

Automedicação: um estudo sobre fatores motivacionais e consequências dessa prática

Self-medication: a study on motivational factors and consequences of this practice

La automedicación: un estudio sobre los factores motivacionales y las consecuencias de esta práctica

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Resumo

A automedicação refere-se à seleção e utilização de medicamentos por um indivíduo, sem prescrição, aconselhamento ou acompanhamento de um profissional de saúde qualificado, podendo ocasionar sérios riscos e consequências à saúde e em alguns casos levar a óbito. Tal prática pode ocorrer por conta própria ou até mesmo por uma indicação, e tem como finalidade principal o alívio de sinais e sintomas e cura de doenças. Este hábito ocorre de forma frequente em nosso cotidiano, não apenas no Brasil, mas em todo o mundo. Sendo assim, o presente trabalho tem por finalidade transparecer como é frequente a automedicação e como esta prática pode trazer prejuízos para a saúde e bem-estar da população. Esse estudo trata-se de uma revisão bibliográfica de natureza qualitativa, com característica exploratória. Por ser uma prática frequente no cotidiano a população precisa ser conscientizada acerca dos possíveis riscos que a automedicação pode ocasionar a saúde, isso por meio de campanhas educativas, palestras, cartazes. Além disso, por se tratar de uma temática muito recorrente, é interessante que estudos contemplem ainda mais a fundo as consequências dessa prática como as dificuldades que traz para o tratamento contra infecções futuras em pacientes que se automedicam.

Palavras-chave: Automedicação; Reações adversas; Sintomas.

Abstract

Self-medication refers to the selection and use of medicines by an individual, without prescription, advice, or monitoring by a qualified health professional, which may cause

serious risks and consequences to health, and in some cases, it leads to death. Such practice can occur on its own or even for an indication, and its main purpose is to relieve signs, symptoms, and cure diseases. This habit occurs frequently in our daily lives, not only in Brazil but worldwide. Thus, the present work aims to show how self-medication is frequent and how this practice can harm the health and well-being of the population. This study is a bibliographic review of a qualitative nature, with an exploratory characteristic. Because it is a frequent practice in daily life, the population needs to be aware of the possible risks that self-medication can cause to health, through educational campaigns, lectures and posters. In addition, as it is a recurring theme, it is interesting that studies consider even more deeply the consequences of this practice, such as the difficulties it brings to the treatment against future infections in self-medicating patients.

Keywords: Self-medication; Medicines; Adverse reactions.

Resumen

La automedicación se refiere a la selección y uso de medicamentos por parte de un individuo, sin receta, asesoramiento o control por parte de un profesional de la salud calificado, que puede causar serios riesgos y consecuencias para la salud y, en algunos casos, causar la muerte. Dicha práctica puede ocurrir por sí sola o incluso por indicación, y su propósito principal es aliviar los signos y síntomas y curar enfermedades. Este hábito ocurre con frecuencia en nuestra vida cotidiana, no solo en Brasil, sino en todo el mundo. Por lo tanto, el presente trabajo tiene como objetivo mostrar cómo la automedicación es frecuente y cómo esta práctica puede dañar la salud y el bienestar de la población. Este estudio es una revisión bibliográfica de naturaleza cualitativa, con una característica exploratoria. Debido a que es una práctica frecuente en la vida diaria, la población debe ser consciente de los posibles riesgos que la automedicación puede causar a la salud, esto a través de campañas educativas, conferencias, carteles. Además, como es un tema muy recurrente, es interesante que los estudios consideren aún más profundamente las consecuencias de esta práctica, como las dificultades que trae al tratamiento contra futuras infecciones en pacientes automedicados.

Palabras clave: Automedicación; Reacciones adversas; Síntomas.

1. Introduction

Within the scope of the Brazilian health system, in which the demands for health care are not fully met, the pharmacy is seen as a health facility more accessible to the population,

thus representing an important place for seeking primary health care. Self-medication, as well as a therapeutic indication, are customary, even in cases of diseases that require clinical and laboratory tests for diagnosis (Castro et al., 2010).

