



Quality of life of Burn Patients after burn

sohieab Ibrahim Abu Jheisheh

Hebron governmental hospital nursing director

Mohammad Qtait

NURSING COLLAGE, Palestine polytechnic university

Abstract

Background: Burns have effect not only physical but also psychological consequences both during and after hospitalization. One of the most reliable indicators of a patient's prognosis is their quality of life (QOL). As a result, (QOL) in burn victims has emerged as a crucial component of evaluation. Patient's adjustment to a long-term burn injury.

The study goal: is to assess the quality of life (QOL) for burn patient.

Methodology: A descriptive cross-sectional hospital study included one hundred individuals with burn injuries. The WHO QoL-BREF questionnaire was used to assess patients' quality of life during a follow-up visit in the Burns outpatient department after 3 months of discharge. Early recruiting from the Burns Ward comprised the gathering of sociodemographic and burn incident-related data.

Finding : The psychological domain had the lowest quality of life, followed by the physical health domain, the cognitive domain, and the emotional domain.

Conclusions: Higher-income countries have greatly reduced the number of burn injuries and improved the quality of life for those who have been hurt. The survival rate of survivors has increased thanks to medical progress, even though they still have to get over the pain of the initial injury. However the psychological and social ramifications of damage aren't being addressed, which undermines QoL. An integrated strategy is needed for prevention and to raise the standard of care provided to survivors in all four domains. Rehabilitative care needs to be given more attention if the person's quality of life is to improve over time.

Key word: *Quality of life, Burns, patient*

1. Introduction

Scars left by a burn are of an atypical shape on the skin, and the individual who suffered the burn must learn to accept this change in their physical self-perception. Psychopathological reactions are also brought on by the burn event and the painful treatment. Although burn sufferers' quality of life is initially lower than that of the general population, it eventually rises.

Scarring, contractures, weakness, itching, pain, sleep, body image, and psychological issues are just some of the malformations that can linger after a severe burn. Esselman, 2006). The psychological effects of a severe burn are substantial as well; most burn patients experience some degree of discomfort, albeit this cannot be categorized as a serious psychological or psychiatric condition (Cleary, et.al. 2018).

The International Council of Nurses also identified health as a measure phenomenon of interest for nursing research. Health focuses nursing on a number of areas including health promotion, living with chronic conditions, and enhancing QoL, and caring for clients experiencing changes in their health (Nursing research: A tool for action, 2005).

According(Qtait, Alekel, 2019) This is the first study to describe the epidemiology and outcomes of burn patients in a major burn center in south of west bank between 2016 and 2017, we found that in the future, greater effort should be put into preventing burn injuries in children younger than 14 years old, in females, during the winter, and due to scalding. Moreover, tailored burn prevention and treatment measures based on risk factors such as full-thickness burns, burns with a greater TBSA (total body surface area), older age, a higher

number of operations, and better results should be implemented.

The impact of socioeconomic status on health has been extensively studied, and it has been shown that low socioeconomic status is related to lower values of various health and quality-of-health measures, and the goal of medical care is not treatment diseases or give relief to symptoms, but to improve the all health, promoting and ensuring an adequate quality of life (Pappa, 2009)

Rehabilitation of the burn patient starts on the first day and comprises measures that are also undertaken during the stage of burn treatment and technologically focused intensive care. Active surgical treatment of wounds and scars, as well as physiotherapy and occupational therapy, continue long after the patient has left the burn unit, and they are part of the process of retuning the patient to life in the society. Along with this physical, and psychosocial issues are actively addressed in order to identify and treat severe comorbid conditions such as post-traumatic distress disorder (PTSD), mood and substance use disorders, and less pronounced psychological problems that may interfere with compliance to various rehabilitation measure **(Dyster, 2007).**

The quality of life (QoL) of burn injury victims is heavily influenced by a number of different factors, including their reaction to the injury, when treatment was started, the support they received from family and friends, the quality of care they received, their diet, their occupational and physical therapy, and their counseling. Several factors have an impact on QoL (Hunt,et,al, 2012).

The term "quality of life" (QoL) refers to a wide range of factors, including but not limited to: a person's physical and mental well-being, their sense of autonomy, their social connections, their core values, and their relationship to the environment. It evaluates how illness and disability affect typical functioning, patterns of behavior, self-assessed health, and the presence or absence of disability(Hunt,et,al, 2012).

Among the goals of this research is to identify the ways in which burn injuries affect the victim's quality of life across a number of different dimensions specific to the Palestinian context and to identify the factors that contribute to those dimensions..

