

DEPRESCRIBING – A NECESSARY DISCUSSION FOR THE INTEGRAL HEALTH OF THE ELDERLY

Marlete Scremin¹, Jean Carl Silva¹, Kaio Henrique Pereira Sena², Bruno Carpegiane Ornelas Deles², Karine Alencar Froes², Paulo Sérgio David de Castro³, Raquel Gusmão Soares², Gregório Ribeiro de Andrade Neto⁴, Francine Veloso Quintino Borborema⁵, Haline Falcão de Ornelas², Jaqueline Mendes de Oliveira⁶, Maricy Kariny Soares Oliveira², Sarah Caroline Oliveira de Souza Boitrigo², Sueli Antunes Aquino Cardoso Gonçalves⁵, Ana Luíza Leobas Moreira Nogueira⁴, Vanusa Diniz Rabelo Lopes⁷, Marivone de Oliveira Monteiro²

¹University of the Joinville Region. ²State University of Montes Claros. ³Estácio de Sá College. ⁴Ibituruna College of Health and Humanities. ⁵FIPMoc University Center. ⁶Brazilian Institute of Advanced Technology University Center. ⁷Federal University of Minas Gerais.

Abstract: The present study aims to understand the deprescribing process among elderly patients. A theoretical-reflective study was conducted based on the concepts of health education and health promotion. In the face of technological advances in the health area, increased income, urbanization and many other social advances that culminated in the increase in the life expectancy of the population, another synergistic phenomenon was the epidemiological transition, causing an increase in the number of chronic-non-communicable diseases, requiring health services and professionals to act effectively and comprehensively in the face of this new paradigm in population health. In this sense, medications are an important support strategy, however, when this use is unsystematic, exaggerated and indiscriminate, it can substantially harm the health of the elderly, in this discussion, deprescription presents itself as an important clinical tool to reduce the health risks of these individuals, however, there are barriers of training, resistance of family members and professionals, Because the latter are often trained in a biologist and curative model, in a logic that for each complaint a drug is chosen,



thus, efforts are needed from the country's training bodies to train professionals who are committed to presenting other possibilities to patients, which often bring less risk and better clinical outcomes.

Keywords: polypharmacy; continuous use medications; health of the elderly.

INTRODUCTION

The aging of the population has occurred at an accelerated rate in developing countries such as Brazil. With the increase in the number of elderly people, the presence of patients with multimorbidity is beginning to be observed, and associated with this, polypharmacy, which usually refers to the concomitant use of several medications among these patients (Oliveira et al., 2024).

It is also possible to identify in the literature studied that most polypharmacy occurs in female patients, it is estimated that about 56% of all patients in this situation. It is estimated that the prevalence of the use of several medications by the same patient is observed in about 45.5% of all elderly people in Brazil, evidencing the great impact that their consequences have on the health situation of the elderly (Correia; Teston, 2020).

There are several factors that contribute to the existence and prevalence of polypharmacy in the elderly population. The accumulation of chronic diseases that require constant treatment is the main one. Conditions such as high blood pressure, diabetes mellitus, obesity, psychiatric disorders, have specific guidelines for each of them, making it difficult to integrate care and increasing the risk of drug interaction (Gama, 2023). It is observed in the reviewed literature that the practice of polypharmacy has serious consequences for the physiological functioning of the body, such as decreased drug metabolization capacity, visual problems, cognitive deficit, and is associated with decreased safety of pharmacological therapy. Causing side effects, it can modify the action of drugs with impertinent associations of classes and inappropriate doses related to the large number of different drugs, dosages, and schedules (Rodrigues et al., 2021).



Polypharmacy, which usually refers to the concomitant use of several medications, is common among older adults with multimorbidity and is associated with negative health outcomes, such as adverse drug events, falls, fractures, hospitalizations, increased length of hospital stay, readmission to the hospital soon after discharge, and death (Masnoon et al., 2017; Kadam, 2011; Mortazavi et al., 2016; Lim et al., 2017).

Adverse drug events, which can occur both due to adverse reactions and drug interactions, have polypharmacy as the protagonist, since the greater the number of drugs used, the greater the risk of adverse events. This risk is higher among elderly patients, due to several changes resulting from age, such as decreased kidney and liver function, reduced hearing, vision, cognition, and mobility, as well as lower lean body mass. Therefore, these patients are more vulnerable to pharmacokinetic and pharmacodynamic changes, being more sensitive to pharmacotherapy (Masnoon et al., 2017; Kadam, 2011; Mortazavi et al., 2016; Lim et al., 2017).

