DETERMINANT FACTORS OF SELF MEDICATION BY THE ELDERLY: A SYSTEMATIC REVIEW

FACTORES DETERMINANTES DA AUTOMEDICAÇÃO POR IDOSOS: UMA REVISÃO SISTEMÁTICA

ABSTRACT

Objective: to perform a systematic analysis of the national literature about determinants of self-medications for elderly. Method: systematic review of the national literature, between the months of November 2010 to January 2011, where there were used texts published in the Virtual Library of Health - VHL (LILACS and SCIELO). The initial descriptor used for the research was "self-medication". Results: from the analysis of the articles could observe that self-medication is most commonly performed by women and in people with lower education and income, influenced by the problems of a physiological (acute and chronic) and the social order (family conflicts, failure of health care services and marketing of pharmaceuticals). Conclusion: highlighting the risks of this practice, it is necessary then the process of educating the public and health professionals who work directly on the prescription drug dispensation, where each assumes their responsibility in this process.Descriptors: Self-medication; Seniors; Education in Health.

RESUMO

Objetivo: realizar análise sistemática da literatura nacional a respeito fatores determinantes da automedicação por idosos. Método: revisão sistemática da literatura nacional, entre os meses de novembro de 2010 a janeiro de 2011, onde foram utilizados textos publicados na Biblioteca Virtual de Saúde - BVS (LILACS e SCIELO). O descritor inicial utilizado para a pesquisa foi "automedicação". Resultados: a partir da análise dos artigos pôde-se observar que a automedicação é mais comumente realizada pelo gênero feminino e em pessoas com menor grau de escolaridade e renda, influenciadas pelos problemas de ordem fisiológica (doenças agudas e crônicas) e os de ordem social (conflitos familiares, falha dos serviços de atenção à saúde e comercialização de medicamentos). Conclusão: ressaltando os riscos desta prática, é necessário então o processo de educação da população e dos profissionais de saúde que atuam diretamente na prescrição de dispensação dos medicamentos, onde cada um assuma sua responsabilidade neste processo. Descrições: Automedicação; Idosos; Educação em Saúde.

RESUMEN

Objetivo: realizar análisis sistemático de la literatura nacional acerca de los determinantes de la automedicación de ancianos. Método: revisión sistemática de la literatura nacional desarrollada entre noviembre de 2010 y enero de 2011, en que fueron utilizados los textos publicados en la Biblioteca Virtual en Salud - BVS (LILACS y SCIELO). El descriptor inicial utilizado para la investigación fue "automedicación". Resultados: en el análisis de los artículos se pudo observar que la automedicación es más comúnmente realizada por mujeres y por personas con menor nivel educativo y de ingresos, influenciados por los problemas de orden fisiológico (enfermedades agudas y crónicas) y de orden social (conflictos familiares, falta de los servicios de atención de la salud y la venta de remedios). Conclusión: teniendo en cuenta los riesgos de esta práctica, es necesario llevar a cabo un proceso para educar al público y a los profesionales de la salud que trabajan directamente con el suministro de medicamentos recetados, para que cada uno asuma su responsabilidad en este proceso. Descriptores: Automedicación; Ancianos; Educación en la Salud.

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INTRODUCTION

The Ministry of Health defines medicine as a pharmaceutical product that aims action of prophylactic, curative, palliative or diagnostic use. The use of the drug is considered a consumption that aims to improve the health status of the population, however, access to this as well as its benefits have an uneven distribution between the different layers of society and the various racial groups. Thus, the drug plays an important role in the disease process, involving issues related to the management policies of the healthcare system and professionals health. ¹

It is estimated that in Brazil 23% of the population make use of 60% of drug production and that 64.5 million people have not afford to buy the medicine they need, due to conditions of poverty. Therefore, access to medicines is directly related to social and economic inequalities. ²

Given these facts, governmental actions related to the sector of pharmaceutical care have been implemented in order to reduce social and economic discrepancies in access to medicines. In 2001, the Ministry of Health developed the National Drug Policy (PNM), in order to ensure the population's access to essential medicines, being structured in three main axes: health regulation, economic regulation and pharmaceutical assistance. ¹

The author above says that this policy comes at a period of demographic transition in the country, where the changes in population patterns lead to quantitative and qualitative changes in drug use, being considered one of the pharmacological groups, drugs for treatment of chronic degenerative diseases and the continuous use due to the increase in life expectancy.