Self-medication occurs frequently in our daily lives, not only in Brazil, but worldwide, and refers to the selection and use of medicines by an individual, without prescription, advice or monitoring by a qualified health professional, which may cause serious health risks, consequences and in some cases, even death. Such practice may occur on its own or even by an indication, and its main purpose is to relieve signs and symptoms and to cure diseases (Perassolo & Vieira, 2011; Callau et al., 2018).

Medicines are substances of paramount importance in the treatment of diseases, these, when correctly used, contribute to maintaining the functional balance of the organism, responsible for improving the quality of life and well-being of the population, however, it is known that their indiscriminate use may lead to several health risks (Andrade et al., 2017).

The incorrectly or irrationally usage of medicines may present several consequences, ranging from the simplest to the most complex. Among the most frequent risks are the danger of intoxication, allergic reactions, addiction, and resistance to medicines from both the patients and the microorganisms. Additionally, the habit of self-medication can decrease the effectiveness of medications, cause harmful side effects, and even the individual's death. Thus, self-medication is a social problem that may lead to serious consequences for individual and collective health (Brasil, 2012). Thus, this work aims to address aspects related to self-medication, and how this practice can harm the health and well-being of the population since one of the consequences generated by this practice is the resistance of microorganisms to previously exposed drugs without proper need.

2. Methodology

This study is a bibliographic review, of a qualitative nature, with an exploratory characteristic as recommended by Pereira et al. (2018). It consists of articles selected through searches in national and international databases, such as National Library of Medicine (PUBMED), Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Literature in Health Sciences (LILACS), Virtual Health Library (VHL) and Scientific Electronic Library Online (SciELO), in addition to the Google Scholar tool, as well as the Ministry of Health manuals, dissertations and free theses found in full

format, from 2007 to 2018, and includes the following keywords: Self-medication; Medicines; Adverse reactions.

3. Self-medication

Self-medication is the use of medical substances on your own or by indication of unqualified people, without prior evaluation by a qualified health professional, such as a doctor or a dentist (Azevedo et al., 2017). The reuse of former medical prescriptions, even if the continuous use of the medication has not been specified, is also considered to be a form of self-medication (Coura, 2018).

Several practices are classified as self-medication, such as: acquiring the medicine without the necessary prescription, using former prescriptions or remnants of medicines from previous treatments, sharing medicines with other members of the family or the same social circle, as well as disregarding the professional prescription, by prolonging or ending the treatment early or not ingesting the appropriate dosage (Lacerda & Monteiro, 2016).

The World Health Organization (WHO) describes medicine as any substance contained in a pharmaceutical product, used to modify or explore physiological systems or pathological states for the benefit of the individual to whom. According to the National Health Surveillance Agency (ANVISA), which is responsible by the registration of medicines throughout the national territory, and follows the Law no. 5,991 / 1973, medicine is a pharmaceutical product, which is technically obtained or elaborated and has prophylactic, curative, palliative, or diagnostic purposes (Freitas; Jesus & Yoshida, 2013).

In Brazil, practice of self-medication is seen as one of the most complex problems in public health (Aruda et al., 2018), and this practice has been growing more and more. According to a survey conducted in 2018 by the Institute of Science, Technology, and Quality (ICTQ), the self-medication rate in Brazil has increased. Survey revealed that 79% of Brazilians over 16 years of age consume medicines without prescription, which is the highest number since survey began to be conducted by the Institute in 2014 (Fernandes, 2018).

Medicines have a predominant role in contemporary therapy, with the potential to relieve symptoms and to cure diseases. To access them is considered a fundamental human right, however, worldwide, medicines are increasingly incorporated into the capitalist logic of consumption. The Brazilian situation in the use of medicines is equally worrisome, taking into account that the country has a high prevalence of medicine consumption and low population adherence to prescription (Lacerda & Monteiro, 2016).

