DOI: 10.4025/cienccuidsaude.v14i2.21359

NURSES' PERCEPTION ON THE USE OF THE MANCHESTER RISK CLASSIFICATION SYSTEM PROTOCOL

Marcia Luciane da Silva Bohn*
Maria Alice Dias da Silva Lima**
Carmen Lucia Mottin Duro***
Kelly Piacheski de Abreu****

ABSTRACT
The study aimed to analyze the perceptions of nurses regarding the Manchester Risk Classification System Protocol. It is a qualitative descriptive research, accomplished in October 2012, by means of semi-structured interviews with 15 emergency service nurses of a university hospital in southern Brazil. The data were submitted to a thematic analysis. The results indicate that the Manchester Risk Classification System Protocol standardizes the conduct of professionals, giving security to prioritize the risk of users who seek care at emergency services. In addition, it provides legal support to professionals, based on objective and previously defined criteria. The pointed out difficulties for the accomplishment of the activity were: the unawareness of the population about the Protocol, the precariousness of the stream of referrals to the network of health services and medical staff resistance to joint work. It is concluded that the use of the Manchester Risk Classification System Protocol led to improvement in organizing the flow of users in emergency services and in the quality of the provided service.

Keywords: Emergency Nursing. Emergency Medical Services.Triage.

INTRODUCTION

Structured triage systems were created to organize the attendance in urgent and emergency situations and ensure the flow of users, considering the great demand for services. They consist of assessing the main grievance of users, based on the evaluation of apparent signs and symptoms. The use of risk classification protocols enables the organization of care and improvements in the service management, because it stratifies the risk and classifies patients according to the priority of their medical condition. Consequently, it allows for the determination of the waiting time and the sequence in which individuals must be attended[1]. The purpose is to ensure the prioritization of service users with potential risk of harms and the proper use of the available resources[2].

For risk stratification in triage systems, scales or protocols have been used, among which may be mentioned: the scale Emergency Severity Index (ESI), created in the USA, the Australian scale Australasian Triage Scale (ATS), the Canadian protocol Canadian Triage Acuity Scale (CTAS©) and the Manchester Triage System (MTS), created in the United Kingdom and disseminated to the European countries[1].

Beyond being established in implemented protocols, triage should be performed by previously trained professionals with experience in emergency services. The nurses have excelled as protagonists in the realization of risk classification by gathering conditions that include clinically oriented language by means of signs and symptoms[2]. However, despite allowing new visibility to the role of nurses in the care production in the emergency services, its incorporation has been characterized as a strenuous and complex activity which gives them great responsibility[3].

In Brazil, the reception with risk classification has been used which is configured as one of the decisive actions in the reorganization of handling aggravations that require immediate assistance[4]. This practice includes the expanded access, exceeding the traditional practice, centered in the order of arrival with transformations in the work process to enable the prioritization of care according to the clinical severity of the cases[4].

The Manchester Risk Classification System Protocol refers to flowcharts, distinctive features in each step to assign one of the five

*RN, Resident of Integrated Multiprofessional Residency in Health at Hospital de Clínicas de Porto Alegre; malumarchand@ibest.com.br
**RN, PhD in Nursing, Full Professor, Escola de Enfermagem, Universidade Federal do Rio Grande do Sul (UFRGS); malice@enf.ufrgs.br
***RN, PhD in Nursing, Adjunct Professor, Escola de Enfermagem, Universidade Federal do Rio Grande do Sul (UFRGS); carduro@gmail.com
****RN, Master in Nursing, Serviço de Emergência, Hospital São Camilo, Esteio, RS; kelly.piacheski@gmail.com

triage categories (by colors) to patients. The color indicates the degree of urgency and the maximum waiting time for medical attendance, i.e. it establishes what the clinical priority is[2,5].

This technology, being implemented in Brazil, is the responsibility of nurses. Differences in the use of protocols were identified[6,7]. It stands out that factors such as the interaction with users, with the medical and nursing staff and with the management of the health service can influence the perception of nurses on the risk classification activity. Therefore, it becomes possible that nurses describe the risk classification from their experiences and knowledge about the activities, that is, the way they perceive their accomplishment[3].

Based on these considerations, it was established as research question: what is the perception of nurses on the use of the Manchester Triage System protocol? Accordingly, this study aimed to analyze the perceptions of nurses on the use of the Manchester Risk Classification Protocol in a hospital emergency service.