Self-medication is the use of a product (drug) in order to treat or alleviate symptoms or diseases, being considered a common form of self-attention.³

Self-medication is a common phenomenon in self-care in health, practice long used, whose occurrence and distribution are related to the organization of the health system of each country.⁴ Being considered potentially harmful to the health of the individual and collectives.⁴

The practice of self-medication improperly can have consequences as undesirable effects such as iatrogenic diseases and masking progressive diseases, an issue that requires preventive actions. The risk of this practice is related to the degree of education and information of users of drugs, the accessibility of the health system, the quality of the product offered and the efficiency of the work of the various bodies that control this market.⁵

Given the above, we aim through this study contribute to the reflection on the practice of self-medication among older people, seeking to identify the factors that determine this practice in order to develop activities that promote self-care health.

- Self-medication for elderly

Self-medication is potentially harmful to the individual and collective health, because no drug is harmless to the body. The misuse of substances can cause various consequences such as bacterial resistance, hypersensitivity reactions, dependence, gastrointestinal bleeding, and withdrawal symptoms and increase the risk for certain cancers. Moreover, the momentary relief of symptoms masks the underlying disease unnoticed and may thus progress.⁴ A recent example of this problem was the discovery of a new type of bacteria resistant to antibiotics more powerful and can generate a worldwide epidemic. These superbugs contain a gene called NDM-1, which makes them resistant to antibiotics, including those known as carbapenems. This is of concern because carbapenems are usually used to combat severe infections caused by other bacteria resistant.

Self-medication is a very common practice not only in Brazil but also in other countries. Economic, political and cultural factors have contributed to the growth and spread of self-medication in the world, making it a public health problem. ³ In Belgium, for example, a study on the subject showed that 38% of respondents resorted to self-medication during a period of about three months before deciding to consult a doctor. An article published in the British Medical Journal revealed that nine out of 10 individuals had in the two weeks prior to study a health problem, with three out of four individuals resorted to self-medication.⁶ In Brazil there is little literature on this topic, being conducted in specific populations.

Self-medication is a common form of health self-attention, consisting of consumption of a drug in order to treat disease or relieve symptoms or perceived, or even to promote health, regardless of prescription professional. For this purpose, may be used or manufactured drugs remedies. Self-medication is defined as the use of non-prescription drugs, where the patient decides which drug to use. Included in this prescription or generic drug prescriptions by unauthorized persons, such as friends, family
and even clerks pharmacy, in the latter case, characterizing illegal medicine practice.  

Although this type of practice is not a specific phenomenon of modernity, as constituted, has always been a resource lay in the management of health problems, their current proportions give it new dimensions. Seeking to contain its growth trend and limit its impact to health problems considered minor, many institutional campaigns have been warning about the risks of self-medication. The main focus of these efficiency measures have elected to “health education” and “promoting healthy lifestyles” as the privileged means for the readjustment of the behaviors in this population dominion.  

The use of drugs dispensed without a prescription is now generally accepted as an integral part of the health system. When practiced properly, self-medication can also help relieve the financial systems of public health. However, with the encouragement of self-medication industry, what happens is the indiscriminate use of medicines. With that occur undesirable results, such as: developing allergies and even poisoning due to certain ingredients of the formula drug, masking progressive diseases, adverse reactions as a result of the combination drug and mainly the increase in bacterial resistance to antibiotics and its misuse indiscriminate.  

The construction of SUS interposes the exclusionary model and its doctrinal principles outline the overhaul of health care practices and toward a new model of care, it included a new model of pharmaceutical care. This model is able to contemplate the actions of promotion, prevention and curative also, as necessary, mainly because it is a country with so many problems like ours, where pain lives with individuals, reducing the quality of lives.  

The Brazilian demographic transition, with the aging of our population at a rapid pace, makes this phenomenon a health problem of growing dimensions, especially if that aging brings an accumulation of drugs supposedly able to prolong life and maintain youth avoid the evils feared of old age. Moreover, the elderly population presents specifics regarding the use of drugs. Modifications of body mass index, a lower proportion of water, lower rates of renal excretion and hepatic metabolism, tend to increase plasma concentrations of drugs, increasing the frequency of the resulting toxic effect. About 10% to 20% of hospitalizations of elderly in the United States, occurring adverse reactions by medicamentos.  

