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RESEARCH ARTICLE (ORIGINAL)

Manchester Triage: Nurses' perceptions of its contributions and influencing factors

Triagem de Manchester: Perceções dos enfermeiros sobre os seus contributos e fatores que a influenciam

Triaje de Mánchester: Percepción de los enfermeros sobre su contribución y factores que influyen en ella

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Abstract
Background: The Manchester Triage (MT) is essential in emergency services, setting the patient's clinical priority and the recommended time until medical assessment. Different factors can condition it.
Objective: To know the nurses' perceptions of the contributions of the MT and its influencing factors.
Methodology: This is an exploratory, descriptive, and qualitative study, with semi-structured interviews with ten nurses from two Portuguese emergency departments, conducted between January and February 2020 and submitted to content analysis.
Results: Three thematic areas emerged - The contributions of the MT, Factors influencing its performance, and Suggestions for improvement.
Conclusion: The contributions of the MT regarded priority setting, patient service, and the improvement of service operation. Factors that influenced triage performance were human and material resources, physical structures, MT protocol, service management, and patient- and nurse-related factors. Service management, MT protocol, and nurse selection were areas suggested for improvement.

Keywords: emergency service, hospital; Manchester triage; nurses

Resumo
Enquadramento: A Triagem de Manchester é essencial nos serviços de urgência, permitindo o estabelecimento da prioridade clínica do utente e o tempo recomendado até à observação médica, podendo ser condicionada por vários fatores.
Objetivos: Conhecer a perceção dos enfermeiros sobre os contributos da Triagem de Manchester e fatores influenciadores.
Metodologia: Estudo exploratório descritivo, de cariz qualitativo, com entrevistas semiestruturadas a 10 enfermeiros de dois serviços de urgência de Portugal, entre janeiro e fevereiro de 2020, submetidas a análise de conteúdo.
Resultados: Emergiram três áreas temáticas – contributos da Triagem de Manchester, fatores que influenciam a sua realização e sugestões de melhoria.
Conclusão: Identificaram-se como contributos da Triagem de Manchester – estabelecimento de prioridades, atendimento ao utente e melhoria do funcionamento do serviço; e como fatores que influenciam a realização da triagem: recursos humanos e materiais, estrutura física, protocolo de Triagem de Manchester, gestão do serviço e relacionados com o utente e com o enfermeiro. Sugerem-se melhorias em - gestão do serviço, protocolo de Triagem de Manchester e seleção dos enfermeiros.

Palavras-chave: serviço hospitalar de emergência; Triagem de Manchester; enfermeiras e enfermeiros

Resumen
Marco contextual: El Triaje de Mánchester es fundamental en los servicios de urgencias, ya que permite establecer la prioridad clínica del paciente y el tiempo recomendado hasta la atención médica, que puede estar condicionada por diversos factores.
Objetivos: Conocer la percepción de los enfermeros sobre las aportaciones del Triaje de Mánchester y los factores que influyen.
Metodología: Estudio descriptivo exploratorio, de carácter cualitativo, con entrevistas semiestructuradas a 10 enfermeros de dos servicios de urgencias de Portugal entre enero y febrero de 2020, sometidos a un análisis de contenido.
Resultados: Surgieron tres áreas temáticas - contribuciones del Triaje de Mánchester, factores que influyen en su aplicación y sugerencias de mejora.
Conclusión: Se identificaron como contribuciones del Triaje de Mánchester, establecimiento de prioridades, atención al usuario y mejora del funcionamiento del servicio; y como factores que influyen en la realización del triaje, recursos humanos y materiales, estructura física, protocolo del Triaje de Mánchester, gestión del servicio y relación con el usuario y el enfermero. Se sugieren mejoras en la gestión del servicio, el protocolo Triaje de Mánchester y la selección de enfermeros.