METHODOLOGY

It is descriptive, exploratory study of qualitative approach, carried out in the emergency service of a teaching hospital located in the southern region of Brazil. This service is characterized by 24-hour attendance of urgency public in clinical, surgical, gynecological and pediatric cases. It has 49 beds for adults and nine in the pediatric ward. In 2010, there were attended more than 64,000 queries on the service. The reception protocol with risk assessment and classification in emergency service was deployed in this service in 2005. As from September 2011, the Manchester Risk Classification System Protocol to perform risk classification was adopted. Therefore, the nurses have been using the Manchester protocol just over three years.

The data collection occurred in October 2012, by means of semi-structured interviews. Selected were nurses that conducted the Manchester Risk Classification and had acted in the service for more than six months, either in morning, afternoon or night shifts. The number of participants was delimited by the criterion of data saturation, i.e. when there was no new information obtained in the interviews, redundancy was reached[8]. Data saturation was achieved in the fifteenth interview; thus the sample consisted of 15 nurses, being 12 females and three males, with an average age of 38.8 years. The time of operation in the emergency service under study ranged from 20 to three years.

A script with the following guiding questions was used: what is your perception on the use of the Manchester Risk Classification System Protocol? Which difficulties have you met while using this classification protocol?

The interviews were scheduled and conducted in a place provided by the head of the nursing unit, recorded and subsequently transcribed verbatim as well as coded with letters and numbers: Enf1 to Enf15.

For the data-handling, the technique of content analysis of the type thematic analysis was used, complying with the steps of pre-analysis, material exploitation, processing of the obtained data, inference and interpretation[9]. In the pre-analysis, the main ideas of the material collected on the basis of the criteria of completeness, representativeness, homogeneity and relevance were organized and systematized. Once this was done, we proceeded to the material exploitation in order to point out the units of the recording, transform the raw data in text comprehension and create thematic categories. In the final phase, we proceeded to the result handling and interpretation by means of a comparison between the structured empirical material and the literature[9].

The study was approved by the Research Ethics Committee (CAAE: 05796412.5.0000.5347) in 2012 and respected required ethical principles for research involving humans. Participants were aware of the purpose of the research, and their agreement to participate in the study was obtained through signing the Informed Consent Form.

RESULTS AND DISCUSSION

The results are presented in two thematic categories: nurses' perception on the use of the Manchester Risk Classification System Protocol; difficulties perceived by the nurses in the application of the Manchester Risk Classification System Protocol.

Nurses' perception on the application of the Manchester Risk Classification System Protocol

The protocol was considered by respondents as an instrument that standardizes the conduct of nurses who work in the risk assessment and classification. The nurses reported that, previously, with the reception with risk classification laid down by the Ministry of Health, service prioritization was carried out according to the subjectivity of the professional.

> In principle, I think the Manchester Risk Classification is good because it standardizes the entire service. I can think in one way, my colleague can think in another. (Enf6)

Beyond the standardization, the nurses commented that the Manchester Risk Classification System Protocol provides legal support for the development of this activity. They claim that the argument about the established clinical priority becomes facilitated, especially when there are differences with the medical staff or users.

> Protocol [...] it gives us legal support. Formerly, triage was more empirical, more subjective, [...] now, there is a way to discuss, report and argue, both with the doctors and the patients that [...] were triaged. (Enf13)

The protocol supports the professional who establishes the clinical priority once it is based on objective and pre-established criteria. These results corroborate studies which identified that the Manchester Classification System Protocol constitutes a working tool for nurses and allows the risk stratification, prioritizing the admission of users with aggravation risks quickly and objectively[6,7].

In addition, the protocol was considered safe to classify the aggravation risk from users who seek emergency service.

> It doesn't leave the patient in mortal danger or at impending death because according to the grievance, [...] pre-cordial pain [...] you will classify it as orange and has to be attended within 10 min. (Enf12)

According to literature, the Manchester Risk Classification System allows to manage the patient flow and constitutes an important assistive technology, characterized as a safe and dynamic process for patients classified as urgent[7,10]. The study that evaluated the predictive ability of the Manchester Risk Classification System Protocol in a municipal hospital in Minas Gerais led to the conclusion that this system is capable to predict the evolution of the patients during their stay in the institution[7].

The respondents emphasized that the protocol follows the basic parameters to determine the risk.

