Construction and validity of care protocol for older adults in Emergency Care Units

Construção e validação de protocolo assistencial a idosos em Unidades de Pronto Atendimento

Construcción y validación de protocolo asistencial a adultos mayores en Unidades de Servicios de Emergencias

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Abstract

Objective: To construct and validate the content of a care protocol for older adults in Emergency Care Units.

Methods: This is methodological research, developed through moderate participant observation, protocol construction and instrument content validity. To construct the protocol, 12 focus groups were conducted with a total of 43 professionals from the Emergency Care Units of a medium-sized municipality in the state of Paraná. Subsequently, the instrument was validated by seven experts in the field. Content validity was established by the Content Validity Index greater than 0.80.

Results: The protocol consists of 22 items divided into three parts, reception, care and discharge, and its content was considered valid by obtaining the Content Validity Index of 0.91.

Conclusion: The constructed and validated protocol can be used in care of older adults in Emergency Care Units, which are expected to qualify care and provide subsidies for the strengthening of public policies aimed at older adults.

Resumo

Objetivo: Construir e validar o conteúdo de um protocolo de assistência à idosos em Unidades de Pronto Atendimento.

Métodos: Pesquisa metodológica, desenvolvida mediante observação participante moderada, construção do protocolo e validação de conteúdo do instrumento. Para a construção do protocolo, realizaram-se 12 grupos focais com um total de 43 profissionais das Unidades de Pronto Atendimento de um município de médio porte do estado do Paraná. Posteriormente, o instrumento foi validado por sete especialistas da área. A validação de conteúdo foi estabelecida pelo Índice de Validade de Conteúdo maior que 0,80.

Resultados: O protocolo constitui 22 itens divididos em três partes, Acolhimento, Assistência e Alta, e seu conteúdo foi considerado válido pela obtenção do Índice de Validade de Conteúdo de 0,91.

Conclusão: O protocolo construído e validado pode ser utilizado no cuidado à população idosa nas Unidades de Pronto Atendimento, das quais se espera que qualifiquem a assistência e forneçam subsídios para o fortalecimento de políticas públicas voltadas a idosos.

Resumen

Objetivo: Construir y validar el contenido de un protocolo asistencial a adultos mayores en Unidades de Servicios de Emergencias.

Métodos: Investigación metodológica, desarrollada mediante observación participante moderada, construcción del protocolo y validación de contenido del instrumento. Para la construcción del protocolo, se realizaron 12

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grupos focales con un total de 43 profesionales de las Unidades de Servicios de Emergencias de un municipio mediano del estado de Paraná. Luego, el instrumento fue validado por siete especialistas del área. La validación de contenido se estableció por el Índice de Validez de Contenido superior a 0,80.

Resultados: El protocolo constituye 22 ítems divididos en tres partes: Acogida, Atención y Alta, y su contenido fue considerado válido por la obtención del Índice de Validez de Contenido del 0,91.

Conclusión: El protocolo construido y validado se puede utilizar en el cuidado de la población de adultos mayores en las Unidades de Servicios de Emergencia, de las cuales se espera que califiquen la atención y ofrezcan subsidios para el fortalecimiento de políticas públicas dirigidas a adultos mayores.

Introduction

Population aging brings challenges to managers of health systems, among which it is highlighted that an older person has the highest rates of visits in emergency services.[1] The presence of some dysfunctions and specificities of senescence associated with overcrowding and overload of work in the emergency causes some damage to these individuals, which negatively impacts the care received in these services.[1,2]

In Brazil, Emergency Care Units (ECUs) have played an important role in the first access to health services for older adults.[3] The precariousness of resolution and articulation with the other points of the Health Care Network (RAS) has generated overcrowding in these units, weakening the decision-making and humanization provided.[4] When taking into account that the time for care and the resources offered can represent the survival of older adult patients,[5] the need to change the way of thinking and developing practices in these sectors is considered emerging.[1,4]

When reflecting on the quality of health services, it is necessary to discuss management strategies that support institutions so that they can meet users' needs and requirements [6], especially older adults, who have complex complaints.[1] In this sense, new technologies are created to improve quality in hospital services, such as protocols, systems, programs and policies.[6]

