ORIGINAL RESEARCH ARTICLE

Post-Traumatic Growth Among Patients Suffering From Burn: A Cross-Sectional Study

Shirin Abdallah Alimour[1*], Shaima Aljasmi[2], Mhd Emad Alnono[3], Nouha Alaji[4], Hani El Farran[5], Mohamed Mahmoud Alrabeei[6]

[1]College of Education, Humanities and Social Sciences, Al Ain University, UAE
[2]Primary Healthcare Sector, Dubai Health Authority, UAE
[3]Medcare Hospital, UAE
[4]Clemenceau Medical Center Dubai, UAE
[5]Madinat Zayed Hospital, Abu Dhabi, UAE
[6]College of Humanities, City University Ajman, UAE

DOI: 10.55489/njcm.150420243775

ABSTRACT

Background: Burn and wounds are one of the most serious hospital cases in all healthcare settings, both social and psychological support are needed to overcome all depressive and anxious feelings afterward the burns' incidence. This study aims to assess and evaluate all posttraumatic growth experiences from healthcare professionals after burns and wounds on selected patients with various degrees of burns.

Methods: It was a cross-sectional descriptive design. The present study utilized regression analysis as a statistical tool to examine the variables linked to posttraumatic growth in a sample of 191 individuals who had undergone significant burn injuries.

Results: The study revealed that those undergoing therapy for mild depression exhibited a modest degree of depressive symptoms and a diminished feeling of positive self-perception compared to those in the acute phase. Therefore, a statistically significant difference in the averages was noticed between the two groups. An important correlation was found between depressive symptoms and social support, which had a significant impact on posttraumatic growth during the recovery phase.

Conclusions: The present study revealed that social support exerted a noteworthy influence in promoting posttraumatic growth among individuals belonging to the acute phase group.

Keywords: Post-Traumatic Growth, Healthcare Professionals, Wound Care, Burn care, Depressive Symptoms

ARTICLE INFO

Financial Support: None declared
Conflict of Interest: None declared
Received: 26-01-2024, **Accepted**: 16-03-2024, **Published**: 01-04-2024
***Correspondence:** Dr. Shirin Abdallah Alimour (Email: Shirin.alamoor@aau.ac.ae)

How to cite this article: Abdallah Alimour S, Aljasmi S, Emad Alnono M, Alaji N, El Farran H, Mahmoud Alrabeei M. Post-Traumatic Growth Among Patients Suffering from Burn: A Cross-Sectional Study. Natl J Community Med 2024;15(4):268-275. DOI: 10.55489/njcm.150420243775

Copy Right: *The Authors retain the copyrights of this article, with first publication rights granted to Medsci Publications.*

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Share Alike (CC BY-SA) 4.0 License, which allows others to remix, adapt, and build upon the work commercially, as long as appropriate credit is given, and the new creations are licensed under the identical terms.
www.njcmindia.com | pISSN09763325 | eISSN22296816 | Published by Medsci Publications

INTRODUCTION

Burn injuries, which occur frequently, are best treated through timely medical intervention and the implementation of suitable early therapeutic interventions[1] In Kingdom of Saudi Arabia (KSA) it is common for many burn victims to initially seek treatment at the emergency departments of general district hospitals, rather than being immediately referred to specialized burn clinics.[2] The situation is expected to exhibit similar characteristics in other nations as well. Individuals who have sustained burn injuries are expeditiously transported to the nearest emergency department to receive prompt medical intervention.[3] Subsequently, if their condition has been stabilized at the location of the incident, they may be transferred to the closest specialized burn unit for comprehensive management. In instances where there are multiple casualties, hospitals provide triage and emergency care services to burn patients.[4] Healthcare professionals employed within these geographical areas frequently receive requests to offer support to the teams present at the location.[5] They possess the capability to be deployed to offer aid in that particular area. Therefore, the proficiency and knowledge of the nursing personnel employed in these units are crucial factors in the effectiveness of burn treatment endeavors.[6]

