



REVISIONES

Basic and social human needs in nursing care for people treated in Burn Treatment Units: an integrative study

Necesidades humanas básicas y sociales en la asistencia de enfermería a la persona atendida en Unidades de Tratamiento al Quemado: un estudio integrativo

Necessidades humanas básicas e sociais na assistência de enfermagem a pessoa atendida em Unidades de Tratamento ao Queimado: um estudo integrativo

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ABSTRACT:

Objective: To identify the empirical indicators of basic and social human needs found in nursing care for people treated in Burn Treatment Units.

Materials and Method: Descriptive, cross-sectional and exploratory study of the integrative literature review type. After applying inclusion and exclusion criteria, 16 of the 265 articles identified made up the sample. The data collected were inserted in spreadsheets for descriptive statistical analysis and inferences, analyzed using the Microsoft Office Excel 2010 program and the Statistical Package for the Social Sciences (SPSS) version 20.0 software. The distribution of empirical indicators was carried out, which were later discussed based on scientific productions in the area.

Results: The search resulted in the identification of 113 empirical indicators, 89 corresponding to psychobiological needs, 21 to psychosocial needs and 03 to psycho-spiritual needs. The needs that most presented empirical indicators were Need for Vascular Regulation (n=18) and Need for Oxygenation (n=16). However, the Need for Emotional Security showed more frequent indicators.

Conclusion: The burn, in addition to affecting physical integrity, also affects emotional aspects, contributing to changes in mental integrity. The existence of few studies with the theme highlights the need for scientific production related to the theme, in order to contribute to human and holistic nursing practice.

Key words: Nursing process; Instrument; Nursing care; Burn units.

RESUMEN:

Objetivo: Identificar los indicadores empíricos de las necesidades humanas básicas y sociales que se encuentran en la atención de enfermería a las personas tratadas en las Unidades de Tratamiento de Quemaduras.

Materiales y Método: Estudio descriptivo, transversal y exploratorio del tipo revisión integradora de literatura. Se identificaron 265 artículos, seleccionándose, tras el uso de los criterios de inclusión y exclusión, 16 estudios. Los datos recogidos se ingresaron en hojas de trabajo para el análisis estadístico descriptivo y de inferencia, analizándolos utilizando *Microsoft Office Excel 2010* y el *software Statistical Package for the Social Sciences (SPSS)* versión 20.0. La distribución de indicadores empíricos se realizó, los cuales se discutieron basándose en producciones científicas en el área.

Resultados: La búsqueda resultó en la identificación de 113 indicadores empíricos en total, 89 correspondientes a necesidades psicobiológicas, 21 a necesidades psicosociales y 03 a necesidades psico-espirituales. Las necesidades que más presentaron indicadores empíricos fueron Necesidad de regulación vascular (n=18) y Necesidad de oxigenación (n=16). Sin embargo, la necesidad de seguridad emocional mostró indicadores más frecuentes.

Conclusión: se encontró que la quemadura, además de afectar la integridad física, también afecta los aspectos emocionales, contribuyendo a los cambios en la integridad mental. La existencia de pocos estudios con el tema resalta la necesidad de producción científica relacionada con el tema, con el fin de contribuir a la práctica de la enfermería humana y holística.

Palabras clave: Proceso de enfermería; Instrumento; Atención de enfermería; Unidades de quemados.

RESUMO:

Objetivo: Identificar os indicadores empíricos das necessidades humanas básicas e sociais encontrados na assistência de enfermagem à pessoa atendida em Unidades de Tratamento ao Queimado.

Materiais e Método: Estudo descritivo, transversal e exploratório do tipo revisão integrativa da literatura. Foram identificados 265 artigos, que após os critérios de inclusão e exclusão, 16 estudos compuseram a amostra. Os dados coletados foram inseridos em planilhas para análises estatísticas descritivas e inferências, analisados utilizando o programa *Microsoft Office Excel 2010* e o *software Statistical Package for Social Sciences (SPSS)* versão 20.0. Foi realizada a distribuição dos indicadores empíricos e, posteriormente, discutidos a partir de produções científicas da área.

