

IMPACTE DA PANDEMIA POR COVID-19 NOS ENFERMEIROS DE REABILITAÇÃO PORTUGUESES

IMPACTO DE LA PANDEMIA POR COVID-19 EN LOS ENFERMEROS DE REHABILITACIÓN PORTUGUESES

IMPACT OF PANDEMIC BY COVID-19 ON PORTUGUESE REHABILITATION NURSES

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RESUMO

Introdução: A pandemia por COVID-19 tem causado um impacto mundial significativo ao nível da saúde e ao nível socioeconómico. Paralelamente, tem causado uma sobrecarga nos sistemas de saúde e nos seus profissionais, entre os quais os enfermeiros de reabilitação. A real expressão desse impacto ao nível dos enfermeiros de reabilitação é desconhecida.

Objetivo: Avaliar o impacto da pandemia por COVID19 nos enfermeiros de reabilitação portugueses.

Método: Estudo observacional, descritivo e transversal, com uma amostra não probabilística de enfermeiros de reabilitação portugueses com desempenho de funções em qualquer tipologia de serviço nos três meses anteriores à recolha de dados. A recolha de dados realizou-se no início do terceiro trimestre de 2020 através de um questionário online disponibilizado por email.

Resultados: Amostra constituída por 146 enfermeiros especialistas em Enfermagem de reabilitação (EEER), dos quais 31% (n=45) teve de cessar a prestação de cuidados especializados durante a pandemia (aumento de 2,7x). Relativamente à satisfação com a qualidade dos cuidados prestados, a média antes do início da pandemia situava-se em 3,95 (SD±0,75) e durante a pandemia desceu para 2,9 (SD±1,11) (escala de *Likert* de 5 pontos). Dos participantes, 73,3% (n=107) referem que tiveram de seguir, em algum momento, orientações institucionais em desacordo com os seus princípios éticos e deontológicos, havendo 69,9% (n=102) que refere ter tido necessidade, em pelo menos uma situação, de priorizar a que pessoas doentes prestar cuidados. Durante a pandemia os EEER recorreram a colegas peritos e a recursos online para aumentar conhecimentos e capacidades em relação aos cuidados inerentes à pandemia.

Conclusão: Durante o primeiro pico pandémico por COVID 19 uma parte significativa dos EEER teve de assegurar apenas cuidados gerais. Os principais desafios enfrentados pelos EEER foram no domínio da organização e gestão dos cuidados devido à maior complexidade dos doentes, à maior carga burocrática, às mudanças no relacionamento com os colegas de trabalhos e à necessidade de balanço entre a vida profissional e pessoal. Verificou-se diminuição da satisfação com a qualidade dos cuidados prestados, bem como uma elevada percentagem de EEER que vivenciou desafios éticos e deontológicos. De forma a assegurar a sua formação contínua e para atualizar as competências e garantir a qualidade e segurança dos cuidados de enfermagem, os EEER revelaram dinamismo e apetência para a utilização das tecnologias da informação e comunicação.

Palavras-chave: enfermagem de reabilitação; enfermeiros de reabilitação; COVID-19; pandemia; impacto

RESUMEN

Introducción: La pandemia de COVID-19 ha tenido un impacto global significativo en la salud y el estado socioeconómico. Al mismo tiempo, ha provocado una sobrecarga en los sistemas de salud y sus profesionales, incluidas las enfermeras de rehabilitación. Se desconoce la expresión real de este impacto a nivel de enfermeras de rehabilitación.

Objetivo: evaluar el impacto de la pandemia COVID19 en las enfermeras de rehabilitación portuguesas.

Método: Estudio observacional, descriptivo y transversal, con una muestra no probabilística de enfermeras de rehabilitación portuguesas que desempeñaron funciones en cualquier tipo de servicio en los tres meses previos a la recolección de datos. La recopilación de datos se llevó a cabo a principios del tercer trimestre de 2020 a través de un cuestionario en línea enviado por correo electrónico.

