

Lived Experiences of Burn Patients: A Content Analysis Study

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Abstract

Aim and Background: Burn-associated mental and physical injuries can lead to physical weakness in patients, their family members, and relatives. Achieving an appropriate understanding of the burn-related clinical expectations can accelerate positive patient outcomes. Therefore, the aim of the present content analysis study aimed to explain the lived experiences of burn patients.

Materials and Methods: This is conventional qualitative content analysis. Purposeful sampling was used to select the study population, including nine burn patients admitted to the Burn Department of Amir al-Momenin Hospital in Zabol, Iran in 2019. Data collection was carried out using semi-structured interviews. The data analysis process was carried out according to the steps proposed by Graneheim and Lundman. The accuracy and trustworthiness of data were assessed and ethical standards were taken into account.

Findings: Examination of the results resulted in the extraction of three main categories, including multidimensional impacts of burns, multiple conflicts following burn injuries, multiple reactions to burn injuries, and 11 subcategories.

Conclusion: The experiences of burn patients showed that all aspects of their lives were affected their routine life disrupted following this incidence. Burn patients were involved with a variety of issues, and had shown some reactions; that is, some treated with burn injuries rationally and some showed emotional reactions. However, fortunately, some were able to come back to life. Considering the profound impacts of the burn incidence on all aspects of the life of these patients, it seems that this life is running in a bed of burn-related ash leftover from these impacts. Therefore, living in burn ash was identified as the essence of burn patients' experiences.

Keywords: Lived Experiences; Burns; Patients; Content Analysis

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Introduction

Burn injury is one of the most acute types of incidences in medicine. According to the latest global burden of disease study (GBD), there were 8,991,468 burn cases worldwide and 120,632 burn-related deaths only in 2017 [1]. According to the World Health Organization (WHO), more than 180,000 burn-related deaths occur annually, with more than 90% of cases occurring in less developed countries [2]. Burn injury is regarded as one of the most devastating and deadly injuries worldwide [2]. The incidence of burn injury ranges from 112 to 518 per 100,000 people in the Eastern Mediterranean and 22% in Iran [3]. These injuries are the third leading cause of death after traffic accidents and trauma and account for at least eight deaths each day [4] and the sixth leading cause of death in the country [5]. Studies have shown that the incidence of burns caused by hot liquids and flashes of flame is higher among young people, women, and people with lower levels of education, with mortality ranging from 27.9% to 34.4% [6]. Annually, burns impose 211 million dollars on the health system in the United States alone [2]. Today, although recent care advances lead to saving lives

of burn patients, many of these patients still suffer from burn-related complications [7] that are said to account for 50% of burn-related burden [5]. Considering numerous burn complications, including scarring, deformity, and dysfunction, the recovery process becomes challenging and prolonged [8]. Evidence suggests that burns can have the most significant impact on patients' quality of life and impair their physical, mental, social, and spiritual welfare [5], while burn victims must return to their former roles and responsibilities despite all the devastating injuries [7]. Meanwhile, considering the sudden changes in life following the burn injury, victims and their family members do not have enough time to adapt to the new circumstances [9]. Overall, considering the high number of burn patients, the incidence of complications and subsequent mortality, and the high costs imposed to the healthcare system, on the one hand, few studies focusing on lived experiences of burn survivors [7], on the other hand, as nurses care for a large number of patients simultaneously in the burn departments, and nursing care is provided regardless of what patients are experiencing, however, the uncomfortable and different experiences of these patients require a personal care plan [4].



On the other hand, there are few qualitative studies on burn patients in Iran that has different cultural and religious contexts. Also, achieving a better understanding of these patients' experiences can help provide a clearer picture of the human experiences of burn patients that can provide the treatment team with a guide for the implementation of therapeutic care strategies. Therefore, the present qualitative study aimed to explore the lived experiences of burn patients.

Materials and Methods

Design

In this qualitative study, experiences of nine burn patients referred to Imam Ali Hospital in Zabol, southeast of Iran were investigated using conventional content analysis approach from July 1, 2019 to December 10, 2019 checklist was used to report the study. Patients were selected using purposeful sampling.