According to WHO, self-medication is often responsible for preventing the collapse of the public health system concerning care in cases considered to be rapid or less urgent. The use of non-prescription medicines occurs responsibly, whenever it is intended for the relief and treatment of transient and non-serious health complaints, with the assistance or optional advice of a health professional (Aruda et al., 2018).

Headaches, for example, are often the result of situations such as abdominal or menstrual cramps and stress, as they may be temporarily relieved with less potent medications. However, self-prescription and use of drugs containing black or red stripe on the packaging, which should only be used under medical prescription, constitutes an unacceptable action and extreme risk and danger to health (Coura, 2018).

Thus, it is noticeable that the practice of self-medication can be interpreted in two ways: positive, when responsibly used, as an additional function to health services, and negative when inappropriately used, causing health risks and possibly leading to more severe consequences (Lacerda & Monteiro, 2016).

Given what has been said, the medicine needs to be prescribed in the best possible way regarding doses, treatment duration and expiration date. Self-medication is positive in less complex cases as it avoids a high number of patients in health posts, hospitals and clinics seeking treatment for less urgent situations. However, the user must take precautions and seek information, either in the medical request or in the package insert, so that the medicine may be properly used.

4. Motivational Factors of Self-medication

The consumption habits of medicines in a society can be affected in two different ways. Positively, by national policies, when they promote the regulation of supply and the rational availability of essential medicines, proposing access to diagnosis and prescription by qualified professionals; and negatively, due to barrier-free access and the promotion and advertising of medicines, which often end up stimulating unnecessary and irrational use (Castro et al., 2010).

A survey conducted by Castro et al., 2010, showed great dissatisfaction by the participants with the care received in health services, justifying the demand for pharmacies due to the poor quality and delay in service in the health system, with long waiting times and queues. Counterbalancing, in this way, the easy access to the service offered in pharmacies.

Another reason very highlighted by the research participants was dissatisfaction with the low quality of care in the public network, classifying it as fast and superficial.

The increase in self-medication, seen in recent years, is also related to the immense and diversified information and the knowledge that individuals currently have about medicines (Barbosa & Oliveira, 2018). According to the Ministry of Health, the wide variety of medical information available on websites, blogs and several other social networks, the convenience assimilated by the society that sees in the pharmacy a place where everything is sold, the variety of products manufactured by the pharmaceutical industries, as well as the ease of selling medicines and the culture itself, are among the several factors that contribute to the practice of self-medication (Brasil, 2012).

Another cause associated with the practice of self-medication is a very common habit, which is the accumulation of drugs in homes, which is considered a home pharmacy. This practice not only favors self-medication, but it also constitutes a huge risk factor concerning the increase in intoxications by accidental ingestion, especially in the case of children, as well, as it facilitates the loss of efficiency of the medication due to poor storage and even expiration date (Gutierrez et al., 2008).

In the global context, self-medication has become a public health problem due to the wide availability followed by irrationality in therapeutic drug consumption, which has led to important consequences in the health system and difficulties in assessing the potential risks of its inappropriate use (Callau et al., 2018). In Brazil there are more than 65 thousand pharmacies and drugstores. According to the WHO recommendation, there should be a pharmacy for every 10 thousand habitants, however, in Brazil there is about one pharmacy for every three thousand, three times more than recommended number (Andrade et al., 2015).

Considering that the wide availability of medicines increases the possibility of irrational use, the excessive growth in the use of medicines in many countries has been pointed out as an important barrier to the achievement of the rational use of medicines (RUM) (Coutinho & Esher, 2017). The consumption of drugs free of recommendation has grown in recent years. A fact that strengthens the practice of self-medication is the sale of medicines in supermarkets, bars, and bakeries, where there is no proper inspection, thus contributing to the increase in unwanted side effects and risks that are the result of the indiscriminate and inappropriate use of medicines (Gomes, 2013).

Search for counseling with family and friends, who have already gone through the same experience, as well as previous experience with such medicine by the person themselves are other reasons alleged when searching for the pharmacy. In a survey conducted about the

search for knowledge about medicines, it was seen that 97.2% of caregivers resorted to guidance on their use for a better understanding and resolution of their doubts. In order to obtain the desired information, the majority (42.5%) checked the package insert, second, they asked the doctor (31.8%) and only 10% solved their doubts with the pharmacist (Perassolo & Vieira 2011).