Resultados: Muestra compuesta por 146 enfermeros especializados en Enfermería de Rehabilitación (EEER), de los cuales el 31% (n = 45) tuvo que dejar de brindar atención especializada durante la pandemia (aumento de 2.7x). En cuanto a la satisfacción con la calidad de la atención brindada, el promedio antes del inicio de la pandemia fue de 3,95 (DE ± 0,75) y durante la pandemia bajó a 2,9 (DE ± 1,11) (escala de *Likert* de 5 puntos). De los participantes, El 73,3% (n = 107) refiere que en algún momento tuvo que seguir pautas institucionales en desacuerdo con sus principios éticos y deontológicos, siendo el 69,9% (n = 102) quien reportó haber tenido una necesidad, al menos una

situación, para priorizar a qué personas enfermas cuidar. Durante la pandemia, EEER utilizó colegas expertos y recursos en línea para aumentar el conocimiento y las habilidades en relación con la atención inherente a la pandemia.

Conclusión: Durante el primer pico pandémico de COVID 19, una parte significativa de los EEER tuvo que garantizar solo atención general. Los principales retos a los que se enfrentó EEER fueron en el ámbito de la organización y gestión de la atención debido a la mayor complejidad de los pacientes, la mayor carga burocrática, los cambios en la relación con los compañeros de trabajo y la necesidad de conciliar la vida profesional y personal. Hubo una disminución en la satisfacción con la calidad de la atención brindada, así como un alto porcentaje de EEER que experimentaron desafíos éticos y deontológicos. Con el fin de asegurar su formación continua y actualizar sus competencias y garantizar la calidad y seguridad de los cuidados de enfermería, los EEER han mostrado dinamismo y disposición al uso de las tecnologías de la información y la comunicación.

Palabras clave: enfermería rehabilitadora; enfermeras de rehabilitación; COVID-19; pandemia; impacto

ABSTRACT

Introduction: The COVID-19 pandemic has had a significant global impact on health and socioeconomic status. At the same time, it has caused an overload on health systems and their professionals, including rehabilitation nurses. The real expression of this impact at the level of rehabilitation nurses is unknown.

Objective: To assess the impact of the COVID19 pandemic on portuguese rehabilitation nurses.

Method: Observational, descriptive and cross-sectional study, with a non-probabilistic sample of portuguese rehabilitation nurses who performed functions in any type of service in the three months prior to data collection. Data collection took place at the beginning of the third quarter of 2020 through an online questionnaire provided by email.

Results: Sample consisting of 146 nurses specialized in rehabilitation nursing (EEER), of which 31% (n = 45) had to cease providing specialized care during the pandemic (increase of 2.7x). Regarding satisfaction with the quality of care provided, the average before the start of the pandemic was 3.95 (SD \pm 0.75) and during the pandemic it dropped to 2.9 (SD \pm 1.11) (scale of 5-point Likert). Of the participants. 73.3% (n = 107) refer that they had, at some point, to follow institutional guidelines in disagreement with their ethical and deontological principles, with 69.9% (n = 102) reporting to having had a need, at least a situation, to prioritize which sick person to care for. During the pandemic, the EEER relied on expert colleagues and online resources to increase knowledge and skills regarding the care inherent in the pandemic.

Conclusion: During the first pandemic peak of COVID 19, a significant part of the EEERs had to ensure only general care. The main challenges faced by EEER were in the field of organization and management of care due to the greater complexity of patients, the greater bureaucratic burden, changes in the relationship with co-workers and the need to balance professional and personal life. There was a decrease in satisfaction with the quality of care provided, as well as a high percentage of EEERs who experienced ethical and deontological challenges. In order to ensure their continuous training and to update their skills and guarantee the quality and safety of nursing care, the EEERs have shown dynamism and a willingness to use information and communication technologies.

Keywords: rehabilitation nursing; rehabilitation nurses; COVID-19; pandemic; impact

INTRODUCTION

In December 2019, a new Coronavirus (SARS-CoV-2)⁽¹⁾ was discovered, which is responsible for the current pandemic by COVID-19⁽²⁾. The strong multifaceted impact of the pandemic has imprinted profound changes in terms of health⁽³⁾, economics⁽⁴⁾ and sociology⁽⁵⁾, which has manifested itself in the two waves reported so far⁽⁶⁾.