Data Collection

The data were collected by visiting the burn department after making coordination and getting permission from related authorities. First, the aim of the research was explained to them, and then sampling continued until reaching data saturation. The criterion for achieving data saturation was the lack of access to new codes and concepts in subsequent interviews. The main researcher collected data using semi-structured, face-to-face interviews. The interviews were conducted in a comfortable room of the burn department and lasted between 45-60 min. Interviews were recorded using a Samsung Digital Voice Recorder. In addition to interviews, field notes were used to collect data. The interview was conducted with each patient individually. Semi-open-ended questions were used for the interview. Probing questions were also used if necessary.

The guiding questions used to start interviews included:

- How did you get burned?
- Talk about your experiences after the burn injury?
- What has changed in your life after the burn injury?

Data Analysis

All interviews were recorded by the researcher, typed verbatim, reviewed, coded, and as the interviews continued, data analysis started. In fact, data analysis was performed simultaneously and continuously with data collection. Data were analyzed using conventional content analysis approach. At the baseline, each interview was carefully read to achieve an initial understanding, important statements underlined, and recorded using codes (initial coding). Initial coding was carried out using the participants' own words and implicit codes (researcher's interpretations of the utterances). The codes, which were conceptually

similar, were then summarized in order to clarify the meaning and were categorized as categories and sub-categories. The data analysis process was carried out according to the proposed steps of Graneheim and Lundman [10]. To ensure credibility, coded texts of interviews were given to participants to confirm their conformity with their experiences, and corrections were made in some cases. To ensure dependability, resulting codes, and concepts were consulted with experts and research project colleagues, and several colleagues were also asked to encode some parts of the interview text and then coding agreement was reviewed. In order to confirm the transferability of the findings, attempts were made to use patients with different demographic characteristics and different experiences and the researcher measured all aspects of lived behaviors, events, and experiences. Conformability of findings was also ensured by the researcher's rich description of all stages of the research. Also, the details of the research were documented carefully to enable the external observers to evaluate the research.

Ethical Approval

The present study was approved by the Ethics Committee of the xxx University of Medical Sciences (Ethic code: IR.ZBMU.REC.1394.87) in Iran. Permission to access the setting was obtained from the Vice Chancellor for Research of XXX University of Medical Sciences. Prior to study enrollment, the researcher explained full details about the study. Written informed consent was obtained from the participants if they were interested in participation in the study.

Results

The individual characteristics of the participants are presented in Table 1. Data analysis resulted in the extraction of 6 main categories and 15 sub-categories (Table 2).

Multidimensional impacts of burns

Experiences of burn patients showed the impact of burns on different aspects of physical, mental and spiritual dimensions. Family and life were also affected by the incidence.

Physical impacts of burns: Participants stated that they had encountered numerous physical problems following burns, including restricted finger movement, impaired performance of delicate tasks, inability to perform personal tasks, writing and walking, developing anemia, fever, skin darkening of burned areas, thinness and tenderness of the hand and leg skin, feeling numbness in hands and legs, pain, etc. A 49-year-old female patient with burns on her hands, legs, and abdomen stated:

"I run out of vigor due to the burn-induced pain during the last few weeks of hospitalization. I can't walk, but the nurses force me to walk."

Mental Impacts of Burns: Burn injuries have affected both

Table 1: Demographic characteristics of burn patients.

Number	Age (years)	Sex	Marital status	Level of Education	Job	Burn %	Degree of burns	Burn area
1	30	Male	Married	Bachelor	Employee	20	Second degree	Face and hands
2	50	Male	Married	Associate degree	Retired Employee	25	Second and third	Face and hands
3	26	Female	Married	Bachelor	Housewife	30	Second	Face, hands and feet
4	49	Female	Married	Elementary	Housewife	25	Second	Abdomen, hands, and feet
5	29	Female	Married	Bachelor	Housewife	30	Second and third	Face, hands and feet
6	48	Female	Married	Middle school	Housewife	15	Second	Face and hand
7	30	Female	Married	Diploma	Housewife	25	Second and third	Face, chest, and hands
8	28	Male	Married	Diploma	Mechanic	20	Second	Hands and leg
9	21	Male	Single	Associate degree	University student	30	Second and third	Hands and leg



Table 2: Extracted Main category, categories and subcategories.

