



SOCIODEMOGRAPHIC AND CLINICAL PROFILE OF PATIENTS WITH BURNS OF A TERTIARY SPECIALIZED UNIT

PERFIL SOCIODEMOGRÁFICO E CLÍNICO DE PACIENTES COM QUEIMADURAS DE UMA UNIDADE ESPECIALIZADA TERCIÁRIA

PERFIL SOCIODEMOGRÁFICO Y CLÍNICO DE PACIENTES COM QUEMADURAS DE UNA UNIDAD ESPECIALIZADA TERCIARIA

Annecy Tojeiro Giordani¹, Helena Megumi Sonobe², Margarete de Araújo Andrade³, Maria Aparecida Valério⁴, Gabriele Guarini⁵, Amanda Torres Rodrigues⁶

ABSTRACT

Objective: to characterize the sociodemographic and clinical profile of patients with burns. **Method:** quantitative, retrospective study, with medical records of 434 patients with burns treated at the Burn Treatment Center (BTC) of Paraná, from January/2012 to December/2013. Identification, clinical and sociodemographic data were double entered in Excel Program and processed in Statistical Package for Social Science (SPSS)®, version 19.0, with descriptive statistics analysis. The research project was approved by the Research Ethics Committee, Opinion 459.623. **Results:** from the total of 434 (100%) hospitalizations for burns, it predominated males (287-66%), between 10 and 30 years old (136-31%), burns by gasoline or alcohol (182-42%), 2nd and 3rd degree burns (159-37%), hospitalizations between 11 and 30 days (173-40%) and body length from 01-19% (280-65%). **Conclusion:** patients required intensive care during the acute phase of hospitalization and specific home care for a long time and educational interventions for family, as well as specialized professional support for harm minimization, and psychological, social and occupational functional impairment. **Descriptors:** Burns; Nursing Care; Hospitalization.

RESUMO

Objetivo: caracterizar o perfil sociodemográfico e clínico de pacientes com queimaduras. **Método:** estudo quantitativo, retrospectivo, com 434 prontuários de pacientes com queimaduras, atendidos no Centro de Tratamento de Queimados (CTQ) paranaense, de janeiro/2012 a dezembro/2013. Os dados de identificação, sociodemográficos e clínicos foram digitados duplamente no Programa Excel e processados no *Statistical Package for Social Science* (SPSS)®, versão 19.0, com análise estatística descritiva. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, parecer 459.623. **Resultados:** do total de 434 (100%) internações por queimaduras, predominou sexo masculino (287-66%), entre 10 e 30 anos (136-31%), queimaduras por álcool ou gasolina (182-42%), de 2º e 3º graus (159-37%), internações entre 11 e 30 dias (173-40%) e extensão corporal de 01 a 19% (280-65%). **Conclusão:** clientela necessitou de cuidados intensivos na fase aguda da hospitalização e de cuidados domiciliares específicos por um longo tempo e intervenções educativas para família, além de suporte profissional especializado para minimização de danos e comprometimento funcional, psicológico, laboral e social. **Descritores:** Queimaduras; Cuidados de enfermagem; Hospitalização.

RESUMEN

Objetivo: caracterizar el perfil sociodemográfico y clínico de pacientes con quemaduras. **Método:** estudio cuantitativo, retrospectivo, con 434 prontuarios de pacientes con quemaduras, atendidos en el Centro de Tratamientos de Quemados (CTQ) de Paraná de enero/2012 a diciembre/2013. Los datos de identificación, sociodemográficos y clínicos fueron digitados doblemente en el Programa Excel y procesados en el *Statistical Package for Social Science* (SPSS), versión 19.0, con análisis estadístico descriptivo. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, parecer 459.623. **Resultados:** del total de 434 (100%) internaciones por quemaduras, predominó el sexo masculino 287 (66%), entre 10 y 30 años 136 (31%), quemaduras por alcohol o gasolina 182 (42%), de segundo y tercer grado 159 (37%), internaciones entre 11 y 30 días 173 (40%) y extensión corporal de 01 a 19% 280 (65%). **Conclusión:** los lesionados necesitaron de cuidados intensivos en la fase aguda de hospitalización y de cuidados domiciliarios específicos por un largo tiempo e intervenciones educativas para la familia, además de soporte profesional especializado para minimizar los daños y el comprometimiento funcional, psicológico, laboral y social. **Descriptores:** Quemaduras; Cuidados de Enfermería; Hospitalización.

