

CUIDADO É FUNDAMENTAL

Escola de Enfermagem Alfredo Pinto – UNIRIO

RESEARCH

DOI: 10.9789/2175-5361.rpcf.v14.10962

BARRIERS AND CHALLENGES IN NURSING'S PERFORMANCE IN EMERGENCY AND EMERGENCY SERVICES

*Entraves e desafios na atuação do enfermeiro nos serviços de urgência e emergência**Barreras y retos en el desempeño de enfermería en servicios de emergencia y emergencia***William Caracas Moreira¹** **Larissa Rodrigues Lira²** **Lara Rodrigues Lira²** **Maria Aparecida Mota de Abreu³** **Cristiano Walter Moraes Rola Júnior⁴** **Isabelle Cerqueira Sousa⁵** 

ABSTRACT

Objective: to identify the main obstacles and challenges faced by nurses working in urgent and emergency services. **Method:** this is a narrative review. Articles published in the last five years, available in the main databases, in three languages, covering the theme in its title, abstract or subject, were used. Initially, 12,370 files were found, which when passing through the criteria of exclusion and simplified reading culminated in the approach of 28 articles. **Results:** among the main findings, we highlight: the great demand for the service, exhaustive workload, low wages, stressful situations, adverse events, in addition to the failure in communication and interprofessional relationship. **Conclusion:** there is a prevalence of obstacles in the various urgency and emergency services, however, several solutions with potential applicability are pointed out, in an attempt to manage the obstacles and solve the identified challenges.

DESCRIPTORS: Nursing; Emergency medical services; Health services administration; Global health.

¹Universidade Federal da Paraíba, João Pessoa, PB, Brasil.

²Universidade Federal do Piauí, Picos, PI, Brasil.

³Unichristus, Fortaleza, CE, Brasil.

⁴Universidade Federal do Ceará, Fortaleza, CE, Brasil.

⁵Universidade de Fortaleza, Fortaleza, CE, Brasil.

Received: 03/18/2021; Accepted: 08/10/2021; Published online: 03/10/2022

Corresponding Author: William Caracas Moreira, Email: Williamcaracaslins@gmail.com

How cited: Lira LR, Lira LR, Abreu MAM, Rola Júnior CWM, Sousa IC. Barriers and challenges in nursing's performance in emergency and emergency services. *R Pesq Cuid Fundam* [Internet]. 2022 [cited year month day];14:e10962. Available from: <https://doi.org/10.9789/2175-5361.rpcf.v14.10962>



RESUMO

Objetivo: identificar os principais entraves e desafios enfrentados pelo enfermeiro atuante nos serviços de urgência e emergência. **Método:** trata-se de uma revisão narrativa. Utilizou-se artigos publicados nos últimos cinco anos, disponíveis nas principais bases de dados, em três idiomas, contemplando a temática em seu título, resumo ou assunto. Inicialmente encontrou-se 12.370 arquivos, que ao passarem pelos critérios de exclusão e leitura simplificada culminou na abordagem de 28 artigos. **Resultados:** dentre os principais achados destacam-se: a grande demanda do serviço, carga horária exaustiva, baixos salários, situações de estresse, eventos adversos, além da falha na comunicação e relação interprofissional. **Conclusão:** há a prevalência dos entraves nos diversos serviços de urgência e emergência, contudo, são apontadas diversas soluções com potencial de aplicabilidade, na tentativa de gerir os entraves e sanar os desafios identificados.

DESCRITORES: Enfermagem; Serviços médicos de emergência; Administração de serviços de saúde; Saúde global.

RESUMEN

Objetivo: identificar los principales obstáculos y desafíos que enfrentan los enfermeros que trabajan en los servicios de urgencias y emergencias. **Método:** esta es una revisión narrativa. Se utilizaron artículos publicados en los últimos cinco años, disponibles en las principales bases de datos, en tres idiomas, cubriendo el tema en su título, resumen o tema. Inicialmente se encontraron 12.370 expedientes, que al pasar por los criterios de exclusión y lectura simplificada culminaron en el abordaje de 28 artículos. **Resultados:** entre los principales hallazgos se destacan: la gran demanda del servicio, la carga de trabajo exhaustiva, los bajos salarios, las situaciones estresantes, los eventos adversos, además de fallas en la comunicación y relación interprofesional. **Conclusión:** existe un predominio de obstáculos en los distintos servicios de urgencia y emergencia, sin embargo, se señalan varias soluciones con potencial aplicabilidad, en un intento de gestionar los obstáculos y resolver los desafíos identificados.