In this perspective of polypharmacy, or with the use of potentially inappropriate medications, deprescription emerges as a process of withdrawing an inappropriate medication, supervised by a health professional, in order to reduce adverse drug effects and improve the therapeutic results of patients (Alharthi et al., 2023). In this context, the present study seeks to understand the deprescribing process among elderly patients.

MATERIALS AND METHODS

A theoretical-reflective study was conducted based on the concepts of health education and health promotion, that is, it proposes to think about the different dimensions that constitute it. To this end, Therrien's (2014) proposition was adopted about the pillars that constitute an investigation phenomenon: ontology, epistemology and methodology.

The study was carried out based on the identification of the theme, guiding question and the objective of the research; establishment of subject descriptors and databases, in addition to the criteria



for inclusion and exclusion; definition of the information to be extracted and evaluation of the included studies; then, interpretation of the results and presentation of the review and synthesis of knowledge.

The search was conducted in the second half of 2025 through the guiding question: What are the possible interfaces between popular health education and the educational processes developed in primary health care? The following descriptors were used: popular health education; primary health education and social participation with the help of Boolean operatives to help and refine the search for studies for analysis. The secondary databases for search were: Scientific Electronic Library Online (SCIELO), Catalog of Theses and Dissertations of the Commission for the Coordination for the Improvement of Higher Education Personnel (CAPES), as well as websites of agencies related to the object of study.

The inclusion criteria were: publications that addressed the analyzed theme, available online and with full text, in Portuguese, English or Spanish, without publication time cut. The exclusion criteria were: duplicate publications and works published only in annals of events.

After the analysis of the data from the selection and reading of the recovered publications, thematic content analysis was conducted, according to Minayo, which is carried out through three interdependent phases: pre-analysis, exploration of the material and interpretation of the results (Minayo, 2014).

DISCUSSION

According to the WHO, elderly patients over 60 years of age are the ones who have the highest risk of drug interaction, as they mostly have chronic diseases and, as a result, are polymedicated, having to use more than two drugs on average (Moreira, 2018).

As an intervention measure in the case of polypharmacy in the elderly, deprescription is evidenced, also characterized as drug discontinuation, defined as a systematic process of reduction or suspension of medications with the objective of reducing polypharmacy and improving the health



outcomes of the elderly. It is conceptualized as one of the strategies that has been widely used to reduce polypharmacy and, consequently, its associated risks. The practice consists of the process of identifying and discontinuing unnecessary, ineffective, unsafe, or potentially inappropriate medications and involves collaboration between professionals and patients (Scott et al., 2015; Garfinkel; Ilhan; Bahat, 2015; Donis; Oliveira; Sousa, 2017).

However, deprescribing should consider the benefits and harms of the drug to the patient, what are the goals of treatment with the drug in question, the patient's life expectancy, as well as the patient's convenience and preferences that may contribute to treatment adherence. It should be applied when there is the emergence of a new symptom suggestive of an adverse reaction, terminal phase of the disease, extreme frailty, complete dependence, advanced dementia, use of high-risk drugs or combinations, prolonged duration of drugs that, when suspended, do not increase the risk of the disease (Scott et al., 2015).

The drugs that may be the most frequent target of the deprescribing process are Potentially Inappropriate Drugs (PIMs), in addition to the already exposed picture of polypharmacy, thus, the main groups of patients that occur in PIMs and polypharmacy are cancer patients, patients with chronic diseases, terminal patients and especially the elderly aged ≥ 60 years who have their pharmacokinetics and pharmacodynamics affected by age (Graça; Gonçalves, 2019).

For the deprescription to occur, it is important that decisions are made in sharing the family, authorization and information of the patient, reduction of inappropriate medications, consideration of the framing of each drug in the care plan of the given patient, the clinical and social history of the patient, the medication history and the identification of prescribed medications, with clinical pharmaceutical intervention integrated with the multidisciplinary health team (Romero, 2018).

In a study that evaluated the rate of hospitalizations, it is indicated that 2% of hospital admissions are due to adverse drug reactions, there is an estimate that hospitalizations of the elderly are 4 to seven times higher than younger people. In another study that was carried out, Van Der Stelt et al. (2020) It was shown that the use of 2 or more PIMs is related to 17% of the causes of hospital



admissions (Ribolis et al., 2018).