¹Nurse, Post-Doc, Associate Professor, University of Northern Paraná. Bandeirantes (PR), Brazil. E-mail: annecy@uenp.edu.br; ²Nurse, Professor, School of Nursing of Ribeirão Preto, University of São Paulo/EERP-USP. Ribeirão Preto (SP), Brazil. E-mail: megumi@eerp.usp.br; ³ Nurse, Specialist, Hospital das Clínicas, Universidade Estadual de Londrina/Uel-HC. Londrina (PR), Brazil. E-mail: margareteandrade@sercomtel.com.br; ⁴Agronomist, Master, Assistant Professor, University of Northern Paraná/UENP-CLM. Bandeirantes (PR), Brazil. E-mail: mavalerio@uenp.edu.br; ⁵Nursing Student, Scientific Initiation Scholarship by Araucaria Foundation, University of Northern Paraná/UENP-CLM. Bandeirantes (PR), Brazil. E-mail: gabiguarini18@gmail.com; ⁶Nursing Student, University of Northern Paraná/UENP-CLM. Bandeirantes (PR), Brazil. E-mail: amanda.t.rodrigues@hotmail.com

INTRODUÇÃO

A burn is an injury in a specific area of the body caused by physical or causal agent that reaches the integument with mild or severe systemic consequences, depending on the extent of the burned area, the depth of the causative agent and the affected region.¹

Since it is damage to organ tissue due to trauma by thermal source (heat and cold), burn causes from small blisters to severe damage, capable of eliciting systemic responses according to its length and depth, and disfigurement, disability and death. Still, the healing process of burn injury is painful and treatments vary from days to years, with the possibility of numerous complications and physical and psychosocial consequences, which makes the process very stressful and suffering for patients, families and loved ones.²⁻⁴

For health professionals who provide direct care to people with burns in hospital, there is mental and emotional exhaustion since they accompany the suffering of these clients, primarily in the development of the nursing practice in critical care units for burns, where professionals have borderline situations of suffering.⁵ This situation also arises because of the suffering of patients and the limitations that the worker finds in providing the patient relief from the physical and emotional pain.

Even without psychological counseling, as a support to the performance of their work, the multidisciplinary and interdisciplinary team, of which the nursing is part, strives to provide quality care that promotes rapid recovery to the patient, with minimal sequelae, to return to his daily activities, rehabilitated functional and aesthetically.^{1,6,7} For the patient with burns, under the psychological point of view, there are steps that need to be overcome, such as the fear of death, the threat of disfigurement, physical discomfort, separation from family and friends, fear of rejection, consequences about his future projects and conflicts related to dependence on others to perform the activities of daily living. All this without mentioning the physical stressors, such as acidosis, fluid loss, infection, pain, changes in the endocrine balance, etc.^{1,8}

Depending on the extent and severity of the burn, sequelae will significantly affect the chances of the patient to fully enjoy his productive, economic and social potential. The burn scars mark not only the skin but also the personality, sexuality, self-image, mood, work and other activities. They intervene negatively in performing routine activities

such as brushing your hair, bathing, preparing meals and feeding, using public or private transportation and communicating, among other limitations that need to be considered in the rehabilitation process.^{1,9}

Among other important evidence, study³ developed on body image and job satisfaction among adults in burns rehabilitation surmised that changes in the body caused by the burn are evaluated by the victim in a negative way, becoming an obstacle to social rehabilitation and source of psychological distress.

There are various classifications of burns according to the extent of the burned body surface. By observing the depth of lesions, burns can be called 1st, 2nd and 3rd degrees. The 1st degree is painful, there is no need for hospitalization and usually occurs due to long exposure to sun. The 2nd degree burn may be superficial or deep, usually with painful blisters. At 3rd degree burns, the skin is very damaged and deep devastation require intensive treatment with surgery, skin grafts, control and guidance of regenerating healing that tends to occur in a disorderly manner, with potential sequelae and infection.^{2, 4, 10}