Palabras clave: servicio de urgencia en hospital; Triage Manchester; enfermeras y enfermeros

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Introduction

In Portugal, the excessive patient inflow to emergency departments (EDs) is a reality, transforming them into one of the most challenging areas of the National Health Service. This frequent overcrowding can harm the quality of the responses to the population's health care needs.
The Manchester Triage System (MTS) is present in all Portuguese EDs. Its purpose is to identify severity criteria that allow recognizing each patient's clinical priority and defining the recommended time until medical assessment (*Grupo Português de Triagem* - Portuguese Triage Group [GPT], 2010).
In Portugal, the Manchester Triage (MT) is performed mainly by nurses. Considering the relevance of triage and the responsibility nurses assume, they must develop and mobilize several skills in this intervention area. Therefore, the interest emerged to study nurses' perceptions of the contributions of the MT and its influencing factors.

Background

The term "triage" is used to describe the situation in which health professionals must select patients with priority in care, not based on the diagnosis, but rather on the prognosis, with the most severe patients being assessed first, thus optimizing the time and resources used (Costa et al., 2021).
Several triage models have been developed internationally to support health professionals in rapidly identifying patients with an emergent/urgent disease or injury, allowing their care to be prioritized (Silva et al., 2013). The *Direção-Geral da Saúde* (DGS - Directorate-General for Health, 2015) identifies internationally accepted five-level triage systems, such as the Emergency Severity Index, the Australian Triage Scale, the Canadian Triage and Acuity Scale, and the MTS, currently used in all Portuguese EDs.
The GPT (2010) highlights that the MTS identifies the clinical priority and defines the recommended time until medical assessment, both during the regular operation of the ED and in disaster situations. This methodology identifies the patient's initial complaint and follows the decision flowchart. The MTS contains 52 flowcharts for the different complaints presented, seven specific for children and two for disaster situations. The flowchart that best fits the identified situation is selected based on the patient's main complaint. The flowchart is based on a set of questions, known as discriminators, which allow the patient to be inserted in one of the five clinical priorities (GPT, 2010). The GPT also states that the use of the MTS allows classifying the patients' clinical situation into one of six categories identified by a number, name, colour, and the waiting time for initial medical assessment: 1 - Immediate, Red, 0 min; 2 - Very Urgent, Orange, 10 min; 3 - Urgent, Yellow, 60 min; 4 – Standard, Green, 120 min; 5 - Non-Urgent, Blue, 240 min; and 6 – Non-Classifiable, White, no assigned time.
Triage is recommended to be performed in two to five minutes. The discriminator selected corresponds to the question with a positive answer, or that cannot be denied, thus determining the clinical priority. The MTS includes the possibility of re-triage when there is a change in the patient's clinical status while waiting for medical assessment. Even if an alternative or less correct flowchart is selected, the priority assignment and the waiting time for medical assessment will be the same (GPT, 2010).
Acosta et al. (2012) describe the changes in patients' clinical status while waiting for medical assessment and physical and verbal violence as stress-generating factors for MT professionals. Souza et al. (2015) point out the overcrowding of EDs as a work overload that affects the performance of triage, and both Freitas (2014) and Reay et al. (2020) add the pressure from other ED professionals, patients, and relatives as factors conditioning decision-making in the MT.
According to the GPT (2010), decision-making in triage mobilizes interpretation, discrimination, and assessment skills, which require clinical reasoning, pattern recognition, hypothesis formulation, mental representation, and intuition. Quoting, Marques (2014) as cites in Jesus (2004) emphasizes that individual and contextual factors can influence decision-making in complex and unfriendly environments where information is scarce and not very explicit.
Guedes et al. (2017) mention that triage should preferably be performed by nurses experienced in providing care in emergency services. Chabudé et al. (2019) point out that hospital physical structures must be compatible with the requirements of the MTS. Silva et al. (2013) emphasize that nurses must be fast thinking and have manual dexterity and problem-solving skills, considering variables such as the large number of procedures to be performed, the patient's health status, and time limitations. The same authors stress the importance of critical thinking in decision-making, as the consequences of an error can range from administrative confusion to a significant outcome, such as the patient's death. Given that triage is a brief and dynamic moment, the triage nurse's therapeutic communication skills are also put to the test (Souza, 2016).
Although the initial training in MTS aims to qualify nurses to perform triage, this alone is not enough, as experience, knowledge, and intuition are essential decision-making qualities (GPT, 2010).
The MTS has an internal and external audit process to ensure its effectiveness, confirming that the system's requirements, activities, and outcomes are implemented and met. Audits are intended to identify failures and problems and, primarily, gather suggestions and promote solutions, thus assuming a formative and dynamic nature (GPT, 2012). As described in the Regulation of Common Competencies for Specialist Nurses (*Regulamento* 140/2019), nurses with in-depth knowledge of nursing and a high level of clinical judgment and decision-making are vital professionals for implementing programs to assess the quality and continuous improvement indicators. Thus, they can become an asset in auditing processes.

