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NURSES ROLE IN PATIENT SAFETY, IN A COMMUNITY CARE UNIT

PAPEL DO ENFERMEIRO NA SEGURANÇA DO DOENTE, NUMA UNIDADE DE CUIDADOS NA COMUNIDADE

ROL DEL ENFERMERO EN LA SEGURIDAD DEL PACIENTE, EN UNA UNIDAD DE ATENCIÓN COMUNITARIA

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ABSTRACT

Goal: To evaluate the patient safety culture of Nurses who work in Community Care Units of a Group of Health Centers in the South of Portugal.

Methods: Descriptive study, using a quantitative methodology, through the application of the "Questionnaire for the Assessment of Patient Safety Culture in Primary Health Care", translated and adapted to the Portuguese context. Convenience sampling, consisting of 69 nurses working in Community Care Units. Descriptive statistical analysis was performed, with data organized and processed using the Statistical Package for Social Sciences® [SPSS] version 27.

Results: The dimensions "Teamwork" and "General perceptions about the quality and safety of the patient" were the ones that presented a more positive evaluation. On the other hand, the dimensions "Support by top management" and "Work pressure and pace" presented the lowest evaluations. Most respondents (52.9%) rated the quality of health care provided as "Very good" or "Excellent".

Conclusions: A positive patient safety culture assessment was perceived, however, the results showed areas with weaknesses, on which one should reflect and intervene as a priority. The Nurse's role in the development of a safety culture is essential because it contributes to the institutional safety culture and should be seen as a strategy to promote quality health care.

Keywords: Community Health Nursing; Patient Safety; Patient Safety Culture; Primary Healthcare.

RESUMO

Objetivo: Avaliar a cultura de segurança do doente dos Enfermeiros que exercem funções nas Unidades de Cuidados na Comunidade de um Agrupamento de Centros de Saúde do Sul de Portugal.

Métodos: Estudo descritivo, transversal, com recurso a uma metodologia quantitativa, através da aplicação do "Questionário de Avaliação da Cultura de Segurança do Doente nos Cuidados de Saúde Primários", traduzido e adaptado ao contexto português. Amostragem por conveniência, constituída por 69 enfermeiros a exercer funções em Unidades de Cuidados na Comunidade. Realizada análise estatística descritiva, com os dados organizados e tratados através do *Statistical Package for Social Sciences®* [SPSS] versão 27.

Resultados: As dimensões "Trabalho em equipa" e "Perceções gerais acerca da qualidade e segurança do doente" foram as que apresentaram uma avaliação mais positiva. Por outro

lado, as dimensões "Apoio pela gestão de topo" e "Pressão e ritmo de trabalho" apresentaram as avaliações mais baixas. A maioria dos inquiridos (52,9%) classificou a qualidade dos cuidados de saúde prestados como "Muito bons" ou "Excelentes".

Conclusões: Foi percecionada uma avaliação de cultura de segurança do doente positiva, no entanto, os resultados demonstraram áreas com fragilidades, sobre as quais dever-se-á refletir e intervir com carácter prioritário. O papel do Enfermeiro para o desenvolvimento da cultura de segurança é indispensável por contribuir para a cultura de segurança institucional e deve ser encarada como uma estratégia na promoção de cuidados de saúde de qualidade.

Palavras-chave: Cuidados de Saúde Primários; Cultura de Segurança do Doente; Enfermagem em Saúde Comunitária; Segurança do Paciente.

RESUMEN

Meta: Evaluar la cultura de seguridad del paciente de Enfermeras que actúan en Unidades de Atención Comunitaria de un Grupo de Centros de Salud del Sur de Portugal.

Métodos: Estudio descriptivo, transversal, con metodología cuantitativa, mediante la aplicación del "Cuestionario para la Evaluación de la Cultura de Seguridad del Paciente en la Atención Primaria de Salud", traducido y adaptado al contexto portugués. Muestreo por conveniencia, constituido por 69 enfermeros que laboran en Unidades de Atención Comunitaria. Se realizó análisis estadístico descriptivo, con datos organizados y procesados mediante el software *Statistical Package for Social Sciences®* [SPSS] versión 27.