> It is safe because it systematizes the attendance, recommends a sequence [...] airways, level of consciousness [...] you're just going to move on to the next item if you answer that 'no' [...] if you have any doubt [...] you're going to stop there, so it becomes safe. (Enf12)

Thus, it was established that nurses use recommendations of the protocol for framing the signs and symptoms of users in the flowchart and distinctive features at the time of triage. Regardless of the chosen flowchart, the distinctive features refer to the same clinical priority, i.e. time of attendance[2]. The protocol does not establish the medical diagnosis but yes the clinical priority, ensuring safety to the nurses at the time of assessing and classifying the risk[10].

Nurses for the most part considered the Manchester Risk Classification Protocol as reliable to perform risk classificarion:

> It is relaible,yes, because we can act well according to the necessity of the patient. I believe it is reliable, yes [...]. (Enf1*)*

International research are also demonstrating the reliability of the Manchester Risk Classification System Protocol in relation to critical patients. A study accomplished in a Portuguese hospital showed that the Manchester Triage System Protocol used in conducting the triage was considered a very powerful tool to distinguish between patients with high and low risk of death in the short term, as well as those

who are going to be hospitalized for at least 24 hours before being forwarded or discharged[11].

The nurses stated that there have been changes in the organization and the quality of attending users in the service after the implementation of the protocol:

> [...] We can make more precise forwarding [...] There was a great improvement; the user won with it, with the Manchester Protocol. (Enf10)

By streamlining the triage and make it more objective, the use of the protocol favors the identification of users who need immediate care, enhancing that it is characterized as a sensitive instrument to detect priorities in attendance[6,7,10].

Thus, in the context of risk classification, the Manchester Risk Classification Protocol contributes to the qualification of the assistance provided by the nurses to users who seek emergency hospital services.

Difficulties perceived by the nurses in the application of the Manchester Risk Classification Protocol

Difficulties were identified in the nurses' application of the Manchester Risk Classification System Protocol. One of them is the unawareness of the population regarding the risk assessment and classification, as well as the use of this protocol in emergency service.

> Difficulty [...] is the unawareness of the protocol by the general population. They don't understand that the classification is carried out according to what is established by the protocol, and at the time of the reception it is really hard to explain all of the details of that classification. (Enf14)

Many users question the professionals when a newly arrived user to the servisse receives immediate medical attendance before those who had already been present. However, the nurses explain the attendance criterion asks for respecting clinical priorities and not for following the order of arrival at the emergency service. This result had already been identified in a study in which the unawareness of the population was regarded as a weakness, since the population has become culturally ingrained in the habit of waiting and moving in lines[12]. Nurses provide explanations to users about the service criteria, using verbal communication as a strategic measure to clarify the risk assessment and classification used in the emergency service[13,14]. Thus, the constant guidance of users with non-urgent medical conditions or of lesser gravity, although necessary and relevant, can become stressful for nurses in the risk classification[15].

The difficulty forwarding non-urgent users to the network of health services was stated because the nurses understand that in many situations the basic health network could provide care.

> [...] could be dealt with at the health center if we had the cross-forwarding feature for those people who are not critical [...] the protocol is only a piece of the instrument, where the system as a whole can't be handled. (Enf12)

However, the stream of referrals is precarious, which hampers the referral of the users to a health unit in order to receive the care they need. The inadequacy of a referral system in the emergency care network has stood out as one of the limitations for risk classification. Other studies also report problems in establishing a attendance network that acts in a supplementary form, just as there is no defined flow of emergency attendance[12,14].

It was identified that nurses consider some of the flowcharts as inappropriate to evaluate the clinical priority in pediatrics because there is no provision for high fever in children in the Manchester Risk Classification System Protocol.

> [...] for a child, is not very trustworthy. [...] There are many children who have been diagnosed with fever and have no other type of grievance. We can't fit them into any flowchart. (Enf3)

The absence of adequate distinctive features for the signs and symptoms to evaluate and prioritize the risk in pediatrics has been described in research, which suggested as alterations the inclusion of flowcharts and distinctive features[15]. However, another study identified that the flowcharts and distinctive features in the Manchester Triage System are capable to indicate alarming signals and enable the prediction of hospitalization of children in emergency services[16].

In the stratification of risk of greater seriousness by the nurses, the disagreement with priorities considered as hazard by the medical staff was evidenced, interfering with the waiting

time established by the protocol and leading to the occurrence of delays in attendance.