DESCRIPTORES: Enfermería; Servicios médicos de urgencia; Administración de los servicios de salud; Salud global.

INTRODUCTION

In the management of health resources, nurses have sought to transcend the technical-scientific skills of their graduation, developing skills focused on the administration of human, material, and structural resources required in management, especially in health resources and services. In this context is the management of urgency and emergency services.¹

An emergency is considered to be all situations that present alterations in health status, with imminent risk to life, in which the time for resolution is quantified in minutes. Urgency is defined as situations that present altered health status, but without imminent risk to life, in which medical care requires the shortest possible time, and in this case, it can vary from a few hours to 24 hours.²

In Brazil, nursing in the context of urgency and emergency involves, to a great extent, working with the unexpected, with situations in which it will be necessary for nurses to have a critical-situational view and to make choices in which the patient will be the main beneficiary, without offering risks to the caregivers – those who offer care directly to the patient. Thus, the best use of material, equipment, structure, and teamwork are involved in this process. Instances such as hospitals, Emergency Care Units (UPA), Mobile Emergency and Urgent Care Service (SAMU), and specialized clinics (public or philanthropic) are some of the establishments responsible for assisting users of the Unified Health System (SUS) in terms of urgency and emergency services in Brazil.³⁻⁴

It is noteworthy that this research is necessary because the argumentation through a theoretical discussion about nursing management in urgency and emergency services produces knowledge that can support nurses' decision-making to improve the quality of health care and management processes.

Therefore, this study aims to identify the main obstacles and challenges faced by nurses working in urgency and emergency services, in order to solve the main problems faced by them.

METHOD

This is an integrative literature review, with a qualitative and descriptive approach, carried out from June to December 2020. It sought to investigate the knowledge in national and international literature, through virtual sources, culminating in a balance of data obtained in the literature on the subject addressed in the following databases: Medical Literature Analysis and Retrieval System Online (MEDLINE) via PUBMED and Virtual Health Library (VHL), using as search descriptors: Emergency Medical Services, Health Services Management, Nursing and Global Health and their equivalents in English and Spanish.

The following inclusion criteria were used: articles published in the last five years in English, Portuguese and Spanish with a focus on at least two of the searched descriptors in their title, abstract or subject. The exclusion criteria were: duplicate articles or journals and/or those that presented conflicts of interest or that were off-topic, texts from websites, blogs, social networks, and circulating newspapers. It is noteworthy that due to the qualitative approach, in the case of a large number of related articles, a selection strategy was used in the collection: data saturation, so that the contents would not become repetitive.

In order to extract the information contained in the selected articles and formulate the meta-synthesis, we used an adaptation of the data collection instrument validated in 2005,⁵ to ensure the extraction of all relevant data to the research, efficiently and

accurately, as well as to minimize errors at the time of collection. Therefore, the modified version includes segments such as: title of the article, authors, country, year and type of publication, objective, sample, results, implications, and level of evidence. In addition, it is also a way to document the collected data.

After the search for articles, a database was formed, in which the articles went through an initial approach by inclusion and exclusion filters, after which, by simplified reading with double-blinding, through the cover letter and abstracts. After this approach, the final database was constituted, and then the extraction and careful analysis of the data contained in the sampled articles was performed.

RESULTS AND DISCUSSION

In the search for articles and periodicals through the VHL databases, after the advanced search through the selected health descriptors, 1,057 files were found, and after applying the filters related to the inclusion criteria, 135 publications remained. Of these, 124 did not fit the inclusion criteria, leaving 11 articles. In the MEDLINE database search, 11,313 files were found, and after applying the filters, 3,567 files were left, of which, after applying the exclusion filters, 17 articles were used. Therefore, the final sample consisted of 27 articles, Figure 1.