Standardization through protocols is considered a management tool today because it provides a safe outcome for productivity. In care practice, protocols are fundamental, as they assess the effectiveness and safety of interventions and produce scientifically valid, replicable and generalizable results, generating cost reduction and improving quality of care, as they help in the investigation and identification of problems.[7]

Moreover, the participation of professionals is one of the strategies that has shown benefits and has been used by researchers to improve the construction of protocols and their implementation, since they are promoters of care and these new interventions need not only to meet the specific needs of the public assisted, but also the expectations of the professionals involved.[7]

In literature, there are some studies involving protocols of care to older adults in emergency.[2,8,9] There are also protocols in other contexts, such as in Nursing Homes (NH)[10] and Primary Health Care (PHC).[11] However, there is a knowledge gap about studies conducted with this audience in ECUs, which is a peculiar modality of Brazil for offering services of medium complexity.

In this perspective, when considering the great demand of older adults in these services and the importance of systematizing the care offered to these users, so that it covers the entire care itinerary, the relevance of this study is justified, whose objectives were to construct and validate the content of a care protocol for older adults in ECUs.

Methods

This is a methodological research, which adopted as framework the psychometric procedures for developing measurement instruments, which include three specific poles: theoretical, empirical and analytical.[12] In this study, the theoretical pole was developed with regard to content construction and validity of an older adult care protocol. The study was conducted in two ECUs of a medium-sized municipality in the state of Paraná.

To support the operationalization of domains and items that make up the protocol, the Diffusion of Innovations Theory (DIT) was used.[13] For the theorist, diffusion is a process by which an innova-

tion is communicated through certain channels over time between the members of a group. Messages are focused on new ideas and are idealized as an innovation, aimed at improving results.[13]

The theoretical dimensions of this research construct were anchored in the following stages of DIT: antecedent conditions, which is a systematic review and moderate participant observation carried out by the main researcher, master's degree holder and doctoral student, with experience in qualitative research, between January and May 2019, totaling 161 hours in the field, which made it possible to know the reality. The other DIT stages correspond to the three communication channels: the first refers to knowledge, in which the researcher presents the data generated in the antecedent conditions; the second refers to persuasion, allowing the subject to form an opinion, favorable or not, regarding the proposed changes; and the third channel is decision, which is configured by the involvement of participants related to innovation.[13]

The empirical categories were elucidated using the focus group (FG) technique,[14] between August and October 2019, on the ECU premises, conducted by the main researcher and an observer, a master's student, also with experience in this type of study, as proposed by the method.[14]

As agreed with the management of the units, so as not to harm the care flow of services, all professionals were invited to participate in the research, namely: social workers, nurses, pharmacists, doctors, psychologists, nursing assistants and technicians, pharmacy and radiology. It is noteworthy that, at the time of the research, physicians had difficulties in being absent from the work environment. First, professionals received an invitation delivered by the researcher herself containing a brief presentation of the research, main objectives and methodology to be used.

Participants who provide care to older adults and hold the position for more than three months were included. Four distinct FG were formed, two composed of higher education professionals (social workers, nurses, pharmacists and psychologists) and two others composed of members of technical level (nursing technicians, pharmacy technician and ra-

diology technician), from each of the ECUs, from a municipality in the interior of Paraná. It is noteworthy that the FGs were developed with distinction between professionals with a technical and higher level in order to avoid inhibition of their participation in the research.

The FG development followed a script guided by the Strategic Focal Analysis (SFA), a FG specific analytical technique, in which the data are analyzed at the time of collection with participants as active subjects in the research process. As soon as the researcher and participants broadened and deepened the group discussion, the meetings followed the steps: 1) SFA of internal potentialities and weaknesses and 2) SFA of the external scenario, which includes challenges and opportunities[14] based on reflections related to the care provided to older adults in ECUs. The textual corpus was established from the discussions that emerged in the meetings, with subsequent dismemberment of the text into the items that integrated the protocol.

