. (Akhtar et.al. 2010).

#### ***3. Satisfaction with Life Scale (SWLS) Urdu Version (Mussaffa, Ghani & Khan, 2014).***

Urdu version of SWLS was used. The English version by Diener, Emmon, Larson & Griffin (1985). This was made to evaluate a single domain e.g. universal life satisfaction. It responses range from strongly disagree to strongly agree and consists of five items, in a five-point Likert type scale. Scored as 1, 2, 3, 4 and 5 respectively and. A coefficient alpha of .87, correlation coefficient .82 and are reported to have two-month test-retest reliability (Diener, et.al., 1985).

### ***Procedure***

With the due permission of the Hospital's administration, patients were approached. Information about the purpose of the present study was explained to the participants. Queries related with this research were made clear. They were facilitated to freely ask questions for any difficulty regarding any item or instructions of the measure. Confidentiality of the data was completely maintained. The average time taken by an individual is 10-12 minutes. Finally, thanks was paid to the hospital/institution authorities and participants for their cooperation.

## Results

**Table I**

*Sample characteristics include age, gender, education, job-status, family-system, marital-status, degree of burns, pre-morbid illness, and type of treatment (N=60).*

<i>Variables</i>		<i>f</i>	<i>%</i>	<i>M</i>	<i>SD</i>
<i>Age</i>	<i>Burns</i>			30.18	10.56
<i>Gender</i>	Male	26	43.3		
	Female	34	56.7		
<i>Education</i>	Educated	29	48.3		
	Un-Education	31	51.7		
<i>Job-Status</i>	Employed	23	38.3		
	Un-Employed	37	61.7		
<i>Family-System</i>	Joint	42	70		
	Nuclear	18	30		
<i>Marital-Status</i>	Married	39	65		
	Single	21	35		
<i>Degree of Burns</i>	1 <sup>st</sup> degree	36	60		
	2 <sup>nd</sup> degree	19	31.7		
	3 <sup>rd</sup> degree	5	8.3		
<i>Types of treatment</i>	Surgery	11	18.3		
	Regular	49	81.7		

Table I shows sample characteristics, which consist of 60 participants aged between 15-70 years. It includes 43.3% male and 56.7% females. Educated individuals were 48.3% and un-educated was 51.7%. Employed were 38.3% and un-employed was 61.7%. In family system joint was 70.0% and nuclear was 30.0%. Marital status as single was 35.0% and married was 65.0%. Individuals in the present study belong to all types of degree of burn i.e., 1<sup>st</sup> degree (60%), 2<sup>nd</sup> (31.7%) and 3<sup>rd</sup> (8.3%). Patients were taking different types of treatment i.e., surgery (11%) and regular (49%).

**Table II**

*Psychometric Properties of study variables (N=60).*

<i>Variables</i>	<i>No. of items</i>	<i>α</i>	<i>M</i>	<i>SD</i>	<i>Range</i>		<i>Skew.</i>	<i>Kurt.</i>
					<i>min</i>	<i>max</i>		
SWLS	5	.96	19.72	6.72	5.00	31.00	-.19	-.86
MSPSS	12	.96	47.02	13.57	11.08	73.58	-.45	-.38
Significant others	4	.93	13.76	4.38	3.25	21.50	-.53	-.58
Family support	4	.97	23.56	4.73	3.25	22.50	-.40	-.88
Friend support	4	.97	14.00	4.60	3.25	22.75	-.20	-.62

**Note:** *SWLS = Satisfaction with Life Scale, MSPSS = Multidimensional Scale of Perceived Social Support*

The results in the Table II indicate that the instruments are psychometrically sound as the Cronbach Alpha values are in good ranges. The skewness and kurtosis value indicate that the data is normally distributed.

**Table III**  
*Pearson bivariate inter-scale correlation between participants on Burns Survivors on Perceived Social Support and Life Satisfaction Scale (N=60).*

Variables	1	2	3	4	5
1 Satisfaction with Life Scale	-	.73**	.71**	.65**	.54**
2 Multidimensional Scale of Perceived Social Support		-	.86**	.91**	.85**
3 Significant Others			-	.66**	.57**
4 Family support				-	.66**
5 Friends support					-

**Note:** \*.  $p < .05$ , \*\*.  $p < .01$

Table III illustrates bivariate correlation to check the relationship between study variables. There is a significant positive relationship between the life satisfaction and multidimensional scale of perceived social support (including significant others, family support and friends support).