Infection by COVID-19 is manifested by several symptoms⁽⁷⁾, the most frequent being coughing, feeling tired and fever. Shortness of breath, chest pain and activity intolerance are considered serious symptoms and indicate the evolution to the most severe form of the disease. Other symptoms such as loss of smell and taste, conjunctivitis, diarrhea, headache, skin rash or osteoarticular pain are reported. From a pathological point of view, COVID19 pneumonia⁽⁸⁾ is the main entity directly related to the

infection, although thromboembolic events appear to be one of the clinical risk events in the post-acute phase of the disease⁽⁹⁾.

Epidemiologically, the severity of COVID-19 infection tends to have a proportional and direct relationship with age, with this relationship being more expressive in the senior population⁽¹⁰⁾. A greater susceptibility to the disease is also assumed in individuals affected by chronic diseases, mainly respiratory or cardiovascular diseases⁽¹¹⁾.

Measures to combat COVID-19 have focused on two poles: a) early and effective assistance to those infected with a severe form of disease⁽¹²⁾, and b) spreading mitigate measures⁽¹³⁾, of which social isolation stands out, conditional access to public places and respiratory etiquette with hand hygiene measures. However, social isolation combined with conditioned access to public places has reduced the

population's accessibility to health care⁽¹⁴⁾, which has resulted in the worsening of chronic clinical situations⁽¹⁵⁾ and, consequently, an increase in health care needs.

As described, the impact of the pandemic has also been strongly felt by health professionals, who report work overload⁽¹⁶⁾ due to an increase in care needs and a decrease in available human resources, shortage of personal protective equipment (PPE)⁽¹⁷⁾, scarcity of clinical material, physical and mental exhaustion⁽¹⁸⁾, difficulty in clinical decision-making processes, among others.

It is also reported, as a consequence of the pandemic, the reorganization of health care according to the focus on the direct response to COVID-19 cases⁽¹⁹⁾, which has reduced the provision of care to other pathologies or in other contexts; an example of this is rehabilitation care⁽²⁰⁾, which has been neglected in order to maintain an adequate response to patients with clinical instability.

It is therefore relevant to know the impact of the COVID-19 pandemic on the provision of rehabilitation nursing care in Portugal, which has not yet been measured. In order to contribute to the construction of this knowledge, and taking advantage of a European initiative to assess the impact of the COVID-19 pandemic on health professionals, we defined the following objective: to assess the impact that the COVID-19 pandemic had on the nursing care provided to patients, nurses' professional satisfaction with the care provided, and identify the ethical challenges most frequently faced, as well as the training and education resources used by nurses.

METHOD

To fulfill the proposed objective, we carried out an observational, descriptive and transversal study. We used a non-probabilistic sample of portuguese nurses associated with the Portuguese Association of Rehabilitation Nurses (*Associação Portuguesa de Enfermeiros de Reabilitação*-APER). We used as inclusion criteria for the participants to be cumulatively nurses who are specialists in rehabilitation nursing, members of APER, to have worked in any type of unit (eg: inpatient, outpatient, primary care) in the three months prior to data collection, and have agreed to participate in the study. Data collection took place at the beginning of the third quarter of 2020.

Data collection was carried out through an online questionnaire provided by email. The questionnaire was developed by a team of researchers from the University of Turin in Italy, led by Professor Marco Clari. Content validity was ensured by researchers from all contexts involved. The questionnaire consisted of 6 sections. The first section addressed the sociodemographic characterization, the second to the characterization of the impact on work organization, the third to the characterization of the impact on nursing care, the fourth to the characterization of ethical challenges, the fifth to the characterization of

the impact on nurses and the work at the level of the care institution and the sixth to the characterization of the impact on the activity and training resources. In each section the items were evaluated using a 5-point Likert scale (1-worst opinion, 5-best opinion).

In data analysis, we used descriptive statistics using IBM SPSS Statistics software (v.27).

RESULTS

The study sample consists of 146 nurses specialized in rehabilitation nursing with a mean age of 43.9 years ($SD\pm 7.37$; Min=28; Max=61), 71.2% (n=104) of feminine. Of the participants, 35.6% (n=52) are masters, 89.7% (n=131) are specialist nurses from the institutions, 6.8% (n=10) are managers and 3.4% (n=5) are general care nurses in institutions. Nurses have an average of 20.32 years of professional experience ($SD\pm 7.17$; Min=6; Max=38).

