

ELDERLY PEOPLE'S KNOWLEDGE ABOUT THEIR MEDICATION REGIMEN: A DESCRIPTIVE STUDY

Conhecimento das pessoas idosas sobre o seu regime medicamentoso: um estudo descritivo

Conocimientos de los ancianos sobre su régimen de medicación: un estudio descriptivo

Sónia Novais*, Daniela Abreu**, Lídia Magro***, Pedro Gilde****, Sónia Pereira*****, Catarina Bastos*****, Maribel Carvalhais*****

ABSTRACT

Background: the aging of the population, the high incidence of chronic diseases and the prescription of a complex drug regimen requires knowledge and capacity for its effective and safe management. Poly medication, inherent to chronic health conditions, entails complications that may arise from the elderly people's inadequate knowledge about the management of the drug regimen. **Objective:** to characterize the knowledge about the medication regimen of the elderly. **Methodology:** quantitative, cross-sectional and descriptive study. The sample consisted of 23 elderly people who attended day centers belonging to the municipalities of Vale de Cambra, São João da Madeira and Oliveira de Azeméis. Data collection was carried out through the questionnaire "Patient's knowledge about their medications" (CPM-PT-PT) adapted and validated for the Portuguese population by Rubio et al. (2014). **Results:** the level of knowledge of the elderly about medicines is sufficient in relation to the drug regimen. The dimension with the greatest knowledge is the "Usage Process", however the knowledge in the "Safety" dimension is lower compared to the other dimensions. **Conclusion:** in view of the results, nursing interventions are needed to increase knowledge about the drug regimen, promoting health and preventing complications.

Keywords: aged; knowledge; nursing; medication adherence

*PhD, em Enfermagem na Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-4328-3755> - Author contribution: Study conception and design, Data analysis and interpretation, Drafting of the article, Critical revision of the article

** RN, em Enfermagem – Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-7175-4489> – Author contribution: Study conception and design, Data collection, Data analysis and interpretation, Drafting of the article, Critical revision of the article

*** RN, em Enfermagem – Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-4885-1467> - Author contribution: Study conception and design, Data collection, Data analysis and interpretation, Drafting of the article, Critical revision of the article

****RN, em Enfermagem – Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-3214-8013> - Author contribution: Study conception and design, Data collection, Data analysis and interpretation, Drafting of the article, Critical revision of the article

*****RN, em Enfermagem – Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-4497-024X> - Author contribution: Study conception and design, Data collection, Data analysis and interpretation, Drafting of the article, Critical revision of the article

***** RN, em Enfermagem - Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-8401-587X> - Author contribution: Study conception and design, Data collection, Data analysis and interpretation, Drafting of the article, Critical revision of the article

*****PhD, em Enfermagem na Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa - <https://orcid.org/0000-0002-2206-2582> - Author Contribution: Data analysis and interpretation, Drafting of the article, Critical revision of the article

Autor de correspondência:

Sónia Novais
Email: sonia.novais@essnortecv.pt

Como referenciar:

Novais, S., Abreu, D., Magro, L., Gilde, P., Pereira, S., Bastos, C., & Carvalhais, M. (2023). Conhecimento das pessoas idosas sobre o seu regime medicamentoso: um estudo descritivo. *Revista de Investigação & Inovação em Saúde*, 5(1), 49-59

Recebido para publicação: 01/08/2022
Aceite para publicação: 30/03/2023

RESUMO

Enquadramento: o envelhecimento da população, a elevada incidência de doenças crónicas e a prescrição de um regime medicamentoso complexo exige conhecimento e capacidade para a sua gestão eficaz e segura. A polimedicação, inerente às condições crónicas de saúde acarreta complicações que podem advir do conhecimento inadequado das pessoas idosas sobre a gestão do regime medicamentoso. **Objetivo:** caracterizar o conhecimento sobre o regime medicamentoso das pessoas idosas. **Metodologia:** estudo quantitativo, transversal e descritivo. A amostra foi constituída por 23 pessoas idosas que frequentavam centros de dia pertencentes aos concelhos de Vale de Cambra, São João da Madeira e Oliveira de Azeméis. A recolha de dados realizou-se através do questionário "Conhecimento do doente sobre os seus medicamentos" (CPM-PT-PT) adaptado e validado para a população portuguesa por Rubio et al. (2014). **Resultados:** o nível de conhecimento das pessoas idosas sobre os medicamentos é suficiente em relação ao regime medicamentoso. A dimensão com maior conhecimento é o "Processo de uso", contudo o conhecimento na dimensão "Segurança" é menor comparativamente às restantes dimensões. **Conclusão:** face os resultados são necessárias intervenções de enfermagem que visem aumentar o conhecimento sobre o regime medicamentoso, promovendo a saúde e prevenindo complicações.

