Problemas relacionados a medicamentos e intervenções farmacêuticas realizadas no grupo hiperdia

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ARTIGO DE REVISÃO

RESUMO

A revisão bibliográfica destaca que as doenças crônicas não transmissíveis, como a hipertensão arterial sistêmica e o diabetes mellitus, causam anualmente o óbito de aproximadamente 15 milhões de pessoas. No Brasil, essas condições são acompanhadas ambulatorialmente nas Unidades Básicas de Saúde por meio do programa HIPERDIA. O presente estudo, de natureza quali-quantitativa, tem como objetivo avaliar a qualidade do acompanhamento farmacoterapêutico oferecido ao grupo HIPERDIA na atenção básica, visando evidenciar a importância do cuidado farmacêutico para essa população. A análise dos artigos compreendeu o período de 2010 a 2020, utilizando as bases de dados PubMed e SciELO. Os resultados apontaram que o principal problema relacionado aos medicamentos é o de necessidade, presente em 52% dos pacientes. Em relação à segurança, destacaram-se problemas como superdose e interações de alto risco, incluindo a possibilidade de hemorragia digestiva, hipotensão e hipoglicemia grave. A multidisciplinaridade, muitas vezes mencionada, mas subutilizada, surge como um ponto crucial para superar esses desafios. No contexto das intervenções farmacêuticas, os resultados foram positivos, promovendo melhorias na saúde dos pacientes, especialmente em termos de conciliação e adesão aos medicamentos. Conclui-se que o acompanhamento farmacoterapêutico do grupo HIPERDIA desempenha um papel crucial na redução dos problemas relacionados aos medicamentos e na morbimortalidade dos pacientes. Para alcançar esse objetivo, é essencial integrar o profissional farmacêutico nos serviços de atenção básica, reforçando a relevância desse cuidado na promoção da saúde e na gestão efetiva das doenças crônicas.

Palavras-chave: Atenção Farmacêutica. Farmácia Clínica. Farmacêutico Multidisciplinar.

Problems related to drugs and pharmaceutical interventions performed in the hyperdia group

ABSTRACT

The chronic non-communicable diseases, such as systemic arterial hypertension and diabetes mellitus, annually lead to the death of approximately 15 million people. In Brazil, these conditions are monitored on an outpatient basis in Basic Health Units through the HIPERDIA program. This is a qualitative-quantitative literature review aiming to assess the quality of pharmacotherapeutic monitoring for the HIPERDIA group in primary care, with the expectation of highlighting the importance of pharmaceutical care for this population. The articles used were from the years 2010 to 2020, retrieved from the PubMed and SciELO databases. The study demonstrated that the main medication-related problem is the need, occurring in 52% of patients. Regarding safety, the most pronounced problems were overdose and high-risk interactions, such as the possibility of gastrointestinal bleeding, hypotension, and severe hypoglycemia. Another important factor is multidisciplinarity, sometimes talked about but seldom lived, standing out as a crucial point to overcome these issues. In the case of pharmaceutical interventions, the results are positive, leading to improvement in patients' health, particularly in terms of medication reconciliation and adherence. Therefore, pharmacotherapeutic monitoring of the HIPERDIA group is essential for reducing medication-related problems and morbidity/mortality in patients. To achieve this, it is necessary to integrate the pharmacist into primary care.

Keywords: Pharmaceutical Care. Clinical Pharmacy. Multidisciplinary Pharmacist.

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INTRODUCTION

Pharmacotherapeutic monitoring represents essential care, in which the pharmacist assesses the patient's health status and treatment, aiming to promote the rational use of drugs with the purpose of resolving and preventing Medication-Related Problems (MRPs), ensuring the achievement of established therapeutic goals (SANTOS, 2018).

According to the Second Granada Consensus (2004), MRPs are defined as "health problems understood as negative clinical outcomes, derived from pharmacotherapy that, produced by various causes, lead to the non-achievement of therapeutic objectives [...]". MRPs can be categorized into issues of necessity (MRP1, inappropriate non-use of medications, and MRP2, inappropriate use of medications), effectiveness (MRP3, lack of response to treatment, and MRP4, underutilization of the necessary dose), safety (MRP5, adverse drug reactions, and MRP6, drug interactions and overdoses), and adherence (MRP7, lack of adherence to treatment, and MRP8, inadequate adherence due to medication inadequacy) (CONSENSUS COMMITTEE, 2004, p.65).

Therefore, it becomes imperative for pharmacists to monitor patients with chronic diseases (BRASIL, 2014), given the high morbidity and mortality associated with these comorbidities, significant social costs, and their prevalence in the population (FELIPETT et al., 2016).