After the rigorous selection explained above, the information gathered from the final sample is described in Table 1.

It was found a large number of difficulties encountered by nursing professionals in the practice of nursing management in hospital urgency and emergency services, highlighting the overcrowding of the service, and consequently the overload of work on professionals. This is evidenced in a study conducted with data from the SAMU of Porto Alegre – RS, Brazil, in 2016, when identifying about 92,959 calls to the service and provision of assistance in more than 9,000 calls in just 3 months. Moreover, it is noteworthy that in Canada there is a budgetary difficulty in the sustainable financing of urgency and emergency services.^{3,6-9}

A qualitative study conducted in China found that the handling of many cases sensitive to primary health care in emergency

services is the main cause of overcrowding in the department, hindering access to the service, prolonging the stay of patients, and overwork of professionals.

At this juncture, to face these problems, measures were pointed out, such as the expansion of low complexity services with opening hours accessible to the enrolled population and identification of cases that demand low complexity care within the emergency department to be treated by a general practitioner in another space of the same service without compromising the flow of assistance to patients who need fast care.⁶

Although there are studies that point to a lack of health professionals trained for effective care in urgency and emergency, authors point to the emergency nurse as the ideal choice in the rapid service workforce, since he/she has a professional background capable of acting as a leader in assistance from cases of low, medium, and high complexity. This strategy has been increasingly adopted in developed countries such as China and the United States, aiming to reduce overcrowding and the waiting time for care – especially in cases of low complexity – without compromising the quality of care.¹⁰⁻¹⁵

A research that evaluated the aggravating factors for nurses' performance in the emergency room identified that situations of daily stress interfere directly in the quality of care. Thus, this theme has been gaining more and more attention in scientific discussions, especially in the approach of coping with negative experiences in the emergency ward and how they affect the professionals in the service. In this sense, emotions such as stress, depression, and other behavioral health problems were pointed out after experiencing situations such as this, in addition to reporting feeling morally shaken, lacking spirit and confidence to work and with affected interprofessional communication.¹⁶

In addition, nurses participating in the aforementioned study expressed impairment in the effective development of daily professional practice in the service. The consequent deficit in patient care was perceived from the reports of eventual prescription errors when the nursing professional felt deconcentrated and with their occupational productivity impaired.¹⁶

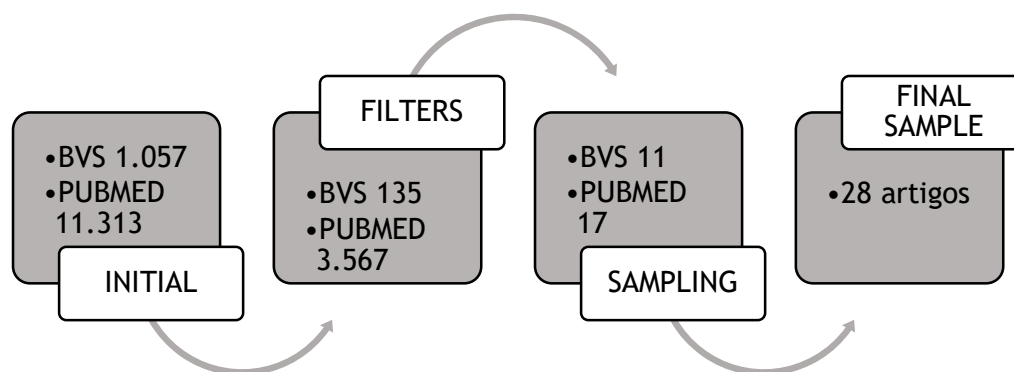


Figure 1 – Flowchart of search, selection and composition of the sample of articles and journals. Fortaleza, Ceará, Brazil, 2020

Source: Own authorship (2020)

Table 1 – Metasynthesis of the data from the bibliographic sources included in the sample. Fortaleza, Ceará, Brazil, 2020.