Medicines are often purchased by indication of family, friends, neighbors, the internet, or from the clerk, that is, sources not recommended and unreliable (Castro et al., 2010; Callau et al., 2018; Perassolo & Vieira 2011).

One of the contributing causes of self-medication is that in Brazil, the pharmacy is not yet recognized as a health unit. It is seen as a commercial point of sale of products and medicines and these are sold, most of the time, without a prescription, leading to the practice of irrational use of drugs motivated by socioeconomic factors (Melo, 2010). The practice of self-medication is spreading even more, due to the fact that the pharmaceutical industry continues to launch new drugs on the market, and such drugs reach the final consumer more easily. Over time, the population is becoming more familiar with the names of medicines, and this causes the misuse of such substances (Gomes, 2013).

There is an unspecific level of action of medicine related to their symbolic function; its use is often confused with the very solution to the health problem and it may contain a series of expectations and representations. The immediate search for health through drugs is frequent in many societies, such as the Brazilian one. In the context of a health system that is often unsatisfactory, the contextual aspects of illnesses or their determinants are not perceived and medications assume a central role as a tool for solving the problem (Castro et al., 2010).

Given the numerous reasons that contribute to self-medication, which are extremely linked to the population, it is important to emphasize that this practice can cause serious problems to the individual's health, considering that each organism holds its particularities and that one rule may not apply to everyone, making individual medical assessment as well as qualified and accurate guidance needed.

5. Risks and Consequences of Self-medication

When taking medicine, it is not possible to be completely safe, as every medicine presents a risk and may have adverse effects, even after registration with ANVISA (the health surveillance agency in Brazil responsible for assessing the efficacy and safety of the drugs).

When a drug is registered, it means that its benefits outweigh the risks that were known during clinical research (Instituto Oncoguia, 2015).

Even though medicines are formulated under protection and safety criteria, there are risks related to their use. Several reasons expose people to side effects, such as the use of medicines in situations that are not indicated or in circumstances that do not respect the criteria of rational use. Additionally, even if the safety criteria is respected, the individual could potentially face an adverse reaction to the medicine (Aquino, 2008).

According to the WHO, adverse reactions to medicines are defined as any harmful or undesirable effect and unintentionally originated by the use of medicines in doses usually used in people for prophylaxis, diagnosis, treatment of diseases or modification of physiological functions (Amaral et al., 2016).

Countless factors cause adverse reactions to medicines (ARMs), some of which are related to the patient, medicines or social factors. Factors such as gender, ethnicity, smoking, alcohol intake, pregnancy, breastfeeding, kidney problems, liver function, presence of other diseases, genetic factors, dose and frequency of medications are directly associated with the occurrence of ARMs. Another factor that shows a very critical impact is age, people who are part of the groups of young and elderly are more vulnerable to the occurrence of these reactions than other age groups (Alomar, 2014).

All medicines have side effects and pose health risks. People who have kidney diseases, heart disease or hypertension should avoid the inappropriate use of anti-inflammatory drugs, since they may alter the condition of these diseases. The abuse of medications for flu symptoms might increase blood pressure, intraocular pressure and heart rate. Analgesics, in addition, may be responsible for causing acute damage to the gastric mucosa and are contraindicated drugs for patients who had ulcers or for the treatment of dengue, since they can cause bleeding and internal hemorrhage (Anvisa, 2008).

Reactions such as drowsiness, as well as headache, mental confusion and low blood pressure are considered common and are effects that may be caused by several drug classes, such as antipyretic, anti-inflammatory, muscle relaxants, antiallergic, analgesic, such as paracetamol, among others (Uniara, 2011).

The excessive consumption of vitamins, an act often influenced by the media, is responsible for causing several diseases, for instance, vitamin C which when consumed in excess can lead to the appearance of kidney stones and cause gastrointestinal disorders; and vitamin A, which, when consumed in high doses and for a long period, can cause neurological disorders (Anvisa, 2008).