Main category	Categories	Subcategories
Living in the Ash Remains of Burn Injury	Multidimensional impacts of burns	Physical impacts of burn
		Mental impacts of burn
		Spiritual impacts of burn
		Family impacts
		The impacts of burns on life
		Mental conflict with bitter memories of the fire
	Multiple conflicts following burn injuries	Internal conflict with concerns
		Internal conflict with family issues
	Reactions to burn injuries	Rational treatment
		Emotional treatment
		Return to life

the physical and mental aspects of these patients, as they felt upset regarding pitiful views of others, felt embarrassed when relatives look at the burned area, felt disapproval, handicapped and depressed, feared secondary injuries, had thoughts of death, hopelessness, gave up, felt emotional deprivation by reverse isolation, had severe mental conflict with their new appearance, had emotional stress from burn costs, feared of seeing the appearance of the burned area, reduced self-confidence and humiliation in the face of healthy people, had a sense of paying for sins, feared recurrence of burns, feeling futility, and loneliness, worrying about healing wounds, etc. A 26-year-old female patient with burns on her face, hands, and legs said:

“After the burn injury, I had to wear gloves to hide my hands from people’s eyes, I’m embarrassed, I’ve restricted my relationships with relatives, and I have relationship only with those I’m comfortable with.”

Spiritual Impacts of Burns: The burn injury also affects the spiritual dimension of patients so that some of them were complaining of God and were asking why such incidence happened to them, not others. A 48-year-old female patient with burns on her hands and face said:

“When our house was on fire and I and my husband were affected by the incident, I said to myself, ‘Oh my God, what sin I have committed that this incidence happened?’

However, other patients regarded the burn injury as a way of paying more attention to God’s presence in life, asked for patience, forgiveness, and assistance from God, believed everything God does is for a reason, felt that they were supported by God, will retrieve their previous appearance at his will, and felt that their sins are purged away by this incidence. A 50-year-old male patient with burns on his face and two hands said:

“Although my wife and I supported each other at the time of hospitalization, but to give the devil his due, God is the one who always supports us”.

Family Impacts of Burns: Burn patients said that their family was also affected following such incident as their spouses were shocked, their family members were crying and worried, their children were impatient, the financial burden and responsibility were imposed on their spouse and other family members, their family life had been disrupted and their children’s life plan had been disrupted, family members were heavily involved in the patient’s treatment process to the point that mental and physical problems such as hypertension had occurred to them. A 28-year-old male patient with burns on his hands or legs said:

“While I was involved with the treatment process, my wife suffered more than me, I remember she was crying very much during the first few days of burns.” A 49-year-old housewife with 25% burn said:

“In my opinion, a burn injury paralyzes the life of a family, all members of the family must cooperate so that this heavy burden is not assumed by one person.”

The Impacts of Burn on Life: Burns patients stated that the burn incidence had a profound effect on their lives as the normal course of their lives has been disrupted, they have been falling behind their work and life, suffered significant financial losses, lagged behind in education, and basically believed that their lives has become stagnant and had no future. A 30-year-old male patient with 20% burn said:

“I couldn’t go back to work for about a month due to the burn injury and do my daily routines.”

Some of these patients did not have a pleasant description of life following the burn injury. A 30-year-old female patient with 25% burn said:

“Life with burn injuries is not life at all, you don’t have the happiness, you are always sad, and want days go by faster.”

Multiple Conflicts Following Burn Injuries

Experiences of burn patients showed that the incidence of burns was associated with following multiple conflicts:

Mental Conflict with Bitter Memories of the Fire: Burn patients had not been able to forget those hard times full of pain, panic, stress and sadness, feeling of being roasted while you are alive, and being burnt down inch by inch although some time had passed since the incidence. Some of them blamed themselves for remembering the moment of neglect that led to the accident. A 30-year-old female patient with burns on her chest, face, and hands said:

“I was just thinking to put out the fire when the incidence happened, my heart is beating faster, I wanted to sit in a corner just to cry.”