Zechmann et al. (2020) conducted a randomized controlled trial in Swiss primary care institutions, between 2015 and 2017, to investigate whether a patient-centered primary care physician prescribing intervention results in a reduction of polypharmacy, without increasing the number of adverse events of the disease and reducing quality of life, among their older multimorbid patients, and obtained a statistically significant immediate reduction in the number of medications per patient, in which 81% of all medications interrupted during the intervention consultation remained suspended after 12 months, but was not preserved over time, due to new prescriptions. In addition, they observed that the participating individuals, using the medications, agreed with the medication change, in 86% of the recommendations, thus indicating a high adherence to the intervention, thus representing the importance of the individualized approach and interaction with the patient.

Oktora et al. (2023), in a cross-sectional study to assess Indonesian T2D patients' attitudes toward deprescribing in general and toward specific cardiometabolic medications, and the factors influencing their willingness to discontinue medications, with 196 participants, demonstrated that the majority of participants (94%) were satisfied with their current medications, However, about 69% and 67% were willing to discontinue one or more of their regular medications if it was recommended by a family doctor or specialist, respectively. However, only 41% would be willing if their pharmacist said it was possible.

Deprescribing success rates can be achieved when patients are properly guided, with a clear plan, and informed about the benefits and possible withdrawal symptoms. The use of verbal and written information about the benefits and difficulties in the deprescribing process should be associated with the use of a protocol that helps medical professionals in the gradual withdrawal of the medication (Lee; Farrell; Holbrook, 2019).

In a study that validated an instrument for deprescribing benzodiazepines, it was identified that regarding the identification of facilitators in this process, it was that the patient understood the importance of withdrawing or reducing the dose of the drug. The acceptance of the measure by



patients, based on the perspective that their medications may be unnecessary and/or harmful to health, is one of the factors that facilitate the deprescribing of medications. Other factors that can also simplify the process are: the use of deprescribing protocols that ensure patient follow-up, monitoring side effects, and ensuring their safety; and the fact that the patient reduces the number of medications in use, in addition to the attributed cost (Goyal et al., 2020).

Among the factors that make it difficult to reduce or withdraw the drug are the lack of follow-up by health professionals in shorter intervals of time, the lack of confidence in the doctor responsible for the deprescription and the fear of running out of the drug. The lack of knowledge about the justification for deprescribing and resistance to change are also factors that hinder the process (Elbeddini et al., 2021).

It is essential to use strategies concomitant with deprescribing that include patient education/guidance and the use of non-pharmacological treatment, such as cognitive-behavioral therapy and guidance on sleep hygiene and the practice of healthy lifestyle habits to minimize the impact of hindrances on the deprescribing process (Elbeddini et al., 2021; Pottie et al., 2018).

Finally, intervention measures for drug deprescribing can be guided through protocols, which are recommendations developed systematically, to facilitate the management of a health problem, within a specific clinical context, preferably based on scientific evidence and clinical experience. These protocols are essential tools for standardizing conducts in the exercise of medical practice (MS, 2008). In view of this, the development of protocols for evidence-based deprescribing and the use of non-pharmacological measures, such as guidance on sleep hygiene, are necessary strategies in the management of care for geriatric patients (Parr et al., 2009; Baldoni et al., 2020).

CONCLUSION

The prescription process among elderly patients is described as drug discontinuation, in a systematic process of reduction or suspension of medications, aiming to reduce the number of



medications used, to achieve better clinical outcomes, more favorable, however, there are barriers to training, resistance of family members and professionals, as the latter are often trained in a biologist and curative model, In a logic that for each complaint a drug is chosen, therefore, efforts are needed by the country's training bodies to train professionals who are committed to presenting other possibilities to patients, which often bring less risk and better clinical outcomes.

REFERENCES

ALHARTHI, M. et al. Barriers and enablers to deprescribing for older people in care homes: the theory-based perspectives of pharmacist independent prescribers. *Research in Social and Administrative Pharmacy*, v. 19, n. 5, p. 746-752, 2023.

BALDONI, A. D. O. et al. Elaboration and validation of the clonazepam deprescribing protocol in the elderly. *Brazilian Journal of Family and Community Medicine*, v. 15, n. 42, p. 2105, 2020.

CORREIA, W.; TESTON, A. P. M. Aspects related to polypharmacy in the elderly: a review study. *Brazilian Journal of Development*, v. 6, n. 11, p. 93454-93469, 2020.

DONIS, A. C. G.; OLIVEIRA, H. S. B.; SOUSA, J. R. P. Potentially inappropriate drug prescription (PMPI): application of the 2015 Beers criteria in a group of elderly people in the supplementary health sector. São Paulo: Centro Universitário São Camilo, 2017.