Regarding antibiotics, their inappropriate use, in addition to generating unnecessary expenses with the hospitalization of patients with adverse reactions, also cause side effects. Allergic reactions to medications are adverse effects that result from immunological reactions to this or its metabolites. The most frequently prescribed antibiotics, such as penicillin, are responsible for most drug allergies (Borges et al., 2015; Munaretto & Oliveira, 2010).

The use of acetylsalicylic acid is widespread in Brazil, however, this medicine should be used with caution, taking into account that its use with antiplatelet and anticoagulant drugs can increase the chances of bleeding, even in concerning the use of phytotherapeutic antiplatelet agents such as horse chestnut, ginseng, Ginkgo Biloba or green tea (Alexandre; Bagatini & Simões, 2008).

A major concern is raised by self-medication with antibiotics since the abusive use of this class of medicines can increase bacterial resistance, which is considered one of the biggest challenges, resulting in compromised treatment of infectious diseases, which can lead to longer hospitalizations, higher medical costs, and increased mortality. Thus, becoming a serious public health problem due to the great social and economic impact, being one of the main causes of death in the world. Although antibiotic resistance happens naturally, this process is accelerated by the inappropriate use of antibiotics (Fiocruz, 2018; Callau et al., 2018).

Another major problem associated with the practice of self-medication refers to the so-called medicine interaction, which is caused by changes in the effects of a drug due to the concomitant consumption of another medication or its use together with certain herbal medicines (natural medicines), food or drinks. Although in some cases the effects of combined medicines are beneficial, in most cases drug interactions tend to be harmful (Fiocruz, 2015; Jacomini & Silva, 2011).

When two drugs are administered concomitantly, they can act independently of each other, or they can also increase or decrease the therapeutic effect or the toxic effect of one or the other (Jacomini & Silva, 2011).

The association between medicines and nutrients allows interactions to occur, consequently allowing a decrease or increase in the effectiveness of the drug, as well as the nutrient. It is considered a drug-food interaction when food or nutrient alters the effectiveness of a drug, or also when there is interference with the individual's nutritional status. Thus, not only do medications interfere with the absorption and utilization of nutrients, but some food and nutrients can also interfere with their action (Farhat; Iftoda & Santos, 2007).

Several drugs can interact with alcoholic beverages. Alcohol is capable of both enhancing and decreasing the effects of medicines, the interaction between alcohol and medicines is a dangerous with serious side effects. The concomitant use of alcoholic beverages and appetite suppressants, for example, can increase the predisposition to the occurrence of effects on the central nervous system (CNS), such as: dizziness, vertigo, weakness and confusion; interaction with anti-inflammatory drugs can lead to many gastrointestinal and liver problems; the concomitant use of alcohol and benzodiazepines potentiate the anxiolytic effects of these drugs; its interaction with hypoglycemic agents can cause severe hypoglycemia (Silva, 2017).

The use of medicinal plants and herbal medicines for therapeutic purposes is a practice as old as human civilization. The term phytotherapy was given to therapy that uses medicines whose active constituents are plants or plant derivatives. Medicinal plants and herbal medicines are widely marketed in many countries, mainly Europe, USA, and Brazil, and are used largely by patients with chronic diseases who use other medicines as their main treatment and assume that herbal medicine is free of side effects. However, medicinal plants and herbal medicines may also cause adverse effects, toxicity, and present contraindications for use (Brasil, 2012).

Medicine intoxications arise due to several complex mechanisms, which may be related to the individual's characteristics, pharmacodynamic and pharmacokinetic processes, pharmaceutical properties of the product, drug interactions, or other substances, and also to the way of use. Thus, what differs the toxic event from an adverse reaction is the fact that in the toxic event, biological damage occurs, most of the time, by exposure to excessive doses (Couro et al., 2008).

