Primary Health Care professionals' knowledge about initial care for burn victims

Conhecimento dos profissionais da Atenção Primária à Saúde sobre o atendimento inicial ao queimado

Conocimiento de los profesionales de la Atención Primaria de Salud sobre la atención inicial al quemado

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ABSTRACT

Objectives: to assess Primary Health Care physicians and nurses' knowledge about initial care for burn patients. **Methods**: a descriptive cross-sectional survey of 71 professionals between February 19 and March 30, 2018. A validated questionnaire was used to assess knowledge through the correct answers obtained in the tool; Mann-Whitney test to compare professionals' level of knowledge; and logistic regression to investigate the association with other variables. **Results**: there was an overall wrong answer rate of 40.27% in a tool applied to the subject in relation to physicians and 45.59% of nurses, with no statistically significant difference among them (p=0.27). There was a positive association between level of knowledge and length of practice in Primary Health Care (p=0.043). 29.19% of physicians and 14.89% of nurses knew the Ministry of Health's flowchart for initial care for burn victims. **Conclusions**: professionals had a low level of knowledge associated with their time in Primary Health Care.

Descriptors: Primary Health Care; Knowledge; Burns; Physicians; Nurses.

RESUMO

Objetivos: avaliar o conhecimento de médicos e enfermeiros da Atenção Primária à Saúde sobre atendimento inicial ao paciente queimado. **Métodos:** pesquisa descritiva, transversal com 71 profissionais, entre 19 de fevereiro e 30 de março de 2018. Utilizou-se questionário validado para avaliar o conhecimento por meio dos acertos obtidos no instrumento; teste de Mann-Whitney para comparar o nível de conhecimento dos profissionais; regressão logística para investigar a associação com as demais variáveis. **Resultados:** observou-se índice geral de erros no instrumento aplicado sobre o tema de 40,27% em relação aos médicos e 45,59% dos enfermeiros, sem haver diferença estatisticamente significativa entre eles (p=0,27). Verificou-se associação positiva entre nível de conhecimento e tempo de atuação na Atenção Primária à Saúde (p=0,043). 29,19% dos médicos e 14,89% dos enfermeiros conheciam o fluxograma para atendimento inicial ao queimado do Ministério da Saúde. **Conclusões:** os profissionais apresentaram baixo nível de conhecimento associado ao tempo de atuação na Atenção Primária à Saúde.

Descritores: Atenção Primária à Saúde; Conhecimento; Queimaduras; Médicos; Enfermeiros.

RESUMEN

Objetivos: evaluar el conocimiento de médicos y enfermeros de la Atención Primaria de Salud sobre atención inicial al paciente quemado. **Métodos**: investigación descriptiva, transversal con 71 profesionales en el período entre 19 de febrero y 30 de marzo de 2018. Se utilizó un cuestionario validado para evaluar el conocimiento por medio de los aciertos obtenidos en el instrumento y la prueba de Mann-Whitney para comparar el nivel de conocimiento de los profesionales y regresión logística para investigar la asociación con las demás variables. **Resultados**: se observó índice general de errores en el instrumento aplicado sobre el tema del 40,27% en relación a los médicos y el 45,59% de los enfermeros, sin haber diferencia estadísticamente significativa entre ellos (p=0,27). Se verificó asociación positiva entre nivel de conocimiento y tiempo de actuación en la Atención Primaria de Salud (p=0,043). El 29,19% de los médicos y el 14,89% de los enfermeros conocían el diagrama de flujo para atención inicial al quemado del Ministerio de Salud. **Conclusiones**: Los profesionales presentaron bajo nivel de conocimiento y éste se mostró asociado al tiempo de actuación en la Atención Primaria de Salud.

Descriptores: Atención Primaria de Salud; Conocimiento; Quemaduras; Médicos, Enfermeros y Enfermeras.

INTRODUCTION

Burns are traumatic injuries to the body's organic tissues resulting from the action of various agents such as fire, electricity, radiation, heated surfaces, hot liquids, among others. Depending on the extent, depth, causative agent of the injury, association with inhalation of smoke by the victim and other particularities, burns generate important systemic repercussions that can lead to severe sequelae or death. They are considered a global health problem by the World Health Organization (WHO), estimated at over 265,000 annual deaths from fire alone[1-2].