Resultados: A busca resultou na identificação de 113 indicadores empíricos no total, sendo 89 correspondendo às necessidades psicobiológicas, 21 às necessidades psicossociais e 03, às necessidades psicoespirituais. As necessidades que mais apresentaram indicadores empíricos foram Necessidade de Regulação Vascular (n=18) e Necessidade de Oxigenação (n=16). No entanto, a Necessidade de Segurança Emocional apresentou indicadores mais frequentes.

Conclusão: Constatou-se que a queimadura além de afetar a integridade física atinge, também, aspectos emocionais, contribuindo para alterações da sua integridade mental. A existência de poucos estudos com a temática evidencia a necessidade da produção científica relacionada ao tema, a fim de contribuir para a prática humana e holística de enfermagem.

Palavras-chave: Processo de enfermagem; Instrumento; Cuidados de enfermagem; Unidades de queimados.

INTRODUCTION

Burns are injuries resulting from thermal, chemical or electrical agents, capable of producing excessive heat that damage body tissues and cause cell death. They are relevant causes of morbidity and mortality in the world population, and may generate physical, psychological and social problems.^(1,2)

The World Health Organization⁽³⁾ estimates 180,000 deaths from burns each year, and most of them occur in low- and middle-income countries, with over half occurring in Southeastern Asia. In the United States of America, 486,000 people received treatment resulting from burns in 2015, either in the context of hospitalization or in the context of visits to hospital emergency services. With a significant economic impact, these injuries are responsible for over US\$18 billion per year in the USA⁽⁴⁾.

In Brazil, burns represent a serious public health problem, being responsible for causing high costs with hospital admissions ⁽⁵⁾. Data from the Informatics Department of the Brazilian Unified Health System ⁽⁶⁾ reveal that, from January 2018 to January 2019, there were 28,761 cases of hospital morbidity from hospitalizations caused by burns and ulcerations. The Brazilian region with the highest number of cases was the Southeast (9,728), followed by the Northeast (7,688), South (5,647), Midwest (4,114) and North (1,584).

Burns have multiple causes and occur differently, differing them from any other type of wound, thus requiring different management strategies. Therefore, it is vital to understand how the burn was caused and the physiological reaction it will induce ⁽²⁾. Thus, Vieira et al. ⁽²⁾ report that Nursing professional knowledge is essential to care for burns, as it is a permanent and complex construction process.

Besides, Ryan et al. ⁽⁷⁾ state that burn victims are exposed to the most varied complications, as well as more susceptible to infections. Therefore, the assessment of the severity of the burn quickly and accurately may represent the opportunity of survival for the victims of this trauma ⁽⁸⁾.

In this sense, this study aimed to identify the empirical indicators of Basic Human Needs in nursing care to the person assisted in Burn Treatment Units (BTU).

MATERIALS AND METHODS

This is a descriptive, cross-sectional and exploratory study of the Integrative Literature Review (ILR) type, referring to the empirical indicators of Basic Human Needs in nursing care to the person assisted in Burn Treatment Units. Six steps were taken to prepare this review: identification of the problem, definition of the research question, establishment of inclusion and exclusion criteria with search in the literature, definition of the information to be extracted from the studies, evaluation of the included studies, interpretation of the results, synthesis of the data, and presentation ⁽⁹⁾.

The research question was elaborated with the aid of the PICO strategy, being P: burned person; I: empirical indicators of Basic Human Needs; Co: Burn Treatment Units. Thus, the following question emerged: What is the scientific evidence about the empirical indicators of Basic Human Needs to the burned person in Burn Treatment Units?

In this sense, given the diversity of health problems increasingly complex and more demanding of quality standards in health care, the development of specialized nursing skills for burned people, the research used Horta's Theory of Basic Human Needs, restructured by Cubas and Garcia ⁽¹⁰⁾ for Basic and Social Human Needs, and their subgroups.

In order to confer the rigorous methodological criterion inherent to the integrative study, the following databases and libraries were used: Virtual Health Library (VHL), Scientific Electronic Library Online (SciELO), Latin American and Caribbean Health Sciences Literature (LILACS), Nursing Database (BDENF), Cumulative Index to Nursing and Allied Health Literature (CINAHAL), Medical Literature Analysis and Retrieval System Online (MEDLINE), Scopus and PubMed. The search at several databases aimed to

increase the number of publications and minimize biases.