Trauma can be described as the direct damage caused to bodily tissues, organs, and an individual's psychological state due to external environmental factors.[7] The predominant factors consist of mechanical trauma, chemical trauma, and psychological trauma. Psychological trauma, as delineated within the domain of psychiatry, pertains to occurrences that transcend the boundaries of commonplace encounters.[8] The traumatic events under consideration are distinguished by their abrupt and overpowering nature, resulting in a departure from the usual psychological state of individuals.[9] The experience of trauma leads to significant psychological damage at a subconscious level, encompassing the loss of autonomy, communication, power, and individuality. Trauma can be conceptualized as an injury that symbolically expresses itself, signifying an underlying wound that becomes evident through recurrent re-enactments.[10] Therefore, it can be inferred that individuals who have undergone traumatic experiences are prone to re-enacting past traumatic events and consequently find themselves in a perpetual state of distress, wherein they are unable to regain control over their current circumstances.[11] A substantial majority, surpassing 70% of the global adult population, has encountered at least one traumatic event throughout their lifespan, while around 31% have undergone four or more such events.[12-15] Mild psychological trauma possesses the capacity for spontaneous resolution, while more severe trauma can precipitate the emergence of anxiety, depression, and, in extreme instances, Post-Traumatic Stress Disorder (PTSD) 9. As a result, individuals who undergo such traumatic experiences face an increased susceptibility to Secondary Traumatic Stress (STS), thereby presenting additional complexities in terms of mental well-being.[16] It is important to acknowledge that healthcare professionals who specialize in burn care play a vital role in providing comprehensive support to patients throughout the entire continuum of trauma care, encompassing rehabilitation and post-traumatic therapy.[17]

Currently, there exists a dearth of scholarly inquiry pertaining to the frequency, determinants, and potential medical ramifications of posttraumatic growth (PTG) specifically in relation to the pandemic among healthcare practitioners.[12] Positive Transformational Growth (PTG) is a term used to describe the positive psychological changes that individuals may undergo when faced with highly challenging life circumstances.[18] Possible transformations may involve an increased state of awareness and the utilization of personal strengths, the development of deeper interpersonal relationships[19], the identification of new opportunities for personal development, the enhancement of spiritual progress, and a heightened sense of gratitude towards life[15]. Although posttraumatic growth (PTG) can possess inherent worth, it is crucial to acknowledge that the existence of PTG does not automatically preclude the existence of symptoms related to posttraumatic stress disorder (PTSD).[14] Indeed, these two phenomena frequently manifest in conjunction, and it is commonly noted that individuals exhibiting moderate symptoms of post-traumatic stress disorder (PTSD) tend to report the most pronounced levels of post-traumatic growth (PTG).[20] Therefore, this study aims to assess and evaluate all posttraumatic growth experiences after burns and wounds on selected patients with various degrees of burns.

METHODOLOGY

For this investigation, a cross-sectional descriptive study was carried out. The study specifically recruited adult participants who had experienced burn injuries. The injuries were assessed and categorized according to severity and penetration of the burns. The assessment of burn extent was conducted using Pulaski and Tennison's rule of nines[21], A technique that computes the ratio of burned areas on the body in relation to the overall surface area of the body.

The inclusion of individuals with severe burns was determined and chosen according to certain criteria. The requirements required second-degree burns covering more than 25% of the body surface area or third-degree burns affecting the face, neck, and joints. The classification of the treatment phase was derived by calculating the average length of hospital stay for individuals with third-degree burns from 2018 to 2020[22] Patients in the acute phase, excluding those who got emergency treatment, were defined as persons who were admitted to the hospital within

about two months after the emergency phase. The mean period of time elapsed since the burn occurrence for those in the acute phase was 64 days. Patients in the rehabilitation phase who were discharged from the hospital participated in outpatient visits. During the period of their hospitalization, patients received physiotherapy services in the rehabilitation department, underwent various clinical interventions, or were admitted to the plastic surgery department for the purpose of undergoing reconstructive surgical procedures. The average period of time elapsed after the burn incidence for people in the rehabilitation phase was 185 days. Individuals who were unable to engage in effective communication or who exhibited cognitive impairments were susceptible to being marginalized or excluded. In addition, the survey questions were orally presented by one of the researchers, and the responses of people with physical impairments caused by burns, such as eye impairment or hand injuries, were reported.

The study's data were gathered from a sample of persons who were seeking medical care from Burns Hospitals in Dubai, encompassing both outpatients and inpatients. The period of data collection extended from March 11th to May 3rd, 2023. The survey was conducted over a period of approximately 15 minutes, during which data was primarily collected from the outpatient clinic or counselling room of the hospital. The researchers employed the G*Power 3.1 software to determine the most suitable sample size for their investigation[23-26] The minimum required sample size was calculated to be 98, taking into account a worth level (p-value) of 0.05 and an influence (1-β) of 0.79. The study had a group of 97 individuals in the acute period and 94 individuals in the rehabilitation stage. A total of 191 surveys were distributed.