Conflict with Concerns: The burn incidence was accompanied by a number of concerns, such as loss of health and beauty, feeling of being ruined, continuing relationships with others, loss of roles, and unemployment. Some patients were worried about the fact that their spouses will leave them and remarry another person, while the pain of burning dressing had become a mental concern for others. A 48-year-old female patient with 15% burn on her hands and face said:

“When I was hospitalized due to burn injuries, I always asked nurses if my face would look like the pre-incidence appearance.”

Conflict with Family Issues: Following burn injuries, many family issues happened for the patient, such as angry and reproachful spouse, being strange to family members due to facial changes, dependence on the spouse and children, a sense of being humiliated by the spouse, reduced satisfaction with marital relations, fear of divorce and disintegration of the family, being rejected by family members, causing harm to maternal and spouse identity, etc. A 49-year-old female patient with a second degree burn on her hands and abdomen said:

“I couldn’t get together with my children since I suffer from burn injuries. I pray we get back together like before.”

A 26-year-old female patient with 30% second-degree burn on her face, hands, and legs said:

“I feel that my husband feels no longer the pleasure from marital



relations following the burn injury because my face and hands don't have the same softness."

Multiple Reactions to Burns

Experiences of burn patients showed that some of them had some rational and some emotional reactions and some of them could also return to life.

Rational Treatment: Some burn patients have had a logical treatment with these conditions such as attempting to erase the memory of the incidence, physiotherapy, being careful following the incidence, being happy to live despite the burn, adjusting to the impacts of the burn, knowing the importance of health, gradual accepting the burn accident, thanking caregivers and praying for them, hoping for recovery and deciding to have children. A 48-year-old female patient with 15% second-degree burn on her hands and face said:

"A few weeks after being discharged from the hospital, I changed my perspective on life with the burn injury because I got used to it. I told myself I could live like before."

Emotional Treatment: Some burn patients had emotional treatment to such situations, such as avoiding a party, crying, limiting relationships with relatives, trying to hide the burned area, regretting and complaining about fate, and wishing for death. A 21-year-old man with 30% burn on his hands or legs said:

"For me, as a young single boy, countenance is very important, so I don't go out of the house for a while until my face looks like its first day."

Returning to Life: Some patients were able to return to life after burn and enduring many problems, be hopeful for the future, accept the limitations, and basically feel they were born again. A 30-year-old male patient with a 20% second-grade burn on his face and hands said:

"Although I didn't think that my face would look like the first day, but, thank God, my wound is healing now and I have a normal life."

Discussion

The present study reflects the experiences of burn patients. These experiences illustrate their sufferings and struggles after the burn. This chapter discusses the results of the present study. In the present study, burns left numerous physical and psychological impacts in the participants, which is consistent with Sheini-Jaberi P, et al. (2014) qualitative study aimed at describing burn care nurses' experiences. Sheini-Jaberi P, et al. (2014) stated that nurses need to provide physical, psychological and social care according to the needs of burn patients [10]. In their qualitative study aimed at identifying the physical needs of burn patients, Mohammadhossini S et al. (2019) also emphasized the need to provide care for burn patients based on individual needs, and some of the themes extracted from the data included the need for physiotherapy, the need for a comprehensive physical examination, monitoring, healthy nutrition, pharmacotherapy, and pain relief [11]. Daryabygi R, et al. (2016) writes that the use of religious teachings can play a significant role in ameliorating mental and physical illnesses of a burn patient [12].

Confirming the psychological needs of these patients, Niroumand-Zandi K, et al. (2016) writes that the clinical experience of burn survivors suggests that this incidence is associated with devastating stress and can lead to permanent mental and physical changes [13]. In a qualitative study aimed at obtaining information on psychosocial

issues experienced by people with burn deformity, Rahzani K, et al. (2008) also regarded psychological problems such as sadness, embracement, fear of rejection, reluctance, disgust, and hopelessness as one the extracted themes [7]. In a qualitative study, Zamanzadeh V, et al. (2015) also identified psychosocial obsessions and aggressive behaviors such as aggression, anger, threatening oneself and others, escape, and harmful behavior as some of the experiences of burn patients [3], which are all consistent with the present study. However, Pishnamazi Z, et al. (2011) concluded in their study that burn patients had relatively favorable quality of life in the physical and social domain, but did not have a good quality of life in the mental domain [4]. Such relatively different conclusion may be due to differences in the research population and environment.