Palavras-chave: idoso; conhecimento; enfermagem; adesão à medicação

RESUMEN

Marco contextual: el envejecimiento de la población, la elevada incidencia de enfermedades crónicas y prescripción de un régimen farmacológico complejo, requiere conocimientos y capacidades para su manejo eficaz y seguro. La polimedicación, inherente a las condiciones crónicas de salud, conlleva complicaciones que pueden derivarse del inadecuado conocimiento del anciano sobre el manejo del régimen farmacológico. **Objetivo:** caracterizar el conocimiento sobre el régimen de medicación de los ancianos. **Metodología:** estudio cuantitativo, transversal y descriptivo. La muestra fue compuesta por 23 ancianos que asistían a centros de día pertenecientes a los municipios de Vale de Cambra, São João da Madeira y Oliveira de Azeméis. La recolección de datos se realizó a través del cuestionario "Conocimiento del paciente sobre sus medicamentos" (CPM-PT-PT) adaptado y validado para la población portuguesa por Rubio et al (2014). **Resultados:** el nivel de conocimiento de los ancianos sobre medicamentos es suficiente en relación al régimen farmacológico. La dimensión con mayor conocimiento es el "Proceso de Uso", sin embargo el conocimiento en la dimensión "Seguridad" es menor en comparación con las demás dimensiones. **Conclusión:** frente a los resultados, son necesarias intervenciones de enfermería para aumentar el conocimiento sobre el régimen farmacológico, promoviendo la salud y previniendo complicaciones.

Palabras clave: anciano; conocimiento; enfermería; cumplimiento de la medicación

INTRODUCTION

The ageing of the population is a phenomenon that affects Western societies today. However, longevity is not synonymous of disease-free years and especially free of chronic diseases. The elderly population is the main consumer of medicines, and it is estimated that, in Portugal, about 53.2% of polymedicated people are over 64 years old (Pinto et al., 2013). Elderly people's responses to medications are very variable, due to the comorbidities, the physiological changes of ageing, so the likelihood of adverse effects associated with this phenomenon makes the medication regimen increasingly complex and more difficult to manage (Mortelmans et al., 2021).

Knowledge of the medication regimen and the ability to self-manage it is extremely important in terms of results and health gains (García Delgado et al., 2009). Health professionals, namely nurses, must know the main barriers, difficulties and most common errors, adapting their intervention, in order to reduce negative clinical outcomes and guarantee the safety to elderly people with chronic polymedicated diseases. (Bosch-Lenders et al., 2016; Mortelmans et al., 2021; Sanches, 2020). Understanding the knowledge of this population about the prescribed medication regime allows us to respond to their needs, through the implementation of nursing interventions that enable self-management and safety. The nurse thus assumes an essential role during the provision of care by assessing the needs of the elderly and the way in which they mobilize resources to respond to them, allowing them to implement education and empowerment strategies for managing the medication regimen, promoters of adherence and the correct use of medicines. This knowledge leads to a decrease in

possible adverse effects, drug interactions and to an improvement in the control of chronic diseases and their comorbidities in this vulnerable population (Didone et al., 2020; Mortelmans et al., 2021; Sanches, 2020).

The main goal of this study is to characterize the knowledge about the medication regimen of elderly people who attend Day Centres, based on the research question: "What is the knowledge about the medication regimen of the elderly population who attend day centres?".

THEORETICAL FRAMEWORK

The increase in life expectancy combined with the prevalence of chronic diseases places the elderly population in a vulnerable position and requires special attention from nurses in the context of this nursing phenomenon. The presence of multiple chronic conditions increases the complexity of managing the medication regimen and has a negative impact on health outcomes, resulting in a decrease in quality of life, mobility and functional and cognitive capacity, as well as an increase in hospitalizations, use of health resources, increased health care costs, and increased mortality (Masnoon et al., 2017; Muth et al., 2019).