Although the Ministry of Health (MoH) recognizes burns as a public health problem, the real extent of the problem in Brazil is not known since there is insufficient epidemiological data and a unified database to define a Brazilian overview of the problem[3-5]. Several studies using data from Burn Treatment Centers point to the domicile as the most frequent place of occurrence of burns treated in the emergency services in the country[6-10].

In Brazil, assistance to burn victims is organized in hierarchical and regionalized services based on universality and comprehensiveness principles of health actions and has in Primary Health Care (PHC) an important role. Professionals are responsible for the direct treatment of the less severe patients. At the same time, they should be integrated with the whole care network and other levels of attention in the follow-up of other cases[10-12].

Therefore knowledge in initial care for burn victims is crucial, allowing to reduce its risk of morbidity and mortality and defining as a set of information pertinent to a certain area based on established scientific principles[12]. It becomes an indispensable tool for the professional to act in different situations of daily practice providing the ability to use and integrate this knowledge. This tool aims to solve everyday problems to better meet the needs of the population seeking health services[13].

A study conducted in the United Kingdom in 2015 found that many students at the end of their medical courses lack the skills or confidence to deal with burns. 35% said they did not receive any burn classes, only 45% had formal education and only 32% felt comfortable in this type of care. This study pointed as the cause of this problem the curricular failure on this subject, which led to the deficiency of first aid knowledge, trust in care and basic knowledge of treatment[14].

In turn, another study conducted with 133 medical students in the state of Piauí, Brazil, in 2016, addressing knowledge about initial care for burn victims, showed worrying results: 60.15% of them did not know the correct indication of prophylaxis against tetanus, only 49.62% answered correctly the question about burned body surface area (BSA) calculation and 48.12% answered the answer about antibiotic prophylaxis[15].

Considering that burns are potentially serious injuries that cause disabling and fatal sequelae, the poor conduction of these injuries in the first hours directly impacts their outcome. In addition, there is a need for studies that address this issue, since no publications were found in Brazil that specifically focus on verifying professionals' knowledge who provide initial care for burn victims in PHC.

OBJECTIVES

To assess PHC physicians and nurses' knowledge about initial care for burn patients.

METHODS

Ethical aspects

The research was conducted within the ethical and legal principles prescribed for scientific research in Brazil and in different nations. It was assessed and approved by the Research Ethics Committee of *Centro Universitário UNINOVAFAPI*, Opinion 2153139 of July 3, 2017, in compliance with Resolution 466/12 of the Brazilian National Health Board (*Conselho Nacional de Saúde*)/MoH.

Design, place of study and period

Descriptive, cross-sectional study conducted with PHC medical professionals and nurses from the city of Teresina, capital of the state of Piauí, from February to March 2018.

Population or sample, inclusion and exclusion criteria

According to the data provided by the managing body of the municipality, at the time of the research, 516 professionals (258 physicians and 258 nurses) were linked to 258 PHC teams in the capital city of the state of Piauí, Teresina, based in 92 BHUs. A simple random sample (n) was calculated and a 5% margin of wrong answer (E) was defined a priori; a 95% confidence level (Z=1.96); and the assumption that the study parameter (knowledge) has maximum variance, P=0.50. As this is a finite population of 516 (N) PHC professionals, including physicians and nurses, the sample was calculated using the formula[16] $n= \frac{Z^2 P(1-P)N}{E^2(N-1)+Z^2 P(1-P)}$, being n=220 distributed among 110 physicians and 110 nurses from 68 BHU. The 258 teams were duly numbered. The BioStat 5 program generated 110 random numbers between 1 and 258, corresponding to the sample teams. In each sample unit drawn, physicians and nurses were integrated into the research as research participants. At first, participants of this research were professionals who had been working for at least one year in PHC and excluded those who were on vacation or on sick leave or of any other nature.

Among the physicians, 24 did not answer the questionnaires because they were on vacation/leave or the team visited did not have this professional at the time of data collection. In the group of nurses, 13 sick leave was reported for the reasons mentioned above. Totaled 71 participants, 24 physicians and 47 nurses from 60 PHC teams. As for refusal to answer the collection script, 62 physicians and 50 nurses refused to participate in the study: 72.10% and 51.50%, respectively, which represents a relatively high percentage. The most alleged reason by professionals for not participating in the study was the lack of knowledge about the topic under study.