Non-Communicable Chronic Diseases (NCDs), such as systemic arterial hypertension (SAH) and diabetes mellitus (DM), account for approximately 15 million deaths annually, according to the World Health Organization (WHO, 2018). SAH is a multifactorial condition characterized by elevated systolic blood pressure (SBP) > 140 mmHg and diastolic blood pressure (DBP) > 90 mmHg, and it may be associated with metabolic disorders, functional and structural changes in target organs, leading to events such as stroke, acute myocardial infarction (AMI), chronic kidney disease (CKD), and sudden death (SBC, 2016).

DM, on the other hand, is characterized by elevated blood glucose levels, with normal fasting values between 60 to 99 mg/dL and postprandial levels < 200 mg/dL. This condition is associated with insulin deficiency produced by the pancreas and can be

classified as type 1 diabetes (hereditary, diagnosed in childhood or adolescence) and type 2 diabetes (acquired) (SBD, 2019).

In Brazil, the monitoring of these diseases is carried out in Basic Health Units (UBS) through the HIPERDIA program, which registers patients with systemic arterial hypertension (SAH) and/or diabetes mellitus (DM) served by the Unified Health System (SUS), contributing to the pharmaceutical care cycle (GOMES, 2016).

Despite advances in treatment, polypharmacy remains a challenge, as patients often use multiple medications (BARROS, SILVA, and LEITE, 2020). Polypharmacy, characterized by the concomitant use of various medications, still lacks a consensus on the minimum number of drugs necessary to classify a patient as polypharmacy, although the literature suggests a minimum of five different types of medications (MARQUES et al, 2018).

To address these issues, the intervention of a technically trained professional, such as a pharmacist, is crucial. The pharmacist should adopt methods like SOAP, DÁDER, PWDT, and TOM to succeed in the clinical approach to patients (ZUBIOLI et al, 2013).

Therefore, pharmacotherapeutic monitoring of HIPERDIA group patients in primary care is of utmost importance, as this service contributes to the identification and resolution of medication-related problems, simultaneously promoting the rational use of these drugs (MELO and CASTRO, 2017).

METHODOLOGY

This literature review has a qualitative-quantitative character and aims to assess the quality of pharmacotherapeutic monitoring in the HIPERDIA group in primary care, highlighting the importance of pharmaceutical care for this population.

Articles considered for this review were selected from the PubMed and SciELO databases, covering the period from 2010 to 2020. The descriptors used were "clinical pharmacy," "pharmacist in primary care," and "pharmaceutical care." The search was restricted to the English and Portuguese languages, the health sciences thematic area, and the collections of public health and collective health.

To elucidate the characteristics of Medication-Related Problems (MRPs), we relied on data from the Second Granada Consensus since this concept was established in that meeting, making it the primary reference on MRPs. Additionally, guidelines on hypertension and diabetes, as well as data from the World Health Organization (WHO), were considered.

Initially, 298 articles were identified. However, from the initial analysis, those addressing topics related to management, pharmaceutical assistance, organizational issues, and communicable chronic diseases were excluded since the focus of the research is specific pharmaceutical care for hypertensive and diabetic patients. In the end, only 24 articles were considered and included in the research.

This methodology aims to provide a comprehensive and focused approach on the specific aspects of pharmacotherapeutic monitoring for the HIPERDIA group in primary care, allowing for a more detailed and in-depth analysis of the available literature on the subject.

RESULTS AND DISCUSSION

For the construction of the profile of HIPERDIA group patients, various criteria were assessed. Table 1, derived from the analysis of 24 selected articles, presents the most recurring results identified for each evaluated factor.

Table 1 - Profile of Hyperdia Group Patients

Criteria	Predominant	Number of articles mentioning the criteria
Education	Incomplete Elementary School	16
Income	Income 1 to 3 minimum wages	20
Gender	Female (75%)	
	Male (25%)	22
Age	71 years	18
Marital status	Married and widowed	13
Number of medications used	5 tablets from 3 to 4 different classes	24

Source: Developed by the authors (2020)

Among the various points analyzed, the direct influence of marital status and income on the accessibility of HIPERDIA group patients stands out. Regarding marital status, according to Pagno et al. (2018), although there was a higher presence of married

patients, widows and singles faced more challenges in therapy adherence due to the lack of someone to remind them of schedules or difficulty in obtaining medications.

Concerning income, Oliveira and Novaes (2013) demonstrated that low-income patients mentioned having other basic needs to be addressed, relegating medication to a non-priority status. Álvares et al. (2017) highlighted the persistent shortage of essential medications as a reality in Brazil.