Resultados: Las dimensiones "Trabajo en equipo" y "Percepciones generales de la calidad y seguridad del paciente" fueron las que presentaron una evaluación más positiva. Por otro lado, las dimensiones "Apoyo de la alta dirección" y "Presión y ritmo de trabajo" presentaron las evaluaciones más bajas. La mayoría de los encuestados (52,9 %) calificaron la calidad de la atención de la salud como "Muy buena" o "Excelente".

Conclusiones: Se percibió una valoración positiva de la cultura de seguridad del paciente, sin embargo, los resultados mostraron áreas con debilidades, sobre las cuales se debe reflexionar e intervenir prioritariamente. El papel de la Enfermería en el desarrollo de una cultura de seguridad es fundamental porque contribuye a la cultura de seguridad institucional y debe ser vista como una estrategia para promover una atención de salud de calidad.

Descriptores: Atención Primaria de Salud; Cultura de Seguridad del Paciente; Enfermería en Salud Comunitaria; Seguridad del Paciente.

INTRODUCTION

Patient safety is currently recognized as one of the fundamental principles of health systems[1]. In recent decades, several countries have been encouraged to integrate this issue into their agendas and to promote strategies aimed at improving patient safety and, consequently, the quality of health care provided.

Quality in health is defined by the World Health Organization (WHO) as the provision of health care to the entire population that is: effective, people-centered, timely, equitable, efficient and safe[1], assuming a multidimensional perspective. Patient safety thus represents one of the fundamental pillars of quality in health[2], being defined as the "reduction of the risk of unnecessary harm related to health care, to an acceptable minimum"[3:14], of according to the state of the art and available resources, context of care delivery, and risk of non-treatment or other available alternative treatment[3].

Although patient safety is often related to the hospital context, due to the complexity and greater risk associated with the health care provided, in Primary Health Care (PHC), although they present a less technological environment, there are also risks[4,5] that impose challenges on professionals, particularly related to the life cycle of users and the context in which they work, whether in school, work, home or institutional contexts, among others[5,6].

It should be noted that PHC are considered the key to a health system and represent the first level of access for all citizens to health care[7]. According to data from the Central Administration of the Health System, in Portugal, in 2019, there were 31.5 million medical consultations and more than 19 million nursing consultations, only in the PHC, which reinforces the importance of valuing safety of the patient in PHC as a significant area and where reflection on these issues began late[5].

In Portugal, improving the quality of health care and the safety of the care provided are seen as a moral duty, which are considered essential in reducing avoidable harm, improving access and equity to health care and promoting innovation in health[2] and, it is based on these premises and in accordance with the recommendations of the WHO and the European Union (EU) that the National Strategy for Quality in Health was developed, with the mission of enhancing quality and safety as a guarantee of rights of all citizens[2]. Based on this strategy, the National Plan for Patient Safety emerged, a plan transversal to the entire National Health System, which requires the mobilization of governance, coordination and practice of care skills, since the improvement of the patient safety and, consequently, the improvement of quality in health care, is a collective process, a team respon-

sibility, where only with the mobilization of individual skills and the management of all activities can it be achieved[8].

According to WHO and EU recommendations, the assessment of the patient safety culture represents the first stage in its development[9], since it reflects the organization and institutional management, but also the values, attitudes, perceptions and individual and team behavior patterns, which demonstrate their commitment to promoting patient safety[3,8].

In this sense, increasing the culture of safety in the internal environment is the first of the nine strategic objectives of the National Plan for Patient Safety, with actions designed to assess the culture of patient safety, both at the hospital and of primary health care and the implementation of measures according to the results obtained[8], which is why, in 2015, the Directorate-General for Health (DGH) drew up a standard that recommends carrying out the evaluation of the patient safety culture in the PHC, biannually[10]. In 2015, when the PHC was first evaluated, the results showed that the patient safety culture was not yet seen as a priority by professionals and institutions. With an adherence rate of only 20% by professionals and employees in mainland Portugal and 39% in the Autonomous Region of the Azores, their low involvement in issues related to patient safety was expressed[9]. In this first national assessment, nurses were the most representative professional group, corresponding to 40% of the professionals surveyed[9].