The following Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH) were used, respectively: “*Processo de Enfermagem*”, “Nursing process”; “*Construção*”, “Construction”; “*Instrumento*”, “Instrument”; “*Cuidados de Enfermagem*”, “Nursing care”; and “*Unidades de Queimados*”, “Burn Units”. They were combined with the Boolean operator “AND”, in the Portuguese and English languages, with the objective of carefully selecting the studies that addressed the theme, within the selected databases, guiding from the following standardized path: SCIELO, BDNF, VHL and LILACS: *Processo de Enfermagem AND Construção AND Instrumento AND Cuidados de Enfermagem AND Unidades de Queimados*. CINAHAL, MEDLINE, SCOPUS and PUBMED: Nursing process AND Construction AND Instrument AND Nursing care AND Burn Units.

Data collection occurred between August and September 2019 and the following inclusion criteria were adopted: articles published in Portuguese, English and Spanish from January 2009 to January 2019, fully available, describing the theme related to nursing care to burned patients and/or specific instruments for this care. Articles without abstracts available for analysis in databases and library were excluded, as well as publications of the type: theses, dissertations, monographs, course completion papers, manuals, reviews; works not fully available; repeated articles and those that after reading and analysis did not mention specifically the theme of interest. Soon after, the titles and abstracts were read, with subsequent reading of the complete articles, to verify if they answered the guiding question of the study.

For data extraction, analysis and subsequent synthesis of the articles that composed the sample body, a clipping of an instrument validated by Urse and Galvão⁽¹¹⁾ was used, completed for each article, with information regarding: year of publication; journal; impact factor/qualis in nursing; country of origin/language of publication; type of study/approach; level of evidence; objective of the research; scenario; reference; search results; and empirical indicators.

Data analysis occurred through descriptive statistics (absolute and relative frequencies). The collected data were inserted in spreadsheets for descriptive analysis and inference procedures, using the Microsoft Office Excel 2010 software and the Statistical Package for the Social Sciences (SPSS) version 20.0. The empirical indicators identified were distributed in a chart, calculating the absolute value and terms in each subgroup and all empirical indicators of Basic Human Needs found in the public in question, discussing both data from scientific productions in the area.

RESULTS AND DISCUSSION

The search returned 265 articles, namely: VHL (36 articles), SciELO (03 articles), LILACS (20 articles), BDNF (03 articles), CINAHAL (77 articles), MEDLINE (30 articles), Scopus (04 articles) and PubMed (92 articles). After excluding duplicates and proper screening of the studies, 16 articles were selected to make up the sample of this review, as shown in figure 01:

Figure 1. Articles selected to compose the integrative review. João Pessoa (PB), Brazil, 2020.



(SCIELO, BVS, LILACS, BDNF, CINAHAL, MEDLINE, SCOPUS, PUBMED, 2009-2019).

The selected studies were characterized according to the year of publication, from the oldest to the most current, and listed under the identification in Chart 01 by the term “Article”, for better systematic analysis. As described below, the studies are organized according to authorship, title, journal, year of publication, Qualis/Impact Factor.

Chart 1. Distribution of the studies selected for the integrative review. João Pessoa (PB), Brazil, 2020.

Article	Author. Title. Journal. Year	Qualis/Impact factor
1	WILLIAMS, Catherine. Successful assessment and management of burn injuries. Nursing Standard. 2009.	Not found/ 0.14
2	BROWN, Deborah et al. Nursing management of a child with a thermal injury. Journal of Community Nursing. 2009.	Not found/ 3.030
3	Jean M, Klein; DNSc; APRN, BC. The Psychiatric Nurse in the Burn Unit. Perspectives in Psychiatric Care. 2009.	Not found/ 1.24
4	ZALETEL, Cynthia L. Factors affecting fluid resuscitation in the burn patient: the collaborative role of the APN. Advanced emergency nursing journal. 2009.	Not found/ 0.24
5	SERIO-MELVIN, Maria; YODER, Linda H.; GAYLORD, Kathryn M. Caring for burn patients at the United States institute of surgical research: the nurses' multifaceted roles. Nursing Clinics. 2010.	A1/0.879