Polymedication is a common phenomenon in the elderly population as a result of multiple chronic diseases (Didone et al., 2020; Masnoon et al., 2017). The results of studies by Masnoon et al. (2017) and Sanches (2020) demonstrate that there is great heterogeneity in the definition of the concept of polymedication. This is based on numerical criteria for the number of drugs prescribed, ranging from two to eleven, or more drugs. However, the most common

definition of polymedication is the use of five or more drugs (Kurzewska-Michalak et al., 2021; Masnoon et al., 2017). The lack of a clear and universal definition for this phenomenon makes it difficult for health professionals to assess and consider issues of drug efficacy and safety (Masnoon et al., 2017; Sanches, 2020). However, the focus of nurses' interventions must be centered on the relevance of prescribing and training for self-management of elderly people' medication regimen (Mortelmans et al., 2021; Rankin et al., 2018), since it appears that even more medications are prescribed than are clinically appropriate in the context of the person's comorbidities (Masnoon et al., 2017). In this way, it is necessary to make a complete appreciation of the chronic diseases and the clinical status of the elderly, as well as their medication regimen and potential interactions (Muth et al., 2019). Medications should always be evaluated regarding their effectiveness, therapeutic indication and potential harm, when two or more are taken simultaneously, due to pharmacokinetic and pharmacodynamic interactions. It's necessary to promote their rational use and guiding the elderly person to side effects or the possible existing complications of its incorrect use promoting adherence (Didone et al., 2019; Didone et al., 2020; Masnoon et al., 2017). According to Mortelmans et al. (2021) there are several risk factors for polymedication and, consequently, difficulty in self-managing the medication regimen, namely: ageing and comorbidities associated with the number of chronic diseases, gender and socioeconomic status, the multiplicity of prescribers, the prescription cascade, self-medication and hospitalization.

Discrepancies between prescribed regimens and those that people actually take, as well as poor adherence and inadequate surveillance of adverse effects lead to hospital admissions, readmissions and other undesirable consequences, such as increased morbidity and decreased autonomy, institutionalization and even death early (Pereira et al., 2021; Rankin et al., 2018). Pereira et al. (2021) indicate the existence of between 18% and 38% of adverse effects related to polymedication after discharge and these led to between 4.5% and 24% episodes of hospital readmissions. These events could have been avoided or reduced, with training for self-management of the medication regimen of the elderly person with a chronic illness. The drugs most associated with adverse effects are antibiotics, diuretics, vitamin K antagonists, opioids, oral antidiabetics, chemotherapy, antihypertensives, glycosides, digitalis, corticosteroids, psychotropics, anticoagulants, antidepressants, calcium channel blockers and beta-blocking agents, widely prescribed to the elderly population (Hernández-Rodríguez et al., 2021; Pereira et al., 2021).

The level of knowledge about the medication regimen of elderly people can significantly influence their health status, compromising efficacy and enhancing drug interactions and adverse effects (Didone et al., 2019; Didone et al., 2020; Mortelmans et al., 2021). To ensure the safety of taking medication, it is important to assess the knowledge and abilities of the elderly person for self-management of the medication regimen (Didone et al., 2019; Didone et al., 2020). Thus, this study was guided by Dorothea Orem's Self-Care Deficit Nursing Theory. Self-care is defined by this author as *a human action deliberately performed by*

the person for their benefit in order to regulate their functioning (Orem, 2003a, p. 111). This care differs from any other because it must be learned, developed and performed by the self-care agent, in order to satisfy their own needs (Orem, 2003b).

The self-care activity within the scope of management and adherence to the medication regime requires the mobilization of fundamental capacities of the individual, necessary for the deliberation on the action, namely, perception, memory and orientation, as well as knowledge and understanding capacity (Mortelmans et al., 2021). In this way, cognitive, physical, emotional and behavioural skills are involved in the self-care activity (Orem, 2001). Thus, it is understood that the theory of self-care focuses on the “self” and explains the way and capabilities that are necessary to take care of oneself. It is in this sense that the management of the medication regime is related to the self-care requirements due to health deviation (Orem, 2001). The nursing diagnosis activity will determine the planning and implementation of appropriate interventions, in order to minimize the existing gap between self-care needs and the capacity of the person, self-care agent (Orem, 2001).