Given this information, it is possible to realize that despite the knowledge of the risks that may be triggered by the habit of self-medication, people continue to make excessive use of medicines. The drug is considered to be an ally to relieve symptoms caused by several diseases, but it may also be responsible for causing damage to the individual's body. Thus, there is a therapeutic window between the dose that is beneficial and what becomes toxic to the individual.

6. Final Considerations

Self-medication brings several health damages, among them the resistance of microorganisms to the exposed medicine, and the consequence of this is the lack of efficient

treatment when the patient needs to be subjected to the use of drugs. For this reason, it is important to research about this subject to warranty a better understanding of the population regarding this practice. It will enable people to be aware of the risks evolving the self-medication, and then it will be possible to decrease the number of people practicing it, decreasing then its adverse effects.

In this article, we approached the positive and negative aspects of this practice. It highlights the necessity of the population to be aware of the possible risks that irresponsible self-medication may cause to health. It is extremely important to have a disclosure of the dangers related to this practice, through educational campaigns, advertisements, posters, lectures, among others, that reach a large part of society, so that the population is oriented towards the conscious, safe and rational consumption of medicines, and consequently, the complications caused by this inappropriate action will decrease.

As it is a recurrent subject, it is interesting to inquire about studies that contemplate even more deeply the consequences of this action, further showing the difficulty that this practice brings to treatments against future infections in patients who self-medicate.

Conflict of interest

The authors declare no conflict of interest.

References

Alexandre, R. F., Bagatini, F., & Simões, C. M. (2008). Interações entre fármacos e medicamentos fitoterápicos à base de ginkgo ou ginseng. *Revista Brasileira de Farmacognosia*, 18(1): 117-126. Doi: 10.1590/S0102-695X2008000100021.

Alomar, M. J. (2014). Factors affecting the development of adverse drug reactions. *Saudi pharmaceutical journal*, 22(2), 83-94. Doi: 10.1016/j.jsps.2013.02.003.

Amaral, R. G, Ferreira, T. X. A. M., Lima, D. M., Modesto, A. C. F., & Provin, M. P. (2016). Reações adversas a medicamentos e farmacovigilância: conhecimentos e condutas de profissionais de saúde de um hospital da rede sentinela. *Revista Brasileira de Educação Médica*, 40(3): 401-410. Doi: 10.1590/1981-52712015v40n3e01502015.

Andrade, K. R. C. D., Araújo, P. C., Domingues, P. H. F., Galvão, T. F., Pereira, M. G., & Silva, M. T. (2017). Prevalência e fatores associados à automedicação em adultos no Distrito Federal: estudo transversal de base populacional. *Epidemiologia e Serviços de Saúde*, 26, 319-330. Doi: 10.5123/S1679-49742017000200009.

Andrade, K. R. C. D., Domingues, P. H. F., Galvão, T. F., Pereira, M. G., Sá, P. T. T. D., & Silva, M. T. (2015). Prevalência da automedicação na população adulta do Brasil: revisão sistemática. *Revista de Saúde Pública*, 49, 36. Doi: 10.1590/S0034-8910.2015049005709.

Anvisa. (2008). Agência Nacional de Vigilância Sanitária. *A informação é o melhor remédio*. Acesso em 06 de junho, em: <http://portal.anvisa.gov.br/documents/33856/1436099/Campanha+A+informa%C3%A7%C3%A3o+%C3%A9+o+melhor+rem%C3%A9dio+-+Guia+Apoio/ae2a3eee-418c-41c0-9b8b-ff4024dcc912>.

Aquino, D. S. D. (2008). Por que o uso racional de medicamentos deve ser uma prioridade?. *Ciência & Saúde Coletiva*, 13, 733-6. Doi: 10.1590/S1413-81232008000700023.

Aruda, C. P., Carvalho, L. N. D, Costa, A. R., Gomes, G. C., Juliano, L. F., & Silva, J. G. D. (2018). A prática da automedicação em crianças por seus pais: atuação da enfermagem. *Rev. enferm. UFPE on line*, 1570-77. Doi:10.5205/1981-8963-v12i6a230779p1570-1577-2018.