| AUTHOR/YEAR | RESULTS |
|--------------------------------------|--|
| DE LA CRUZ et al., 2019. | Avoidance-focused coping and depersonalization are related to somatic symptoms, anxiety, social dysfunction, and depression. Increased professional experience was associated with greater social dysfunction and increased number of ill patients was related to depressive symptomatology among health professionals. |
| BATTIST et al., 2019. | SAMU received 92,959 calls between January and March 2016. Of these, ambulances were sent to 10,891 calls, and 9,168 calls were effectively made. |
| DOS SANTOS; ROCHA; SAMPAIO, 2019. | It listed risks of errors during medication administration in urgent and emergency services, such as: illegible prescriptions, absence of relevant data, polypharmacy and drug interactions, and failure to identify the patient during medication administration. |
| ZAMBONIN et al., 2019. | We found a high number of intensive and semi-intensive care, linked to a long stay in the sector, which mischaracterizes emergency units as a place of stabilization. |
| MELLO, 2015. | We identified dynamics, relations, and working conditions that potentiate violence in this context; the relationship between work in the SAMU and urban violence; violence perpetrated by patients, colleagues, family members, and institutional violence; among the reactions and behaviors of workers faced with violence, defensive strategies such as trivialization and rationalization stood out. |
| SANTOS et al., 2020. | Experience in pediatric emergencies and master's degree academic training were related to better knowledge assessment. Regarding professional practice, it should be noted that 85.9% of respondents reported using pediatric pain assessment scales in their daily practice. However, more than 60% of the interviewees were more confident about their own impressions. |
| FOX; GARDNER; OSBORNE, 2019. | Emergency nursing services did not meet factors that support health service sustainability. Organizational support for the integration of nursing services was marginal and led to insufficient understanding of service capacity and underutilization. |
| KALLIOKOSKI et al., 2019. | It highlights a number of calls with a total of 546 EMT calls, 39 visits (7%) were caused by nurses' concerns. In 13% of the visits, the alert concern was inappropriate contact with the physician. |
| KATZBURG et al., 2020. | Nurses expressed that GIS was a tool they used to be proactive about emergency preparedness and management in their VHA-HBPC programs. GIS mapping allowed them to prioritize high-risk patients for specific threats. |
| CARMAN et al., 2019. | Nurses have always been at the forefront of injury prevention; they represent the largest number of health care professionals in our national medical system. |
| BATISTA; PEDUZZI, 2019. | It is detailed that 45.7% were specific to nurses, 14.2% shared with physical therapists and/or physicians, and in 40% (n=42) there was no consensus on the sharing of attributions. This shows the expansion of the scope of practice of the professions and the constitution of a common sphere of work. |
| OWUSU-ANSAH et al., 2020. | The implementation of a pediatric emergency care coordinator improves the care that is developed and offered to patients, as well as managing the necessary supplies. |
| CHAN et al., 2015. | Some interventions were listed that aim to improve measures of overcrowding and/or blocking access to emergency services: co-location of primary care and a skilled emergency nurse, retention units, patient flow, political action management, and resource prioritization. |
| GROVER; PORTER; MORPHET, 2017. | It was revealed that there were periods when teamwork worked and others when it did not. When it did work, the research participants reported feeling connected in the team, better managing and executing health care. During periods of higher demand, teamwork was said not to be adhered to, resulting in increased stress and decreased staff satisfaction. |
| HASSANKHANI et al. 2017. | They reported having suffered frequent episodes of violence in the workplace, pointed out physical problems and believed to be a result of violent incidents at work. Many of the interviewees reported feeling impaired when performing procedures, due to momentary stress levels, nervousness, insecurity, and lack of concentration. All of this leads to nurses' dissatisfaction, a deficit in patient care and safety. |
| DOETZEL; RANKIN; THEN, 2016. | One problem noted is the lack of a scope of competencies to act in this area, resulting in different practices in different places. The fee-for-service funding model remains a barrier to successful implementation of clinical nursing in the emergency department. |
| BOHSTRÖM; CARLSTRÖM; SJÖSTRÖM, 2016. | Reinforced stress was reported when there were difficulties in finding the patient's address; the high workload and the difficulty in finding and dealing with the medical problem; the feeling of helplessness/insufficiency of not being able to help the patient. |
| SHEIKHBARDSIRI et al., 2017. | Both pre-hospital and hospital emergency professionals are aware of the importance of their work, and are committed to it, regardless of age and gender and/or other factors; 1/3 of pre-hospital and hospital emergency nurses had low job motivation due to financial factors. |
| LESZCZYŃSKI et al., 2018. | Emergency Medical Service employees are highly exposed to the threat of job burnout due to the characteristics of their work environment; it is suggested that the most stress-resistant occupational group is paramedics. Furthermore, it is notable that partnership-based interpersonal relationships lead to greater job satisfaction. |
| WOLF; PERHATS; DELAO, 2015. | Prolonged stay of patients with behavioral health disorders in the emergency ward contributes to overcrowding; Lack of evidence-based training protocols; limited access to behavioral health specialists makes care inadequate; in addition to the lack of technical preparation of emergency professionals in the care at hand. |