According to Kurczewska-Michalak et al. (2021), health professionals can and should provide appropriate interventions to people, enabling them to manage the medication regimen, with the aim of minimizing possible complications and safety problems, regardless of the clinical or community context.

MATERIAL AND METHODS

Quantitative, cross-sectional and descriptive study, with the participation of elderly people who attended

Day Centres in the municipalities of Vale de Cambra, São João da Madeira and Oliveira de Azeméis.

Inclusion criteria were defined as: elderly people aged 65 years or over, with the presence of two or more chronic diseases, use of two or more medications, with cognitive capacity to manage the medication regimen and who attended Day Centres of the municipalities under study. As exclusion criteria, it was defined people who had a cognitive ability below global score 26 assessed by the application of the *Montreal Cognitive Assessment (MoCA)* (Freitas et al., 2013), who did not accept to participate in the study, people in an end-of-life situation, or advanced disease, or with changes or difficulty in communicating.

The study was approved by the Ethics Committee of the Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa (Ethics Committee decision 022/2021) and approval was obtained from the institutions for data collection, as well as from the authors of the data collection questionnaire. Participants were invited to participate in the study and signed an informed consent form. Data collection was carried out between December 2021 and April 2022.

The data collection instrument consisted of two parts, the first relating to the sociodemographic characterization of the participants and the second assessing people's knowledge about their medication regimen. For this, the Portuguese version of the questionnaire “Patient's Knowledge about their Medications” (CPM-PT-PT) prepared by García Delgado et al. (2009) and validated for the Portuguese population by Rubio et al. (2014) was used. This instrument has eleven questions, determining in each question a basic item of the patient's knowledge about their medications (CPM): Indication; Dosage;

Guidance; Duration of treatment; Mode of administration; Precautions; Adverse reactions; Contraindications; Efficacy indicators; Interactions, and Drug Conservation. These items are grouped in the following dimensions: Use process, Therapeutic objective, Medication Safety, Medication conservation (García Delgado et al., 2009). This questionnaire has acceptable psychometric properties, and its internal consistency, assessed by Cronbach's Alpha Coefficient, was 0.519 (Dixe, 2022; Rubio et al., 2014).

The equivalence of the questionnaire, assessed by the degree of inter-observer agreement, has a value of Kappa Coefficient = 0.89, considered very good and the reliability; and assessed by the Interclass Correlation Coefficient (ICC) was 0.756 (IC 95%:0,548-0,963) considered good (Dixe, 2022; Rubio et al., 2014).

Each questionnaire was completed by the researchers, selecting the drug with the highest risk from the participant's medication regimen, according to the risk assessment resulting from the study by Lin et al. (2017). The assessment of the eleven questions about researchers was carried out by contrasting the answers given by the participant with the reference information (the medical prescription and/or the Summary of Product Characteristics from Infarmed or the European Medicines Agency). For each question, the following score answer, based on the degree of agreement between the information provided and the reference information: Incorrect information: -1 (the information does not correspond to the reference information); Doesn't know: 0 (Verbally or non-verbally communicates that he doesn't know); Insufficient information: 1 (The answer is incomplete or lacks the necessary information to ensure a correct use

process); Correct information: 2 (the information corresponds to the reference information).

For the final calculation of the degree of knowledge about the medicine or Total Knowledge (Total CPM), the following formula was applied (García Delgado et al., 2009):

$$Total\ CPM = \frac{[1,2\Sigma PiA] + [1,1\Sigma PiB] + [0,85\Sigma PiC] + [0,6\Sigma PiD]}{(1,2x4) + (1,1x2) + (0,85x4) + (0,6)}$$

Since ΣPiX corresponds to the sum of the scores obtained by each participant in the questions of each dimension as follows: Process of use (A): Dosage (question 2), Orientation (question 3), Duration of treatment (question 4), Mode of administration (question 5); Therapeutic objective (B): Indication (question 1), Efficacy (question 9); Safety (C): Precautions (question 6), Adverse Effects (question 7), Contraindications (question 8) Interactions (question 10); and, Conservation (D): Conservation (question 11). Total CPM results were categorized into: Does not know the medicines: 0 points; Insufficient knowledge: from 0.60 to 1.26 points; Sufficient knowledge: from 1.27 to 1.60 points; Great knowledge: from 1.61 to 2 points (García Delgado et al., 2009).