Material and Methods

A descriptive cross-sectional study was conducted in a tertiary care hospital. From the Burns ward, patients were drawn. The WHO—QoL BREF (Hindi version) Quality of Life Questionnaire was administered at the three-month follow-up visit in the outpatient department, and sociodemographic data was gathered during initial enrollment. Subjects with burn injuries made up the study group (OPD). Participants were burn unit patients who were in good physical and mental health and had no concurrent diseases (such as high blood pressure, diabetes, cancer, asthma, epilepsy, etc). (hypertension, diabetes, cancer, asthma, epilepsy, etc.). Physical well-being, mental health, interpersonal connections, and the environment are the topics covered. Each of these factors has a positive scale (i.e., a higher score indicates a higher quality of life) (i.e., a higher score denotes higher QoL). To determine how much of the body was impacted, the "rule of 9" was applied (WHO). WHOQOL-BREF, 2021).

Ethical consideration and accessibility: Ethics provides guidelines and behavioral expectations for how people should act toward each other. The people who took part in the study were told about it through a consent form that was attached to the questionnaire. They were also given a full explanation of the purpose of the study, and their privacy and sponsorship were guaranteed. Through the informed consent form that was included with each questionnaire, they were also told that they could refuse or drop out of the study at any time.

Result

The findings of the following study are presented in three primary parts, each of which is organized according to the research design that was used. The first section presents the general characteristics and health status of the study sample. The sample's health-related quality of life (QoL) scores (findings) are presented in the second part. The final section offers the findings linked to the correlational analysis between the health-related QoL findings and the biological, psychological, and socioeconomic characteristics of the study participants. Participants in the study included: The sample was composed of 35% females and 65% males, and the results showed that there was a minor increase in the number of male patients in the sample. This was merely a coincidence, however, as the questionnaires were distributed at random. According to age 24% from participant age from 20-29 years, 66% from participants age from 30- 49 years, and 10% from participants more than 50 years. According to marital status 75 % married and 25% single, most of participant have education more than school with percent 75%. 49% from participant live in rural and 51% live in urban.

According to occupation 24% student, 35% from participant housewife or not work, 20% employ, and 21 % worker.

Table (1) Demographic variable

Variables	n=100	Percentages (%)
Age-group		
Between 20 to 29 years	24	24
Between 30 to 39 years	36	36
Between 40 to 49 years	30	30
More than 50 years	10	10
Gender		
Male	35	35
Female	65	65
Marital status		
Single	25	25
Married	75	75
Level of education		
School	25	25
Diploma	25	25
Bachelor's or more	50	50
Area of burn		

Rural	49	49
Urban	51	51
Occupation		
Student	24	24
Housewife and not work	35	35
Employee	20	20
Worker	21	21

Table (3) information for burn

Site of burn injury	Face and head, Neck	20	20%
	Chest	25	25%
	Back	30	30%
	Abdomen	30	30%
	Upper limbs	80	80%
	Lower limbs	88	88%
Depth degree of burn	First & second degree	33	33%
	Second & third degree	32	32%

	Different degree	35	35%
Total body surface area	Less than 5	5	5%
	5-10	29	29%
	16-25	30	30%
	26-35	25	33%
	36-45 or more	11	11%

According to site of burn are different but most of injury in lower and lower limbs.

Depending on the depth, the id will divide themselves from first to second or some other degree According to the body surface area (TBSA), 49.3% of patients have a TBSA of 5-10%, 24.7 TBSA have a TBSA of 16-25%, and 10% of the overall population has a TBSA that is higher than 26%. The majority of them, in terms of size, are less than 35%.

The mean raw score in the physical domain was 17.74.9, 13.74.3 in the psychological domain, 9.451.9 in the social connection domain, and 21.93.9 in the environment domain when the WHO QoL-BREF questionnaire was used to evaluate the quality of life of burn injury patients. As a result, after further adjustment in accordance with the regulations, the mean transformed scores (mean standard deviation [SD]) in a number of categories were as follows:

physical domain (4116.8), psychological domain (36.617.8), social connection domain (58.715.0), and environment domain (56.512.9). The overall impact of burn injury on QoL is deteriorating all four categories of QoL, while the physical and psychological domains were the most affected at the time of the study. Quality of life scores in domains of WHO QOL-BREF

Domain	Raw score		Transformed score	
	Mean±SD	Range	Mean±SD	Range
Physical	17.7±4.9	8-31	41±16.8	6-88
Psychological	13.7±4.3	7-28	36.6±17.8	4-94
Social	9.45±1.9	3-15	58.7±15.0	16-100
Environment	21.9±3.9	14-35	56.5±12.9	24-100

Correlation between total body surface area

Total body surface area affected	Physical	Cognitive	Social	Emotional
<i>P</i>	0.033	0.035	0.089	0.36
<i>Age</i>	0.91	0.971	0.501	0.149

Discussion

The purpose of this study was to evaluate the quality of life of burn damage patients. Although improvements in the treatment of burn injuries have contributed to higher survival rates for burn patients, the degree of health-related quality of life is lower. The patient, along with their healthcare staff and family members, place a high value on maintaining a high quality of life. Research on burns focused on factors such as changes in the psychological condition of family members, increases in the difficulty of providing care, and socioeconomic requirements.

