

Relationship between burn patients' quality of life and caregivers' burden and quality of life

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Introduction

According to the World Health Organization current data, 180 thousand people die every year due to burns and non-fatal burns are the leading causes of morbidity (WHO 2018). Individuals who are exposed to burn traumas are also adversely affected physically, socially and emotionally due to impaired body image, pain from surgical interventions and treatments, and change in appetite. All these factors negatively affect health-related quality of life (QOL). The care of burn patients is most often undertaken by relatives at home until patients can regain their independent functions. The caregiver role can be assumed by the patient's wife, children, parents, relatives or close friends. While caregiving tasks include organizing housework, helping with personal care, and providing economic, medical and psychological support-affect quality of life, they also constitute a significant burden of care.

Objective: To assess the relationship between the quality of life of burn patients and the quality of life and burden of caregivers.



Methods

Population: 30 burn patients who had been discharged from burn unit/center and 30 relatives who provided home care for patients participated in the study.

Time: The study was conducted between October 2015 and January 2016 in the central districts of Ankara/Turkey.

Measurements: Questionnaire Form for Burn Patient, Burn Specific Health Scale (BSHS), Caregiver Personal Information Form, the World Health Organization Quality of Life Scale-Bref (WHOQOL-BREF) and the Zarit Caregiver Burden Interview (ZCBI).

Statistics: The data obtained from the study were evaluated using the SPSS.23 (Statistical Package for Social Science) for Windows software program. Correlation analyses were done to evaluate the relationship between the scales, and $p < 0.05$ was considered statistically significant.

Table 1. Burn Experiences of Burn Patients (N:30)

Total Body Surface Area (%T0,7)	N	%
≤%20	21	70,
>%20	9	30,0
Depth of burn		
Second degree	5	16,7
Third degree	21	70,0
Second and third degree	4	13,3
Cause of Burn		
Fire-Flame	17	56,7
Electricity	7	23,3
Chemical	3	10,0
Boiled water	2	6,7
Hot oil	1	3,3
Burned area*		
Hand/s	20	66,7
Face	16	53,3
Arm/s	15	50
Leg/s	13	43,3
Neck	8	26,7
Foot/feet	5	16,7
Time after burn (day)	121,23±119,75	

* "n" is folded because participants responded more than once.

Table 2. Correlation Between Quality of Life of Burned Individuals and Quality of Life and Burden of Care of Caregivers (N:30)

Quality of life of Burned Individuals		Domains of Quality of life (WHOQL-Bref) of Caregivers				Zarit Caregiver Burden Interview Score	Days of care	Time after burn (day)
		Physical health domain	Psychological health domain	Social health domain	Environmental domain			
Burn Specific Health Scale (BSHS)	r	-,463**	-,115	-,037	-,212	-,396*	,127	0,050
	p	0,01	,546	,845	,261	,030	,505	0,790
Physical health domain	r	-,0244	-,022	-,037	-,048	-,137	,031	-0,006
	p	0,193	,906	,845	,801	,469	,870	0,972
Emotional health domain	r	-,212	,103	-,231	-,089	-,341	-,104	-0,193
	p	,260	,589	,220	,640	,065	,583	0,306
Social health domain	r	-,165	-,061	-,051	-,078	-,426*	,277	0,169
	p	,383	,750	,790	,682	,019	,138	0,371
General health domain	r	-,508**	-,109	-,129	-,150	-,303	,206	0,114
	p	,005	,573	,504	,439	,111	,285	0,554
Zarit Caregiver Burden Interview Score	r	,274	-,195	-,285	-,348	1,00***	-,468**	-0,507**
	p	,143	,301	,127	,060	***	,009	0,004

* relationship is important at the level of 0.05. ** relationship is important at the level of 0.01. ***same variable or no correlation.

Results

The mean age of the burn patients participating in the study was 32.53±11.59 and 80% of them were males. Most of the burn patients were laborers and 40% of them were university graduates. The data on burn experiences of burn patients are given in Table 1.

The mean age of the caregivers was 39.86±11.30 and the majority (66.7%) were female. Most of the caregivers were married and were spouses or parents of those requiring care. Caregivers experienced difficulties in providing care as follows: 66.7% of them had difficulties in bathing, 60% in dressing, 46.7% in mobilizing, and 40% in feeding the patient (untabled).

Correlations: There was a negative correlation between the quality of life of burn patients and the caregivers' burden. A significant negative relationship was found between QOL of burn patients and physical domain scores of the QOL of caregivers and between QOL of burn patients and burden of care ($p < 0.05$, Table 2). This study's results revealed negative significant correlation between caregivers' burden scores and the days spent for care of burn patients at home ($p < 0.01$, Table 2).

Conclusion

The quality of life of burn victims increased, while the physical quality of life of the caregivers and burden of care decreased during their care at home.

In the first days after discharge, caregivers have a high caregiver burden.

Recommendations

- The difficulties of informal caregivers should be addressed using the most up-to-date information and necessary nursing interventions.
- Nurses should prepare burn patients and their informal caregivers for the difficulties and challenges they may encounter upon discharge from the burn unit/center.