It is noteworthy that data collection was performed with teams belonging to 68 BHUs in the urban and rural areas of the city, which corresponded to 73.9% of the total existing BHUs. Due to the high rate of refusals, we sought to increase the number of participants. However, considering that for BHU not initially visited there were difficulties in access due to the distance and logistics of displacement of the research team, data collection was ended with this quantitative, being this a methodological limitation.

Study protocol

For data collection, designed and validated questionnaires were used[12]. The elaboration of this tool had as methodological

framework for its construction the Pasquali's Psychological Scale Elaboration Theory, widely used in the validation of research tools[17].

It was a structured questionnaire with closed questions, covering (A) Socio-demographic characterization of the assessed professional; (B) Sources of theoretical and practical update on burn victims care; (C) Dichotomous questions about nurses and physicians' general and specific knowledge about initial care for burn victims. For the purposes of the present study, considering the target audience of physicians and nurses attending PHC, adjustments were made to the original tool[12]. Adjustments to include care behaviors defined by MoH in the initial treatment of burn victims within PHC[18]. Changes were limited to the suppression of items not referring to the necessary domain in burns by these PHC professionals such as care, invasive procedures, conducts and controls performed in a hospital environment. In addition, questions related to sources of theoretical and practical updating on burn victims care were also removed in order to make the questionnaire objective.

The tool used for physicians included, in the first chunck, the sociodemographic characterization with age; sex; professional qualification; length since graduation; Graduate (or not); length of experience and PHC admission form; experience in caring for some acutely burn patient in PHC. In addition to the specific questions, the following are more general items: knowledge (or not) of the flowchart for care with risk/vulnerability classification for PHC burn patients[17]; qualification and updating (or not) in the initial care burn area; date of last qualification if so.

The second chunk - on general and specific knowledge about initial care for burn patient by physicians, covered the following topics: (1) initial basic examination; (2) BSA calculation; (3) local care to burn patients; (4) immediate (or not) removal to prevent further spread of the burn in case of adherent causative agent; (5) cleaning of injuries and use (or not) of overall occlusive dressings; (6) patient positioning after hand burn; (7) pathophysiology of burns; (8) specificity for face, foot, hand or neck burns and/or perineal or genital burns; (9) circumferential burns of the extremities, burns by electric discharge, poisoning, etc.; (10) need for fasting within the first 48 hours for burns; (11) about hydroelectrolytic replacement; (12) use of prophylactic antibiotics to prevent infections. In all, the second chunk of the referred tool totaled 12 (twelve) questions with 03 (three) alternatives of choice "I agree", "I disagree", "I do not know".

When it comes to nurses, in the first chunk, sociodemographic characterization, the questions are the same for physicians. In the second chunk, which concerns knowledge about initial care of burn patients, the first seven questions are the same as those directed to physicians. From the eighth onwards, there are differences, according to the original tool proposed by Balan (2014): (8) generous fluid supply so that the patient responds to treatment as quickly as possible through satisfactory urinary volume; (9) care for injuries during the first bath and degeneration of chlorhexidine injuries; (10) watch out for injuries after bathing; (11) recommendations on changing patient dressings; (12) use of all available protective equipment and applying aseptic technique during dressing to avoid risk of infection; (13) prevention of aesthetic and functional sequelae through conduct taken by nursing; (14) at the first visit, venipuncture for early fluid infusion[17]. In all, the second chunk of the questionnaire for nurses totaled 14 (fourteen) questions

consisting of 03 (three) choice alternatives "I agree", "I disagree", "I don't know".

The selected professionals were located and approached in their own BHU in the respective work shift. At the time, professionals were informed about the objectives of the study and invited to participate as soon as available; for those who were willing to do so, the interview was held at that time, at BHU's premises. For those who were not available, a second date was scheduled. The questionnaires were administered by four (4) higher-level health professionals previously trained to apply the tool used by the responsible researcher, who was also responsible for the daily supervision of the completion of the tools. Individuals who agreed to participate in the research were given the Free and Informed Consent Term (FICT).

Analysis of results, and statistics

The survey data were tabulated using the Microsoft Excel 2016 program. Subsequently, the data were subjected to statistical tests with the aid of the program SPSS version 23.0, authorization code for use number cb4b1b048cd831218022. The significance level adopted in all tests was 5% ($p < 0.05$).