The general features encompassed five particular variables: age, gender, educational attainment, financial challenges, and personality traits, specifically extroversion and introversion. The evaluation of burn-related characteristics encompassed four components: the measurement of burn severity by a healthcare professional (%), the evaluation of burn-related pain using a numerical rating scale, the identification of burn locations (such as upper and lower extremities, face, torso, anus, genitals, etc.), and the acknowledgment of challenges in daily activities resulting from the burn injury.

The study employed the Beck Depression Inventory-II[27]as a tool for assessing and quantifying depression symptoms. The research instrument employed in this study comprises a total of 21 items, with each item being assessed on a four-point Likert scale that spans from 0 to 3. The cumulative scores span from 0 to 63, with higher scores indicating a more pronounced manifestation of depressive symptoms. The scoring scale spans from 0 to 63, with scores falling between 0 and 13 being categorized as within the normal range. Scores within the range of 14 to 19 are suggestive of a mild level of depression, whereas scores within the range of 20 to 28 indicate a moderate level of depression. Scores ranging from 29 to 63 are indicative of severe depression. The Cronbach's alpha coefficient achieved during the instrument's developmental phase was 0.85, whereas, in the present study, it was determined to be 0.92.

The variable being examined was assessed using the Social Support Scale, which was first created in the Korean language by Lee[28]. The utilization of factor analysis was employed as a means to evaluate the construct validity of the scale under investigation. The analysis yielded the identification of several domains and their corresponding items. These domains cover emotional support, which includes aspects such as love-intimacy, trust, interest, encouragement, empathic listening, and understanding. Another domain is evaluative support, which comprises items pertaining to fair evaluation, praise, talent recognition, respect for personality, respect for opinion, and value increase. Additionally, there is information support, which consists of items addressing problem solving, adaptation, decision-making, recommendation, advice, and guidance in times of crisis. Lastly, material support includes items encompassing money, direct and indirect assistance, lending of goods, services, time, and work. The scoring of each item is determined using a Likert scale consisting of five points, which span from 1 (representing "strongly disagree") to 5 (representing "strongly agree"). The scoring system implemented in this study permits a potential score range spanning from 25 to 125. Higher scores are indicative of elevated levels of social support. The present study obtained reliability coefficients, as measured by Cronbach's α, of 0.81 for emotional support, 0.82 for assessment support, 0.79 for information support, and 0.88 for material support. The Cronbach's α coefficient acquired during the developmental phase was 0.92, and it maintained a consistent level of dependability at 0.92 in the current investigation.

The Posttraumatic Growth Inventory, which was developed by Tedeschi and Calhoun[29], is widely used in research and clinical settings. In the present study, we employed the inventory version that was translated and adapted to the specific cultural context of South Korea by Song et al[30]. The instrument comprises four distinct categories, namely alterations in interpersonal relationships, shifts in self-perception, exploration of new possibilities, and heightened spiritual and religious inclination. In this study, the items within each category consist of a total of 16 elements. These elements are assessed using a Likert scale with six points, ranging from 0 (representing the absence of any experience of the change) to 5 (representing a highly significant experience of the change). The cumulative scores span from 0 to 80, with higher scores indicating a higher level of positive posttraumatic growth experiences. The Cronbach's α coefficients reported in the studies done by Tedeschi and Calhoun[29], Song et al[30], and the

current investigation were 0.90, 0.91, and 0.92, correspondingly.

This investigation was steered after the necessary agreement from the official examination panel of Al-Ain University, with which the author is affiliated. The participants were given comprehensive information pertaining to the research's objectives and methodologies. The participants voluntarily participated in the study after providing written consent that indicated their comprehension of the study's objectives and methodologies. The participants were presented with information that explicitly stated the absence of any adverse repercussions linked to their non-participation or withdrawal during the study. Furthermore, participants were provided with the information that the surveys would be assigned distinct numerical identifiers to safeguard their anonymity. It was explicitly communicated that the data gathered would be exclusively employed for the objectives of this research and subsequently discarded. The data was securely stored in a vault.

The data was analyzed using SPSS Statistics 24.0. A descriptive data analysis was conducted to evaluate the general characteristics and variables connected to burns. The chi-square test and t-test were utilized to measure two groups' effects. Additionally, the study assessed the association of social support, depressive symptoms, and posttraumatic growth. The Pearson correlation coefficients were also used to evaluate the relationships between these variables and the regression analysis was used to ascertain the factors linked to posttraumatic growth.