**Table IV**  
*Mean difference between Gender on variables on Perceived Social Support and Life Satisfaction (N = 60).*

Variables	Male(N=26)		Female (N=34)		<i>t</i>	<i>p</i>	95% of CI		<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
MSPSS	48.45	11.43	45.93	15.08	.71	.08	-4.59	9.63	0.19
Significant others	13.52	4.36	13.94	4.46	.37	.86	-2.73	1.88	-0.10
Friends support	14.85	3.71	13.35	5.13	1.26	.03	-0.88	3.88	0.34
Family Support	14.16	3.93	13.10	5.27	.86	.01	-1.41	3.53	0.23
Life Satisfaction	19.58	6.32	19.82	7.10	.14	.32	-3.78	3.29	-0.04

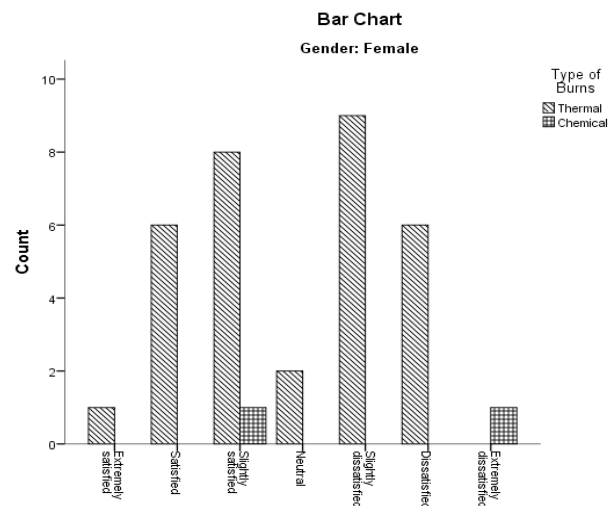
**Note:** LS= Life Satisfaction; MSPSS= Multidimensional scale of Perceived Social Support; PSS = Perceived Social Support

Table IV shows that there were no significant differences exist between gender on Perceived Social Support and Life Satisfaction among burn survivors.

**Table V**  
*Chi Square on levels of life satisfaction among females burn survivors with different types of burns (N = 34)*

Level of life satisfaction	Type of Burns		$\chi^2$	p
	Thermal	Chemical		
Extremely satisfied	1	0	17.44	.01
Satisfied	6	0		
Slightly satisfied	8	1		
Neutral	2	0		
Slightly dissatisfied	9	0		
Dissatisfied	6	0		
Extremely dissatisfied	0	1		

Table V illustrates that the level of life satisfaction is significantly high among those female burn survivors who got burn with the thermal on the other hand, it is high among chemical burn survivors.



**Figure No. 1:** *levels of life satisfaction among females burn survivors with different types of burns.*

The level of life satisfaction is high among those female burn survivors who got burn with the thermal on the other hand, it is high among chemical burn survivors.

**Table VI**  
*Chi Square on level of life satisfaction among males burn survivors with different types of burns (N = 26)*

level of life satisfaction	Type of Burns				$\chi^2$	p
	Thermal	Chemical	Electrical	Mechanical		
Satisfied	0	1	1	0	12.23	.66
Slightly satisfied	6	2	2	3		
Neutral	0	1	1	0		
Slightly dissatisfied	2	1	0	0		
Dissatisfied	2	2	0	1		
Extremely dissatisfied	0	1	0	0		



Table VI illustrates that the level of life satisfaction is not significantly different among males burn survivors having different types of burns.

## **Discussion**

Present study was conducted to study the social support and life satisfaction, with specific role of demographic among burn survivors.

The present study was conducted to identify the relationship between perceived social support and life satisfaction among burns burn survivors, with specific role of demographic variables. Sample of the study consist of 60 burns survivors with an age range of 15-70 years. For the evaluation of PSS, MSPSS was used. Translated version of this scale (Akhtar, Rahman, Husain, Chaudhry, Duddu & Husain, 2010) was used. This scale had been widely used and is reliable. The psychometric properties were consistent with the findings of current study. The cronbach's alpha of sub-scale of Perceived social support scale was in the range of 0.93 and 0.97. For life satisfaction SWLS was used. It was widely used and reliable tool and has been translated into over 20 languages which includes Arabic, Bosnian, Chinese, Thai and other languages. The original developer of this tool was Diener, et al. and later, it was translated into Urdu by Mussaffa, Ghani and Khan (2014). The translated version of the scale was used. While the cronbach's alpha of current study for this scale was 0.96, it indicates that it's in the satisfactory range. The value of kurtosis ranged from -.53 to -.88 and value of skewness ranged from -.19 to -.53. The value of skewness and kurtosis between range -2 and + 2 respectively, were considered acceptable in order to obtain the normal distribution (George & Mallery, 2010).