Of the specialist nurses in the sample, 96.6% (n=141) have an indefinite contract with the health care provider. Of these, 90.1% (n=127) work in institutions of the National Health Service. Of the specialist nurses in the sample, 63.69% (n=93) work in hospital institutions and the rest in the community.

In table 1, we can see the distribution of specialist nurses in rehabilitation nursing before and during the pandemic in relation to the exercise of nursing care.

Table 1 – Distribution of specialist nurses in Rehabilitation Nursing before and during the pandemic in relation to the exercise of nursing care.

Nursing Care	Before the start of the pandemic	After the start of the pandemic
General	17.8% (n= 26)	48.6% (n= 71)
Part-time Specialized	42.5% (n=62)	28.1% (n=41)
Full-time Specialized	39.7% (n=58)	23.3% (n=34)

It is worth noting in Table 1 the increase of 2.7 times in the number of RN that provided general care in the period of the first pandemic peak.

Regarding nursing care in the three months prior to data collection (April-June), 31.5% (n=46), participants reported having provided care to people with COVID-19. In the units of the participants, on average, 14 were hospitalized, 81 people with COVID per week ($SD\pm 18.85$; Min=1; Max=100) and these participants provided nursing care on average to 6.21 ($SD\pm 7.02$; Min=1; Max=30) people with COVID per shift. In the contexts of care for people with COVID, only 43.5% of the participants (n=20) provided specialized rehabilitation nursing care, the remaining 56.5% (26) provided general nursing care. In this sample, 21.9% (n=32) of the participants reported having changed services during the pandemic.

During this period, 63.7% (n=93) of the participants reported that there were no changes in the number of patients they provided care per shift, 15.1% (n=22) reported an increase in the number of patients per shift to whom provided care and 21.2% (n=31) reported that the number of patients per shift decreased.

Before the start of the pandemic, 50.7% (n=74) of the participants reported having experience in intensive care, of these 29.7% (n=22) reported having a lot of experience (Likert=5). Of the participants, 99.3% (n=145) reported having experience with people with respiratory disease, of which 68.9% (n=100) reported a perception of experience between 4 and 5 on the Likert scale.

Of the participants, 42.5% (n=62) reported having been tested for COVID-19. Overall, only 0.02% reported having tested positive (n=3).

Regarding the impact on the organization of work, the participants revealed an average perception of 2.78 (SD±0.70) about the existence of time for institutions to prepare for the response to the pandemic, and an average perception of 2.6 (SD±0.67) in terms of time for nurses' training.

The pandemic was at the origin of changes in the professional practice and personal life of specialist nurses in rehabilitation nursing. Regarding the time for preparation and organization of personal life, the participants showed an average value of 2.53 (SD±0.66). Of the participants, 17.8% (n=26) reported that they had to change their residence during the pandemic.

In table 2 we present the average values of the impact of changes in the dimensions of nursing care and its articulation with personal life. Noting that is in the complexity of patients, in the relationship with co-workers, in the balance between professional and personal life and in the bureaucratic activities that most participants reported that there were changes. Of the most frequent changes, the one that had the greatest impact was the one relating to the balance between professional and personal life.

Regarding satisfaction with the quality of care provided, we found that the average before the beginning of the pandemic was 3.95 (SD±0.75) and during the pandemic it dropped to 2.9 (SD±1.11) [assessed using a 5-point Likert scale (1-worst opinion, 5-best opinion)].

Regarding the ethical challenges that the participants faced, 73.3% (n=107) reported that at some point they had to follow institutional guidelines in disagreement with their ethical and deontological principles. Of the participants, 69.9% (n=102) mentioned that at some point during the pandemic, they had to prioritize which sick patient to care for.

Table 2 - Impact of changes in different dimensions of nursing care.