6	DA SILVA, Bruna Azevedo; RIBEIRO, Flávia Alves. Participation of the nursing team in pain management of burned patients. <i>Revista Dor</i> . 2011.	B2/Not found
7	DE FÁTIMA CANELA, Adriana et al. Monitoring of severe burn patients and the implications for nursing care: experience report. <i>Rev Bras Queimaduras</i> . 2011.	B3/Not found
8	GONÇALVES, Tathiane Souza Oliveira et al. Nursing care of patients with burn. <i>Revista Brasileira de Queimaduras</i> . 2012.	B3/Not found
9	FAHLSTROM, Kyra; BOYLE, Cameron; MAKIC, Mary Beth Flynn. Implementation of a nurse-driven burn resuscitation protocol: a quality improvement project. <i>Critical care nurse</i> . 2013.	Not found/ 0.928
10	ROWLEY-CONWY, Gabby. Management of major burns in the emergency department. <i>Nursing Standard</i> . 2013.	Not found/ 0.189
11	DOS SANTOS CHAVES, Sheyla Cristina. Nursing actions to reduce the risks of infection in major burn in an ICU. <i>Rev Bras Queimaduras</i> . 2013.	B3/Not found
12	SOARES, Inocencio et al. Experience of nursing staff facing the hospitalization of burned children. <i>Investigación y educación en enfermería</i> . 2014.	B1/Not found
13	RAVAT, François et al. Working time and workload of nurses: the experience of a burn center in a high income country. <i>Burns</i> . 2014.	Not found/ 2.247
14	CAMUCI, Marcia Bernadete et al. Nursing Activities Score: nursing workload in an Intensive Care Unit for burns. <i>Revista Latino-Americana de Enfermagem</i> . 2014.	A1/0,979
15	NOGARIO, Aline Carniato Dalle et al. Nursing Actions in practicing inpatient advocacy in a Burn Unit. <i>Revista da Escola de Enfermagem da USP</i> . 2015.	A2/0.945
16	DE PAULA CAMPOS, Gabriela Rodrigues; PASSOS, Marco Aurélio Ninômia. Feelings of work arising out of nursing team with children in a burns unit. <i>Rev Bras Queimaduras</i> . 2016.	B3/Not found

(SCIELO, BVS, LILACS, CINAHAL, MEDLINE, SCOPUS, 2009-2019).

When analyzing the selected articles, of the 16 articles, concerning the year of publication, the year 2009 presented the highest number, with 04 (25%) scientific

productions, followed by 2013 and 2014, with 3 (18.7%) publications each, 2011, 2 publications (12.5%) and, 2010, 2012, 2015 and 2016, with one publication (4.2%) each. These data show that the number of publications decreased over time. This may show little interest of this area on this theme, causing concern for its scientific advance, which is already known from the number of articles listed in this ILR.

In a research conducted by Alves, Emmel, Matsukura⁽¹²⁾ on the use of technology as a therapeutic resource, they report that results similar to those presented in the research may be associated with some factors that may contribute to the lack of interest in studies in this area, such as the lack of financial resources to encourage and fund the teaching and research service, lack of knowledge and lack of interest of professionals.

When referring to the places where the studies were conducted, Table 01 shows that 10 (62.5%) were published in international journals: *Nursing Standard*, *Journal of Community Nursing*, *Perspectives in Psychiatric Care*, *Advanced emergency nursing journal*, *Nursing Clinics*, *Critical care nurse*, *Investigación y educación en enfermería*, *Burns* and *Revista Latino-Americana de Enfermagem*, with one publication each. The other publications, 6 (37.5%), in national journals were: *Revista Dor* (1), *Revista da Escola de Enfermagem da USP* (1) and *Revista Brasileira de Queimaduras* (4).

Regarding national productions, there was a predominance of studies in the Southeast and South regions, corroborating the study by Cestari et al.⁽¹³⁾, also highlighting the hegemony of scientific nursing production in those locations, due to the greater concentration of universities and research institutes present and consolidated and the greater availability of human and financial resources provided by incentives from important research funding agencies. Thus, it is evident the need to encourage research in other regions of the country, especially for nursing professionals.

Table 1. Distribution of studies on the nursing care to the burned person, according to the articles' characteristics. João Pessoa (PB), Brazil, 2020.