Research Question

What are the nurses' perceptions of the contributions of the MT and the factors influencing its performance?

Methodology

Considering the study's objective, the methodological approach consisted exploratory and descriptive, and qualitative research. This approach was chosen because it is built on intentions and situations, unveiling the meanings in individual actions and social interactions based on the participants' interpretation (Fortin et al., 2009).

The study participants were selected from a multipurpose ED and a medical-surgical ED, where the MTS was implemented, in the northern region of Portugal, using the accidental sampling method, as the participants were available in a specific place and at a particular time (Fortin et al., 2009). The inclusion criteria were defined as follows: being a nurse, being qualified with the GPT training course on MT, performing MT, and having more than two years of professional experience in the ED, according to the GPT criteria (2010; 2012). Head nurses were excluded from the sample.

The data collection instrument used was the semi-structured interview. The pre-test conducted with two nurses from each ED, who did not participate in the study, aimed to check the suitability of the interview script. When the interview ended, researchers and nurses discussed the clarity of the questions, language, and compliance with the objectives. No relevant changes were made.

Data collection occurred between January and February 2020 in a room provided by the institutions, thus ensuring the participants an environment of privacy and confidence. The participants signed the informed consent form before starting the interview and the audio recording. Data saturation was reached at ten interviews, thus there was no reason to increase the collection of empirical data. The interviews were then fully transcribed, considering all the words and their meaning.

The ten nurses who participated were between 30 and 50 years and had more than ten years of professional and ED experience. Four nurses held a specialization in medical-surgical nursing.

Data were processed using Bardin's content analysis method (2011), according to which data treatment goes through four sequential phases: pre-analysis, which corresponds to the organization of the material that constitutes the analysis corpus; exploration of the material, where raw data are transformed and grouped into units and categories; treatment, which consists of classifying the elements of a group by differentiation followed by regrouping by analogy, using previously defined criteria; and interpretation, which allows moving from the stage of description (characteristics of the text synthesized after treatment) to interpretation (the meaning assigned to these characteristics).

According to the author, by breaking down the texts into units through analogy regrouping, the content analysis followed the procedures of categorical or thematic analysis. The categorization system was based on the interaction between the theoretical framework and the study's objectives. It defined the thematic areas before the empirical phase (*a priori*) and categories and subcategories that emerged from the analysis corpus (*a posteriori*).

This study followed the fundamental ethical principles for research with human subjects (Declaration of Helsinki) and was approved by the Ethics Committees and Data Protection Teams (Opinions no. 198_2019 and 20190203_Urgência281019).

Results

The implementation of the analysis methods revealed the organization of the phenomena into three thematic areas: Contributions of the MTS; Factors influencing the performance of the MT; and Suggestions for improving the performance of the MT.

As presented in the following table, these include categories and subcategories and are supported by statement excerpts.

Table 1

Thematic areas, categories, and subcategories

THEMATIC AREA	CATEGORY	SUBCATEGORY
Contributions of the MTS	Priority setting	
	Patient service	
	Improvement of service operation	
Factors influencing the performance of the MT	Resource-related factors	Material resources
		Human resources
	Nurse-related factors	Professional experience
		ED/critical patient experience
		Continuing education
		Personal characteristics
	Physical structure-related factors	Privacy
		Physical Space
	MTS-related factors	Protocol Limitations
		MT training course limitations
	Patient-related factors	Lack of information on MTS
		Patient/family pressure
		Verbal/physical violence
		Difficulty in identifying the complaint
	Service management-related factors	Number of patients to triage
		Waiting time for triage
		Waiting time for assessment
		Interruptions
		Internal and external pressures
		Working hours in triage
		Patient circuit
		Administrative/other tasks
		Computer system
		Noise
		Request for complementary diagnostic tests
Suggestions for improving the performance of the MT	Sevice-related factors	Physical structures
		Management of human and material resources
		Service management
	MTS-related factors	Ongoing Training
		Training course recertification
		MT protocol
	Nurse-related factors	

Note. MTS = Manchester Triage System; MT= Manchester Triage.