After preparing the items, the protocol, the instruction manual and the Informed Consent Form (ICF) were sent via email to seven experts, who agreed to participate in this stage of content validity. This number of experts is considered adequate according to the method proposed, which recommends that 6 to 20 participants be included in this stage of the study.[12] Experts were asked to return the material within 15 days, with assessment being performed only once by each professional. The period of this stage of the research was from May to June 2020.

Experts were selected by the Lattes Platform, including those who obtained a minimum score of six points, according to the criteria adapted for expert selection.[15] Invitations were sent to 35 experts to participate in this stage of the study, considering interprofessionality (nursing, pharmacy and social work), a crucial characteristic, since they are categories that make up the largest number of professionals in ECUs, in addition to being part of the FG in the instrument elaboration. It is noteworthy that in this stage of expert selection, experts from different regions of the country were also invited in order to enhance the validity, mainly considering language,

so that it is comprehensive throughout the national territory.[16]

The questionnaire for analyzing the protocol made it possible to assess the psychometric criteria of objectivity (goals to be achieved with the protocol), content (user understanding, appearance as a general organization, structure, presentation strategy and form), language (writing style), relevance (degree of significance of items), functionality (usefulness of functions and/or objectives) and usability (effort required to use the protocol).[12] In addition to this, at the end of each evaluative item, experts justified their answers and provided suggestions to improve the protocol.

For analysis of the protocol items by experts, the responses followed a Likert-type scale, with four levels of support: 4 – Adequate; 3 – Needs a little revision to be suitable; 2 – Needs major revision to be adequate; 1 – Inadequate. The level of agreement among experts was previously defined, considering the Content Validity Index (CVI) greater than or equal to 0.80 to be valid.[17] To calculate the CVI, the numerator corresponded to the sum of the responses and the denominator to the total number of experts. Thus, for each item, the frequency of responses marked on the Likert-type scale was calculated, multiplying them by their respective weights (4 - 1; 3 - 0.75; 2 - 0.50; and 1 - 0.25), obtaining the weighted average for each item.

The research project was approved by the Research Ethics Committee of the *Universidade Estadual de Maringá*, under Opinion 1,889,677 CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 62796816.5.0000.0104. All participants signed the ICF, according to current legislation.

Results

To construct the protocol, 12 FG were developed with an average duration of 69 minutes and a total of 43 professionals participated. In the initial meetings, data from the systematic review and moderate participant observation were presented, encouraging discussion about the care provided to older adults in ECUs. In the following meetings, reflection was encouraged on the strengths and weaknesses of this care, as well as the external factors that can interfere with the quality of care offered. Thus, it was proposed to construct the protocol with the inclusion of items that the professionals themselves consider as qualified practices of care provided to older adults that should continue performing, those that should be improved and others to be implemented. As for the validity stage, the sample of experts consisted of two social workers (28.5%), two pharmacists (28.5%) and three nurses (42.8%). In this committee, there was a predominance of women (85.7%), with a mean age of 36.8 years, a mean time of training of 13.7 years, the majority with more than five years of professional experience (100%) and PhD degree (57.1%). In addition, they considered themselves experts for participating or having already participated in research projects in the area of gerontology and/or emergency (85.7%), publication of articles in indexed journals (100%) and clinical practice (100%). Regarding the place of residence/work, it was noted that experts are from different locations in the country, three from the state of Paraná (42.8%), two from Rio Grande do Sul (28.5%) and Minas Gerais and Rio Grande do Norte, with one expert each (14.2%). Regarding item adequacy to the psychometric criteria, experts' assessment was satisfactory, since the items presented a global CVI of 0.91, as presented in table 1.