Study provides a classification that is based on the depth of affected skin, determining the prognosis and treatment for the patient. According to the authors, the lesions before referred as 1st degree are superficial, affecting only the epidermis; the partial thickness burns are known as 2nd degree, which may be superficial or deep; and a total thickness correspond to the 3rd degree, that affect the full thickness of the skin. In superficial burns, there is presence of edematous and painful hyperemia, resolved within 5 to 7 days. Partial thickness burns, on the other hand, are superficial when injure the dermis and the upper layer, showing bubbles, moisture and severe pain. In this case, healing occurs from 14 to 21 days, leaving a minimum of scar tissue. These (partial thickness) can also be deep lesions, involving almost the entire thickness of the dermis, with a paler color and less pain, which scarring takes 3 to 6 weeks or more. In full thickness burns, lesions may extend into the subcutaneous tissue, muscles and bones, with whitish and hard aspect, and the treatment is even longer.²

In practice, in the first day, there is great difficulty in differentiating 2nd degree and 3rd degree burns, and evaluation may be inaccurate or imprecise. This is because during its evolution, the presence of infection or hemodynamic instability may bring harm to injury, deepening it and thus changing its

classification. So due to the difficulty to determine the degree of burn on an initial assessment, it is essential that a reassessment is made after 48 to 72 hours of injury.²

The destruction of the skin is the loss of the first barrier face of aggression of external microorganisms and the presence of necrosis, which provides a suitable environment for microbial growth and subsequent invasion of the organism. This occurs especially when the healing process is by second intention, as in skin lesions for more extensive burns, which slows the process, increases the risk of infection and scar retraction, as well as extensive scarring and high cost of treatment.²

Nursing professionals, both in Brazil and in other countries, have primary role in prevention, care and rehabilitation of burn patients. However, it is extremely difficult and complex the task of caring for these patients, especially with victims of major burns. The first moments of lucidity after the accident, the daily pains that accompany the treatment and long period of hospitalization are just some aspects that require specialized and humane nursing care. In this sense, the actions of the nurse with the patient should be focused to control pain by administering sedatives and analgesics, physical comfort and emotional support, which requires from nurses and staff coverage of scientific and technical knowledge and expertise to handle with emotional responses of patients and their families, in order to accelerate their rehabilitation.⁵

Nursing Care System, as a healthcare model of competence of the nurse, can assist in providing an individualized, humane, comprehensive and continuous care to patient with burns and family. However, many healthcare institutions in the country still do not use it, even some of the few hospitals and specialized centers for treating people with burns.^{8, 11, 12}

Study on the identification of specific characteristics of burn victims enables healthcare professionals involved in care to perform the planning of an improved quality of care in line with their singularities. Furthermore, knowledge of socio-demographic and clinical data can help managers of Burn Treatment Center (BTC) to improve services,

which includes services to patients and families during hospitalization and after discharge, health education, training of workers and development of preventive projects to the people.

OBJECTIVE

- To characterize the socio-demographic and clinical profile of patients with burns.

METHOD

This is a study with quantitative, descriptive and transversal approach regarding the profile of burn patients treated at the BTC of a university hospital located in the state of Parana, as to the socio-demographic and clinical profile. Data collection was conducted over a period of three months, totaling 434 matching records for patients admitted from January 2012 to December 2013. The data collection tool was developed based on scientific literature and clinical experience of the investigators, contemplating identification, socio-demographic and clinical data.

Inclusion criteria for the sample selection of this study were: records of patients of all ages admitted to the BTC on the pre-determined period. Data were coded and double entered into Excel spreadsheets, which were exported and analyzed using the Statistical Package for Social Science (SPSS)® program, version 19.0. Descriptive statistical analysis with presentation of data in total and percentage frequencies was performed.

The project was submitted to the Research Ethics Committee of the State University of Londrina (UEL-CEP), according to the precepts of Research Involving Human Beings (CONEP-466/12), assuring anonymity, confidentiality and waiver at any time, with no damage to assistance for the study participants (Opinion No. 776 232).

RESULTS

The data presented in Table 1 incorporate relevant information about the sample studied. It can be observed features related to socio-demographic and clinical variables.

Table 1. Socio-demographic and clinical characterization of burn patients treated at the hospital of the study, from 2012 to 2013. Londrina, 2014.

