

Challenges Hindering the Adequate Management of Victims of Burn Injuries at a Burns Unit of a Tertiary Care Centre, Rawalpindi, Punjab

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ABSTRACT

Objectives: To assess the main challenges that hinder the adequate management of burns victims.

Methodology: A qualitative study was conducted at POF Wah Cantt between February 2018 to July 2018, for a duration of Six months. All hospital workers employed by the Burns Department, POF hospital were invited to take part in the study. A Focus group discussion (FGD) was held by the authors. The entire discussion was recorded and then transcribed verbatim. The discussion was conducted in English and transcripts were produced in English language. The main themes of the discussion were extracted from the verbatim and presented graphically.

Results: We identified some main challenges that hinder the proper management of burn victims including the lack of resources such as work force, free medication, advanced equipment, etc., and increased patient load. Other common challenges according to the health care workers were: i) lack of funds for research and clinical trials; ii) lack of application of new protocols and advanced treatment options; iii) improper counseling of patients; iv) unwillingness of patients to seek help from a mental health professional; v) delay in presenting to the emergency department vi) high rate of loss to follow-up; vii) lack of financial resources to continue medication and rehabilitation; viii) lack of budget to train doctors.

Conclusion: The study highlighted some of the challenges that hinder proper management of burns victims including unavailability of medication supplies, lack of advanced equipment, and increased patient load.

Keywords: Burn, Treatment, Developing, Low-income, Middle-income, Health care professional, Health Care, Resources

INTRODUCTION

Every year, injuries related to burn lead to approximately 250,000 casualties and disabilities of about 18 million.¹ Middle and low income households usually involve children and women and 95% of them are fatal. The main reasons for burn injuries are mostly flames or hot liquids in younger children who get burned at home most commonly in rural settings.²⁻³ In countries such as Pakistan, Nepal, India, Sri Lanka, Bangladesh and Afghanistan, violence against women especially in the form of domestic violence is quite common. Additionally, marital problems lead to suicide attempts by women often leading to burn fatalities.³⁻⁵

Burn injuries due to electric shock are very common in developing countries due to lack of awareness on how to handle electric wires leading to many accidental deaths every year. However many homicidal or suicidal cases are usually wrongly portrayed as accidental to avoid police investigations and embarrassment due to societal pressure.⁶⁻⁷

Burn injuries are not properly treated in developing countries including Pakistan because of the lack of proper facilities. They also involve psychological trauma, increased stress to the patient as well as the family, long admissions in hospitals as well as disfigurement of the bodies of burn victims.⁸⁻¹⁰

First response treatment needs to be implemented for victims with burn injuries to reduce the depth of the injury as well as to save the lives of the patients. Therefore, it is

important to explore the challenges that hinder the proper management of the burn injuries at a local burn unit in Pakistan. Here we present the findings of a small group discussion held with some of the consultants, residents, and the hospital staff working at the Burns Unit, POF, Wah Cantt, Rawalpindi, Punjab, Pakistan. The objective was to understand the current challenges we face today and the perspective of the health care workers in regards to the adequate management of burn injuries at a tertiary care hospital, Pakistan.

METHODS AND MATERIALS

A qualitative study was conducted at POF hospital, Rawalpindi, Pakistan between February 2018 to July 2018 for a duration of six months. Before initiating the study, the institutional review board and ethics committee issued the ethical approval.

All hospital workers including consultants, residents, technicians, and hospital staff working in the burns unit, POF hospital were invited to take part in the study and share their views on the main challenges faced by the patients and the hospital in relation to burn trauma. All those who showed interest to participate in the study were asked to give informed written consent prior to the start of the small group discussion.

The interview was carried out by the principal author and assisted by the remaining authors. The small group discussion was held in a quiet room where eight study participants were seated. The authors made sure the study

participants were comfortable. Refreshments were offered to the participants during and after the discussion. The discussion was recorded over a recording device and it lasted for about two hours. The participants were given pseudonyms for transcription purposes to ensure their anonymity. The entire discussion was recorded and then transcribed verbatim. The discussion was conducted in English and transcripts were produced in English language. The main themes of the discussion were extracted from the verbatim and presented graphically.

For data analysis, SPSS version 26 was used. Qualitative data was analysed using inductive approach. The transcribed data was organised, points of focus were identified, data was labelled and finally coding was done. The codes and themes were analysed.

RESULTS

The characteristics of study participants are presented in table 1 below. The mean duration of focus group discussion was two hours. There were two consultants, four postgraduate trainees, and two nurses.