Previous literature indicates that burn is a major concern for many developed and under developed countries. Like others, incidence of burn injuries in Pakistan is also very high. In Karachi, the most heavily populated and cosmopolitan city of the country, burn is the leading cause of death. Along with the other reasons for these cases the lack of awareness and ill-defined preventive measures are the major reason behind such incidence (Al-Ibran, Rao, Ali, & Saleem, 2012). Nasrullah, and Muazzam (2010) describes that in Pakistan, events of stove burns, household brutality and unplanned burns are at a steady increase. Domestic problems are mostly the core cause for burn injury in Pakistan. Increasing frequency of accidental burns in Rawalpindi are related to misuse of charcoal fuel oven, lack of knowledge about save process techniques, lack of education, and low socioeconomic status (Farooq et, al, 2011).

Results of the present study indicates that there is a significant positive relationship between the life satisfaction and social support (including significant others, family support and friends support). Literature also provides the same evidences as according to Sveen, Ekselius, Gerdin, & Willebrand, (2011) described social support as a factor in resilience post-burn injury, but only in terms of the presence versus absence of others to provide support. Burn is not only giving a physical pain it is actually adding up the psychological distress. It is evident that the burn survivors has low life satisfaction in comparison with normal individuals (Patterson, Ptacek, Cromes, Fauerbach, & Engrav, 2000).

In the present study no significant differences were found among male and female burn survivors. There is a collectivistic culture in Pakistani society so they give full support to their relatives and sacrifice anything for them, so the gender differences do not play any role in providing a support to the burn survivors. Literature indicates that the burn affects the men and women survivors' differently i.e. female experience problems related to their physical appearance more than males (Meyer et al., 2004). Likewise another study found that females receive more support from friends than their male counterparts; females are more sentimental than males so they share their feelings to the friend freely/openly and get support from them. Sharing of feelings is considered to be a sign of weakness among males thus, they seek less support (Cumsille & Epstein, 1994). Agbenorku (2013) scrutinized the contributory social factors affecting the wellbeing of burn survivors are; nurturing family environment, negative societal interactions, caretaker's time and financial constraints. Electricity burns and fire burns are very common. Demographic factors are also linked burn injuries and it further explain that gender, old age, suicide etc are highlighted by the literature (Ali, Hamiz-ul-Fawwad, Al-Ibran, Ahmed, Saleem, Mustafa & Hussain, 2016). The results also revealed that the level of life satisfaction is significantly high among those females' burn survivors who got burn with the thermal whereas dissatisfaction is high among chemical burn survivors. Shahid, Ismail, and Khan (2018) also reported low life satisfaction among post burn survivors and the contributory factors encompassed; female gender, young age, low socio-economic status along with clinical parameters related burns.

The results of the present study indicates that there is no significant differences exist among employed and unemployed burn survivors for social support and life satisfaction. As in Pakistani culture is a collectivistic culture so the support system is very strong. Relations are considered foremost important than anything else in life. Hence, employment status and other factors are not considered as important factor in creating any difference in providing support to burn survivors. Employment may also contribute to life satisfaction through its correlation with income level, and ranked/position (Boyce, Brown, & Moore, 2010). Although it is generally accepted that employment helps individuals with disabilities to live more satisfactory lives (Wu, 2008). Researches revealed that social support is differently perceived in different group of people in terms of gender and marital status (Zanini, Moura, & Queiroz, 2009). Because of cultural variations the results are different but on common thing is that there is a significant positive relationship between the life satisfaction and social support (including significant others, family support and friends support).

The present study may help in understanding the importance of the demographic variables while planning anything for burn survivors. It will help in understanding the relationship between the life satisfaction and social support. By putting lots of emphasis on their relationship, the condition of the burn survivors can be improved.

## **Acknowledgement**

We are very thankful to the burn centers for allowing us to collect data from their centers. Special thanks to the participants of the study for trusting us and sharing their experiences. We are immensely grateful to our dearest friend and brother the Dr Abid Ali, Senior Assistant Professor, Earth & Environmental Sciences, Bahria University, Islamabad, Pakistan, for his valuable time in reviewing this paper and feedback. We are thankful to him for his valuable comments for the improvement of our manuscript.

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