Table 1 – Cont.

| AUTHOR/YEAR | RESULTS |
|-----------------------------|---|
| M., PLUMMER, COPNELL, 2016. | Teamwork and collaboration was higher in emergency nurses than in physicians; both understand the importance of working and learning together. In addition, the younger and more qualified the nurse, the more positive they are about collaborating in teamwork. In contrast, it was noted that specialist physicians are less cooperative to working together than general practitioners. |
| L., CALLEJA E COOKE, 2018. | Unpredictable nature of emergency work; lack of effective graduate training programs; low recruitment numbers of new professionals; perceived poor funding and better recognition, both professional and monetary, of the role of professionals working in the emergency room. |
| R.N, JACOBS E R.N, 2018. | Teamwork, collaboration, and communication help nurses to develop leadership. However, the ability of emergency nurses to act as leaders is limited by the lack of structural and psychological preparation. |
| MUNNANGI, GE et al., 2018. | Susceptibility of trauma nurses to stress-induced illness, showing higher stress scores. The absence of personal fulfillment; level of emotional exhaustion in the workplace; increased depersonalization and emotional exhaustion. |
| LU, D. et al., 2015. | The stressful factors reported by the nurses come from the nursing specialty, the work aspect, the workload and the distribution of time; low salaries and the concern not to make mistakes in practice, shortage of nursing professionals. |
| MOSADEGHRAD et al., 2019. | There is a lack of trained professionals and their distribution; immaturity of a program related to emergency medical services; lack of partnership in stakeholders and encouragement for services. |
| KIRONJI et al., 2018. | Regarding infrastructure, poor road conditions; road sharing between public and emergency vehicles; increased travel distance and lack of signaling; lack of fuel and mechanical failure; lack of instruments and appliances; shortage of formal training; need for qualified professionals. |

Source: Own authorship (2020)

Despite being aware of the importance of their work in promoting care and health, professionals working in urgencies and emergencies in Iran described in a study that they experienced unpleasant feelings such as professional demotivation due to low remuneration.¹⁷

Other studies point to insufficient salaries, exhausting working conditions, and neglect of professional well-being as the main causes of occupational stress.¹⁸⁻¹⁹

In this context, one study affirmed that interventions that require quick decisions in life-threatening situations cause considerable stress in nurses.²⁰ Another study pointed out that the consequences of stressful experiences at work include the development of health problems such as sleep disorders, chronic stress, physical injuries, and recurrent exhaustion.²¹

In general, it is seen that professionals face problems in the action of work, marked by high anxiety scores. Moreover, stress and feelings of helplessness are strongly reported in complex emergency situations.²²⁻²³

Among the studies that address ways to cope with stress in the workplace, there are the creation of a violence prevention program (analysis of the workplace to find potential risk factors, prevention and control of risks); organization of professional support with scheduled sessions and the development/support of programs and policies that improve emergency care as potential strategies.^{16,20-21}

In order to identify barriers and difficulties in providing out-of-hospital care, a North American review study identified that people may not differentiate between situations where immediate care is needed; furthermore, poor road conditions, lack of signage, fuel, and scarce equipment and instruments were identified as challenges to quality pre-hospital care. Thus, the authors of the

research encouraged care leaders to perform feasibility analyses in the systematic correction of deficits in the current system.²⁴