Regarding item assessment, it is noteworthy that no item was judged as inadequate and only one received a score that needs major revision to be adequate. The item composes the content domain that had CVI of 0.78, to which the expert suggested the inclusion of some information in the protocol as a whole. These were analyzed and most of them were altered by the authors. Modifications were made according to experts' suggestions, in order to improve the instrument. The main ones were related to the adequacy of terms specific to the professional category and suggestions for including some tools and software and protocol presentation in a more didactic format. It is noteworthy that there was no suggestion of inclusion of a new item. Therefore, there was only one round of validity with experts, since the suggestions for changes were minimal and would not invalidate

Table 1. Scale Content Validity indexes obtained with experts' assessment regarding adequacy of the psychometric criteria domains

Criteria	Content Validity Index
Objectivity	
1a. Objectives are adequate to be achieved	0.89
1b. Objectives are consistent with clinical practice	0.96
Content	
2a. Content corresponds to the objectives proposed in the work	0.96
2b. Content contributes to qualification of care to older adults in Emergency Care Units	0.92
2c. Content allows understanding the theme	0.92
2d. Content obeys a logical sequence	0.92
2e. Content incorporates in an orderly manner all the steps for a qualified care of older adults in Emergency Care Units	0.89
2f. Content has all the necessary items to offer adequate care to older adults in Emergency Care Units	0.78
2g. Information is correct	0.82
2h. Information is clear	0.82
2i. Information is objective	0.89
Language	
3a. Has clear language	0.92
3b. Has objective language	0.92
3c. Has accessible language for its use	1.0
Relevance	
4a. Presents important aspects for care to older adults in Emergency Care Units	1.0
4b. Is relevant so that professionals can provide adequate care to older adults in Emergency Care Units	1.0
4c. Allows transfer of learned content	0.96
Functionality	
5a. Is an appropriate tool for the purpose for which it is intended	0.92
5b. Makes it possible to generate positive results in care to older adults in Emergency Care Units	0.96
5c. Makes it possible positive results in clinical practice for older adults in Emergency Care Units	0.92
Usability	
6a. Is easy to use	0.82
6b. Is easy to understand and assimilate the theoretical concepts used	0.92
6c. Allows professionals to easily apply it in clinical practice	0.92

the material already assessed. The domains obtained a general CVI of 0.91 and a mean CVI of 0.88 for content; objectivity 0.93; language 0.94; relevance 0.98; functionality 0.96; and usability 0.88. After adjustments, the instrument entitled "*Protocolo de assistência a idosos em Unidades de Pronto Atendimento*" underwent a Portuguese proofreading and a graphic designer who gave the presentation, as shown in figures 1 and 2.

Discussion

The material constructed through this research aims to systematize the practices developed for older adults by the interprofessional health team of ECUs, in order to qualify the care to these individuals in these services. This instrument differs from the other protocols because it was developed with professionals, through innovative data collection and analysis techniques, which made it possible to reflect on the need to insert a health technology that is consistent and effective with reality, and not a generalist instrument.

This finding is consistent with a study conducted in southern Brazil, whose objective was to analyze how the construction and discussion of care protocols in a highly complex public hospital occurs. The study concluded the importance of effective participation of professionals in order to train them on the reality and use of products and services, such as protocol implementation.[7]