In terms of gender, women were mentioned as predominant in all studies, attributed to greater preventive care. However, Viana et al. (2017) revealed that men were the main patients admitted to intensive care units (ICU), indicating a possible disparity in access to healthcare.

Regarding polypharmacy, Nascimento et al. (2017) emphasized the association between polypharmacy and excessive or inappropriate use of medications, while Araújo et al. (2019) emphasized the need to reorient issues of medication safety, highlighting the fundamental role of the pharmacist in this context.

A crucial aspect in the profile of HIPERDIA patients is associated comorbidities such as dyslipidemia, stroke (AVE), acute myocardial infarction (AMI), liver and kidney diseases, mental health problems, asthma, and ischemia, many of which are directly related to target organ injuries caused by uncontrolled systemic arterial hypertension (SAH) and diabetes mellitus (DM).

Regarding therapeutic adherence, it was observed that only patient reports were considered without a multi-professional exploration of other factors, such as evaluative follow-up, participation in therapeutic groups, coverage of the area by Community Health Agents (ACS), among others. The abandonment of pharmacotherapy is a significant concern in the context of the HIPERDIA group, given the chronic nature of the presented comorbidities. In this scenario, the pharmacist's role is crucial to overcome obstacles and promote treatment adherence (REIS et al., 2013).

Graph 1 represents the factors influencing therapeutic adherence, built based on the results of 21 articles addressing adherence-related issues.

Gráfico 1- Factors that interfere with therapeutic adherence
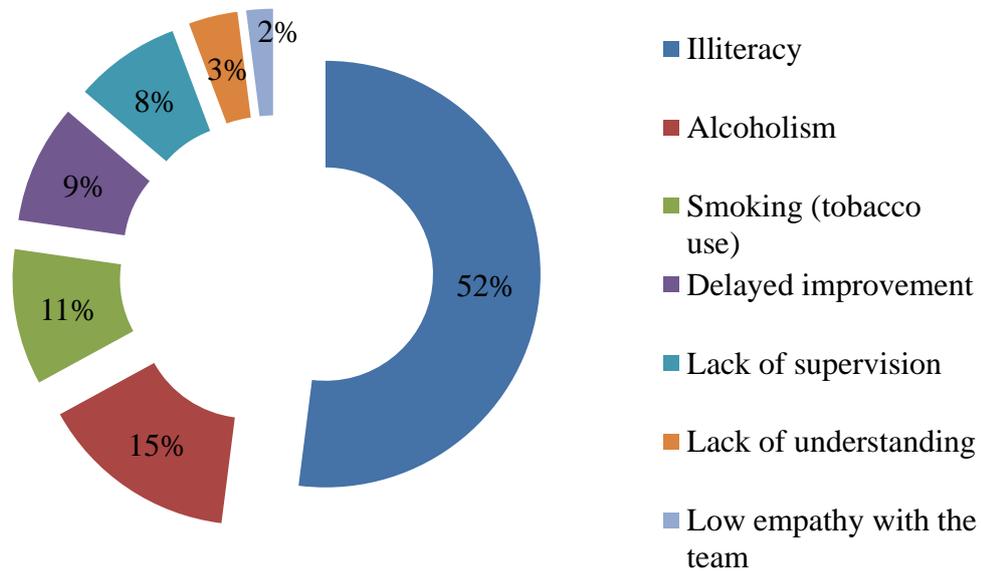
Source: Developed by the authors (2020)

The study by Albuquerque et al. (2016) highlights pictorial prescription as a solution for illiteracy and lack of understanding, using symbols such as the sun, cups, plates, and moon to indicate the times of medication administration. On the other hand, Mestres et al. (2018) emphasizes the importance of pharmaceutical services for alcohol and tobacco cessation to address issues related to alcoholism and smoking, contributing to preventing abandonment or non-initiation of treatment by patient's dependent on these substances.

Other factors influencing therapeutic adherence, such as delayed improvement, lack of empathy with the team, and lack of supervision, although representing 19% of the identified factors, were not significantly addressed in the literature.

Considering the assessments regarding therapeutic adherence in the HIPERDIA group, there is a need for a more in-depth approach, with an emphasis on treatment continuity. According to Mendes, Luiza, and Campos (2014), continuous follow-up not only reduces morbidity and mortality but also positively impacts the therapeutic adherence of hypertensive and diabetic patients.

In the context of pharmacotherapeutic monitoring in Basic Health Units, different clinical methods were identified, such as Dáder, SOAP, proprietary methods, and PWDT. Observation revealed that the Dáder and PWDT methods are more

associated with research conducted by students and interns, while proprietary methods and SOAP are preferably executed by practicing professionals. Zubioli et al. (2013) explain that the SOAP method and proprietary methods are more objective, capturing the necessary information for clinical pharmacy, while the Dáder and PWDT methods, although interesting for research, may not fit into the routine of pharmaceutical care for the HIPERDIA group.