Data analysis to verify professionals' knowledge on the topic considered the number of correct answers to the questionnaires by professional category. To test the hypothesis that the total sum of points obtained in the questionnaires of the two professional categories followed the normal curve pattern, the Kolmogorov-Smirnov test was used, which allowed us to reject this hypothesis. Thus, to assess whether the level of knowledge between initial care for burn patients was equal between physicians and nurses, the nonparametric Mann-Whitney test was used.

To verify the existence of an association of knowledge between the type of professional, physicians or nurses and the knowledge about the flowchart for initial care for burn patient of the MoH, the Chi-square test was used.

Logistic regression analysis studied the individual ability of each independent variable to differentiate between the groups with the highest knowledge and those with the least knowledge by isolating the effects of the others. Independent variables were defined and dichotomized: (1) age (< median age or ≥ median age); (2) sex (male or female); (3) qualification (physician or nurse); (4) qualification length (< median length or ≥ median length); (5) continuing education (Graduate: yes or no); (6) PHC experience length (< median length or ≥ median length); (7) PHC admission form: public tender (yes or no); (8) experience in burn victims care (yes or no); (9) knowledge of the flowchart for burn victims care in primary care (yes or no).

The dependent variable, in turn, corresponded to the number of correct answers from the respective knowledge tests: < median number of correct answers or ≥ median number of correct answers.

Spearman's correlation coefficient was used to study the concomitant relationship between the number of correct answers to the questionnaires and the time spent in PHC alone.

RESULTS

Data show that 49.30% of professionals were 42 or younger. Regarding sex, the majority were female, with 92.96%. Regarding

professional qualification, 66.20% were nurses and 33.80% physicians. With regard to qualification length, in general terms of the two segments, 40.84% had graduated for more than 20 years. Most of the interviewees (83.09%) had Graduate studies, highlighting the *lato sensu* type (73.23%). From the sociodemographic data, a little over 59% of the respondents had over 10 years of experience in PHC. PHC admission form had been predominantly via public tender in 81.69% (Table 1).

Table 1 – Sociodemographic and qualification characteristics of Primary Health Care professionals, Teresina, Piauí, Brazil, 2018

Variables	N	%
Age group		
22 |- 42 years	35	49.30
43 |- 60 years	30	42.25
> 60 years	6	8.45
Sex		
Male	5	7.04
Female	66	92.96
Professional qualification		
Nurse	47	66.20
Physician	24	33.80
Length since graduation		
<10 years	20	28.16
10 |-| 20 years	22	30.98
> 20 years	29	40.84
Continuing education/Graduate Course		
Yes	59	83.09
No	12	16.91
Continuing education/type of Graduate Course		
Specialization	52	73.23
Master's degree	7	9.85
Burn victims care update	0	0
Years of experience in PHC*		
< 5 years	16	22.53
5 |- 10 years	9	12.68
11 |- 15 years	14	14.72
16 |-20 years	24	33.80
> 20 years	8	11.27
Admission form		
Public tender	58	81.69
Public selection	9	12.68
Substitute	4	5.63

Note: *PHC – Primary Health Care.

There was a proportion of overall knowledge with mean correct answers of the total questions of 59.7% by physicians. As for the question related to the basic exam in the initial care of burn patients, the vast majority of them reached 95.80% correct answers. Assessing the item referring to the application of the "rule of nine" for BSA calculation, physicians achieved a wrong answer rate of 41.70%. Regarding the understanding related to the pathophysiology of burns, the proportion of wrong answers was very high for physicians (79.10%). Item referring to the initial volume replacement in burn patients indicated 45.80% of wrong answers. Finally, the question about antibiotic therapy resulted in 54.20% wrong answers (Table 2).

Regarding Table 3, alluding to the group of nurses, there was an overall knowledge rate with a mean of 54.4% of correct answers. As for the first question about basic examination in the initial care of burn patients, 80.90% correct answers were obtained. Regarding the item on "rule of nine" application, a wrong answer rate of 51.10% was observed. Regarding the question about burn pathophysiology, the percentage of wrong answers was considered high, 85.10%. Questioning about infection prevention in burns, wrong answers reached 63.80%. Finally, the question that sought to gather data on expert knowledge regarding venous access in the initial care of burn patients, presented correct answer rate of only 36.20%.

There was no statistically significant difference between the total number of physicians' correct answers when compared to nurses' (p=0.27).