Table 1. Characteristics of Study participants

Characteristics	N (%)
Gender	
Male	3 (37.5%)
Female	5 (62.5%)
Designation	
Consultant	2 (25%)
Medical Officer or Postgraduate trainee	4 (50%)
Nursing Staff	2 (25%)
Marital Status	
Single	6 (75%)
Married	2 (25%)

Table 2. Main Challenges in the management of Burn Injuries according to the Study Participants

Main Challenges in the management of Burn Injuries	N (%)
Main Challenges in the management of Burn Injuries	N (%)
Lack of resources including health care workers, medication,	8 (100%)
Lack of application of latest protocols and advance treatments	6 (75%)
Lack of funds for research and clinical trials	2 (25%)
Improper counseling of patients	3 (37.5%)
Lack of adequate rehabilitation services for patients	4 (50%)
Increased patient load	6 (75%)
Delay in presenting to the emergency department	7 (87.5%)
Limited budgets to finance proper training of doctors	5 (62.5%)
Loss to follow up	4 (50%)
Unwillingness of patients to seek help from a mental health professional	6 (75%)

We identified some main challenges health care providers face in the management of burn injuries which are represented in table 2. Lack of resources such as work force, free medication, advanced equipment, etc., along with increased patient load were two main challenges faced both by the patients and the providers as well. Other common challenges according to the health care workers

were: i) lack of funds for research and clinical trials; ii) lack of application of new protocols and advanced treatment options; iii) improper counseling of patients; iv) unwillingness of patients to seek help from a mental health professional; v) delay in presenting to the emergency department vi) high rate of loss to follow-up; vii) lack of financial resources to continue medication and rehabilitation; viii) lack of budget to train doctors.

DISCUSSION

Burn injuries are one of the leading causes of morbidity and mortality in the world especially in developing countries where resources and awareness are so scarce.¹¹ Around 365,000 people present with burn injuries every year whether it's a thermal or an electrical burn and almost 5,000 of these people die every year.¹¹⁻¹² We investigated a few barriers which do not allow prompt management of burn victims in developing countries. Our study was in accordance with other studies. A study was conducted in Nepal in 2020 on 1305 homes to find out the knowledge and awareness of people about burn injuries.³ The knowledge was found to be average overall and many household members were familiar with the first aid concept. However, those who were less aware of the treatment used substances such as cow dung over the injuries which makes the injuries worse. These substances are commonly used in the developing countries and can lead to worse outcomes.

A similar study was done to identify the types of burn injuries.¹³ The authors of the study argued that practitioners who are in charge of infection have to put in some extra effort in burn centres. The injuries of the patients need to be continuously checked according to established classifications. A screening technique was also advised to check for infections which are caused in the hospitals and are usually found in patients who have UTIs, pneumonia or infections related to placement of catheters. Using antibiotics was encouraged but it was advised to keep on monitoring resistance to those antibiotics which are regularly used on burn victims. Programs were also instructed to report and document according to guidelines.¹⁴

Another study was conducted in 2016 and the authors looked at the challenges of treating severely burned patients and chronic wound care.¹⁵ It was advised to thoroughly check the patient and the wounds to correctly treat chronic wounds. In order to treat chronic wounds properly, a range of antiseptic agents were encouraged especially NPWT. The authors also argued careful monitoring of required surgeries on burn patients. Doctors who are responsible for burn patients need to be sure of the timing of the treatment, the space available to apply stem cell therapies and to be sure of the volume of the wound.¹⁶ Hospitals which treat burn patients require a proper team with multiple systems which can easily manage severe burns and injuries.¹⁷⁻¹⁸

The common strategies to overcome barriers were identified as: 1) training of local primary care providers and traditional healers as they are usually the first point of contact; 2) specialized burn care training and hiring of care providers including nurses, doctors, paramedical staff; 3) community awareness programs regarding places to seek

burn care to avoid delay in burn treatment; 4) media campaigns on first aid care following burns to reduce severity of burn and dispel myths like use of tooth-paste; 5) provision of rehabilitation services including psychological support.⁷⁻⁸

There needs to be easy access to emergency services such as emergency surgeries, dressings which are modern as well as according to the recent guidelines and critical care services should be readily available as well.

CONCLUSION

The study highlighted some of the challenges that hinder proper management of burns victims including unavailability of medication supplies, lack of advanced equipment, and increased patient load. Further large scale studies can help in the development of burn care initiatives to improve the current burn care management in both rural and urban regions of the country.

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