RESULTS

The study included 191 participants, with a mean age of 42.2 years (standard deviation = 9.79). Out of the total sample size (N = 191), 50.8% (N = 97) were identified to be in the acute phase, while the remaining 49.2% (N = 94) were categorized as being in the rehabilitation phase. Homogeneity was observed across various demographic and clinical characteristics, including age, gender, educational attainment, degree of burns, pain severity, number of burn areas, and challenges in daily functioning, throughout all stages of treatment (See Table 1).

Table 1: Burn-related characteristics and demographic data

Variables	Total N= 191 (100%)	Acute N=97(50.8%)	Rehabilitation N=94(48.2%)	t/χ2 (*P* value)
Age (mean ± SD)	42.2±9.79	41.6±7.19	42.8±10.19	**-0.12 (0.11)**
Gender				**0.32 (0.14)**
Male	101	58	43	
Female	90	39	51	
Duration of education				**-0.612 (0.81)**
less than 5	32	14	18	
from 5 to 10	54	32	22	
more than 10	105	51	54	
Range of burn%	19.21±3.1	19.41±2.01	19.11±3.3	**-0.91 (0.54)**
Pain caused by burn	2.43±0.12	2.4±0.32	2.38±0.22	**-0.41 (0.31)**
Number of burn sites				**0.332 (0.81**
1	12	4	8	
2	50	22	28	
3	23	11	12	
4	80	45	35	
5	22	14	8	
more than 5	4	1	3	
Difficulty in daily life due to burns				**0.87 (0.51)**
No	101	56	45	
A little	40	24	16	
Moderate	31	5	26	
Severe	19	12	7	

Table 2: The mean score differences in the study

	Acute	Rehabilitation	t (p)
Depressive symptoms	18.41±2.3	16.21±1.12	−3.611, (0.000)
Social support	5.03±0.14	4.1±0.2	-0.912 (0.8)
Emotional support	6.04±0.87	5.02±0.32	0.432 (0.12)
Informational support	3.03±0.25	6.01±0.12	-0.32 (0.31)
Evaluative support	7.1±0.65	4.3±0.71	0.74 (0.91)
Posttraumatic growth	6.41±0.43	7.11±0.02	0.91 (0.71)
Material support	4.3±0.21	6.01±0.12	-0.321(0.13)
Changes in interpersonal relationships	2.01±0.02	6.4±0.32	0.34 (0.14)
Changes in self-perception	4.12±0.2	6.03±0.31	3.112, (0.000)
Discovering new possibilities	8.11±0.2	2.09±0.34	-0.351 (0.42)
Increased spiritual and religious interest	1.±0.01	1.01±0.07	0.561 (0.4)

Table 3: The Correlation among the posttraumatic growth and constructs

	Acute phase		Rehabilitation phase	
	r value	p value	r value	p value
Depressive symptoms	−0.2134	.005	−0.213	< .000
Social support	0.331	< .000	0.412	< .000

Table 4: Factors linked to posttraumatic growth

	Acute phase			Rehabilitation Phase		
	β value	t value	P value	β value	t value	P value
Depressive symptoms	-0.11	1.89	<.000	−0.11	1.31	< .000
Social support	0.14,	2.71	<.000	0.129	3.78	< .000
Adjusted r^2	r^2 =0.15	F = 4.174	<.000	0.3	F = 19.12	< .000

Table 2 demonstrate a notable disparity in the average scores of self-perception alterations between the two posttraumatic growth phases (t = 3.112, p =.000). There was a substantial difference in the average scores of depressive symptoms between the two phases, as indicated by a statistically significant t-value of -3.611 (p = .000).

The inquiry unveiled the correlation between posttraumatic development and other variables during various stages of treatment. A substantial negative connection was seen between posttraumatic growth and depressive symptoms in patients during both the acute period (r = −0.2134, p =.005) and the rehabilitation phase (r = −0.213, p <.000). The results of this study, as shown in Table 3, demonstrate a substantial and favorable association between posttraumatic growth and social support among patients in both the acute period (r = 0.331, p =.000) and the rehabilitation phase (r = 0.412, p .000).The verification of the regression assumptions' analysis for the independent variables involved the identification of multicollinearity, examination of residuals, and assessment of singular values. In examination of the variables linked to posttraumatic growth among individuals with severe burns during the acute and rehabilitation stages, it was determined that social support exhibited a statistically significant relationship during the acute phase (β = 0.14, t = 2.71, p = .000). This association accounted for 12.9% of the observed variance (F = 4.174, p = .000). The results of the study indicate that there is a significant negative relationship between depressive symptoms (β = −0.11, t = −1.31, p = .00) and posttraumatic growth during the rehabilitation phase. Additionally, there is a significant relationship (positive) between social support (β = 0.129, t = 3.78, p < .000) and posttraumatic growth. These two variables, depressive symptoms and social support, collectively account for 19.1% of the variance in posttraumatic growth (F = 19.12, p < .000).