Article	Place	Type of study	Level of evidence	Scenario
1	Wales - United Kingdom	Quantitative, descriptive	VI	BTU
2	England	Case study	VI	BTU
3	United States	Experience report	VI	BTU
4	United States	Integrative Review	IV	Database
5	Texas	Descriptive, qualitative. Qualitative, descriptive study	V	BTU
6	Brazil/São Paulo	Integrative Review	IV	Database
7	Brazil/Rio de Janeiro	Descriptive, qualitative. Experience report, exploratory and qualitative	VI	BTU
8	Brazil/Rondônia	Descriptive, qualitative	IV	Database
9	United States	Integrative Review. Clinical, transversal, retrospective,	III	BTU

10	England	descriptive and quantitative approach Qualitative, descriptive and comparative study	VI	BTU
11	Brazil/Rio de Janeiro	Experience report, exploratory and qualitative	IV	BTU
12	Brazil/Paraná	Qualitative, descriptive study	V	BTU
13	France	Quantitative, descriptive and exploratory study	VI	BTU
14	Brazil/Paraná	Quantitative, descriptive and exploratory study	IV	BTU
15	Brazil/Rio Grande do Sul	Case study	VI	BTU
16	Brazil/Brasília	Qualitative, descriptive study	V	BTU

(SCIELO BVS, LILACS, CINAHAL, MEDLINE, SCOPUS, 2009-2019).

Regarding language, 10 (62.5%) articles published in English, 06 (37.5%) in Portuguese. Some articles 07 (43.7%) presented the impact factor, 03 (18.8%) presented qualis and impact factor and 06 (37.5%) presented qualis with the following distribution in stratification: 2 A1, 1 A2, 1 B1, 1 B2, 4 B3. The Journal of Community Nursing demonstrated the greatest impact factor (3.030). Thus, one can observe the quality of scientific productions aimed at assisting the burned person. However, no study reported the quality of those productions.

Concerning the research design, the descriptive qualitative type presented the highest number 04 (25%); Descriptive quantitative studies, Experience report and Integrative review presented the same amount 03 (18.7%), respectively; Case study reached 02 (13%) and 01 (5.9%) of the Clinical trial type. Regarding the scenario, 13 studies (81.2%) were performed in Burn Treatment Units (BTU), 03 (18.8%) were ILR.

Moreover, the articles were analyzed regarding the quality of evidence through the classification presented by Pereira and Galvão⁽¹⁴⁾, and 07 articles presented level of evidence VI, 05 level IV, 03 level V and 01 level III. Therefore, most nursing studies aimed at the burned person present a low level of evidence, which represents a limiting factor for nurses' decision-making, because descriptive studies do not favor the development of more clinical possibilities of nursing care.

No study addressed articles and level of evidence focused on nursing care for the burned person. Nevertheless, Torres et al.⁽¹⁵⁾ point out that the level of evidence is important for health care, considering that it allows describing and documenting aspects of a situation, such as describing the most common cause of burns and its care, suggesting the execution of actions aimed at prevention and care.

The analysis of the results of scientific productions allowed the interpretation, grouping of similar data and synthesis of the knowledge generated from those studies. However,

the results allowed perceiving the fragility of studies aimed at nursing care to the burned person, which directly affects the advances to improve the quality of this care.

In addition, it was possible to survey the empirical indicators of Basic and Social Human Needs, based on the theory of Cubas and Garcia ⁽¹⁰⁾, present to people assisted in Burn Treatment Units. For this purpose, the articles were fully re-read in order to list those indicators.

This search in the articles resulted in the identification of 113 empirical indicators, with 89 corresponding to psychobiological needs, 21 psychosocial needs and 03 psychospiritual needs, as can be observed in Table 02. Importantly, empirical indicators were subjected to a process of standardization, which consists of removing repetitions, correcting spelling, analyzing synonymy and gender adjustments and number of indicators.

Table 2. Distribution of empirical indicators according to the affected Basic and Social Human Needs of burn patients and the frequency of appearance according to the literature review. João Pessoa, 2020.