Regarding knowledge of MoH's flowchart for initial care for burn victims, 29.19% of physicians and 14.89% of nurses answered affirmatively. No statistically significant association was detected between professional qualification and knowledge (p=0.15).

No professional, physician or nurse, answered all the questions. The mean and median number of correct answers were close in both professional groups. As for the minimum grade, there were those who answered wrong all questionnaire alternatives in the nursing group. The mean, median, maximum and minimum number of correct answers by type of professional are observed in Table 4.

The estimated logistic regression model indicated that the only variable that differentiated the groups with the highest knowledge from those with the least knowledge was PHC length experience (p=0.04). This influence was that the more experience the greater the number of correct answers to the questionnaire; The degree was from those who had more than 13 years of experience in PHC and were six times more likely to have least 8 (eight) correct answers (Table 5). The other independent variables (age group, sex, professional qualification, length since graduation, continuing education, enrollment, experience in burn victims care and knowledge of the flowchart of care in PHC) had no statistically significant weight to influence the number of correct answers. Spearman's correlation coefficient indicated a low correlation of +0.016, with no statistically significant difference (p=0.896).

Table 2 – Number of correct answers, wrong answers, "do not know" and respective percentages of correct answers and wrong answers by topic from Primary Health Care medical professionals, Teresina, Piauí, Brazil, 2018

Items	Area	Number of correct answers	Number of wrong answers	Do not know	Correct answers (%)	Wrong answers (%)
1	Initial exam	23	1	0	95.8	4.2
2	Burned body surface area calculation	14	5	5	58.3	41.7
3	Local care	16	8	0	66.7	33.3
4	Local care	12	10	2	50.0	50.0
5	Local care	12	10	2	50.0	50.0
6	Positioning	12	5	7	50.0	50.0
7	Pathophysiology	5	12	7	20.8	79.1
8	Triage	16	3	5	66.7	33.3
9	Triage	23	0	1	95.8	4.2
10	Nutrition	15	6	3	62.5	37.5
11	Volume replacement	13	2	9	54.2	45.8
12	Antibiotic therapy	11	13	0	45.8	54.2
Total		172	75	41	59.7	40.3

Table 3 – Number of correct and wrong answers, "do not know" and respective percentages of correct and wrong answers by topic of Primary Health Care nurses, Teresina, Piauí, Brazil, 2018

Items	Area	Number of correct answers	Number of wrong answers	Do not know	Correct answers (%)	Wrong answers (%)
1	Initial exam	38	5	4	80.9	19.1
2	Burned body surface area calculation	23	12	12	48.9	51.1
3	Local care	25	19	3	53.2	46.8
4	Local care	33	8	6	70.2	29.8
5	Local care	22	10	15	46.8	53.2
6	Positioning	20	7	20	42.6	57.4
7	Pathophysiology	7	20	20	14.9	85.1
8	Vital control	30	11	6	63.8	36.2
9	Injury care	16	17	14	34.0	66.0
10	Injury care	37	2	8	78.7	21.3
11	Injury care	35	5	7	74.5	25.5
12	Infection prevention	17	28	2	36.2	63.8
13	Complication prevention	38	8	1	80.9	19.1
14	Venous access	17	22	8	36.2	63.8
Total		358	174	126	54.4	45.6

Table 4 – Mean, median, maximum and minimum number of correct answers to questionnaires by type of Primary Health Care professional about initial care for burn victims, Teresina, Piauí, Brazil, 2018

Type of professional	Mean	Median	Maximum	Minimum
Physician	8	8	11	4
Nurse	8	9	13	0

Table 5 – Association between burn knowledge and sociodemographic and qualification variables of Primary Health Care professionals (Logistic Regression Model), Teresina, Piauí, Brazil, 2018

Area	$\beta(i)$[1]	p value	OR[2]
Age group	-1.15	0.18	0.32
Sex	-0.54	0.67	0.58
Professional qualification	1.17	0.13	3.21
Qualification length	0.08	0.15	1.08
Continuing education	0.96	0.41	2.60
PHC* experience length	1.83	0.04	6.23
PHC admission form	-0.07	0.95	0.93
Experience in burn victims care	-0.51	0.47	0.60
Knowledge of the care flowchart for burn victims in PHC	1.46	0.06	4.3

Note: [1] *(βi) coefficient: variable weight;* [2] *Odds Ratio; * PHC – Primary Health Care.*

DISCUSSION

PHC physicians and nurses have low knowledge of initial care for burn patients. The only variable of the present study that is associated with professional knowledge on the subject was the length of experience in PHC so that, statistically, the longer the experience in PHC the greater the number of correct answers in the questionnaires. In this regard, the analysis of the sociodemographic profile of the respondents showed professionals who have worked in these services for a long time, with more than 20 years of initial education, as well as one or more Graduate studies, as corroborated by other studies[19-21].