DISCUSSION

The aim of this research was to examine the variability in levels of depressive symptoms, social support, and posttraumatic growth among individuals who have experienced severe burns, with a specific emphasis on the various phases of treatment. The research entailed categorizing the participants into two distinct stages, specifically the acute phase and the rehabilitation phase. This study also aimed to ascertain the factors that are associated with posttraumatic growth. The purpose of this study was to collect essential data that can be utilized in the development of clinical nursing interventions that specifically target the psychosocial dimensions associated with severe burns.

The initial year following a burn incidence is critical for patients with severe burns due to their heightened vulnerability to psychological discomfort or worry associated with the requirement for outpatient therapy and surgery subsequent to hospital discharge. Jain et al31 posit that individuals frequently encounter elevated levels of depression due to secondary stressors linked to the necessity of adapting to daily routines, recalling traumatic events, and facing financial challenges. Hence, it is crucial for clinical nurses to proficiently evaluate the psychological states of patients in accordance with their stage of treatment and subsequently administer appropriate care.

No statistically significant difference was found between the two groups in terms of social support levels. However, a study revealed that individuals undergoing rehabilitation generally displayed greater levels of social support in comparison to those in the acute phase, encompassing various subcategories. The aforementioned findings may be ascribed to the prolonged period of hospitalization and treatment encountered by individuals with acute burn injuries. There was no statistically significant difference observed between the two groups in terms of overall posttraumatic growth. The user's text is empty. Nevertheless, it is crucial to emphasise that a statistically significant disparity was noted in the alterations in self-perception.

The subcategory concerning self-perception assessed the patient's capacity to surmount obstacles and cultivate enhanced openness, optimism, and psychological fortitude. The present situation exhibits similarities to the encounters of individuals suffering from depression, both during the acute stage and throughout the process of rehabilitation. Jeschke et al32 posit that individuals who are in the acute phase

of their medical condition and have received prompt intervention for their physical injuries progress into the subsequent stage of recovery. As a result, individuals cultivate an elevated appreciation for existence and demonstrate unwavering resolve in overcoming obstacles.

Nevertheless, individuals in the rehabilitation phase, subsequent to the acute phase, encounter limitations as a result of repeated interventions, which subsequently give rise to emotions of disillusionment and demoralization, ultimately culminating in the formation of adverse self-perceptions33. Therefore, it is crucial to administer nursing interventions to patients during the rehabilitation phase that promote their participation in self-help groups, improve their self-perceptions, and encourage effective communication with nurses.

A notable statistical correlation was also detected for both depressive symptoms as well as the posttraumatic growth in individuals in acute and rehabilitation phases. Teodorescu et al34 conducted a study wherein it was observed that all participants reported varying degrees of posttraumatic growth, with a minority of 31% indicating a higher level of growth. The study's results suggest that a significant percentage of the patients, specifically 80%, exhibited posttraumatic stress symptoms that surpassed the predetermined threshold. Moreover, a significantly large proportion of 93% of participants indicated the presence of depressive symptoms that reached a clinically significant threshold. The construct of posttraumatic growth exhibited the most significant influence on the model, surpassing the impact of posttraumatic stress symptoms and depressive symptoms. The research revealed that individuals who encountered stressors subsequent to their migration, such as unemployment, limited social connections, and difficulties in social integration, exhibited a moderate adverse correlation with posttraumatic growth and overall quality of life. Moreover, these stressors exhibited a positive correlation with symptoms of psychopathology. The findings of the study indicated that a substantial percentage of the individuals receiving outpatient care, specifically 60%, were classified as unemployed.