The collected data were analysed using the Statistical Package for the Social Sciences (SPSS) version 25 program. According to the questionnaire analysis indications and the sample size it was used, univariate descriptive statistical analysis of the measures of central tendency and dispersion measures (Rubio et al., 2014).

RESULTS

From a universe of 50 participants, the sample consisted of 23 participants, with 27 elderly people

Elderly people's knowledge about their medication regimen: a descriptive study

excluded for presenting values below 26 points in the cognitive assessment. Most participants were over 80 years old (n=13; 56.5%), female (n=16; 69.6%), widowed (n=15; 65.2%), with the 1st schooling cycle (n=19; 82.6%) and lived with relatives (n=14; 60.9%). Regarding the personal history of illness, 16 (69.6%) participants had more than three chronic illnesses, and one (4.4%) not know the diagnosis and the others (n=6) having between 1 and 2 chronic illnesses. In the last year, 19 (82.6%) participants did not go to the

emergency room. However, 1 (4.4%) participant recurred four times and 20 (87%) participants did not have any hospitalization in the last year. Regarding the number of primary health care appointments in the last year, 12 (52.2%) participants had more than 3 appointments, however, 5 (21.7%) participants reported not having had any appointments.

Table 1 summarizes the participants' medication regimen.

Table 1

Participants' medication regimen

Variables	Segmentation	Results n (%)
Number of drugs that takes	2 to 4	9 (39,1%)
	More than 5	14 (60,9%)
Name of the drugs that takes	Doesn't know	11 (47,8%)
	Knows	12 (52,2%)
Time of drug use	Doesn't know	1 (4,4%)
	Start of treatment (< 1 month)	9 (39%)
	1 to 6 months	1 (4,4%)
	7 to 12 months	1 (4,4%)
	13 to 24 months	0 (0,0%)
Prescriber	More than 24 months	11 (47,8%)
	Doctor	23 (100%)
Support in the management of the drug regimen	No	12 (52,2%)
	Yes	11 (47,8%)
Support person in the management of the drug regimen	Relative	3 (27,3%)
	Institution	2 (18,2%)
	Pharmaceutical	1 (9,1%)
Importance for the elderly person of his health problem	Nurse	5 (45,5%)
	Little	8 (34,8%)
	Regular	8 (34,8%)
	Fairly	7 (30,4%)

Table 2 presents the results related to the data analysis of the CPM-PT-PT questionnaire.

Elderly people's knowledge about their medication regimen: a descriptive study

Table 2

Analysis of the CPM-PT-PT questionnaire

Dimensions	Items	Average	Máx	Mín	Incorrect Knowledge	Doesn't know	insufficient knowledge	Knows
Process of use	Q2 Dosage	1,87	2	0	0 (0%)	1 (4,4%)	1 (4,4%)	21 (91,2%)
	Q3 Orientation	1,91	2	1	0 (0%)	0 (0%)	2 (8,8%)	21 (91,2%)
	Q4 Duration of treatment	1,96	2	1	0 (0%)	0 (0%)	1 (4,4%)	22 (95,6%)
	Q5 Mode of administration	2	2	2	0 (0%)	0 (0%)	0 (0%)	23 (100%)
Dimension Σ Average		7,74	8	5				
Therapeutic Objective	Q1 Indication	1,78	2	0	0 (0%)	2 (8,8%)	1 (4,4%)	21 (91,2%)
	Q9 Efficacy	1,69	2	0	0 (0%)	1 (4,4%)	5 (21,7%)	17 (73,9%)
Dimension Σ Average		3,48	4	1				
Safety	Q6 Precautions	0,96	2	-1	2 (8,8%)	5 (21,7%)	8 (34,8%)	8 (34,8%)
	Q7 Adverse Effects	0,69	2	-1	1 (4,4%)	12 (52,2%)	3 (13%)	7 (30,4%)
	Q8 Contraindications	0,74	2	0	0 (0%)	13 (56,6%)	3 (13%)	7 (30,4%)
	Q10 Interactions	1,43	2	0	0 (0%)	4 (17,4%)	5 (21,7%)	14 (60,9%)
Dimension Σ Average		3,83	8	-1				
Conservations	Q11 Conservation	1,78	2	0	0 (0%)	2 (8,8%)	1 (4,4%)	20 (86,8%)
Dimension Σ Average		1,78	2	0				
Total CPM		1,59	2,09	0,68				

DISCUSSION

The results of the present study show that the knowledge of the participants about the medications, according to the CPM-PT-PT questionnaire, was sufficient, with a Total CPM value of 1.59. These results are also consistent with those presented in other studies that reveal a sufficient level of knowledge of the elderly about the medication regimen (Didone et al., 2020; Perera et al., 2012; Sanches, 2020).