It is important to note that HIPERDIA group patients often have an older age profile, making objective and effective methods more preferable than time-consuming methods.

The Medication-Related Problems (MRPs) found in the HIPERDIA group are listed in Graph 2, based on the 24 articles, all presenting some identified MRP during pharmacotherapeutic monitoring.

Graph 2 - Types of Medication-Related Problems
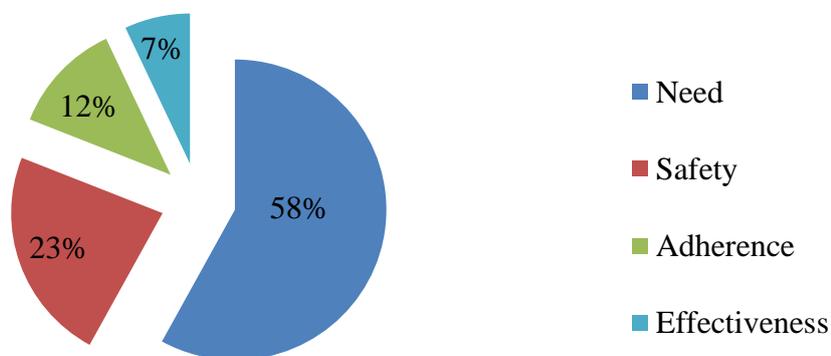
Source: Developed by the authors (2020)

The analyzed articles indicate that the primary Medication-Related Problem (MRP) in the HIPERDIA group is related to necessity, with MRP 2, non-quantitative necessity, being the most prominent. This highlights that patients are using unnecessary medications. Next, MRP 1, quantitative necessity, stands out, indicating that patients are not using the necessary medications. Authors such as Reinhardt et al. (2012) and Garattini and Padula (2017) attribute this scenario to the diversity of drugs available for hypertension treatment, as well as commercial issues.

Regarding safety-related MRPs, overdose and high-risk interactions were the most significant, with risks such as digestive bleeding, hypotension, and severe

hypoglycemia. Nobre and Domingues (2017) emphasize the intimate relationship between adherence and effectiveness issues, noting that treatment abandonment often occurs due to adverse effects perceived by patients or lack of improvement.

Concerning medication-related problems, there is a gap in the specific approach to medication reconciliation. Multidisciplinarity, although often mentioned, is not always effectively applied to deal with MRPs.

The role of the pharmacist in clinical practice, especially in monitoring hypertensive and diabetic patients, is highlighted as crucial. In addition to effectively dealing with the team, the pharmacist should direct alternatives to minimize medication problems in clinical practice.

Regarding pharmaceutical interventions, studies like that of Mohammed, Moles, and Chen (2018) demonstrate positive and impactful results of educational interventions (verbal or written information) in improving patients' health, with an emphasis on reconciliation and medication adherence. Martins et al. (2013) identified different types of interventions, including alternative recommendations to the prescriber, suspension or replacement of medications, individualization of dosage, and correction of inconsistencies. Firmino et al. (2015) showed that where the pharmacist conducted pharmacotherapeutic monitoring, there was a significant reduction in MRPs.

Despite successful interventions, some difficulties were observed in implementation, such as prescriptions from specialists without response or justification. However, it is observed that the pharmacist, qualified for medication therapy management, plays an essential role even in the face of resistance in some aspects from medical professionals. Professionalism and evidence-based persuasion emerge as determining factors to change this reality.

FINAL CONSIDERATIONS

It can be inferred that patients' profiles have a significant influence on the relationship between adherence and treatment accessibility, making it crucial to consider this aspect during prescription to ensure greater acceptability of pharmacotherapy and, consequently, the achievement of desired therapeutic goals. The importance of a thorough pharmaceutical anamnesis to investigate this profile is highlighted, regardless of the method used for monitoring.

It can be concluded that the presence of a pharmacist during monitoring resulted in a reduction in medication-related problems and an increase in adherence to pharmacotherapy. In cases where the pharmacist was involved, problems were identified, and solutions were proposed to improve adherence and the quality of life of patients.

Therefore, pharmacotherapeutic monitoring in the HIPERDIA group proves crucial for reducing Medication-Related Problems (MRPs) and patient morbidity and mortality. To achieve this goal, it is imperative to integrate the pharmacist into primary care, reinforcing the importance of this approach in health promotion and proper management of chronic conditions.

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