At a global level, patient safety in the context of PHC has also been gaining prominence, with several countries showing interest in deepening this thematic area. In this context, the European project LINNEAUS-Euro PC, of the European Society for Quality in Healthcare, stands out, in an initiative funded by the EU and developed in collaboration with several countries such as England, Spain, Netherlands, Denmark, Austria, Greece, Poland and Scotland, with the objective of promoting research on patient safety in PHC[5]. Studies carried out in this context have revealed areas on which it is necessary to reflect and improve, despite the existence of a positive assessment of the patient safety culture in PHC by health professionals[11,12], identifying the need for studies to be carried out between different professional groups, in order to improve the implementation of strategies[11].

On the other hand, studies carried out in South American countries show that a reduced safety culture prevails on the part of health professionals[13,14], but it was found that nurses are the professional group that is most awake to these questions[14].

In Portugal, the professional practice of nursing focuses on the relationship between the nurse and the person, family and community, guided by a systemic and systematic approach where research results and scientific evidence are incorporated, with a view to a reasoned practice and the continuous improvement of the quality of care provided[15].

In the context of Community Care Units (CCU) nurses have a leading role in providing care to the entire community, coordinating, implementing and monitoring the activities developed, and integrating health projects and programs in pursuit of the objectives of the National Health Plan[16].

It is in this context that the present study arises, which aimed to: evaluate the culture of patient safety, of nurses working in the CCU's of a Health Centers Cluster (ACeS) in the south of Portugal.

MATERIAL AND METHODS

Simple descriptive study, carried out in the five (5) CCU's of an ACeS in the South of Portugal. The sample was for convenience and consisted of 69 nurses who work in these same units and who agreed to participate in this study, after being duly informed. Data collection was carried out through the application of the Questionnaire for the Assessment of Patient Safety Culture in Primary Health Care (QAPSC-PCH), translated and adapted to the Portuguese context by Teacher Margarida Eiras and adopted by the DGH for the carrying out an assessment of patient safety culture in PHC, as established by DGH Standard No. 003/2015[10]. The QAPSC-PCH consists of 52 items that allow the assessment of patient safety culture in ten dimensions; 6 items that assess the quality of health care according to five areas and 14 items related to patient safety and quality, as well as issues related to management and information exchange[9].

In view of the purpose of the study, to carry out a diagnosis of the situation within the scope of the patient safety culture, in the context of CCU, it was necessary to adapt the questionnaire, through the inclusion and exclusion of questions, so questions were integrated for sociodemographic, professional and academic characterization and questions to characterize the knowledge of the target population on patient safety, as well as the adaptation of some questions in order to bring them closer to the activities developed in CCU. After adaptation, it was submitted to a panel of experts, consisting of three nurses with functions in the areas of quality and coordination, not belonging to the ACeS under study and submitted to a pre-test in a sample with characteristics similar to those of the target population.

All ethical procedures were complied with, according to the Helsinki Declaration of Ethics in Research Involving Human Beings, and a positive opinion was obtained from the Health Ethics Committee of the Regional Health Administration of the Region (Process 10/2021).

Data were organized and analyzed using the Statistical Package for Social Sciences® (SPSS) version 27 and worked in aggregate form and without elements that would allow any identification of the participant.

For the descriptive analysis of the questions that make up the questionnaire, the absolute (f) and relative (%) frequencies of the answers were used. In the analysis of each of the ten dimensions, the sum of the relative frequencies (%) of positive responses "Agree" and "Strongly Agree", or "Disagree" and "Strongly Disagree" for questions presented as negative, according to the Likert scale used in the questionnaire. For the analysis of the five areas of health care quality, the method used was similar, using the sum of the relative frequencies (%) of the positive responses "Very Good" and "Excellent".

RESULTS

Of the 74 nurses working in the CCU of ACeS, 5 were absent from the service for various reasons, so the eligible population consisted of 69 nurses, of whom 58 (84.1%) responded to the questionnaire. Of these, six (8.7%) were excluded for not having duly signed informed consent and one (1.4%) for not having answered more than 50% of the questionnaire. Thus N = 51 (73.9%).