The items with the highest proportion of wrong answers varied between the two classes. On the part of the medical class, they can be summarized as local care, pathophysiology, patient positioning, BSA calculation, hydration (volume replacement), and antibiotic therapy. Overall, the total percentage of correct answers to the

questions related to knowledge about initial treatment of burn patients by physicians is low, similar to that reported in the literature[22]. On the other hand, a study[15] conducted with students in the last year of medicine had a high rate of correct answers (63.34%), but still below the necessary for a complete and effective care (100%). Finally, a British research[14] concludes that the lack of teaching on the subject becomes one of the direct responsible for first aid failure.

Nurses obtained an overall percentage of knowledge on the topic similar to physicians, a little over 50%. For them, the following are the topics where the most wrong answers occurred: pathophysiology, positioning, local care and injury care, a value even lower than that observed in a similar study (76.87%)[20]. The undesirable consequences of this lack of knowledge have a direct impact on care provided. In this regard, at a University Hospital and University Center in Perth City, Western Australia, 61% of admitted patients received inadequate first aid. 50% had at first been subjected to inappropriate PHC care in an emergency room, nursing station or general professional[23].

Among the most important items, the correct determination of BSA should be considered as being extremely relevant in the initial treatment of burn victims[24]. From there, derive criteria of severity of the case and urgent conduct. But many physicians and most nurses misapply the "rule of nine" calculation for BSA. Previous studies[15,22] with medical students showed flaws in this point, indicating insufficient approach to the subject in the curriculum of undergraduate and/or recent graduates. The result was also found in Netherlands[25] with professionals working in ambulances and emergency hospitals. This may even lead to the referral of critically ill patients to specialized burn centers.

Regarding the indication of volume replacement in burn patients, a previous research[22] reported a much higher rate of wrong answers on the subject (90%) among medical students. Similarly, another study[15] focused on assessing items that students had less knowledge on, so that 27.06% were unaware of any of the volume replacement formulas for these cases. 32.33% did not distinguish Parkland's formula. 44.36% ignored the ideal type of fluid to be used. 57.89% missed the calculation of the total volume to be adopted based on the formula they believed they knew. Adequate hydration in the first hours after trauma is directly related to survival rates. In Egypt[26], even more worrying results were found since all PHC physicians were unaware of the main indication for volume replacement in burn patients, and were unable to calculate hydration if necessary.

Regarding the use of antibiotics, although they do not need to be prescribed prophylactically for burn victims[24], the results of this research and the literature report lack of knowledge of up to 80% for medical students[22]. Systemic antibiotic prophylaxis in these cases is contraindicated as it would only select resistant

strains of bacteria without additional benefits[15]. Their results reveal lack of knowledge by 51.87% of students attending medical internship, a result close to the reality of the state of Piauí.

Study limitations

This study has as its main limitation the low number of respondents as a result of the great refusal by physicians and nurses to participate in the study. This may denote their fear of demonstrating lack of knowledge about the subject, even with the guarantee of confidentiality that all research should value. In addition, because it is a cross-sectional study, it does not allow us to determine a causality relationship among the variables.

Contributions to nursing, health or public policy

PHC health professionals should be aware of all aspects of the community they serve. In the case of burns, the main focus should be on primary prevention. However, they should be prepared to promptly attend to the simplest cases and recognize, refer and follow along with the other levels of health care the most complex cases. In the specific case of nursing, studies highlight the important role of nurses in contact with burn victims in the fundamental role they play in the role of educator, as well as in rapid recovery and rehabilitation with minimal sequelae, acting with a holistic and humanized view[27-28]. This survey in assessing burn knowledge gaps provides the basis for continuing education projects to be designed for PHC professionals.

CONCLUSIONS

The results of the study revealed a high percentage of wrong answers in the tools used to assess knowledge about initial care for burn victims by physicians and nurses belonging to PHC. Given this setting, measures that favor qualification provision aiming at improving the quality of care provided to this clientele are essential.

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