In the thematic area Contributions of the MTS, three categories emerged: priority setting, patient service, and the improvement of service operation.

The category Priority setting was the contribution the participants most recognized, as documented in some statements: "it allows . . . separating urgent cases from those that are less urgent" (P2); "there is no more triage without criteria, there is a prioritization of patients" (P3); "the triage system has made it easier to . . . assign an adequate priority" (P8). According to one participant, the MTS allows for a more accurate assessment of the cause for admission to the ED according to clinical criteria: "through the flowcharts and the discriminators that each one has, it allows identifying the severity criteria more objectively, in a much more organized way" (P2). Regarding the improvement of service operation, the participants highlighted the creation of patient referral circuits after triage and the separation of care areas according to priorities: "The patient circuit in the emergency department has improved a lot" (P2); "we have defined a patient referral flow for the service, that is, we have designated care areas." (P4).

In the thematic area Factors influencing the performance of the MT, several categories were identified, either related to human and material resources, physical structures, and the MTS itself or related to service management, patients, and nurses.

Material resources, such as telephones, microphones, thermometers, oximeters, are not always available in all triage stations. This means that triage nurses need to share them: "we often need to get the oximeter from the first station, the thermometer" (P5). The lack of staff (nurses and operational assistants) in the MT is also pointed out as a disruptive factor, as reported in the following statements: "many times we can't get a second triage professional, either because they are in a transfer or ... helping in another sector" (P3); "there are not enough triage professionals" (P7); "the assistant does not work only for triage" (P3).

Due to the high number of patients to be triaged during some shifts, service management was also pointed out as a constraint to the MT: "Obviously the high inflow of patients to the service makes triage difficult" (P4); "The main problem is time pressure . . . looking at a screen and seeing 40 minutes of waiting will put me under pressure" (P7); "Definitely when I have more files, I tend to speed up and ask patients fewer things" (P10). Similarly, the waiting time for medical assessment in the ED can influence the priority assigned: "it is the waiting times for assessment that I think can influence the degree of priority assigned to the patient, the waiting times are very long" (P5). Constant interruptions, disturbing noises, and internal pressures from physicians and nurses in the ED are also described as constraints: "the pressure that is exerted . . . by the service professionals. . . by other colleagues in the different care sectors even by the physicians . . . on the triage professionals obviously hinders their performance" (P4).

There are also external pressures from patients or people accompanying them who manage to get around the system to be triaged first: "We also have external pressures, from people who come, manage to get through and get to us and ask to be triaged faster" (P6). The pressure from the patient/family/accompanying person sometimes reaches verbal and physical violence, influencing the triage process: "Yes, I've been a victim of verbal and physical violence in triage" (P6); "patients who come and go to the emergency department . . . afterward become aggressive . . . they know that if they don't protest, probably their complaint . . . will be a green, but . . . it doesn't effectively solve the problem" (P7); and it causes triage nurses some discomfort: "my state of mind is not the same for the following triages, it is not, one gets more anxious, more nervous . . . one tries to overcome that, but sometimes it's not easy" (P3). Also, the firefighters need their stretchers: "knowing that we have stretchers on hold, the fire departments put us under pressure because they need to free the stretchers and they have other work to do" (P8).

Tiredness due to the long hours spent in triage and the high level of concentration required for decision-making is also mentioned as a factor influencing the performance of the MT: "it is a stressful activity, the more hours you have there I can guarantee. . . from personal experience. . . that your performance will decrease in quality" (P4). The concern with the risk of error that questions the quality in performance and care was also mentioned. Despite being replaced in the middle of the shift, the participants said that "one of the elements that begins the shift. . . comes from an area with many patients . . . and arrives at triage already tired" (P9). Likewise, the physical space (lack of soundproofing and small dimensions) influences the moment of triage. Most of the participants interviewed mentioned that the triage room does not guarantee patient privacy, which is essential for the interaction, the physical assessment, and the triage nurse to focus exclusively on their complaints: "it is also a space that does not allow for much patient privacy, it's not, it's a passage area, patients are moved to the stretchers next to the triage station . . ." (P2).