Of the total sample (51 participants) 84.3% are female with the most frequent age ranges between 40 and 49 years old (33.3%) and over 50 years-old (29.4%). The academic training that prevailed was the degree (74.5%), followed by the master's degree (19.6%). Almost half of the population has the professional title of Specialist Nurse (45.1%), with 27.4% standing out in the area of specialization in Community and Public Health Nursing and similar nomenclatures. As for the length of professional experience, 47.1% of nurses have been working for 21 years or more, of which only 9 (17.6%) report working in Primary Health Care in the same range of years. However, 35.3% of nurses are working in Primary Health Care for only 5 years. Regarding the time of professional experience at the CCU where they currently work, 43.1% and 39.2% are working in the time interval between 0 and 5 years and 6 and 10 years, respectively (Table 1↗).

Exploring knowledge about the culture of patient safety, 32 nurses (62.7%) claim to have training in the area of patient safety, carried out in a professional context. The majority (54.9%) reported being aware of the EU recommendations in the field of patient safety and 21 participants (41.2%) reported knowing the National Plan for Patient Safety, with only 18 (35.3%) respond to know the measures implemented in their CCU within the scope of patient safety.

Regarding the degree of importance attributed, at an individual level, to the adoption of measures in the CCU for patient safety, 29 (56.9%) and 13 (25.5%) considered "Very Important" and "Important" respectively, being that 7 (13.7%) considered "Moderately Important" (Table 2↗).

Regarding questions about management and information exchange, the answers to the questionnaire reveal that there are problems in the exchange of accurate, complete and timely information, more frequently between the CCU and the hospitals, followed by other medical offices or external doctors and external laboratories or imaging centers (Table 3↗).

As for the analysis by dimension, of the ten dimensions of the patient safety culture (Table 4↗), the following results were verified: the dimension "Teamwork" (D1) and the dimension "General perceptions about the quality and safety of the patient" (D4), with an average of 81.4% and 73.8% of positive responses, respectively, obtained the highest values in the evaluation. The dimension "Support by top management" (D6) and the dimension "Pressure and work rhythm" (D10), with 31.9% and 28.9%, respectively, were the dimensions that presented percentages below 50%.

Within the scope of the general classification of the units, according to the quality areas: Patient-centered; Efficiency; Opportunity; Efficiency and Equity, the results demonstrate a positive evaluation in the five items, with the general classification of patient safety evaluated with an average of 52.9% of positive responses (Table 5↗).

DISCUSSION

The evaluation of the patient safety culture is intrinsically linked to its development and, consequently, to the improvement of the safety and quality of the health care provided[9].

Of the eligible population of 69 nurses, 51 (73.9%) responded to the questionnaire, which demonstrates that the patient safety culture is beginning to be assumed as a concern within the scope of the activities carried out in the CCU. In previous years, according to data provided by the Commission on Quality and Patient Safety (CQPS) of ACeS, the assessment of the patient safety culture in PHC, recommended by DGH Norm 003/2015[10], obtained a rate adherence rate of 9.6% in 2015[9], 7.9% in 2017 and 49% in 2019. Although these data refer to a population made up of all health professionals and ACeS employees, and therefore cannot be compared with the present study, showed poor adherence to the assessment. However, the evolution of the adhesion rate on the part of ACeS professionals may demonstrate a growing interest in the subject.

Regarding the data from the QAPSC-PCH, it was found that 52.9% of nurses consider patient safety to be globally positive, in line with the results obtained in 2015 by the DGH, in which 51% of professionals considered that the systems and procedures, in their functional unit, are "excellent" or "very good" in the prevention, detection and correction of problems that could potentially affect patients[9]. An evaluation similar to that found in a study carried out, also in the context of PCH, in Brazil[14]. In another study, carried out in Greece, the evaluation of the same indicator obtained an average of 70% of positive responses[11], counterbalancing with the global evaluation of 45% obtained in a study carried out in Colombia, in which the patient safety culture is not seen as an essential pillar for the safety and quality of health care provided, which led to the realization of the need to carry out improvement plans in this area[13].