Characterization of patients treated	No. of patients	%
--------------------------------------	-----------------	---

		2012	2013	Subtotal	Total
Sex	Female	65	82	147	34
	Male	128	159	287	66
Subtotal		193	241	434	100
Age group (years old)	Under 02	21	18	39	09
	From 02 to 09	38	36	74	17
	From 10 to 30	53	83	136	31
	From 31 to 50	59	70	129	30
	From 51 to 60 or +	22	34	56	13
Subtotal		193	241	434	100
Etiology of burn	Reconstructive surgery	19	43	62	14
	Abrasion/ Chemistry Infection /Solar	02	05	7	2
	Radiation				
	Contact	18	14	32	7
	Electricity	07	13	20	5
	Scald	56	75	131	30
	Fire	91	91	182	42
	Subtotal	193	241	434	100
Severity of the burn	0 degree	19	41	60	14
	1st degree	9	0	9	2
	2nd degree	62	83	145	33
	3rd degree	22	39	61	14
	2nd and 3rd degrees	81	78	159	37
Subtotal		193	241	434	100
Length of hospitalization (days)	From 0 to 1	28	30	58	13
	From 02 to 10	61	95	156	36
	From 11 to 30	82	91	173	40
	From 31 to 60 or +	22	25	47	11
Subtotal		193	241	434	100
Extent of the burn	0	17	41	58	13
	01 to 19 %	136	149	280	65
	20 to 39%	22	37	64	14
	40 to 59%	13	11	24	5
	Over 60%	05	03	8	2
Subtotal		193	241	434	100

DISCUSSION

From January 2012 to December 2013, 434 patients were treated, 193 (44.47%) cases in 2012 and 241 (55.53%) in 2013, of different group ages and types of burns in several areas of the body.

In Brazil, in 2009, data provided in the Mortality Information System (MIS) recorded 2,175 fatalities and 80,607 non-fatal burn victims admitted to the public health system. In more developed countries, rates of mortality and morbidity from burns have been lower in the last ten years thanks to a series of preventive interventions and advances in treatment and care of burn patients.⁹ On the epidemiological aspect¹³, burn injury vary from one part of the world to another over a certain time, and are related to cultural practices, social crisis and individual circumstances. In addition, they account for significant morbidity and high mortality worldwide, despite the advanced treatments available.

In 2012, cities of origin totaled 76, and 65 patients lived in the same town of service (BTC) and the other (128) in other cities of the state of Paraná. Thus, the ratio of the number of services per city indicated 52 cities with 1 service, 11 cities with 2 services, 7 cities with 3 services and six cities with 4 to

65 services each. Of the total (193) of burn patients treated at BTC in 2012, 23 (12%) died. In 2013, cities of origin totaled 87, and 87 patients lived in the same city of service BTC and others (154), in other cities of Paraná. Regarding the number of services by city, we obtained 50 cities with 1 service, 25 cities with 2 services, 5 cities with 3 services and 7 cities with 4 to 87 services each. Of the 241 patients enrolled in the BTC in 2013, 32 (13.3%) died.

In Brazil, there are around 1,000,000 accidents/year, of which 100,000 burned people seek medical attention and, of these, about 2,500 burn victims die directly or indirectly due to injuries. Apart from the high mortality rate from burns, social and financial problems related to work by leave, retirement and rehabilitation are just some of the disorders arising.^{1,14}

Hospitalizations of burn victims treated at BTC are held by a bed center throughout the state, in the acute phase. After discharge, patients have outpatient return in a week, to schedule other returns as the clinical condition, the extent and severity of the burn. Victims of 3rd degree burns, since presenting serious sequelae, require use of keloid wrapping meshes and physical therapy sessions at the nearest region to their home, with scheduling of outpatient return,

especially for those with sequel to surgical correction.

For their physical recovery and psychosocial rehabilitation in general, patients with burns need to be accompanied by multidisciplinary teams, especially those who had more severe injuries. Taking into account the area covered by BTC, and the specifics of its clientele, this service has a specialized multidisciplinary follow-up composed of multidisciplinary teams, offering 16 inpatient beds (adult and child, according to demand) and 6 ICU beds (adult and child), and in this state there are three BTC.

In the same year it opened (2007), its activities were initiated, serving people with 1st, 2nd and 3rd degrees burns. In addition to outpatient care to inpatients, the BTC offers specialized care on call 24 hours, with a Surgical Center, Outpatient and Emergency Department. In accordance with the Ordinances 1723 and 3432 of the Ministry of Health (MOH), it has multidisciplinary team with 7 plastic surgeons, 7 ICU physicians and 1 diarist; 1 diarist ICU physician and 1 plastic diarist; 1 pediatrician; 1 anesthesiologist physician; 8 nurses; 40 nurses technicians; 4 physiotherapists; 1 psychologist, 1 social worker and 1 nutritionist together with the University Hospital.

Considering the total number of attendances (434) in the period studied, 193 patients in 2012 and 241 in 2013, there was a predominance of male burn victims (287-66%).