The MTS also influences the performance of triage, either due to the inflexibility of its protocol or the limitations of the MT training course: "The MTS . . . is not perfect. . . there are moments when, for . . . certain complaints, certain situations, the fact that it's watertight, rigid, doesn't make it easier" (P4); "The protocol is very rigid and sometimes limiting . . . more and more you get a panoply of patients . . . that you can't fit properly . . . into any flowchart" (P10). The participants referred that the MT training course was too short and without clinical training in a professional context: "the training course only provided. . . an elementary understanding of what triage is . . . it was useful to know more about how it works, the flowcharts" (P8); "The MT training course does not train the clinical eye" (P10).

The patients' lack of knowledge of the MTS also interferes with its performance: "the vast majority or at least a significant amount of our patients have no knowledge, not even minimal, of what this MT thing is" (P4); "I lost time clarifying the patient's legitimate question, during which I could have done another triage" (P7).

Difficulties in identifying the complaint further complicate the selection of the flowchart or discriminator. These difficulties emerge when patients present multiple complaints or non-specific complaints: "the patients themselves . . . are constantly telling stories" (P1); "this is where nurses can make a difference. . . the patient can come and complain about a problem. . . that is their perception of their health, the nurse's vision may have nothing to do with it" (P7).

Positive aspects were also highlighted, such as the MTS digitalization and the future possibility of triage nurses to autonomously "request complementary diagnostic tests to anticipate" (P7). They also considered how nurses can positively influence the MT implementation due to their professional experience, experience in critical patient care, continuing education, and individual characteristics. Thus, professional experience is viewed as an advantage in the triage process, as confirmed in the following statement: "You need to work with critically ill patients, you need to understand that group of symptoms that sometimes triage does not provide, a patient who looks bad and that you cannot quantify or objectify in triage" (P10). Triage

nurses' individual characteristics, such as decision-making skills, clinical judgment, assurance, and confidence, were also highlighted as relevant factors influencing the performance of the MT: "A nurse, who is confident, can easily make decisions, and has a strong critical spirit, will certainly find it easy to perform triage" (P4).

In the thematic area "Suggestions for improving the performance of the MT," the proposals align with the less positive aspects that emerged from the analysis of the previous statements. They are mainly related to the service: changes in the physical structure, management of human and material resources, and service circuits; and to the MTS, which should invest in the ongoing training of triage nurses and the recertification of the MT training course and protocol algorithms, as shown in the following statements: "And I think there should be. . . a kind of recertification of triage with time, to adjust what was not right and that can be adjusted" (P2); "introduce slight changes to the system itself, to the flowcharts that are built, some variations. . . . Even because we have specific cases of complaints that are very focused in a certain direction that could. . . be considered in a flowchart" (P4); "the MT needs to evolve to legitimatize the nurse's clinical eye" (P10).

The participants also suggested attention to the training needs in the areas with nonconformities detected by the audits to the triage nurses' performance, as highlighted in the following statements: "I feel the need . . . to have more feedback from those who perform the audits or who are more connected to everything that happens at the level of the MT, so that I also know what I need to improve" (P1).

In the selection of triage nurses, professional experience is a fundamental requirement. Thus, the participants suggest increasing the length of professional experience necessary to start working in this context: "the MT has such a level of importance that you should only have nurses from the last stages of development if you want to apply Benner's principles" (P10).

Discussion

Most nurses highlighted the priority setting based on well-defined criteria as one of the contributions of the MTS. Its role in facilitating patient care was also emphasized due to standardizing terminology and definitions adapted to the Portuguese reality and presenting an objective work methodology, an organized training course monitored by regular audits, and promoting best practices (GPT, 2012).