Regarding the practice of teamwork by emergency department nurses, a study conducted in Australia showed that establishing a bond between the professionals of the service considerably reduces the problems faced in daily professional practice. Thus, according to the nurses interviewed in this study, even with the great demand for care in their daily work, the integrated care actions become positive experiences for their work, reflecting positively in the satisfaction of the service users.²⁵

Also in the aforementioned study, from the social perspective, the nurse reported:²⁵ “- I think that [teamwork] works in a hectic environment like emergency, because if you have a problem with something, you know that there is someone . . . who can help or take over.” In this sense, it is understood that there is a frequent increase in job satisfaction and efficiency in procedures when the workload is divided in an organized manner, with social relationships among team members being a facilitating and positive point.

In opposition to the above, a study that sought to explore the factors that influence the sustainability of emergency services found that this sector does not meet the factors that support sustainability in the health service, culminating in an inadequate perception of the capacity and underutilization of the service.²⁶ Aligned to this, another study that sought to identify the practices shared among nurses, physicians and physical therapists pointed out that there is no consensus about the sharing of attributions among the professional classes.²⁷

The incentive to increase the interprofessional relationship produces feelings and emotions such as relief, entertainment, and mutual trust. There are many factors that contribute to an

ideal teamwork climate in the emergency department, including leadership, communication, monitoring, situational awareness, and supportive behavior, which has broad implications for patient safety, quality of care, and satisfaction on the part of both professionals and clients.

It is worth mentioning the experience reported by a North American study that, based on the use of technological tools for mapping frequent emergencies management – based on successful experiences of care – allowed the organization of care, promoting equity of care by enabling the prioritization of high-risk patients and specific threats.²⁸

CONCLUDING REMARKS

It was noticed that the problems presented are of simple bases, but complex context, becoming a challenge for the management of these services, since it must be considered the professionals, the population and the effectiveness of the service. Still in this context, it is worth mentioning that among the barriers, the interprofessional relationship and the stressful situations stood out because they have a direct or indirect connection in the presentation of the other problems presented.

In summary, it was noted that most of the constituent references obtained aligned results when it comes to the prevalence of the barriers in these services. Even so, it is worth mentioning that several solutions with the possibility of applicability are pointed out, in an attempt to manage the obstacles and solve the challenges reported. Finally, action-research is suggested in order to use this review as a subsidy for a transformation in the reality of urgency and emergency services.