> The greatest difficulty [...] is with respect to the time for the attendance, it is the difficulty of making the doctors understand the protocol and collaborate with us [...] This is the greatest difficulty, the commitment of the medical staff. (Enf9)

The application of this protocol resulted in a reorganization of the work process in emergency service. The nurses have been given responsibility to prioritize risk, what determines the spatial planning for medical care. In a study conducted to assess the impact of the Manchester Risk Classification in the day-to-day work of professionals, a tension between doctors and nurses regarding traditional role change, brought about by the use of the protocol, was perceived. The conflict with the medical team occurs when there is disagreement about the priority of the established service. Considering that, in risk classification, the order of medical attendance is parsed by the nurses, this fact may interfere in the relations of professionals involved in assistance[17].

Authors have pointed out that the awareness of health personnel regarding the Manchester Risk Classification System Protocol is necessary to facilitate the mobilization and support of different professionals[6,17]. The importance of this action concerns the understanding of the applied prioritization criteria so that teams are aligned to attend users according to the waiting time for each category established in the protocol, since it is a sign of available quality and infrastructure in the emergency service[17].

Taking the presented difficulties into account, the need for the involvement of managers of the institutions as to intervene in the search for solutions to the issues singled out by the professionals who perform the risk classification in emergency services is demonstrated.

FINAL CONSIDERATIONS

This study allowed to elucidate the nurses' perception about the implications of using the Manchester Risk Classification System Protocol in the organization of work in emergency services. The nurses acquired a new visibility as a result of increased responsibility in organizing the attendance flow in the context of risk classification.

The professionals working in the emergency services are backed up legally with the use of the protocol which was touted as an agile and objective instrument contributing to prioritize the users who need immediate care.

However, there are barriers in the operationalization of this procedure. Among the difficulties referred to by the nurses stood out the unawareness of the population regarding risk classification, the lack of a referral flow to outpatient and specialized services and the resistance of medical staff in establishing a work in conjunction with the nursing staff.

The need to discuss the established relations in the health team is highlighted, whereas the protocol is a professional auxiliary device capable to promote the reorganization of collective work as to better attend users who seek the service.

PERCEPÇÃO DE ENFERMEIROS SOBRE UTILIZAÇÃO DO PROTOCOLO DO SISTEMA DE CLASSIFICAÇÃO DE RISCO MANCHESTER

O estudo teve como objetivo analisar a percepção de enfermeiros sobre o protocolo do sistema de Classificação de Risco Manchester. Pesquisa qualitativa descritiva, realizada em outubro de 2012, por meio de entrevistas semiestruturadas com 15 enfermeiros do Serviço de Emergência de um hospital universitário da região sul do Brasil. Os dados foram submetidos à análise temática. Os resultados indicam que o protocolo do Sistema de Classificação de risco de Manchester padroniza a conduta dos profissionais, conferindo segurança para priorizar o risco de usuários que buscam atendimento em serviços de emergência. Além disso, propicia respaldo legal aos profissionais, baseando-se em critérios objetivos e previamente definidos. As dificuldades apontadas para a realização da atividade foram: o desconhecimento da população sobre o protocolo, a precariedade do fluxo de encaminhamento para a rede de serviços de saúde e a resistência da equipe médica a um trabalho conjunto.

Conclui-se que a utilização do protocolo do sistema de classificação de Manchester propiciou melhoria na organização do fluxo de usuários no serviço de emergência e na qualidade do atendimento prestado.

Palavras-chave: Enfermagem em emergência. Serviços médicos de Emergência. Triagem.

PERCEPCIÓN DE ENFERMEROS SOBRE UTILIZACIÓN DEL PROTOCOLO DEL SISTEMA DE CLASIFICACÍON DE RIESGO MANCHESTER

RESUMEN

El estudio tuvo como objetivo analizar la percepción de enfermeros sobre el protocolo del sistema de Clasificación de Riesgo Manchester. Investigación cualitativa descriptiva, realizada en octubre de 2012, por medio de entrevistas semiestructuradas con 15 enfermeros del Servicio de Urgencia de un hospital universitario de la región sur de Brasil. Los datos fueron sometidos al análisis temático. Los resultados indican que el protocolo del Sistema de Clasificación de riesgo de Manchester estandariza la conducta de los profesionales, confiriendo seguridad para priorizar el riesgo de usuarios que buscan atención en servicios de urgencia. Además, propicia apoyo legal a los profesionales, basándose en criterios objetivos y previamente definidos. Las dificultades señaladas para la realización de la actividad fueron: el desconocimiento de la población sobre el protocolo, la precariedad del flujo de encaminamiento para la red de servicios de salud y la resistencia del equipo médico a un trabajo conjunto. Se concluye que la utilización del protocolo del sistema de clasificación de Manchester propició mejoría en la organización del flujo de usuarios en el servicio de urgencia y en la calidad de la atención prestada.