In the present study, participants stated that burns had impacts on their normal daily routines. In a qualitative study by Zamanzadeh V, et al. (2015), participants reported that their post-discharge happiness was changed into despair when they entered home and faced new changes and understood disruption in their lives and changed their perception of recovery [3]. Consistent with the above finding, Coffey R, et al. (2011) writes that, unlike other chronic diseases, burn-related gaps cause sudden changes in life [8]. Similarly, one of the subcategories extracted in the qualitative study of Zamanzadeh V, et al. (2014) was threatened the life process [6]. Niroumand-Zandi K, et al. (2015) also write, that studies have shown that if a burn victim survives, he/she will face various physical and mental challenges and all aspects of his/her life will undergo changes [13].

In the present study, the participants referred to family impacts of burn. In consistent with the above finding, Coffey R, et al. (2011) writes that burn patients and their families face acute crisis and need time to cope with these gaps [8]. Bäckström J, et al. (2018) also writes that severe burn is a type of distress not only for the injured people but also for their family members and can have negative consequences for the family such as socio-economic impacts [14]. The results of Bäckström J, et al. (2018) also showed that people with burn injuries considered family support to be vital in the recovery process [14]. Niroumand-Zandi K, et al. (2015) also concluded that social support from families is an effective and cost-effective strategy for coping with burn complications [13].

The burn incidence had an impact on the spiritual dimension of patients in the present study so that some of them were complaining God for their conditions. In the qualitative study of Zamanzadeh V, et al. (2015), burn patients also had spiritual conflict and had experiences such as despair and doubt about the existence or favor of God [3].

In the present study, some participants had a logical and some emotional reactions to their burn injuries. In the qualitative study of Rahzani K, et al. (2008) people with burn deformity had two types of reactions to people's reactions to their deformity [7]. Some participants felt hatred towards people since they had negative assessment their reactions to their environment, workplace, and school and were reluctant to interact, especially with strangers and some of the other participants gave them the right, because of their positive evaluation of people's reactions, regarded interaction with people as necessary, stated that it is important and valuable that their spouse accept their burn deformity and ignored many people's negative reactions. Similarly, Daryabygi R, et al. (2016) writes that religious teachings can play a significant role in reinforcing the positive behaviors of a burn patient [12].

In the present study, some participants returned to life after



undergoing hard treatment course. The result of the qualitative study by Zamanzadeh V, et al. (2014) on burn patients also suggested the concept of returning to life [6]. In this regard, they write, returning to life is a complex and multifactorial issue that is influenced by many factors such as family support, intrinsic motivation, socioeconomic status, culture, and education level. Since Supreme Being has always invited human beings to be hopeful and optimistic towards the life system and has regarded despair and disappointment as extremely bad personal traits in Islam [12], on the one hand, and with regard to the religious context of Iranian society and the region from which the patients were selected, on the other hand, it is likely that the spiritual beliefs of the burn patients are also effective in helping them return to ordinary life.

In the present study, conflict with family issues was one of the experiences of burn patients. Consistent with the above finding, Bäckström J, et al. (2018) writes that their spouses may have to take on new roles following burn injury. Basically, family members may be concerned about how to control the situation after discharge [14].

In the present study, mental conflict with bitter memories of fire was one of the experiences of burn patients. These patients could not forget the memories of the fire. Daryabygi R, et al. (2016) writes, the results of studies show that more than 50% of people with severe burns experience a variety of sleep problems, such as difficulty falling asleep, frequent awakenings, poor sleep quality, early morning awakening, and nightmares [12]. These problems may be associated with a burn person's mental involvement with these lasting mental memories.

Conclusion

Experiences of burn patients have shown that burn injury has affected all aspects of their lives and disrupted their life routines and consequently, they were involved in a variety of issues. Burn patients had shown some reactions, that is, some reacted rationally and some emotionally under such conditions. However, fortunately, some were able to come back to life. Considering the profound impacts of burn injury on all aspects of life of patients, it seems that this life is running in a bed of burn-related ash left over from these impacts. Therefore, living in the burn ash was identified as the essence of burn patients' experiences.

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