Other Brazilian studies on the clinical and epidemiological profile of patients hospitalized in specialized units such as BTC corroborate this result to indicate that the majority of burn victims is male.^{12, 13, 15-17} Search results achieved 74% of burns in males with age ranging from 18 to 76 years old, an average of 41.02 years old, considered the total cases studied.¹⁴

However, females are often victims of minor injuries in the home environment by being more involved in domestic activities, while also incorporating the statistics of more serious accidents and possible be avoided.¹ Under the preventive aspect, Brazil still lacks the implementation of more efficient public policies and more effective health education actions, since burns are a frequent trauma, with 57% of total mortality in the age group 0 to 19 years old, equivalent to 38% of major injuries served in the health system.^{2, 14}

Regarding age, two age groups predominated: 10 to 30 years old (136-31%) and 31 to 50 years old (129-30%), whereas the number of patients aged from 21 to 60 years

old or more was 110 (55.83%) in 2012 and 144 (59.75%) in 2013, corresponding to the majority (58.52%) of the victims attended the BTC study. Although the total number of children up to 9 years old (113-26%) was lower compared to adults, the worldwide scientific literature has shown high levels of burns in children, especially in developing countries. A study cites that 50% of accidents involving burns in children less than 7 years old happen at home, and 48.9% in the kitchen. Epidemiological studies conducted in several countries in Latin America indicate that accidents with children in the household environment are caused by scalding, i.e., by superheated liquids.¹⁸

The high incidence of accidental burning in adulthood, found in this study, is similar to the result of research conducted in the BTC of Federal University of São Paulo, with 33.6% of patients aged from 31 to 50 years old and 31.77% from 19 to 30 years old, and the average age was 33.7 in patients from 11 months to 90 years old.¹³ With respect to the clinical and epidemiological features of burn patients admitted to a university hospital in the state of Minas Gerais¹⁷, we obtained an average age of 26.1 years old (n = 138) over a period of four years. Similar results were found in other studies.^{4,14}

Although the percentage of burned women has not been prevalent, there was a greater number of victims aged from 19 to 30 years old.¹³ The explanation provided by authors was that in this phase of life, women are learning to develop a range of household tasks such as housekeeping, cooking, ironing and care for children. Sometimes they perform many of these tasks at the same time, increasing stress, in addition to problems of housing, family support and the use of illicit drugs.

Regarding the etiology of burn, there was a predominance of 182 (42%) patients burned with fire, and as causative agents alcohol or gasoline, with 91 (50%) records in 2012 and the same number in 2013. In turn, the scald was the second most frequent etiology (131 = 30%) with boiling water and oil as principal agents, occurring 56 (42.75%) cases in 2012 and 75 (57.25%) in 2013.

Thermal burns are caused by heat sources such as fire, hot objects, steam, boiling liquids and excessive sun exposure. Thousands of people die from burns by fire, not to mention deaths due to other types, e.g., chemical burns caused by substances that come in contact with the skin or through the clothing, by hot substances, like oil and

water, and electricity due to electric discharge. Still, 95% of these deaths occurred in low- and middle-income countries, where the burns remain as one of the most neglected diseases between the various types of external causes.^{9, 14}

Based on data published by the World Health Organization (WHO) in 2012, study corroborates this issue by mentioning the estimated 195,000 deaths/year by burning in the world, with most occurring in low- and middle-income countries. The authors obtained a frequency of 88% of cases by thermal burn and 12% by electric burn, with a prevalence of home accidents by scald, alcohol use for lighting grill or wood stove, explosion of pot, gas cylinder, fireworks and fire at home.¹⁴

Another study pointed to 40.6% (41) patients (n = 101) hospitalized with burns from flammable liquid and 26 patients (25.7%) by heated liquid, beating other agents. Alcohol was the main cause of accidents, accounting for 31.3% of total cases. By far, alcohol and liquid scald prevailed in males.¹³ According to the authors, this higher incidence of burns in men is related to their exposure to risk activities for accidents, and involvement with activities that require more physical exertion and excessive workloads. Mechanical equipment handling, chemicals, including fuels, work on electricity networks, car accidents, war and drug trafficking, therefore, would be among the most important risks of serious accidents.