REFERENCES

1. Cecílie LCO, Reis AAC, Andrezza R, Spedo SM, Cruz NLM, Barros LS, et al. Enfermeiros na operacionalização do Kanban: novos sentidos para a prática profissional em contexto hospitalar?. *Ciênc. Saúde Colet.* [Internet]. 2020 [acesso em 3 de julho 2020];25(1) Disponível em: <https://doi.org/10.1590/1413-81232020251.28362019>.
2. Ministério da Saúde (BR). Manual instrutivo da rede de atenção às urgências e emergências no Sistema Único de Saúde (SUS). 1ª edição. [Internet] 2013. Brasília: Ministério da Saúde [acesso em 3 de julho 2020]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/manual_instrutivo_rede_atencao_urgencias.pdf.
3. Battisti GR, Branco A, Caregnato RCA, Oliveira MMC. Perfil de atendimento e satisfação dos usuários do Serviço de Atendimento Móvel de Urgência (SAMU). *Rev. gaúch. enferm.* [Internet]. 2019 [acesso em 3 de julho 2020];40:e20180331. Disponível em: <https://doi.org/10.1590/1983-1447.2019.20180431>.
4. Chagas D C, Pereira DA, Castro FLM. Qualidade da assistência de enfermagem no setor de urgência de um hospital público de Teresina. *Revista Interdisciplinar.* [Internet]. 2015 [acesso em 3 de julho 2020];8(1). Disponível em: <https://revistainterdisciplinar.uninovafapi.edu.br/index.php/revinter/article/view/360>.
5. Ursi ES. Prevenção de lesão de pele no perioperatório: revisão integrativa da literatura. [Doutorado em Enfermagem]. Ribeirão Preto (Brasil): Universidade de São Paulo; 2005. [acesso em 3 de julho 2020]. Disponível em: <https://www.teses.usp.br/teses/disponiveis/22/22132/tde-18072005-095456/pt-br.php>.
6. Stewart SWC, Fhkam, NK Cheung, Fhkam ChB, Colin AG, Timothy HR, Fifem MD, et al. Strategies and solutions to alleviate access block and overcrowding in emergency departments. *Hong Kong med. j.* [Internet]. 2015 [cited 2020 sep 15];21(4). Available from: <https://doi.org/10.12809/hkmj144399>.
7. Zambonin F, Lima KLB, Brito AR, Brito TB, Amorim RF, Caldart V. Classificação dos pacientes na emergência segundo a dependência da enfermagem. *Rev. enferm. UFPE on line.* [Internet]. 2019 [acesso em 26 de setembro 2020];13(4). Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1021263>.
8. Doetzel CM, Rankin JA, Then KL. Nurse Practitioners in the Emergency Department: Barriers and Facilitators for Role Implementation. *Adv. emerg. nurs. j.* [Internet]. 2016 [cited 2020 sep 26];38(1). Available from: <https://doi.org/10.1097/tme.000000000000090>.
9. Wolf LA, Perhats C, Delao AM. US emergency nurses' perceptions of challenges and facilitators in the management of behavioural health patients in the emergency department: A mixed-methods study. *Australas J Emerg Nurs.* [Internet]. 2015 [cited 2020 sep 27];18(3). Available from: <https://doi.org/10.1016/j.aenj.2015.03.004>.
10. Santos PRA, Rocha FLR, Sampaio CSJC. Ações para segurança na prescrição, uso e administração de medicamentos em unidades de pronto atendimento. *Rev. gaúch. enferm.* [Internet]. 2019 [acesso em 26 de setembro 2020];40. Disponível em: <https://doi.org/10.1590/1983-1447.2019.20180347>.
11. Santos N, Pérez G, García S, Mintegi S. Procedures for pediatric sedation and analgesia: professional training and practice of nurses in Spanish emergency departments. *Emergencias (Sant Vicenç dels Horts).* [Internet]. 2020 [cited 2020 sep 26];3(2). Available from: <https://pesquisa.bvsalud.org/portal/resource/pt/ibc-188168>.
12. KALLIOKOSKI, Jaana *et al.* Insight into hospital ward nurses' concerns about patient health and the corresponding Medical Emergency Team nurse response. *Intensive crit. care nurs.* [Internet]. 2019 [cited 2020 sep 26];53. Available from: <https://doi.org/10.1016/j.iccn.2019.04.009>.
13. Reed LTC, James R, Carman M. Leading the Effort to Promote Bleeding Control in Our Communities. *Am J*