Refugees who have undergone multiple traumatic experiences and are seeking treatment at outpatient clinics have reported the manifestation of psychopathological symptoms, alongside the emergence of posttraumatic growth subsequent to their exposure to these traumatic events. A negative correlation has been identified between indicators of psychopathology and the overall level of quality of life. Furthermore, there is a notable correlation between psychopathological indicators and post-migration stressors, including but not limited to unemployment, a limited social network, and inadequate social integration. A notable correlation was observed between posttraumatic growth and quality of life, suggesting a positive association. In contrast, an inverse relationship was identified between posttraumatic growth and post-migration stressors. The findings from the hierarchical regression analysis indicated that posttraumatic growth accounted for a greater proportion of the variability in quality of life in comparison to posttraumatic stress symptoms, depressive symptoms, and unemployment. Hence, it is imperative to consider both favourable transformations and psychopathological indicators during the evaluation and management of outpatients with a refugee background who have experienced numerous traumatic events.

The shared factor among both groups was identified to be the presence of social support. Based on the findings of a study conducted by Farzan et al35, Research has shown that people who suffer burns that cover 80% or more of their entire body surface area during the initial phase have a higher likelihood of surviving if they have a strong social support system. According to Michalczyk et al. 36, individuals diagnosed with breast cancer who endure physical changes resembling those seen in burn victims are more likely to develop a feeling of life connection and undergo posttraumatic growth. The likelihood of this outcome is higher when individuals maintain supportive and positive relationships with their loved ones, a finding that is consistent with the results of the current study. Martin et al37 assert that the phenomenon of posttraumatic growth in patients is subject to the influence of various internal and external factors. The process of personal growth is influenced by both internal and external factors. Internally, an individual's motivation to seek personal strength contributes to this growth. Externally, the presence of social support also plays a crucial role in facilitating personal growth. Due to the aforementioned influences, individuals undergo heightened levels of positivity, cultivate a more profound comprehension of others' suffering, and acquire the requisite self-assurance to surmount obstacles. The provision of increased social support to burn patients has been observed to result in reduced levels of physical pain and shorter recovery durations, attributed to the facilitation of enhanced rehabilitation endeavours. Therefore, it can be argued that social support plays a crucial role as an external factor for individuals undergoing the rehabilitation process. In the context of patients undergoing rehabilitation, a positive correlation has been observed between the severity of depressive symptoms and the occurrence of posttraumatic growth. Individuals who have experienced significant burn injuries are expected to develop a cognitive understanding of the subsequent events that occur following the injury. Participating in these introspective cognitive processes holds the capacity to yield posttraumatic growth. In addition, it is crucial for clinical nurses responsible for the care of patients suffering from severe burns to provide comprehensive care through the establishment of a support system that facilitates access to self-help groups. This approach ensures the provision of both psychological and treatment support. This methodology al-

lows individuals to develop an ample level of self-awareness and self-esteem.

Conclusion

The present study revealed that social support exerted a noteworthy influence in promoting post-traumatic growth among individuals belonging to the acute phase group. On the other hand, it was observed that individuals belonging to the rehabilitation phase group demonstrated posttraumatic growth as a result of reduced depressive symptoms and the availability of social support. The participants in the acute phase group displayed indications of mild depression in relation to its intensity. On the other hand, the cohort undergoing the phase of rehabilitation demonstrated a moderate degree of depression and a reduced perception of positive self-image.

The results of this study suggest that the implementation of specific strategies tailored to each phase of treatment is imperative in psychosocial interventions. Therefore, it is advisable that individuals with severe burn injuries be provided with an extended period of counselling intervention and support. During the early stages of the severe burn's crisis, the clinical realm is employed for the identification and treatment of depressive symptoms. Nevertheless, the results of this study indicate that healthcare professionals tend to overlook the potentially exacerbated severity of depressive symptoms that may arise during the rehabilitation process. Therefore, it is crucial for healthcare professionals to establish a comprehensive framework that effectively addresses the management of depressive symptoms in individuals experiencing severe burns, thereby ensuring their access to suitable psychosocial interventions within the community setting. Furthermore, it is advisable for nurses to utilize a holistic approach that integrates psychological support and nursing interventions to facilitate the enhancement of patients' post-traumatic growth by fostering the cultivation of suitable self-awareness and self-esteem. It has been observed that there is a need for further research in the United Arab Emirates to enhance the clinical data pertaining to the primary experiences of healthcare professionals in managing burn and wound cases, as well as other infectious disorders in patients.