Survey with 148 hospitalized burn patients also showed liquid alcohol as the main causative agent of burns. The authors also claim that burns by ethanol in Brazil are in first place, surpassing all other countries.⁴

Possibly, this occurs due to the indiscriminate use of this flammable by Brazilians in their households, taking into account its easy acquisition and the lack of knowledge about major accident hazards. In this sense, guidance should be provided to the population in general with the aim of raising awareness of the dangers and precautions to be taken as to the combination of liquid alcohol and fire.¹⁴

The number of patients with severe burns was higher, i.e., 2nd and 3rd degree burns (159 = 37%), 81 (41.96%) of the total patients treated in 2012 and 78 (32.36%) of patients attendances recorded in 2013; followed by injuries reported as only a 2nd degree, with 62 (32.12%) in 2012 and 83 (34.43%) records in 2013, which totaled 145 (33%) patients with this degree of injury in the surveyed period.

Aforementioned documentary research and aimed to identify the epidemiological profile of adult patients admitted to a burn ICU showed 70% of patients with 3rd degree burns and 22% inhalation injury.¹⁴ In contrast, in an epidemiological study in BTC of a hospital emergency in Aracaju/SE, 15.25% of hospitalized patients (n = 526) within a period of one year had 3rd degree burns, 83.86% of 2nd degree and 0.9% of 1st degree.¹⁹ Another study showed the result of 61.4% of patients considered little burnt with burnt surface area of 11.3% (1 to 77.5%; n = 101) and inhalation injury in 11 cases (10.9%). 6 deaths were observed in the 12-month period, with an average mortality rate of 5.94%.¹³

Regarding length of stay, in this study, the predominant period was 11 to 30 days, occurring 82 (42.48%) hospitalizations in 2012 and 91 (37.75%) in 2013, totaling 173 (40%) hospitalized patients in this period, followed by a period of 2 to 10 days, with 61 (31.60%) patients hospitalized in 2012 and 95 (39.41%) admitted in 2013, totaling 156 (36%) cases in the two years surveyed.

Although most developing countries are unable to afford adequate human and technological resources for the treatment of burns, when available, there is a tendency to reduce the length of hospitalization and the mortality rate of patients.¹³

Burn is a serious public health problem in allocating physical and psychological sequelae on the victims and generating high financial costs to governments. Regarding the length of hospitalization, there was variation of 2 and 97 days, averaging 24 days, whereas of the total cases analyzed (n = 50), 74% were discharged, prevailing over the number of deaths during the study period.¹⁴

However, of the 101 burn patients admitted to a BTC of the city of São Paulo, in the period of a year, the monthly average of hospital stay was 8.3 days¹³ and, in another study with 138 patients treated at the Clinics Hospital of Federal University of Triangulo Mineiro/MG, we obtained an average hospital stay of 16.2 days in the period of four years.¹⁷

This value is well below to that found in a study⁴ whose average length of stay was 27 days, ranging between 1 to 176 days. Regarding the extent of burns, 136 (70.46%) patients in 2012 and 149 (61.82%) patients in 2013 had 01 to 19% of injured body surface, totaling 280 (65%) cases in the period surveyed. This higher percentage was followed by the occurrence of 64 (14%) patients with 20 to 39% of burnt body area corresponding to 22 (11.39%) in 2012 and 37

(15.35%) in 2013, suggestive values of gravity of injuries due to the extension of the affected areas.

There was prevalence of adult patients in the strata burns above 10% of body surface, while children accounted for the largest number of victims with burns less than 10%.⁴ Since the extent of the burn, one study¹³ showed a predominance of small burn in 62 cases (61.4%), and 27 (26.7%) and 12 (11.9%) classified respectively as medium and large burn. In turn, results indicating prevalence of 2nd degree burns (n = 526) were obtained, with the greatest number of accidents by scalding and predominance of medium size.¹⁹ Also, in another study, it was found, besides an average of burnt body surface of 20.8%, a larger number of 2nd degree burns in 122 (88.4%) patients (n = 138).¹⁷

Calculating the body surface burned aids in prognosis and helps to establish the appropriate therapy during treatment. In this sense, the scheme Lund and Browder is quite used, taking into account the proportions of the body according to age, thus estimating the extent of the burned area.¹

In many records of burn patients with injuries of varying degrees, there is record only of the deepest, making it difficult to obtain accurate and important information. The correct and complete record of all data records, then, becomes imperative, because it is a source of clinical and administrative information to aid in decision making and sharing among professionals that assist directly or indirectly burn patients. Still, late attendance, also due to the distance and the delay in shifting to the specialized unit can result in serious consequences and complications that may lead the patient to death.¹⁴

CONCLUSION

Of the total of 434 (100%) hospitalizations for burns in this specialized service, there was predominance of male patients (287-66%), between 10 and 30 years old (136-31%), burns by alcohol or gasoline (182- 42%), 2nd and 3rd degree burns (159-37%), length of hospital stay between 11 and 30 days (173-40%) and body surface extent of 01 to 19% (280-65%).