According to the construction with professionals about the items that make up the protocol, it was determined that the care provided to older adults in ECUs is divided into three equally important parts, namely: reception, care and discharge. Reception corresponds to the moment when older adults enter the service, which defines practices that influence the entire service and can even maintain their survival. The four items included in the protocol that correspond to reception of older adults in ECUs were designed in order to prioritize old-
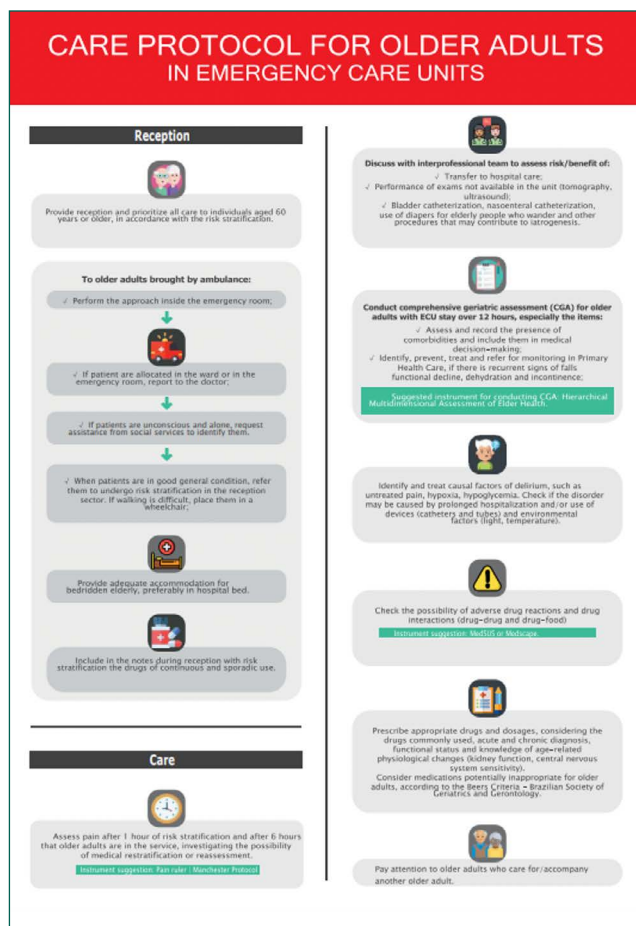
Figure 1. Care protocol for older adults in Emergency Care Units (Part 1)

Figure 2. Care protocol for older adults in Emergency Care Units (Part 2)

er adults and receive them with humanization and comprehensiveness.

All over the world, emergency units use a triage system, which is a valid and reliable tool, capable of prioritizing patients who present themselves in these establishments based on their clinical emergency.[18] It is worth noting that the laws that govern the rights and duties of older adults in Brazil indicate that they cover preferential care in the emergency unit, so that older adults are prioritized among those with the same risk stratification. Moreover, the prioritization of older adults has recently been restructured so that people aged 80 and over overlap with those aged 60-79.[19]

After older adults enter the emergency room and define what type of care they will receive, whether urgent or not, they will go through the ECU itinerary, in which (13) items that make up the care complex of this protocol were minutely created.
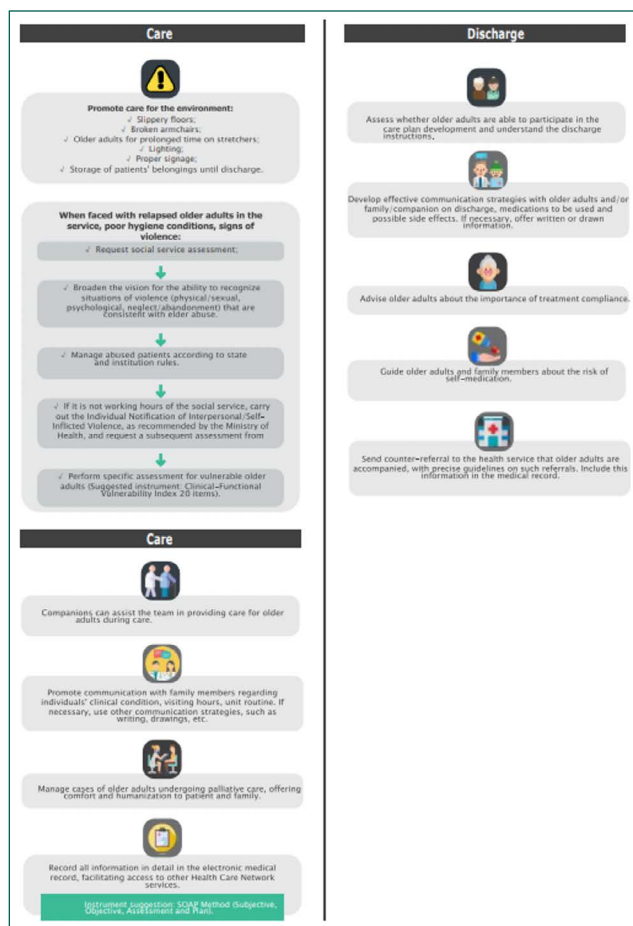
Such items provide instruction both for professionals and older adults who seek the service due to an acute condition and for those individuals who will be accommodated in the ward and, possibly, transferred to hospital services, corresponding to the high-complexity RAS points.