- Nurs. [Internet]. 2019 [cited 2020 sep 26];119(5). Available from: <https://doi.org/10.1097/01.naj.0000557914.20151.2c>.
14. Mosadeghrad AM, Gebru AA, Sari AA, Getu MA. Emergency medical services in Ethiopia: Drivers, challenges and opportunities. *Hum Antibodies*. [Internet]. 2019 [cited 2020 sep 26];27(1). Available from: <https://pesquisa.bvsalud.org/portal/resource/pt/mdl-30958339>.
 15. Owusu-Ansah S, Moore B, Shah MI, Gross T, Brown K, Gausche-Hillet M, al. Pediatric Readiness in Emergency: Medical Services Systems. *Pediatr. rev.* [Internet]. 2020 [cited 2020 sep 26];145(1). Available from: <https://doi.org/10.1542/peds.2019-3308>.
 16. Hassankhani H, Parizad AJ, Gacki-Smith BA, Rahmani AE, Mohammadi C. The consequences of violence against nurses working in the emergency department: A qualitative study. *Int Emerg Nurs.* [Internet]. 2018 [cited 2020 sep 15];39. Available from: <https://doi.org/10.1016/j.ienj.2017.07.007>.
 17. Sheikhbardsiri H, Khademipour G, Nekoei-Moghadam M, Aminzadeh M. Motivation of the nurses in pre-hospital emergency and educational hospitals emergency in the southeast of Iran. *Int. j. health plann. manage.* [Internet]. 2018 [cited 2020 sep 27];33(1). Available from: <https://doi.org/10.1002/hpm.2455>.
 18. Burrows GL, Calleja P, Cooke M. What are the support needs of nurses providing emergency care in rural settings as reported in the literature? A scoping review. *Rural remote health.* [Internet]. 2015 [cited 2020 sep 27];9(2). Available from: <https://doi.org/10.22605/rrh4805>.
 19. LU, DM, Sun N, Hong S, Yu-ying F, Kong FY 3, Li Qj. Occupational stress and coping strategies among emergency department nurses of China. *Arch. psychiatr. nurs.* [Internet]. 2015 [cited 2020 sep 27];29(4). Available from: <https://doi.org/10.1016/j.apnu.2014.11.006>.
 20. Piotr L, Mariusz P, Marcin P, Krzysztof O, Robert G, Marcin M, et al. Determinants of occupational burnout among employees of the Emergency Medical Services in Poland. *Ann. agric. environ. med.* [Internet]. 2019 [cited 2020 sep 15];26(1). Available from: <https://doi.org/10.26444/aaem/94294>.
 21. Munnangi S, Dupiton L, Boutin A, George Angus LD. Burnout, Perceived Stress, and Job Satisfaction Among Trauma Nurses at a Level I Safety-Net Trauma Center. *J Trauma Nurs.* [Internet]. 2018 [cited 2020 sep 15];25(1). Available from: <https://doi.org/10.1097/jtn.0000000000000335>.
 22. Cruz SPL, Crus JC, Cabrera JH, Abellán MV. Factors related to the probability of suffering mental health problems in emergency care professionals. *Rev. latinoam. enferm.* (Online). [Internet]. 2019 [cited 2020 sep 26];27. Available from: <http://dx.doi.org/10.1590/1518-8345.3079-3144>.
 23. Bohstrom D, Carlstrom E, Sjostrom N. Managing stress in prehospital care: Strategies used by ambulance nurses. *International emergency nursing* (Online). [Internet]. 2017 [cited 2020 sep 26];32. Available from: <https://doi.org/10.1016/j.ienj.2016.08.004>.
 24. Kironji AG, Hodkinson P, Ramirez SS, Anest T, Wallis L, Razzak J, et al. Identifying barriers for out of hospital emergency care in low and low-middle income countries: a systematic review. *BMC health serv. res.* (Online). [Internet]. 2018 [cited 2020 sep 26];18(291). Disponível em: <https://doi.org/10.1186/s12913-018-3091-0>.
 25. Grover E, Porter JE, Morphet J. An exploration of emergency nurses' perceptions, attitudes and experience of teamwork in the emergency department. *Australas Emerg Nurs J.* [Internet]. 2017 [cited 2020 sep 15];20(2). Available from: <https://doi.org/10.1016/j.aenj.2017.01.003>.
 26. Fox A, Gardner G, Osborne S. Nursing Service Innovation: a case study examining emergency nurse practitioner service sustainability. *Aust. j. adv. nurs.* [Internet]. 2019 [cited 2020 sep 26];74(2). Available from: <https://doi.org/10.1111/jan.13454>.
 27. Batista REA, Peduzzi M. Prática interprofissional no Serviço de Emergência: atribuições específicas e compartilhadas dos enfermeiros. *Rev. bras. enferm.* [Internet]. 2019 [acesso em 26 de setembro 2020];72(1). Disponível em: <https://doi.org/10.1590/0034-7167-2017-0797>.
 28. Katzburg JR, Bradley SE, Lind JD, Fleming M, Lee LB, Tubbesing SA, et al. Using Geographic Information System Mapping in Emergency Management Expanding the Role of Nurses in Home Based Primary Care. *Nursing Clinics.* [Internet]. 2020 [cited 2020 sep 26];55(1). Available from: <https://doi.org/10.1016/j.cnur.2019.10.010>.