This socio-demographic and clinical profile indicates that these patients will need a caregiver in home to perform specific care for a long time, considering sex, age, extent and severity of the burn, which requires planning educational interventions with family involvement.

In care planning and multidisciplinary and specialized nursing, it is essential to seek to minimize the damage, such as reduced functional capacity, and physical and aesthetic sequelae resulting from burns, as it could turn into psychological traumas, negative body self-image and inability to work, which compromise the quality of these people's lives.

The nurse can both intervene in planning direct care to burn patient through, for example, the construction of protocols and execution of aseptic procedures recommended, as it can also implement educational activities directed to patients, families and professionals within their workforce.

REFERENCES

1. Bessa JKM, Oliveira da Silva TCO, Marques Rosa S. Mulheres vítimas de queimaduras: um olhar sobre as atividades de vida diária. *Cad Ter Ocup UFSCar*. 2011 May/Aug;19(2):153-64.
2. Andrade AG, Lima CF, Albuquerque AKB. Efeitos do laser terapêutico no processo de cicatrização das queimaduras: uma revisão bibliográfica. *Rev bras queimaduras* [Internet]. 2010 [cited 2013 Oct 20];9(1):21-30. Available from: <http://www.sbqueimaduras.com.br/revista/marco-2010/05efeitosdolaser.pdf>.
3. Costa MCS, Rossi LA, Dantas RAS, Trigueiros LF. Imagem corporal e satisfação no trabalho entre adultos em reabilitação de queimaduras. *Cogitare enferm* [Internet]. 2010 Apr/June [cited 2013 Oct 20];15(2):209-16. Available from: <http://ojs.c3sl.ufpr.br/ojs/index.php/cogitare/article/viewFile/17849/11644..>;
4. Lima LS, Araujo MAR, Cavendish TA, Assis EM, Aguiar G. Perfil epidemiológico e antropométrico de pacientes internados em uma unidade de tratamento de queimados em Brasília, Distrito Federal. *Comun Ciênc Saúde* [Internet]. 2010 [cited 2013 Oct 20];21(4):301-8. Available from: http://bvsmms.saude.gov.br/bvs/artigos/perfil_epidemiologico_antropometrico.pdf.
5. Duarte MLC, Lemos L, Zanini LNN, Wagnes ZI. Percepções da equipe de enfermagem sobre seu trabalho em uma unidade de queimados. *Rev gaúch enferm* [Internet]. 2012 [cited 2013 Oct 20]; 33(1):77-84. Available from: <http://seer.ufrgs.br/RevistaGauchadeEnfermagem/article/view/21343>.
6. Coelho JAB, Araujo STC. Desgaste da equipe de enfermagem no centro de tratamento de queimados. *Acta paul enferm* [Internet]. 2010 [cited 2013 Oct 20];23(1):60-4. Available from:

http://www.scielo.br/scielo.php?pid=S0103-21002010000100010&script=sci_arttext.

7. Takejima M, Netto FB, Toebe BL, Andretta MA, Prestes MA, Takaki JL. Prevenção de queimaduras: avaliação do conhecimento sobre prevenção de queimaduras em usuários das unidades de saúde de Curitiba. Rev bras queimaduras [Internet]. 2011 [cited 2013 Oct 20];10(3):85-8. Available from:

<http://www.grupouninter.com.br/revistasaud/index.php/cadernosaudedesenvolvimento/article/download/100/103>.

8. Teixeira CC, Almeida WA. Sistematização da Assistência de Enfermagem ao paciente queimado. Universitari@ - Revista Científica do Unisalesiano [Internet]. 2012 Jan/June [cited 2013 Oct 20];3(6):49-58. Available from:

<http://www.salesianolins.br/universitaria/artigos/no6/artigo2.pdf>.