It appears from the analysis of the CPM-PT-PT dimensions that the results obtained, with regard to the safety dimension, has negative values in some participants, which may lead to possible complications

arising from incorrect or non-identification of adverse effects or drug interactions. It was being crucial the establishment of intervention strategies in favour of the person's health and the promotion of drug safety. This result is also congruent with that found by Didone et al. (2020) and by Mortelmans et al. (2021) and may occur because health professionals mainly focus their intervention on training people on how to use medicines. And they consider issues related to the safe use of medication to be their responsibility, or as a factor that may negatively interfere with the person's adherence. It appears, however, that compared to the

study by Rubio (2014), the participants of this study have a higher level of knowledge in most of the dimensions of the questionnaire and the total CPM. In this study the dimension with greater knowledge was "Objective therapeutic" and the dimension "Process of use" has less knowledge, contrary to the results found in the present study, which demonstrate that the elderly people who participated know how to take the medicines, but do not know why they are taken and the indication and importance for their health problem and do not even dominate the aspects related to safe taking. Regarding the characteristics of the medication regimen of the participants in the present study, 14 (60.9%) take more than five medications, and 11 (47.8%) do not know the name of the medications they take. These results are similar to those found in the study by Sanches (2020), which show that 48.48% of the participants were unaware of the therapeutic indication for at least one of the drugs they consumed, but despite this, 69.7% were autonomous for the management of the drug regimen, and 27.3% did not have an updated record of the medication for the different appointments, which can be a factor that hinders the proper management of the medication regimen.

In the study by Perera et al. (2012) the level of knowledge of the participants regarding the prescribed medication was sufficient and poor, in 36% and 46% of the participants respectively, although they received information about it from health professionals. Bosch-Lenders et al. (2016) identified as factors that negatively affect the knowledge about medicines of the elderly: the greater number of prescribed medicines, older age, gender, institutionalization and level of education. By analysing the results of this

study, we found that 13 (56.5%) were over 80 years old and 19 (82.6%) had only completed the 1st cycle of schooling, factors that may influence knowledge of medicines. It was also found that 54% of the universe of participants did not have cognitive capacity, one of the self-care requirements for the autonomous management of the medication regimen. From the participants who met the inclusion criteria, their level of knowledge is just sufficient, some dimensions have low levels, which may jeopardize the safety and efficacy of drugs. It is noted that despite the cognitive capacity, 11 (47%) participants have support in managing the medication regime and, for 5 (45.5%) of these participants, the nurse is the reference. This result places the nurse as a privileged figure for the training and empowerment of the elderly, and it is necessary to understand which interventions should be implemented, in the sense of the expected results. The level of knowledge about medicines in the present study is similar founded in others studies. However, given the small number of participants, it was not possible to establish the causes or factors that, in this population, interfere with the level of knowledge, so these should be explored in studies with a larger sample (Didone et al., 2020; Perera et al., 2012; Sanches, 2020; Rubio, 2014). In view of these results, it is necessary to establish nursing intervention strategies in order to improve the dimensions with lower values of knowledge, namely, the therapeutic objective and safety.

CONCLUSION

The results obtained show that elderly people have sufficient knowledge about the drugs they take. This is a subject that needs to be studied and discussed as a

result of the ageing population, the increase in the prevalence of chronic diseases, polymedication and its impact. It is essential that the assessment of knowledge about medicines allows for the adequacy of interventions that promote autonomy and empowerment for the management of the medication regimen, which is mostly complex. In this way, it is essential that adequate information be transmitted about all the dimensions that promote medication safety, especially by nurses, since, as this study reveals, they are the ones that elderly people refer to as their support for managing the regimen medicated.