Psychobiological Needs	89 Empirical Health Indicators (EHI)	N	%
	Edema of tracheobronchial mucosa	1	0.31
	Airway narrowing	1	0.31
	Inhalation injury	3	0.93
	Pulmonary edema	1	0.31
	Increased ventilatory effort	1	0.31
	Dyspnea	2	0.62
	Tachypnea	2	0.62
	Hyperventilation	1	0.31
	Adventitious noises	4	1.24
	Cough (productive)	1	0.31
	Expectoration	3	0.93
Oxygenation Need	Airway obstruction	2	0.62
	Hypoxemia	2	0.62
	Breathing difficulty	5	1.55
	Hypoventilation	2	0.62
	Cyanosis	2	0.62
Hydration Need	Normal water intake	1	0.31
	Decreased water intake	3	0.93
Nutritional Need	Lack of appetite	4	1.24
	Significant change in body weight	6	1.86
	Digestive tract mucosa ischemia	2	0.62
	Intestinal eliminations present (characteristics)	1	0.31
	Intestinal eliminations present (frequency)	1	0.31
Need for Elimination	Intestinal constipation	1	0.31
	Bladder eliminations present (characteristics)	1	0.31

Need for Sleep and Rest	Bladder eliminations present	1	0.31
	(frequency)		
	Vomiting	2	0.62
	Somnolence	1	0.31
	Use of sleep-inducing drugs	6	1.86
Need for Physical Activity	Unsatisfactory sleep and rest	4	1.24
	Body deformity	8	2.48
	Limitation of movements	6	1.86
	Change in gait	5	1.55
	Amputation	2	0.62
Need for Physical and Environmental Safety	Weakness	2	0.62
	Physical mobility	4	1.24
	Infection	9	2.79
	Total dependence for self-care	3	0.93
	Partial dependence on self-care	3	0.93
Need for Body and Environmental Care	First degree injury	6	1.86
	Second degree injury	8	2.48
	Third degree injury	4	1.24
	Electric burn	1	0.31
	Lesion staining	2	0.62
Need for Physical Integrity	Odor change in exudate	3	0.93
	Contracture	4	1.24
	Burn extent	6	1.86
	Burn depth	6	1.86
	Formation of flictenas	8	2.48
	Altered skin integrity	7	2.17
	Pathological scar	5	1.55
	Presence of exudate	6	1.86
	Band Aid	6	1.86
	Syncope	1	0.31
	Serum potassium levels increased	2	0.62
	Serum potassium levels decreased	2	0.62
	Plasma levels of electrolytes decreased	1	0.31
	Serum albumin levels decreased	2	0.62
	Increased serum creatinine	2	0.62
Serum lactate levels decreased	1	0.31	
Need for Vascular Regulation	Quantity of serum platelets decreased	1	0.31
	Altered serum leukocyte levels	1	0.31
	Serum levels of carboxyhemoglobin increased	2	0.62
	Edema	9	2.79
	Hemolysis	2	0.62
	Altered peripheral perfusion	7	2.17
	Tachycardia	5	1.55
	Cold ends	6	1.86
	Hypotensive	4	1.24
	Hypovolemic shock	3	0.93

	Hypovolemia	5	1.55
	Increased body temperature	5	1.55
- Need for Thermal Regulation	Decreased body temperature	6	1.86
	Sweating	1	0.31
	Mental confusion	1	0.31
- Need for Neurological Regulation	Agitation	2	0.62
- Hormonal Need	Hyperglycemia	3	0.93
	Acute pain	12	3.72
	Pain intensity	9	2.79
	Local pain	9	2.79
	Frequency of pain	9	2.79
- Sensoperception Need	Events that increase pain	6	1.86
	Factors that decrease pain	3	0.93
	Discomfort	4	1.24
	Paresthesia	3	0.93
	Itching	1	0.31
- Therapeutic Need and Prevention	Link with the professional	5	1.55
	Adherence to the medication regime	3	0.93
	Return to service	2	0.62
Total		322	100.0
Psychosocial and Psychospiritual Needs		N	%
	24 EHI (Empirical Health Indicators)		
- Communication Need	Communicative	2	2.24
	Uncommunicative	4	4.49
	Social isolation	3	3.37
- Need for Gregaria	Family dysfunction	3	3.37
	Lack of family support	4	4.49
	Anxiety	6	6.74
	Fear	7	7.86
	Stress	8	8.98
- Need for Emotional Security	Sadness	8	8.98
	Depression	5	5.61
	Fault	4	4.49
	Shame	4	4.49
	Suicide attempt	3	3.37
- Need for Self-Esteem, Self-Confidence, Self-Respect	Suffering	3	3.37
	Altered self-image	4	4.49
	Altered self-esteem	2	2.24
	Abomination of the body	3	3.37
- Need for Freedom and	Aggressiveness	1	1.12
	Hostility	1	1.12