Regarding the dimensions of patient safety culture, in the present study, the dimensions "D1 – Teamwork" and "D2 – General perceptions about quality and patient safety" were highlighted, with 81.4% and 73.8% mean of positive responses, representing the dimensions with the best evaluations, by the nurses who answered the questionnaire, demonstrating that teamwork is valued by the teams of these CCU, which expresses that health professionals understand the need for mutual help and communication in their work context, as a fundamental tool for the provision of efficient and safe health care[11]. The dimension "Teamwork" is also associated with more positive evaluations in studies carried out in Greece and Tunisia[11,17]. In this last study, carried out with nurses from 30 PCH units, the dimension "Communication about the error" was the dimension with the lowest

classification, since the error is still associated with few competences, with a punitive error culture, leading to adverse events are not reported and there is no opportunity for learning and institutional improvement based on the notifications[17]. This dimension, in the present study, obtained an evaluation of 63.2%, demonstrating that there are differences in the way errors and unit problems are valued, and the adoption of a non-punitive error culture is fundamental, through the encouragement of notification of adverse events, integrated in the notification-feedback-action/improvement cycle, with the aim of improving patient safety and the quality of health care provided[9,17].

Still within the scope of the patient safety culture dimensions, the present study showed that the dimensions "D6 – Support from top management" and "D10 – Pressure of work rhythm" were the ones that obtained the worst classification among the ten dimensions evaluated, with 31.9% (D6) and 28.9% (D10), a trend already seen in the 2015 and 2017 assessments, either at the ACeS, the ARS or even at the national level. This record is also verified in similar studies in Greece, Colombia[11,13] and Spain, only in the dimension "Work pressure and rhythm"[12]. As the role of managers is fundamental for organizations, it is essential to encourage communication and collaboration between managers and professionals, with the common objective of promoting patient safety[11], through the consolidation of a positive institutional safety culture, with prioritization of processes related to the improvement of care delivery[13]. According to the DGH, the involvement of managers in the implementation of actions enhances the improvement of patient safety, namely through the inclusion of indicators related to the safety culture in the internal contracting processes of the functional units[9]. This process has been taking place in CCU since 2016, of which quality and safety are part of the multidimensional matrix of these functional units[18]. Also according to the recommendations for action to improve the DGH, and within the scope of "Support by top management", each functional unit must appoint a patient safety facilitator[9], which happens in these CCU's, since there is a designated nurse for that function and which is also the link to the ACeS QAPSC.

Still on the dimension "Work pressure and rhythm", as previously mentioned, it is the one with the worst evaluations in the studies carried out[9,11,12,13]. In the Greek study, this dimension reflects a chronic problem in the country's health system, related to the low ratio of nurses, about 3.6 nurses per 1000 inhabitants, a much lower value when compared to other European countries[11,19]. In Portugal, the ratio stands at 4.3 nurses/1000 inhabitants, a value that contrasts with the average of the Organization for Economic Cooperation and Development (OECD) countries of 9.3 nurses/1000 inhabitants[19], data that may be related to the poor assessment of the "Work pressure and pace" dimension, added by the pandemic state that led to the reorganization of the activities carried out in the CCU.

Based on the data obtained from carrying out this Diagnosis of the Situation, based on the Health Planning Methodology, it was proposed the elaboration and implementation of a Community Intervention Project with the purpose of contributing to the development of a culture of patient safety, of nurses who work in the Community Care Units of a Health Centers Cluster in a region in the south of Portugal.

CONCLUSION

The quality of health care provided and patient safety is an objective that cuts across all health systems and all levels of care, so it is necessary to create strategies and integrate the challenges present in PHC, in the establishment of plans and projects for improvement in this area.

The nurses who work in the CCU present a privileged place for the development and evaluation of projects in this area. The evaluation of the patient safety culture constitutes the starting point for its development and, as such, it is expected that this study raises awareness and encourages reflection on this area, which deserves greater appreciation by professionals, managers and general population.

In the future, it would be important that all ACeS functional units carry out an assessment of the patient safety culture, from the perspective of their professionals and that, based on the results, local projects are developed with the aim of implementing, developing and evaluating strategies that aimed at improving patient safety and, consequently, the quality of health care provided.

Authors' contributions

IM: Study coordination, study design, collection, storage and data analysis, review and discussion of results.
LG: Study design, data analysis, review and discussion of results.
IS: Study design, data analysis, review and discussion of results.
FM: Study design, data analysis, review and discussion of results.
All authors read and agreed with the published version of the manuscript.