9. Gawryszewski VP, Bernal RTI, Silva NN, Moraes Neto OL, Silva MMA, Mascarenhas MDM, et al. Atendimentos decorrentes de queimaduras em serviços públicos de emergência no Brasil. Cad saúde pública [Internet]. 2009 Apr [cited 2013 Oct 20];28(4):629-40. Available from:

<http://www.scielo.br/pdf/csp/v28n4/03.pdf>.

10. Pereira CME, Dutra CF, Lonien HCS. O paciente queimado e a cicatrização: uma revisão literária. Instituto de Ensino Superior de Londrina - INESUL. 2010;5:10-27.

11. Souza TJA. Qualidade de vida do paciente internado em uma unidade de queimados. Rev bras cir plást [Internet]. 2011 [cited 2013 Oct 20];26(1):10-5. Available from:

<http://www.rbcp.org.br/imageBank/PDF/v26n1a04.pdf>.

12. Lima OBA, Arruda AJCG, Carvalho GDA, Melo VC, Silva AF. A enfermagem e o cuidado à vítima de queimaduras: revisão integrativa. J Nurs UFPE on line [Internet]. 2013 [cited 2013 Oct 20];7(7):4944-50. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewArticle/4178>.

13. Lacerda LA, Carneiro AC, Oliveira AF, Gragnani A, Ferreira LM. Estudo epidemiológico da Unidade de Tratamento de Queimaduras da Universidade Federal de São Paulo. Rev bras queimaduras [Internet]. 2010 [cited 2013 Oct 20];9(3):82-8. Available from: http://www.rbqueimaduras.com.br/detalhe_artigo.asp?id=40.

14. Camuci MB, Marins JT, Cardeli AAM, Robazzi MLCC. Caracterização epidemiológica de pacientes adultos internados em uma unidade de terapia intensiva de queimados. Cogitare enferm [Internet]. 2014 Jan/Mar [cited 2013 Oct 20];19(1):78-83. Available from:

<http://ojs.c3sl.ufpr.br/ojs/index.php/cogitare/article/viewFile/35961/22170>.

15. Souza AA, Mattar CA, Almeida PCC, Faiwichow L, Fernandes FS, Neto ECA, et al. Perfil epidemiológico dos pacientes internados na Unidade de Queimaduras do Hospital do Servidor Público Estadual de São Paulo. Rev bras queimaduras [Internet]. 2009 [cited 2013 Oct 20];8(3):87-90. Available from: <http://www.sbqueimaduras.com.br/revista/diezembro-2009/06-perfil-epidemiologico-dos-pacientes-internados.pdf>.

16. Leão CEG, Andrade ES, Fabrini DS, Oliveira RA, Machado GLB, Gontijo LC. Epidemiologia das queimaduras no estado de Minas Gerais. Rev bras cir plást [Internet]. 2011 [cited 2013 Oct 20];26(4):573-7. Available from: <http://www.scielo.br/pdf/rbcp/v26n4/a06.pdf>.

17. Montes FS, Barbosa MH, Souza Neto ALS. Aspectos clínicos e epidemiológicos de pacientes queimados internados em um Hospital de Ensino. Rev Esc Enferm USP [Internet]. 2011 [cited 2013 Oct 20];45(2):369-73. Available from: <http://www.scielo.br/pdf/reeusp/v45n2/v45n2a09>.

18. Brasil EGM, Brito MEM, Pinheiro PNC. Caracterização de famílias de crianças internadas em um Centro de Tratamento de Queimados. J Nurs UFPE on line [Internet]. 2012 Dec [cited 2013 Oct 20];6(12):2867-73. Available from: http://www.researchgate.net/profile/MariaLima24/publication/47446963_Characterization_of_children_victims_of_accidents_and_violence_admitted_to_pediatric_intensive_care_units/links.

19. Reis IF, Moreira CA, Costa ACSM. Estudo epidemiológico de pacientes internados na unidade de tratamento de queimados do hospital de urgência de Sergipe. Rev bras queimaduras [Internet]. 2011 [cited 2013 Oct 20];10(4):114-8. Available from: http://www.rbqueimaduras.com.br/detalhe_artigo.asp?id=80.

Submission: 2014/08/05
Accepted: 2014/10/30
Publishing: 2015/02/01

Corresponding Address

Annecy Tojeiro Giordani
Universidade Estadual do Norte do Paraná
(UENP) - Campus Luiz Meneghel / Setor de
Enfermagem (Bloco 5)
Rodovia BR-369, Km 54 - Bairro Vila Maria
CEP 86360-000 – Bandeirantes (PR), Brasil