After a burn injury, QOL decreased in a number of different health-related domains. The environmental domain saw the most improvement, with mean ratings of 56.512.9, and the social domain saw the most improvement, with mean scores of 58.715.0. On the other hand, the psychological domain saw the most decline, with mean scores of 36.617.8, and the physical domain saw the most decline, with mean scores of 4116.8.

Our findings were consistent with those that were reported by Misra et al. (2012) in Delhi, where it was demonstrated that the psychological domain (35.1) was the most negatively impacted. Yet, they reported that the social domain (28.5) was adversely affected more than the physical domain (35.1). (68.9). It's probable that the research' time periods contributed to the observed disparity. It demonstrates that the psychological and physical domains initially deteriorate due to the difficulty in accepting body disfigurement and disability to work; however, as time goes on, the support and care from family, relatives, and society dwindle, and there is a sense of burden and difficulty in maintaining a future life (but there is no

evidence to this in your study because yours is a cross-sectional and not a longitudinal one).

In a similar fashion, other researchers have utilized various QoL assessment instruments, but the results of their investigations revealed inadequate ratings on the physical, psychological, and social domains.

Total body surface area

In our study, we found that there was a significant negative relationship between the total body surface area affected and physical ($P = 0.033$) and cognitive ($P = 0.035$) cognitive, but not with social and emotional symptoms. This could have been because the physical and psychological domains deal with how the person deals with the disaster, while the social and psychological domains deal with how the person's close friends and family deal with it and how society as a whole deals with it. Similar to what we found, (Leblebici et al. 2015) in Turkey found an indirect correlation ($r = -0.528$) between the SF-36 scale and the total body surface area.

Age

In our study, we didn't find a significant link between the age of the subjects and their quality of life (QoL). This is because the effects of burn injuries, like physical and mental trauma, disability, and disfigurement, were the same for all age groups. This was the same as what (Elsherbiny et al. 2011) found in Egypt.

Conclusion

Burns, their effects, and the long time it takes to recover and get better break a person's inner self. After a burn injury, the patient's quality of life (QoL) gets worse because they have

trouble moving, look different, and need help from others.

(Lopes, et, al ,2020) Even though all domains are affected, the psychological and physical domains are the ones that are affected the most in this study.

By combining proper preventive measures with improved care delivery, higher income countries have drastically reduced their burden of burn injuries and raised the quality of life of sufferers. Raising awareness, enacting and enforcing effective policies, adhering to stringent regulatory standards for managing complaints, and developing capacity at all levels in burn treatment are all important for lower middle income countries to provide their residents with a high quality of life.

Reference

- Burckhardt CS, Anderson KI. The Quality of Life Scale (QOLS): reliability, validity, and utilization. *Health Qual Life Outcomes*. 2003;1:60.
- Cleary M, Visentin DC, West S, Kornhaber R. The importance of mental health considerations for critical care burns patients. *J Adv Nurs*. 2018;74(6):1233-1235. doi:10.1111/jan.13515
- Dyster-Aas J, Kildal M, Willebrand M. Return to work and healthrelated quality of life after burn injury. *J Rehabil Med*. 2007;39:49–55.
- Elsherbiny OEE, Salem MA, El-Sabbagh AH, Elhadidy MR, Eldeen SMA. Quality of life of adult patients with severe burns. *Burns*. 2011;37:776–89.
- Esselman PC, Thombs BD, Magyar-Russell G, Fauerbach JA. Burn rehabilitation: state of the science. *Am J Phys Med Rehabil*. 2006;85:383–413.

Hunt JL, Arnoldd BD, Purdue GF. *Total burn care*. 7th ed. London: WB Saunders; 2012.

Chapter 4—prevention of burn injuries; pp. 47–55

Leblebici B, Adam M, Bağış S, Tarim AM, Noyan T, Akman MN, et al. Quality of life after burn injury: The impact of joint contracture. *J Burn Care Res*. 2015;27:864–8.

Lopes MCBT, de Aguiar Júnior W, Whitaker IY. The association between burn and trauma severity and in-hospital complications. *Burns*. 2020;46:83–9

Misra A, Thussu D, Agrawal K. Assessment of psychological status and quality of life in patients with facial burn scars. *Indian J Burn*. 2012;20:57–61.

Pappa E, Kontodimopoulos N, Papadopoulos AA, et al. Assessing the socio-economic and demographic impact on health-related quality of life: evidence from Greece. *Int J Public Health*. 2009;54:241–9.

Qtait, M. T., & Alekel, K. (2018). Prevalence and epidemiological of burns in Hebron, Palestine. *Sci J Clin Res Dermatol*, 4(1), 001-005.

WHO. [Last accessed on 2021 Oct 14]; *Burn injuries*. Available from: Burns (who.int) [Internet] [[Google Scholar](#)]

WHO. WHOQOL-BREF introduction, administration, scoring and generic version of the assessment. [Last accessed on 2021 Oct 14]. Available from: http://www.who.int/mental_health/media/en/76.pdf .