References

1. Tsai YL, Yi T, Chiang HH, Lan HY, Chiang HH, Liaw JJ. Calling nurses to care for burn victims after color-dust explosion. Nursing ethics. 2021 Nov;28(7-8):1389-401.
2. Smith M, Carrougher G, Mn R, Rivara F, Md M, M Vavilala M, J Schneider M, B Smith P, Suman O, Phd M, Gibran N. P0504/# 2143: Community Integration Outcome In Adolescents After Burn Injury: A Burn Model Systems Study. Pediatric Critical Care Medicine. 2021 Mar 1;22(Supplement 1 3S):253-4.
3. Smith M, Carrougher G, Mn R, Rivara F, Md M, M Vavilala M, J Schneider M, B Smith P, Suman O, Phd M, Gibran N. P0504/# 2143: Community Integration Outcome In Adolescents After Burn Injury: A Burn Model Systems Study. Pediatric Critical Care Medicine. 2021 Mar 1;22(Supplement 1 3S):253-4.
4. Mattson E, James L, Engdahl B. Personality factors and their impact on PTSD and post-traumatic growth is mediated by coping style among OIF/OEF veterans. Military medicine. 2018 Sep 1;183(9-10):e475-80.
5. Hawley CE, Armstrong AJ, Shiri S, Czarnota J, Blumenfeld S, Schwartz I, Meiner Z. Post-traumatic growth following politically motivated acts of violence: 10 years post injury. The Australian Journal of Rehabilitation Counselling. 2017 Jul;23(1):1-8.
6. Bartone PT, Bowles SV. Hardiness predicts post-traumatic growth and well-being in severely wounded servicemen and their spouses. Military medicine. 2021 May 1;186(5-6):500-4.
7. Hwang SM, Lim EJ. Factors associated with posttraumatic growth in patients with severe burns by treatment phase. Nursing open. 2020 Nov;7(6):1920-7.
8. Jirek SL. Narrative reconstruction and post-traumatic growth among trauma survivors: The importance of narrative in social work research and practice. Qualitative Social Work. 2017 Mar;16(2):166-88.
9. Shi L, Wang L, Jia X, Li Z, Mu H, Liu X, Peng B, Li A, Fan L. Prevalence and correlates of symptoms of post-traumatic stress disorder among Chinese healthcare workers exposed to physical violence: a cross-sectional study. BMJ open. 2017 Jul 1;7(7):e016810.
10. Hobbs K. Which factors influence the development of post-traumatic stress disorder in patients with burn injuries? A systematic review of the literature. Burns. 2015 May 1;41(3):421-30.
11. Zerach G, Shalev TB. The relations between violence exposure, posttraumatic stress symptoms, secondary traumatization, vicarious post traumatic growth and illness attribution among psychiatric nurses. Archives of Psychiatric Nursing. 2015 Jun 1;29(3):135-42.
12. Simons M, Kimble R, Tyack Z. Understanding the meaning of trauma-informed care for burns health care professionals in a pediatric hospital: A qualitative study using interpretive phenomenological analysis. Burns. 2022 Sep 1;48(6):1462-71.
13. Waqas A, Raza N, Zahid T, Rehman A, Hamid T, Hanif A, Jamal M, Farrukh A, Azam A, Turk M, Chaudhry MA. Predictors of post-traumatic stress disorder among burn patients in Pakistan: the role of reconstructive surgery in post-burn psychosocial adjustment. Burns. 2018 May 1;44(3):620-5.
14. Jagnoor J, Lukaszyk C, Christou A, Potokar T, Chamania S, Ivers R. Where to from here? A quality improvement project investigating burns treatment and rehabilitation practices in India. BMC research notes. 2018 Dec;11(1):1-6.
15. Kornhaber R, Rickard G, McLean L, Wiechula R, Lopez V, Cleary M. Burn care and rehabilitation in Australia: health professionals' perspectives. Disability and rehabilitation. 2019 Mar 13;41(6):714-9.
16. Woolard A, Hill NT, McQueen M, Martin L, Milroy H, Wood FM, Bullman I, Lin A. The psychological impact of paediatric burn injuries: a systematic review. BMC public health. 2021 Dec 14;21(1):2281.
17. Park JH, Lee JS. Predictors of post-traumatic growth in young adult burn survivors. Burns. 2022 Jun 1;48(4):744-52.
18. Raudenská J, Steinerová V, Javůrková A, Urits I, Kaye AD, Viswanath O, Varrassi G. Occupational burnout syndrome and post-traumatic stress among healthcare professionals during the novel coronavirus disease 2019 (COVID-19) pandemic. Best Practice & Research Clinical Anaesthesiology. 2020 Sep 1;34(3):553-60.
19. Nadeem T, Asad N, Khan MM, Siddiqui S, Mahr F, Hamid SN, Pirani S. Trauma and post traumatic growth in young survi-

vors of a terrorist attack: an experiential account of supportive interventions in a tertiary care hospital in Pakistan. Child care in practice. 2022 Apr 3;28(2):210-8.