It is equally important for nurses to deepen their knowledge about the factors that influence the knowledge of the elderly in relation to the medication regimen and, in this way, be able to act in the exercise of their functions, in the sense of health promotion, disease prevention and the inherent complications to inadequate management of the drug regimen. We denote the scarce publication of Nursing studies on the relationship between the knowledge of elderly people and adherence to the medication regimen, which made it difficult to compare and discuss our results in this context.

One of the limitations of this study is related to the small sample size. As a result of the Covid-19 pandemic, the time allowed for data collection was limited, the number of people attending the Day Centres also decreased and, finally, some institutions that had initially agreed to participate in the study, given the new situation withdrew authorization for fear of contagion. Another limitation was related to the fact that it was not possible to establish a relationship that identifies which factors influence knowledge about medicines, as a result of the sample size. This

knowledge would allow nurses to more rigorously delineate interventions that would allow them to meet the identified needs.

Given these limitations, it is proposed in future investigations to expand the size of the sample studied, in order to be able to make more sustained generalizations. It is equally important to study the factors that influence the knowledge of the elderly about the medication regimen, as well as the most appropriate interventions to promote its adequate management.

From the point of view of clinical practice, it is up to the nurse, after evaluation, to plan and implement nursing interventions, in the sense of increasing the knowledge of the elderly person in relation to the medications they are taking, avoiding complications in the short and long term, and empowering them for the autonomous management of their medication regimen, and this questionnaire is a useful tool for decision-making in this area.

BIBLIOGRAPHIC REFERENCES

- Bosch-Lenders, D., Maessen, D. W. H. A., Stoffers, H. E. J. H. (Jelle), Knottnerus, J. A., Winkens, B., & van den Akker, M. (2016). Factors associated with appropriate knowledge of the indications for prescribed drugs among community-dwelling older patients with polypharmacy. *Age and Ageing*, 45(3), 402–408. <https://doi.org/10.1093/ageing/afw045>
- Didone, T. V. N., García-Delgado, P., Melo, D. O. de, Romano-Lieber, N. S., Martínez, F. M., & Ribeiro, E. (2019). Validação do questionário “Conocimiento del Paciente sobre sus Medicamentos” (CPM-ES-ES). *Ciência & Saúde Coletiva*, 24(9), 3539–3550. <https://doi.org/10.1590/1413-81232018249.26112017>
- Didone, T. V. N., Melo, D. O. de, Lopes, L. da C., & Ribeiro, E. (2020). Conhecimento inadequado sobre medicamentos prescritos e seus preditores em pacientes muito idosos e seus cuidadores. *Revista*