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Table 1 – Sociodemographic, academic and professional characterization of Nurses who work in the CCU of ACeS , Portugal, 2021.[↖]

Variable	f	%
Gender	**51**	**100**
Female	43	84.3
Male	8	15.7
Other	0	0
Age (range of years)	**51**	**100**
20-29	7	13.7
30-39	12	23.5
40-49	17	33.3
≥50	15	29.4
Academic education	**51**	**100**
Bachelor degree	2	3.9
Graduation	38	74.5
Master degree	10	19.6
PhD degree	1	2.0
Professional Title of Specialist Nurse	**51**	**100**
No	28	54.9
Yes	23	45.1
Community and Public Health Nursing	14	27.4
Mental Health and Psychiatric Nursing	1	2.0
Rehabilitation Nursing	3	5.9
Maternal and Obstetric Health Nursing	3	5.9
Child and Pediatric Health Nursing	1	2.0
Medical-Surgical Nursing	1	2.0
Length of professional experience (range of years)	**51**	**100**
0-5	7	13.7
6-10	2	3.9
11-15	10	19.6
16-20	8	15.7
≥21	24	47.1
Length of professional experience in Primary Health Care (range of years)	**51**	**100**
0-5	18	35.3
6-10	10	19.6
11-15	6	11.8
16-20	8	15.7
≥21	9	17.6
Length of professional experience in the current Community Care Unit (range of years)	**51**	**100**
0-5	22	43.1
6-10	20	39.2
11-15	8	15.7
16-20	1	2.0
≥21	0	0

Table 2 – Characterization of knowledge about patient safety of nurses from CCU of ACeS, Portugal, 2021.[↖]

Variable	f	%
Training in the field of patient safety		
No	19	37.3%
Yes	32	62.7%
Training context *		
In-Service Training	22	–
Professional qualification	12	–
Academic education	5	–
Other	1	–
Knowledge about European Union recommendations		
No	23	45.1%
Yes	28	54.9%
Knowledge about the National Plan for Patient Safety		
No	30	58.8%
Yes	21	41.2%
Knowledge about the measures adopted in the CCU in the scope of Patient Safety		
No	31	60.8%
Yes	18	35.3%
Did not answer	2	3.9%
Importance attributed to the adoption of measures for Patient Safety in the CCU		
Not important	0	0%
Little important	0	0%
Moderately important	7	13.7%
Important	13	25.5%
Very important	29	56.9%
Did not answer	2	3.9%

Table 3 – Frequency of problems in exchanging accurate, complete and timely information with different service providers and institutions.

Variable				
Frequency with problems in the exchange of accurate, complete and timely information, with:	External laboratories or imaging centers		Other medical offices or external doctors	
	f	%	f	%
Daily	0	0	0	0
Weekly	2	3.9	2	3.9
Monthly	3	5.9	4	7.8
Several times in the last 12 months	2	3.9	6	11.8
Once or twice in the last 12 months	3	5.9	4	7.8
None in the last 12 months	5	9.8	5	9.8
Don't know/Not applicable	36	70.6	30	58.8
	Pharmacies		Hospitals	
	f	%	f	%
Daily	0	0	0	0
Weekly	0	0	4	7.8
Monthly	3	5.9	2	3.9
Several times in the last 12 months	3	5.9	8	15.7
Once or twice in the last 12 months	1	2.0	11	21.6
None in the last 12 months	6	11.8	9	17.6
Don't know/Not applicable	38	74.5	17	33.3

Table 4 – Assessment by dimension of patient safety culture.↖

Dimensions	Positive Answers Average (%)
D1. Teamwork	81.4%
D2. Patient follow-up	67.1%
D3. Organizational learning	69.7%
D4. General perceptions about quality and patient safety	73.8%
D5. Training and training of professionals	56.2%
D6. Top management support	31.9%
D7. Communication about the error	63.2%
D8. Openness in communication	55.3%
D9. Administrative processes and standardization of procedure	51%
D10. Work pressure and pace	28.9%

Table 5 – Classification by health care quality areas and overall patient safety classification.↖

Quality Areas	Positive Answers Average (%)
a. Patient centering	58.8%
b. Effectiveness	54.9%
c. Opportunity	76.4%
d. Efficiency	74.5%
e. Equity	82.3%
General patient safety rating	52.9%