ELBEDDINI, A. et al. Barriers to conducting deprescribing in the elderly population amid the COVID-19 pandemic. *Research in Social and Administrative Pharmacy*, v. 17, n. 1, p. 1942-1945, 2021.

GARFINKEL, D.; ILHAN, B.; BAHAT, G. Routine deprescribing of chronic medications to combat polypharmacy. *Therapeutic Advances in Drug Safety*, v. 6, n. 6, p. 212-233, 2015.

GOYAL, P. et al. Patient-reported barriers and facilitators to deprescribing cardiovascular medications. *Drugs & Aging*, v. 37, n. 2, p. 125-135, 2020.

GRAÇA, C.; GONÇALVES, P. I. C. End-of-life infection: is there a benefit from antibiotic therapy?



Medicina Interna, v. 26, n. 4, p. 335-339, 2019.

KADAM, U. T. Potential health impacts of multiple drug prescribing for older people: a case-control study. *Journal of the Royal College of General Practitioners*, v. 61, n. 583, p. 128-130, 2011.

LEE, J. Y.; FARRELL, B.; HOLBROOK, A. M. Deprescribing benzodiazepine receptor agonists taken for insomnia: a review and key messages from practice guidelines. *Polish Archives of Internal Medicine*, v. 129, n. 1, p. 43-49, 2019.

LIM, L. M. et al. Prevalence, risk factors and health outcomes associated with polypharmacy among urban community-dwelling older adults in multiethnic Malaysia. *PLoS One*, v. 12, n. 3, p.e0173466, 2017.

MASNOON, N. et al. What is polypharmacy? A systematic review of definitions. *BMC Geriatrics*, v. 17, n. 1, p. 230-239, 2017.

MENEGHEL, M.; MARTIGNAGO, N.; KOCK, K. S. Analysis of accessibility in basic health units in Tubarão-SC. *Journal of Physiotherapy and Rehabilitation*, v. 1, n. 1, p. 42-51, 2017.

MINAYO, M. C. S. (ed.). *Social research: theory, method and creativity*. 18. ed. Petrópolis: Vozes, 2014.

MINISTRY OF HEALTH (BR); CONCEIÇÃO HOSPITAL GROUP. *Clinical guidelines/care protocols*. Porto Alegre: Operational Manual, 2008.

MORTAZAVI, S. S. et al. Defining polypharmacy in the elderly: a systematic review protocol. *BMJ Open*, v. 6, n. 3, p.e010989, 2016.

OLIVEIRA, P. C. de et al. Prevalence and factors associated with polypharmacy in elderly patients treated in primary health care in Belo Horizonte-MG, Brazil. *Ciência & Saúde Coletiva*, v. 26, n. 4, p. 1553-1564, 2021.

OKTORA, M. P. et al. Attitudes towards deprescribing and patient-related factors associated with willingness to stop medication among older patients with type 2 diabetes in Indonesia. *BMC Geriatrics*, v. 23, n. 1, p.90-99, 2023.



PARR, J. M. et al. Effectiveness of current treatment approaches for benzodiazepine discontinuation: a meta-analysis. *Addiction*, v. 104, n. 1, p. 13-24, 2009.

POTTIE, K. et al. Deprescribing benzodiazepine receptor agonists: evidence-based clinical practice guideline. *Canadian Family Physician*, v. 64, n. 5, p. 339-351, 2018.

RIBOLIS, I. P. et al. Frequency of polypharmacy in elderly people assisted by pharmaceutical residents. *PECIBES*, v. 2, p. 85-101, 2018.

RODRIGUES, D. S. et al. Impacts caused by polypharmacy on the elderly: an integrative review. *Research, Society and Development*, v. 10, n. 2, p.e28810212263, 2021.

ROMERO, I. "Deprescribe" in end-of-life patients: a guide to improve clinical practice. *Medicina Interna*, v. 25, n. 1, p. 48-57, 2018.

SCOTT, I. A. et al. Reducing inappropriate polypharmacy: the process of deprescribing. *JAMA Internal Medicine*, v. 175, n. 5, p. 827-834, 2015.

THERRIEN, J. New contexts of graduate education In: ENCONTRO DE PESQUISA EDUCACIONAL DO NORTE E NORDESTE (EPENN), 22., 2014, Natal. *Annals [...]. Natal: [s.n.]*, 2014.

ZECHMANN, S. et al. Effect of a patient-centred deprescribing procedure in older multimorbid patients in Swiss primary care: a cluster-randomised clinical trial. *BMC Geriatrics*, v. 20, n. 1, p.100-110, 2020.