20. Cleary M, West S, Kornhaber R, Visentin D, Neil A, Haik J, Kezelman C, McLean L. Moving the lenses of trauma—Trauma-informed care in the burns care setting. Burns. 2020 Sep 1;46(6):1365-72.
21. Carrougher GJ, Pham TN. Burn size estimation: A remarkable history with clinical practice implications. Burns Open. 2024 Jan 10.
22. Sisay T, Mulate M, Hailu T, Belete TM. The prevalence of depression and anxiety among cardiovascular patients at University of Gondar specialized hospital using beck's depression inventory II and beck anxiety inventory: A cross-sectional study. Heliyon. 2024 Jan 30;10(2).
23. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. Behavior research methods. 2009 Nov;41(4):1149-60.
24. Aburayya A, Alawadhi D, Taryam M. A conceptual framework for implementing TQM in the primary healthcare centers and examining its impact on patient satisfaction. International Journal of Advanced Research. 2019 Mar 25;7(3):1047-65.
25. Almarzouqi A, Aburayya A, Salloum SA. Determinants predicting the electronic medical record adoption in healthcare: A SEM-Artificial Neural Network approach. PloS one. 2022 Aug 16;17(8):e0272735.
26. Shahin I, Nassif AB, Elnagar A, Gamal S, Salloum SA, Aburayya A. Neurofeedback interventions for speech and language impairment: A systematic review. Journal of Management Information and Decision Sciences. 2021;24:1-30.
27. Atchison B, Dirette D. Conditions in Occupational Therapy. Lippincott Williams & Wilkins; 2023.
28. Lee PS, Lee YM, Lim JY, Hwang RI, Park EY. The relationship of stress, social support and depression in the elderly. Journal of Korean Academy of Nursing. 2004 Jun 1;34(3):477-84.
29. Tedeschi RG, Calhoun LG. The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. Journal of traumatic stress. 1996 Jul;9:455-71.
30. Song et al. Validity and reliability of the Korean version of the posttraumatic growth inventory. Korean Journal of health psychology. 2009;14(1):193-214.
31. Jain M, Khadilkar N, De Sousa A. Burn-related factors affecting anxiety, depression and self-esteem in burn patients: an exploratory study. Annals of burns and fire disasters. 2017 Mar 3;30(1):30.
32. Rehou S, Abdullahi A, Jeschke MG. Classic Il-6 Signaling Is Associated with Poor Outcomes In Burn Patients. Shock: Injury, Inflammation, and Sepsis: Laboratory and Clinical Approaches. 2023 Feb 17;59(2):155-60.
33. Gittings PM, Grisbrook TL, Edgar DW, Wood FM, Wand BM, O'Connell NE. Resistance training for rehabilitation after burn injury: a systematic literature review & meta-analysis. Burns. 2018 Jun 1;44(4):731-51.
34. Teodorescu DS, Siqveland J, Heir T, Hauff E, Wentzel-Larsen T, Lien L. Posttraumatic growth, depressive symptoms, posttraumatic stress symptoms, post-migration stressors and quality of life in multi-traumatized psychiatric outpatients with a refugee background in Norway. Health and quality of life outcomes. 2012 Dec;10(1):1-6.
35. Farzan R, Ghorbani Vajargah P, Mollaei A, Karkhah S, Samidoust P, Takasi P, Falakdami A, Firooz M, Hosseini SJ, Parvizi A, Haddadi S. A systematic review of social support and related factors among burns patients. International Wound Journal. 2023 Mar 23.
36. Michalczyk J, Dmochowska J, Aftyka A, Milanowska J. Post-Traumatic growth in women with breast cancer: Intensity and predictors. International Journal of Environmental Research and Public Health. 2022 May 27;19(11):6509.
37. Martin L, Byrnes M, Bulsara MK, McGarry S, Rea S, Wood F. Quality of life and posttraumatic growth after adult burn: A prospective, longitudinal study. Burns. 2017 Nov 1;43(7): 1400-10.