Items	N	X	SD
Ratio of operational assistants	74	3.04	0.73
Workspace organization	77	3.29	0.70
Complexity of patients	90	3.11	0.71
Nurses per shift	69	3.16	0.7
Use of personal protective equipment	51	3.33	0.68
Relationship with patients' relatives	58	3.22	0.77
Relationship with co-workers	87	3.16	0.73
Balance between professional and personal life	84	3.42	0.68
Training and integration of nurses	65	3.15	0.73
Supervision of nursing students	26	3.08	0.8
Bureaucratic activities	80	3.13	0.79

In table 3 we present the average values of the participants' use of different learning resources and their impact on the management and organization of care.

Table 3 – Resources used and their impact on learning during the pandemic

Resources used in learning	Use		Impact	
	X	SD	X	SD
Expert colleagues	3.22	0.67	3.22	0.69
Other health team experts	3.09	0.72	3.22	0.67
Webinars	3.09	0.72	3.17	0.61
Institutional websites	3.29	0.66	3.07	0.69
E-learning platforms	3.15	0.65	3.20	0.66
Online journals and scientific journals	2.77	0.68	3.19	0.70
Social networks (eg Facebook, Twitter, WhatsApp...)	3.22	0.67	2.76	0.68

DISCUSSION

This study revealed that portuguese rehabilitation nurses (RN) during the initial outbreak and the first pandemic peak, had to adapt to new organizational, personal, ethical and training challenges. During the pandemic, the challenges faced led to the need for many RNs to start providing only general care to fill the deficits of nurses verified in the units. It should be noted, however, that 51.4% of the RN in the sample continued to provide specialized care, an aspect that attests to its relevance to ensuring the quality and safety of general and specialized care. This fact is corroborated by the high experience in a care environment for people in critical condition and people with respiratory disease.

The transition from RN to general care may be justified in a pandemic emergency situation; however, we must emphasize that in order for RNs to be able to provide general care, the needs for specialized care must necessarily cease to be provided. This fact jeopardizes the quality, safety and results of healthcare. Thus, this study alerts us to the fact that the solution found by managers, in a first pandemic peak, to ensure general care through the allocation of RN contributes to the reduction of the response in terms of specialized care in rehabilitation nursing and, consequently, to a deterioration in the overall quality of health care available to the portuguese population.

This study also reveals that, in this period, the complexity of the condition of sick people increased, as well as the bureaucratic aspects that support the management of care. It should be noted that the relationship with co-workers was one of the aspects with the greatest impact in this period. This data is not unrelated to the use of PPE, the separation of circuits and the need for RN to coordinate and articulate specialized nursing care with the health team of the care contexts.

The need to reorganize healthcare to provide care to people with COVID led to a reduction in RN satisfaction with the nursing care provided. In this study, it should be noted that 84.9% of the participants reported having maintained or even reduced the number of patients per shift, which may translate into less care provision. These data can help to understand the reduction in satisfaction with care, either due to the impossibility of providing specialized care, or due to changes in relational and technical dynamics imposed by measures to prevent contamination.

This study identifies a high percentage of RN that at some point, during this period, had to follow institutional guidelines in disagreement with their ethical and deontological principles. This study does not allow us to explore this data; however we cannot fail to emphasize our concern. For this reason, it is extremely important to study this fact in order to implement corrective measures as a matter of urgency.

This study allows us to understand that the RN, due to the challenges they faced, sought different types of learning resources that had an impact on training and consequently on the quality and safety of nursing care. These data also help us to understand the training dynamism and the interest that RNs have in using information and communication technologies as a training resource.

As the main limitations of this study, we identified the small number of participants and the lack of national or international comparative data that allow to have a more in-depth discussion.

CONCLUSION

During the first COVID-19 pandemic peak, RN faced challenges in order to guarantee the continuity, quality and safety of specialized nursing care. During this period, many of the RN had to ensure only general

care. The main challenges faced by the RN were in the field of organization and management of care due to the greater complexity of patients, the greater bureaucratic burden, changes in the relationship with co-workers and the need to balance professional and personal life. It is worth noting the decrease in satisfaction with the quality of care provided, as well as the high percentage of RN who experienced ethical and deontological challenges. Regarding learning resources and their impact on training, the RN showed dynamism and willingness to use information and communication technologies.

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