The participants underlined the improvement of patient referral circuits after triage and the separation of care areas according to the defined priorities. This allows predicting future needs based on the assigned priority and adapting material and human resources to the patients' situations (GPT, 2010). Thus, Guedes et al. (2017) consider the MTS an essential tool for planning and managing EDs. However, multiple conditioning factors were identified in implementing the MT regarding material and human resources and the MTS itself.

The participants mentioned that the reduced number of nurses per shift makes it difficult to increase the number of triage stations during the busiest hours. They also noted that when many patients are on stretchers, the lack of assistants causes delays in transferring patients to the appropriate sector and in calling the following ones, thus increasing waiting times. In this sense, Souza et al. (2015) emphasized the need for an adequate supply of human resources to increase confidence in the triage process.

Nurses' professional experience, individual characteristics, and continuing education were also highlighted factors influencing the MT. Clinical experience, especially in the ED/critical care, was associated with skills such as intuition and critical thinking in the observation and correct assessment of patients' priority and nurses' greater ability to manage the pressures they are subjected to during triage. The participants pointed out that younger nurses have many doubts and difficulties in decision-making and constantly question more experienced colleagues, as also observed by Chabudé et al. (2019) and Guedes et al. (2017). The Emergency Nurses Association (2011) also emphasized that, besides professional experience, nurses' individual characteristics, such as assurance, decision-making skills, and confidence, influenced triage.

Another critical factor recognized was the lack of ongoing training on the MTS, particularly in the areas identified with nonconformities by the triage audits. Supporting this, Amaral (2017) found that after the MT audit teams implemented a training course, there was an increase in efficiency and an improvement in the quality of triage.

This study observed a shortage of some of the material or equipment needed at each triage station, which forced triage professionals to share them. The small, porous, easy-to-access triage stations with no soundproofing were recognized as affecting patient privacy and professionals' ability to concentrate. They listen to their patient's complaint while simultaneously hearing the complaint in the adjacent station. Freitas (2014) advocates a different reality by stating that triage stations should have soundproof conditions that ensure patient confidentiality, privacy, and dignity in a quiet and welcoming environment.

The inflexibility in protocol application was also pointed out as a limitation in assigning priority to patients with atypical symptoms or multiple complaints (Costa et al., 2021). Moreover, the MT training course given to professionals, which is brief and fundamentally theoretical, is referred to as a constraint to triage performance. When referring to triage performance training, Chabudé et al. (2019) advocate the need for a proper course with practical training.

Patients' lack of information about the MTS and the pressure exerted by patients or relatives to prioritize their care were highlighted as hindering triage. According to the participants interviewed, the need for time to provide information on the MTS leads to increased waiting times and sometimes to verbal threats and even physical violence, which, although they may not lead to a change of priority, cause discomfort and tension in the triage nurse. This is in line with Acosta et al. (2012), who reported

that verbal and physical violence directed at triage nurses causes stress in their performance.

Given their diversity and non-specific nature, the difficulty in identifying patients' complaints hampers the decision on the most appropriate flowchart or discriminator, as Freitas (2014) also observed. This difficulty extends to the many dependent patients who cannot communicate and arrive at the ED unaccompanied.

Similarly to the results of Reay et al. (2020), this study also identified factors associated with service operations that hinder the triage team's performance, such as the number of patients to be triaged, waiting time for triage, interruptions, internal and external pressures, and the excessive number of hours in triage. The patient circuit, administrative or other tasks unrelated to triage, and the long waiting time for medical assessments, which may influence the priority assigned for fear of worsening the patient's condition, were also mentioned. When the waiting time for medical assessment is longer than recommended in the algorithms, nurses are the first to be approached, leading to stress, insecurity, and frustration regarding their previous decision-making (Freitas, 2014; Acosta et al., 2012). On the other hand, the priority assigned by triage nurses is often questioned by physicians, creating an environment of tension and lack of confidence (Freitas, 2014).

The high and continuous workload in triage was referred to as generating fatigue and decreasing the ability to concentrate, associated with constant decision-making and the pressure placed on the triage professional, which was also observed by Freitas (2014) and Reay et al. (2020). Amaral (2017) found evidence between the nonconformities identified in the audits and the end of the morning shift, associating them with the triage professional's fatigue.