OBJECTIVE

- To perform a systematic analysis of the national literature about determinants of self-medication for elderly.

METHOD

Study systematic review of national literature, with retrospective approach about the determinants of self-medication for seniors, held between the months of November 2010 to January 2011. We used a subject descriptor in the list of descriptors of the Virtual Health Library (VHL), “self-medication”.  

After the definition of the descriptor, the research was conducted with the descriptor information in Portuguese on advanced search of the following databases: Scientific Electronic Library Online (SciELO) and LILACS aimed at reviewing the collection that addresses the topic researched. Then proceeded to read the abstracts of articles and selected those that meet the limits defined as follows: treat yourself to work with humans, they are freely accessible and Portuguese, and were published between 2000 and 2010.  

Inclusion criteria were: the case of complete articles and Portuguese focusing on self-medication by the elderly, and answer the questions: What is the profile of the elderly who performs self-medication? What factors / most frequent causes which impel them to achieve self-medication? What type of medication used more? The selected articles were classified according to a form, created by the authors to collect the following variables: authors' names, the location of the survey, year of publication, the journal selected for publication, the title of the work, objectives and type of study, the drugs used, the factors considered by the researchers of self-medication and the final considerations of each work. Thus, the sample was composed of six articles of interest to the study.  

To analyze the collected data, two reviewers read critically (independently) the selected articles, extracting units of interest for the study. Such units were standardized and grouped according to the correlation of the central ideas presented in such a way that they could offer an overview of the determinants of self-medication in the elderly, as well as the most frequently prescribed medication. From this perspective, two themes emerged: the profile of the research participants and characterization of self-medication (drug types and determinants for self-medication). Then the thematic
groups were analyzed by the researchers. A summary of the articles was made, in tabular form, from a script prepared, which was described bibliometrical distribution and characteristics of major articles. At the end, we present a conclusion about them.

RESULTS

The 76 texts after the exclusion criteria that were not in line with the theme and repeated texts, was only six articles to compose the study sample.

Figure 1 presents a bibliometrical information of articles on the subject, and the data listed: item reference (this survey), title, authors, year of publication, journal and research site (in the case of a national survey, we sought identify the states that have developed with the research topic in question in the last decade).

![Figure 1. Bibliometric distribution of selected articles. Source: Survey data. Number of the bibliographic reference in this article; Referent publication.](image)

We can observe that the six texts analyzed, three of these brings the term “self-medication” in its title, has as main approach to self-therapy, the three other texts expressed in its title, terms like “use of drugs,” “drug use” and “medical treatment”, the latter being an approach to drug use by seniors with prescription or non-prescription, the latter constituting the practice of self-medication. The authors of the articles have training in the areas of pharmacy, nursing, medicine and history; work in undergraduate and postgraduate studies in health (public health, community health and social medicine) and part of cores and research groups (area health - epidemiology and aging). The period established in this research was referring to articles published from 2000 to 2010. However, only those published in the years 2005, 2007 and 2008, specifically addressed the topic in question.

Even realizing the limitations of the study (only one language, a database via internet and little research time), we consider that this subject had established few publications in the decade, mainly because it is a period in which they highlighted the issue of aging population, and consequently the needs arising from this phase of life, such as drug therapy. The other years were related to the self-medication and other age groups or groups such as children, adolescents, adults, pregnant and lactating women. The publications were performed in nursing journals (33.3%), medicine (16.7%), health (33.3%) and public health (16.7%). As for the venue of the research were: Northeast (16.7%), Midwest (16.7%), the South (33.3%) and Southeast (33.3%).
Figure 2 describes the three components of scientific methodology needed in an article, the descriptors, the goals and the type of study. Respectively, they express the main idea of the article, determine what the researcher wants to achieve with the research, establishing which method to use to get success in this. Thus, the information is sought in order to evaluate the approaches specific to each article and/or possible relationship.