Palabras clave: Enfermería de Urgencia. Servicios Médicos de Urgencia. Triaje.

REFERENCES

1.Farrohknia N, Castrén M, Ehrenberg A, Lind L, Oredsson S, Jonsson H et al. Emergency department triage scales and their components: A Systematic Review of the scientific evidence. Scand J Trauma Resusc Emerg Med. 2011; 19:42 [Access: 2014 Sep 2] Available from: http://www.sjtrem.com/content/pdf/1757-7241-19-42.pdf.

2. Ganley L, Gloster AS. An overview of triage in the emergency department. Nursing Standard. 2011; 26(12): 49-56.

3. Souza CC, Diniz AS, Silva LLT, Mata LRF, Chianca TCM. Nurses'perception about risk classification in emergency services. Invest Educ Enferm. 2014; 32(1):78-86.

4. Ministério da Saúde (BR). Secretaria Executiva. Núcleo Técnico da Política Nacional de Humanização. Humaniza SUS: acolhimento com avaliação e classificação de risco: um paradigma estético no fazer saúde. Brasília, DF; Ministério da Saúde; 2004. [Access: 2012 Oct 8] Available from: http://dtr2001.saude.gov.br/editora/produtos/impressos/folheto/05_0050_FL.pdf.

5. Mackway-Jones K, Mardes J, Windle J. Sistema Manchester de Classificação de Risco: Classificação de Risco na Urgência e Emergência. Belo Horizonte: Grupo Brasileiro de Classificação de Risco; 2010.

6. Souza CC, Toledo AD, Tadeu LFR, Chianca, TCM. Classificação de risco em pronto-socorro: concordância entre um protocolo institucional brasileiro e Manchester. Rev Lat-Am Enfermagem. 2011; 19(1):26-33.

7. Pinto Junior D, Salgado PO, Chianca T. C. M. Predictive validity of the Manchester Triage System: evaluation of outcomes of patients admitted to an emergency department. Rev Latino-Am. Enfermagem, 2012; 20(6). Available from: 2014 Sep 6]. http://www.scielo.br/pdf/rlae/v20n6/pt_05.pdf.

8. Fontanella BJB, Luchesi BM, Saidel M, Borges G, Ricas J, Turato ER et al . Amostragem em pesquisas qualitativas: proposta de procedimentos para constatar saturação teórica. Cad Saúde Pública. 2011; 27(2):389-94.

9. Bardin L. Análise de Conteúdo. 4 ed. Lisboa: Edições 70; 2010.

10. Forsman B, Forsgren S, Carlström E. Nurses working with Manchester triage - The impact of experience on patient security. Australas Emerg Nurs J. 2012; 15(2):1000-7.

11. Martins HM, Cuña LM, Freitas P. Is Manchester (MTS) more than a triage system? A study of its association with mortality and admission to a large Portuguese hospital. Emerg Med J. 2009; 26(3):183-6.

12. Nascimento ERP, Hilsendeger BR, Neth C, Belaver GM, Bertoncello KCG. Classificação de risco na emergência: avaliação da equipe de enfermagem. Rev Enferm UERJ. 2011; 19(1):84-8.

13. Acosta AM, Duro CLM, Lima MADS. Atividades do enfermeiro nos sistemas de triagem/classificação de risco nos serviços de urgência: revisão integrativa. Rev Gaucha Enferm. 2012; 33(4):181-90.

14. Duro CLM, Lima MADS, Levandovski PF, Bohn MLS, Abreu KP. Percepção de enfermeiros sobre a classificação de risco em unidades de pronto atendimento. Rev Rene. 2014; 15(3):447-54

15. Veen MV, Steyerberg EW, Klooster MV. The Manchester triage system: improvements for paediatric emergency care. Emerg Med J. 2012; 29:654-9.

16. Ierland, YV, Seiger N, Veen MV, Moll, HA, Oostenbrink, R. Alarming signs in the Manchester triage system: a tool to identify febrile children at risk of hospitalization. J Pediatr. 2013; 162(4): 862–6.

17. Coutinho AAP. Classificação de risco no serviço de emergência: uma análise para além de sua dimensão tecno-

assistencial [tese]. Belo Horizonte (MG): Universidade Federal de Minas Gerais;2010.

Corresponding author: Maria Alice Dias da Silva Lima. Rua São Manoel, nº 963. CEP: 90620-110. Porto Alegre/RS. E-mail: malice@enf.ufrgs.br

Submitted: 17/07/13
Accepted: 24/01/15