The patient referral circuit within the ED and triage management to the different areas of the ED, according to their capacity and workload, are also indicated as stress factors. This constraint undermines one of the key advantages of the MT, which is to promote the definition of referral circuits that facilitate a better organization of the service (GPT, 2010).

The obligation to perform administrative tasks, such as contacting non-resident specialty physicians in the ED, referring patients with green or blue priority to Primary Health Care, and identifying accompanying persons with their labels, were mentioned as an overload in triage performance. On this issue, Morins (2016) highlights that administrative tasks are not always considered when assessing the nurses' workload, thus increasing the triage professional's time consumption and fatigue.

Despite the evidence of several factors affecting the effectiveness and efficiency of the MTS, its digitalization was considered facilitating. Although the system is somewhat slow, accessing the medical record of the patients being triaged allows associating the patients' current complaints with their clinical history. In one ED where this study occurred, triage nurses can request an electrocardiogram, which influences and benefits triage performance and care continuity. The DGS regulation 02/2015 recommends implementing the simple 12-lead electrocardiography algorithm during triage in situations of chest pain.

The participants mentioned proposals for improvement regarding the service management, the MTS, and triage nurses.

Nurses consider of the utmost importance to improve the physical space of triage stations concerning material resources, dimensions, location, and soundproofing to ensure patient privacy, reduce interruptions and noise, and improve the quality of care, which is in line with the results of Freitas (2014). Moreover, the possibility to monitor the waiting room continuously would allow observing any changes in the status of the triaged patients at any given moment and re-triage them if necessary.

Human resource management should also receive more attention to ensure the exchange of triage nurses in the middle of the shift and the opening of more triage stations when there is a greater inflow of patients.

Concerning the patients' circuit in the service, the participants suggested the creation of a specific circuit for visits to avoid using the one used for triage. They also propose investing in training security professionals and operational assistants on the MT rules of operation. According to the GPT (2010), a key advantage of the MT does not lie in the intrinsic value of triage but in defining referral circuits that facilitate the better organization of the service.

Among the MTS-related suggestions, this study highlights the recertification of the MTS training course and protocol, introducing changes in the flowcharts and discriminators, and the creation of indicators of nurses' skills, demonstrating critical thinking and clinical judgment in priority assignment. Investment in the ongoing training of professionals was also suggested, focusing mainly on the nonconformities detected in audits. In this sense, Wolf et al. (2018) emphasize that team training and case discussion improve triage safety and nurses' confidence.

The analysis of the proposals related to triage nurses considers that clinical experience should be a decisive factor in their selection and suggests increasing the minimum time of professional experience. After the MT training course, nurses should also have time to be integrated into triage, as supported by Souza et al. (2015) and Chabudé et al. (2019), who suggest that teams should be trained to handle triage efficiently. Finally, tasks not exclusively triage-related should not be assigned to nurses to ensure performance quality.

The limitations of this study include the participation of only two hospital EDs, geographically close to each other, the use of only one data collection instrument, the scarcity of studies in the area, and the lack of validation by the participants or peer review of the data interpretation process.

Conclusion

The MTS seeks to address the excessive inflow of patients to the ED, prioritizing them according to their clinical severity and improving the service's operation and the quality of care. Although it was implemented in 2000,

being currently used in all Portuguese EDs, there are still factors that limit the MTS requirements, either due to the hospital units' management, the MTS itself, or the professionals who perform the protocol. On the other hand, the system's contributions were highlighted, and suggestions were made to improve it.

This study revealed the constraints in implementing the MTS, its contributions to improving the care provided to more vulnerable patients, and how the nurses' decisions regarding the priority assigned can influence the continuity of care. Moreover, the scarcity of updated scientific production in Portugal was highlighted, as well as the need for further research in this area.

Through its results, this study aimed to promote a proactive reflection on the MTS among institutional managers, auditors, and triage nurses and the development of more effective strategies enhancing the performance and clinical judgment of MT nurses. This way, it expects to contribute to the processes of change in the ongoing search for excellence in care.

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