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Descriptors</th>
<th>Objectives</th>
<th>Type of study</th>
</tr>
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<tbody>
<tr>
<td>11</td>
<td>Calming; Benzodiazepines;</td>
<td>Show the conceptions of older women on</td>
<td>Qualitative</td>
</tr>
<tr>
<td>12</td>
<td>The Elderly; Drugs used; Self-medication.</td>
<td>Describe the prevalence of the use of prescribed and non-prescribed drugs in the elderly. Examine the socio demographic indicators of health status and use of health services associated with the use of prescribed and non-prescribed these</td>
<td>Transverse (baseline cohort)</td>
</tr>
<tr>
<td>13</td>
<td>Health of the elderly; Self-medication; Aging; Knowledge, attitudes and practice in health; Complementary therapies/use.</td>
<td>Know, understand and analyze the use of therapeutic practices among seniors.</td>
<td>Qualitative</td>
</tr>
<tr>
<td>14</td>
<td>Self-medication; The Elderly; Consumption of medicines.</td>
<td>Identify the determinants and consequences (profile) associated with the practice of self-medication in the elderly population of 60 years old and older, in the municipality of Salgueiro-PE.</td>
<td>Cross-sectional epidemiological study</td>
</tr>
<tr>
<td>15</td>
<td>Pharmacotherapy; Self-medication; Elderly; Medicine interaction; Medicine-related problem.</td>
<td>Investigate the occurrence of self-medication and assess the risk of this practice in an older group from Brasilia, DF.</td>
<td>Descriptive cross-sectional study</td>
</tr>
<tr>
<td>16</td>
<td>Health of the elderly; Self-medication; Rational use of medicines.</td>
<td>Evaluate self-medication in the elderly age group participants located in a city in southern Brazil.</td>
<td>Cross-sectional study</td>
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</table>

By analyzing the descriptors, identified the word "self-medication" in five (83.3%) of the six articles. Because it is a specific group, the descriptor “Health of the elderly / elderly” was used at all. Then two other descriptors had highlighted “Drug use” (33.3%) and “Drug Interaction” (33.3%); these words are considered adequate and representative, since they are directly related to the process of self-therapy. The main objectives were: to describe the prevalence of drug use in the elderly, characterize the sociodemographic profile of these, identify indicators of health status and health service use related to self-therapy; describe the determinants and consequences associated with self-medication and assess the risks of this.

Regarding the methodology used in the articles, we can see that in 66.6% of them have types as the cross-sectional epidemiological study, which seeks to collect/describe characteristics of a population in a single period tempo.17 The other two articles are qualitative approach describing conceptions/representations from the expression of the subject and/or coletividadade.18

Figure 3, focuses on the characteristics of self-medication for the types of drugs most commonly used in self-therapy, the main factors that determine this practice and highlighted the findings from the research conducted.
With regard to the types of drugs, the most commonly found in research were: analgesics, antidepressants, antipyretics and anti-inflammatory, followed by other less mentioned, such as allergy, antidiabetics, antihypertensives, antispasmodics, herbal supplements, minerals and vitamins. It is worth noting also that an article covered only medicinal plants and non-prescription medicines.

In all studies was the finding that apparent self-medication has a direct relationship with the level of education, being more common in the population illiterate or with a low educational level. Two articles reported the marital status of the participants, which was observed equity between married and widowed. In three articles highlighted the economic rent, which had values between one and 10 minimum wages (one article), and the average found two minimum wages. The studies did not address the association of self-medication and socioeconomic factors; self-medication is present in all socioeconomic segments.

2. Characterization of self-medication
The practice of self-medication is related to many aspects, whether economic, political and / or socio-cultural, which are evidenced through the framework of morbidity in the country, the assistance provided by health services and professionals, as well as the exploitative marketing these products. 19-20

2.1 Types of Medications: types of drugs identified in the polls reflect that self-medication is used both for health problems with evolutionary framework acute and chronic, which is justified by the changes related to the cardiovascular, nervous, musculoskeletal and gastrointestinal tract and metabólico.16

2.2 Determinants of Self Medication: From the analysis of the articles we identified two distinct groups which express the