An important Canadian study whose purpose was to validate subscales in order to improve the quality of care for older adults in the emergency room was used as a model to support some discussions among professionals.[2] Clinical care protocols, as proposed in this research, regarding delirium and the investigation of vulnerable older adults, were highlighted. Regarding vulnerability, It is important to emphasize that ECU health professionals should be alert to possible signs of violence against older adults and, in the event of any suspicion, call the multidisciplinary team for assessment, especially social service, which belongs to the staff of this unit,

so that together they can follow up on the case, with notification, complaint and referral to the appropriate service.[20]

Finally, there is discharge, at which time older adults will be released from the service. In this study, the items (five) that make up this chunk encourage professionals to offer guidance that this public understands effectively. There are several publications in literature in relation to discharge planning of emergency older adults, given that it can influence good results in the outcome of the complaint, as well as the reduction of repeated and unresolved visits.[1,2]

Researchers from Rio Grande do Sul identified and analyzed the aspects necessary for an older adult-friendly service in Brazilian emergency services, from the perspective of nurses. The results show that an "older adult-friendly" care model is based on four central dimensions: social climate, policies and procedures, care systems and processes, and physical environment.[8]

In the social climate dimension, in line with the present research, aspects related to the multidisciplinary approach in the care of older adults and their families, the performance of social service and discharge planning are highlighted. As for policies and procedures, there is a need to strengthen the points of the RAS for continuity of care and more humanized care to older adults. With regard to care systems and processes, these make up the effectiveness of communication between the emergency and PHC services (strengthening of the referral and counter-referral system), team training in relation to fragile situations, mainly those related to violence, risk stratification based on protocols and by a nurse and geriatric assessment.[8]

In the physical environment dimension, there is adequate signage, promotion of autonomy through relevant lighting and non-slip floors; the first item of the protocol care chunk of this research that deals with the ambience issues that must be carried out in order to qualify the care provided in the studied units.[8] In the meantime, it is believed that the present protocol included important aspects for the ECUs to promote care based on the "older adult-friendly" model.

Following the methodological principles adopted in this study, with the constructed protocol, the validity process was carried out. As it includes an interprofessional team, it presents reliability and a favorable aspect, since it brings together different areas of knowledge in the theme addressed by the protocol. Moreover, it allows obtaining a global assessment and is an important parameter noted in other validity surveys.[21,22] The multiplicity of professionals was adopted so that each one contributes significantly and according to the professional category aiming to provide better efficiency and quality in the validity process of a care protocol for older adults in ECUs.[23]

In view of all assessment items, the protocol was successfully validated by experts, with a global CVI range of 0.91. Changes suggested by experts were made and protocol adaptation after experts' assessment was considered a primordial step of validity.[22]

Content validity allowed confirmation of the protocol content reliability and, associated with the imminent need to transform care practices provided to older adults into ECUs, the relevance of the material constructed stands out.

As a limitation of this study, it is possible to mention the non-performance of semantic validity, suggesting the performance of new studies to apply this protocol in clinical practice in order to assess its applicability in the studied scenario.

Conclusion

The care protocol for older adults in ECUs was built through FG that allowed in-depth discussions with professionals involved in care. Twenty-two items were elaborated for the protocol, which should guide qualification of care to older adults in ECUs. Moreover, with a global CVI of 0.91, the protocol was considered valid by experts, in terms of objective, content, language, relevance, functionality and usability criteria. The results of this survey suggest items to improve care for older adults in ECUs, and because they were developed in the experience of professionals and validated by experts in emergency and gerontology, they represent a promising as-

pect for the adoption of Evidence-Based Practice. Additionally, the protocol is expected to provide subsidies for strengthening public policies aimed at caring for older adults in ECUs.

Acknowlegdments

Collaborations

Scolari GAS, Lucena ACRM and Carreira L contributed to project design, data analysis and interpretation, article writing, relevant critical review of intellectual content and approval of the final version to be published.

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