Participation			
- Education	Lack of professional guidance	3	3.37
Need for Health and Learning	Difficulty in post-discharge care	6	6.74
Need for Religiosity/Spirituality	Lack of practice of religious/spiritual activity	3	3.37
	Lack of religious/spiritual support	1	1.12
	Religious beliefs	1	1.12
Total		89	100.0

(Research Data, 2020).

Note: The percentages were calculated based on the frequency of the indicators, not on the number of indicators

The results showed that the empirical indicators classified in psychobiological, psychosocial and psychospiritual needs describe the physiological, psychological, social and spiritual changes or conditions present in the person who suffered burns.

The indicators showed that people with burns have the following needs: **Psychobiological Needs:** Need for Oxygenation, Hydration, Nutrition, Elimination, Sleep and Rest, Physical Activity, Physical and Environmental Safety, Body and Environmental Care, Physical Integrity, Vascular Regulation, Thermal Regulation, Neurological Regulation, Hormonal, Sense perception, and Need for Therapeutics and Prevention. **Psychosocial Needs:** Need for Communication, Gregarious, Emotional Security, Self-Esteem, Self-Confidence, Self-Respect, Freedom and Participation, Health Education and Learning; Psychospiritual, and Need for Religiosity/Spirituality.

Of the listed needs, the ones that presented the most empirical indicators were: Need for vascular regulation with 18 Empirical Indicators (EI), followed by the Need for Oxygenation with 16 EI. This happens because the vascular and respiratory systems are the most affected in the burned person, presenting more fragility. The greatest consequences may result from those impaired needs, corroborating the study by Queiroz ⁽¹⁶⁾ on the challenges of nursing care to burn victims, evidencing that the greatest injuries of burns are in those body systems.

When referring to the most frequent indicators, the Need for Emotional Security shows the indicators with the highest percentages, namely: stress and sadness with 9% each, followed by fear with 7.9% and anxiety with 6.7%, depression (5.6%), guilt and shame (4.5% each) and suicide attempt and suffering (3.4% each). This indicates that the burned person, in addition to suffering physically, has his/her mental health greatly affected, evidencing that the multidisciplinary team is essential, and that the nursing team should be attentive. In this perspective, Santos et al.¹⁷ portray that the burned patient, for suffering several physical and psychological stressors, should receive nursing care in a humanized, holistic and integral way aiming at the biopsychic-spirit-social aspect.

Psychobiological Needs (Sexuality and Reproduction Needs; Need for Regulation: cellular growth and functional development). **Psychosocial Needs:** (need for recreation and leisure; need for self-accomplishment; need for space; need for creativity; need to

guarantee access to technology) did not present empirical indicators.

The identification of empirical indicators can contribute to the construction and validation of instruments sensitive to local reality and directed to the chosen clientele. These indicators, after grouped, can help in the nurse's decision-making and critical reasoning, and contribute to a systematized and individualized nursing care.

Limitations of the study

Despite the small number of studies identified, a considerable number of indicators was identified, which can only be recognized through further studies that glimpse the construction and validation of an instrument focused on this theme.

Contributions for Nursing, Health or Public Policy

The identification of empirical indicators can contribute to the construction of instruments directed to the burned person, contribute to a systematization in nursing care and nurses' decision-making.

CONCLUSION

After the analysis, it was possible to identify the empirical indicators of nursing care for the person burned in Burn Treatment Units and to verify that the study achieved its objective, identifying 113 empirical indicators, grouped by basic human needs, 89 corresponding to psychobiological needs, 21 to psychosocial needs and 03 to psychospiritual needs. These indicators will help in nurses' decision-making and in the implementation of the nursing process.

In view of the above, a limiting factor perceived was the existence of few studies related to the theme, and that the existing ones have a low level of evidence, which does not favor the development of more clinical possibilities of nursing care, demonstrating the importance of more studies directed to this clientele, in order to systematize and individualize care.

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