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Types of medication</th>
<th>Self-medication factors</th>
<th>Considerations</th>
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<tbody>
<tr>
<td>11</td>
<td>Antidepressant.</td>
<td>Depression, anxiety, insomnia, nervousness, family and social problems.</td>
<td>The consumption of tranquilizers is involved in a network of social relations. The elderly feel able to use, display, offer and lend these medicines.</td>
</tr>
<tr>
<td>12</td>
<td>Analgesic; Antidepressant.</td>
<td>Without information.</td>
<td>The analgesic has higher consumption by women. Self-medication among those who held medical consultations is less. Self-medication can be replacing formal attention to the health of elderly people.</td>
</tr>
<tr>
<td>13</td>
<td>Analgesic, antipyretic, anti-inflammatory, anti-allergic, supplements minerals and vitamin supplements.</td>
<td>Pain.</td>
<td>Self-medication is directly related to the population contracted health plans and pharmaceutical advertising. The pursuit of convenience and quick results.</td>
</tr>
<tr>
<td>14</td>
<td>Analgesic, antipyretic, Antidiabetic, Antispasmodic, anti-inflammatory, Anti-hypertensive.</td>
<td>Pain, fever, diarrhea, cough, diabetes and cardiovascular problems.</td>
<td>Prevalence of self-medication among seniors, with painkillers and antipyretics the most used. The pain is the symptom that leads to self-medication. The elderly sedentary self-treatment more than practitioners of physical activity.</td>
</tr>
<tr>
<td>15</td>
<td>Analgesics, Antipyretics, anti-allergic, anti-inflammatory, mineral supplements and vitamin supplements.</td>
<td>Profile of morbidities installed in the population.</td>
<td>Self-medication was not varying as the socioeconomic condition. Potentially severe drug interactions were observed and misuse involving the events of self-medication.</td>
</tr>
</tbody>
</table>

Figure 3. Characteristics of the articles regarding self-medication. Source: research data. the number of the reference in this article

DISCUSSION
From the analysis of the articles listed were two topics whose central ideas expressed to approach literature in the last ten years.

1. Profile of respondents
It was observed that in all references analyzed that females predominated, noting that in two of them, the sample was exclusively female. In terms of age, the mean was 72 years, and the maximum age was 84 years. In spite of the self-medication be performed by all age groups (children, adolescents, adults), the elderly are the group that predominates in this practice due to the decline of physiological conditions present in this stage of life characterized by the appearance of chronic degenerative diseases.
determinants of self-medication: the biological (signs and symptoms) and social (access to health services, convenience and immediate problem solving).

2. 2. 1 - Biological Factors: expressed by the reaction of the body against a health problem, whether caused by a pathogen and / or physiological conditions devolving the elderly, where the processes are more conducive morbidities.

Among the signs and symptoms referenced, the pain was the most cited, followed by fever, depression, anxiety, insomnia, and diarrhea.

2.2.2 - Social Factors: are related to the different situations experienced by the individual in his daily life and his ability to answer/coping with these problems, the services offered by certain situations, family issues, the social, cultural, political and economic.

Note that the above mentioned factors are correlated, since the social problems end up directly influencing the physical and mental wellbeing of the individual, with the response of somatization symptoms.

From the observation of the determining factors, we could confirm the seriousness of self-therapy, since there is evidence suggesting that it may be replacing the formal health care of the elderly, due to two factors: 1) failure of health services in Because of the difficulty of access for users, leading to self-medication by the need for immediate solutions and assistance provided by prescribers and professionals responsible for the delivery of drugs, 2) easy access to drugs, triggered by the failure of Brazilian legislation regarding the marketing of medicines since most of these have counter market, although they present constraints on sale by legislation as creating new demands for health services, and consequently high expenses.

Because it is a practice considered preventable, it should be stressed the need for primary prevention approach, through the process of education of the population for the rational use of drugs, this function being a responsibility of all health professionals, especially prescribers and pharmaceuticals.

REFERENCES


CONCLUSION

The practice of self-therapy is increasingly growing, especially among the elderly, which is considered the group most medicalized society, considering the morbidity processes that easily install this stage of life, leading to irregular use of drugs, the search the immediate relief of the signs and symptoms. This situation is strongly influenced by the healthcare market and the media.

Given the above, it is worth mentioning the risks inherent in this practice that has caused many health problems such as poisoning, concealment diagnostics, drug interactions with acute exacerbations, resistance to pathogens, among others, generating thus new injuries health of the individual, as well

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