- Brasileira de Geriatria e Gerontologia*, 23(3). <https://doi.org/10.1590/1981-22562020023.20019>
- Dixe, M. A. (2022). Validação e Adaptação de instrumentos de Medida. In M. Néné & C. Sequeira (Eds.), *Investigação em Enfermagem. Teoria e Prática* (pp. 51–69). Lidel.
- Freitas, S., Simões, M. R., Santana, I., Martins, C. & Nasreddine, Z. (2013). Montreal Cognitive Assessment (MoCA): Versão 1. Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra
- García Delgado, P., Gastelurrutia Garralda, M. Á., Baena Parejo, M. I., Fisac Lozano, F., & Martínez Martínez, F. (2009). Validación de un cuestionario para medir el conocimiento de los pacientes sobre sus medicamentos. *Atención Primaria*, 41(12), 661–668. <https://doi.org/10.1016/j.aprim.2009.03.011>
- Hernández-Rodríguez, M. Á., Sempere-Verdú, E., Vicens-Caldentey, C., González-Rubio, F., Miguel-García, F., Palop-Larrea, V., Orueta-Sánchez, R., Esteban-Jiménez, Ó., Sempere-Manuel, M., Arroyo-Aniés, M. P., Fernández-San José, B., de Juan-Roldán, J. I., & Ioakeim-Skoufa, I. (2021). Drug Prescription Profiles in Patients with Polypharmacy in Spain: A Large-Scale Pharmacoepidemiologic Study Using Real-World Data. *International Journal of Environmental Research and Public Health*, 18(9), 4754. <https://doi.org/10.3390/ijerph18094754>
- Hurczewska-Michalak, M., Lewek, P., Jankowska-Polańska, B., Giardini, A., Granata, N., Maffoni, M., . . . Kardas, P. (2021). Polypharmacy Management in the Older Adults: A Scoping Review of Available Interventions. *Frontiers in Pharmacology*, 12, 1-15. <https://www.frontiersin.org/articles/10.3389/fphar.2021.734045/full>
- Lin, C.-W., Wen, Y.-W., Chen, L.-K., & Hsiao, F.-Y. (2017). Potentially high-risk medication categories and unplanned hospitalizations: a case–time–control study. *Scientific Reports*, 7(1), 41035. <https://doi.org/10.1038/srep41035>
- Masnoon, N., Shakib, S., Ellett, L. K., & Caughey, G. E. (2017). What is polypharmacy? A systematic review of definitions. *BMC Geriatrics*, 17(230), 1-10. <https://dx.doi.org/10.1186/s12877-017-0621-2>
- Muth, C. B.-G. (2019). Evidence supporting the best clinical management of patients with multimorbidity and polypharmacy: a systematic guideline review and expert consensus. *Journal of Internal Medicine*, 285(3), 272-288. [10.1111/joim.12842](https://doi.org/10.1111/joim.12842)
- Mortelmans, L., De Baetselier, E., Goossens, E., & Dilles, T. (2021). What Happens after Hospital Discharge? Deficiencies in Medication Management Encountered by Geriatric Patients with Polypharmacy. *International Journal of Environmental Research and Public Health*, 18(13), 7031. <https://doi.org/10.3390/ijerph18137031>
- Orem, D. (2001). *Nursing: Concepts of Practice* (6th ed.). Mosby.
- Orem, D. (2003a). Nursing Theories and Their Function as Conceptual Models for Nursing Practice and Curriculum Development. In K. Renpenning & S. G. Taylor (Eds.), *Self-Care Theory in Nursing. Selected Papers of Dorothea Orem*. (pp. 108–120). Springer Publishing Company
- Orem, D. (2003b). Validity in Theory: A Therapeutic Self-Care Demand for Nursing Practice. In K. Renpenning & S. G. Taylor (Eds.), *Self-Care Theory in Nursing. Selected Papers of Dorothea Orem*. (pp. 98–107). Springer Publishing Company
- Pereira, F., Verloo, H., Zhivko, T., Giovanni, S. D., Massetti, C. M., Gunten, A. v., . . . Wernli, B. (2021). Risk of 30-day hospital readmission associated with medical conditions and drug regimens of polymedicated, older inpatients discharged home: a registry-based. *BMJ Open*, 1-12. DOI: [10.1136/bmjopen-2021-052755](https://doi.org/10.1136/bmjopen-2021-052755)
- Perera, T., Ranasinghe, P., Perera, U., Perera, S., Adikari, M., Jayasinghe, S., & Constantine, G. R. (2012). Knowledge of prescribed medication information. *BMC Research Notes*, 1-8. <http://www.biomedcentral.com/1756-0500/5/658>
- Pinto, A., Rodrigues, T., Mendes, J., Bação, F., & Lobo, V. (2013). Medication and Polymedication in Portugal. In: *Recent Developments in Modeling and Applications in Statistics* (pp.59-68), Heidelberg: Springer
- Rankin, A., Cadogan, C. A., Patterson, S. M., Kerse, N., Cardwell, C. R., Bradley, M. C., . . . Hughes, C. (2018). Interventions to improve the appropriate use of polypharmacy for older people. *Cochrane Database of Systematic Reviews*, 2018(9). <https://doi.org/10.1002/14651858.CD008165.pub4>
- Rubio, J. S. (2014). *Conocimiento del paciente sobre sus medicamentos en el área metropolitana gran Lisboa (Portugal). Adaptación transcultural y validación del cuestionario CPM*. [Tese de doutoramento,]. Repositório Institucional da Universidade de Granada <http://hdl.handle.net/10481/48528>

Elderly people's knowledge about their medication regimen: a descriptive study

Sanches, M. I. (2020). *Polimedicação no pessoas idosas*. [Tese de Mestrado em evidência e decisão em saúde, Faculdade de Medicina da Universidade do Porto]. Repositório Institucional da Universidade do

Porto <https://repositorio-aberto.up.pt/bitstream/10216/131372/2/435335.pdf>