Azevedo, M. M., Cruvinel, V. R. N., Galato, D., Meiners, M., Queiroz, C. A. & Ramos H. M. P. (2017). Medication disposal: a reflection about possible sanitary and environmental risks. *Ambiente & Sociedade*, 20(4): 145-168. Doi: 10.1590/1809-4422asoc0295r1v2042017.

Barbosa, F. G., & Oliveira, M. A. R. (2018). Caracterização da prática de automedicação e fatores associados: uma breve revisão. *Brazilian Journal of Surgery and Clinical Research – BJSCR*, 25(1): 62-5.

Borges, F. V., Lima, N. B., Mangiavacchi, B. M., & Silva, M. G. (2015). Uso indiscriminado de antibióticos pela população de são josé do calçado (es) e o perigo das superbactérias. *Acta Biomedica Brasiliensia*, 6(2): 84-96. Doi: 10.18571/acbm.089.

Brasil. Ministério da Saúde. (2012). *Automedicação*. Acesso em 06 de junho, em http://bvsms.saude.gov.br/bvs/dicas/255_automedicacao.html.

Callau, M. A. M., Junior, J. G. S., Monte, T. V. S., Nascimento, W. M., Oliveira, J. R. S., & Tavares, C. G. S. (2018). *Automedicação com antibióticos e suas consequências fisiopatológicas: uma revisão*. *Revista Rios Saúde*. 1:1.

Castro, L. L. C. D., Carvalho, C. M. S. D., Merchán-Hamann, E., & Naves, J. D. O. S. (2010). *Automedicação: uma abordagem qualitativa de suas motivações*. *Ciência & Saúde Coletiva*, 15, 1751-62.

Cençó, B. (2010). *Automedicação: isso tem que parar*. *Revista APM (Associação Paulista de Medicina)*, 610, 5-8.

Coura, V. W., Matos, J. F., Parreira, M. P., Pena, D. A. C., & Santos, T. D. C. D. (2018). *Prevalência, perfil e fatores associados à automedicação em adolescentes e servidores de uma escola pública profissionalizante*. *Cadernos Saúde Coletiva*, 26(1): 76-83. Doi: 10.1590/1414-462x201800010351.

Coutinho, T., & Esher, A. (2017). *Uso racional de medicamentos, pharmaceuticalização e usos do metilfenidato*. *Ciência & Saúde Coletiva*, 22, 2571-80. Doi: 10.1590/1413-81232017228.08622017.

Farhat, F. C., Iftoda, D. M., & Santos, P. H. (2007). *Interações entre hipoglicemiantes orais e alimentos*. *Saúde Rev*, 9(21): 57-62.

Fernandes, M. E. P. (2018). *Automedicação no Brasil: dimensões de uma prática*. (Tese de doutorado). Universidade Federal do Ceará.

Fiocruz, Fundação Oswaldo Cruz. (2018). *Resistência bacteriana aos antibióticos: o que você deve saber e como prevenir / Resistencia bacteriana aos antibióticos*. Acesso em 06 de junho, em http://www.fiocruz.br/ioc/media/resistencia_bacteriana_antibioticos_ioc_fiocruz.pdf.

Fiocruz, Fundação Oswaldo Cruz: uma instituição a serviço da vida. (2015). *Interação medicamentosa: entenda os riscos de se medicar sem orientação*. Acesso em 06 de junho, em <https://portal.fiocruz.br/noticia/interacao-medicamentosa-entenda-os-riscos-de-se-medicar-sem-orientacao>.

Freitas, J. G. A., Jesus, A. P. G. A., & Yoshida, N. C. (2013). Prevalência da automedicação entre acadêmicos de farmácia, medicina, enfermagem e odontologia. *Revista EVS-Revista de Ciências Ambientais e Saúde*, 40(2): 151-164.

Gomes, A. C. M. (2013). *Automedicação: Um importante problema de saúde pública*. (Trabalho de conclusão de curso). Faculdade de Pindamonhangaba, SOPEC–Sociedade Pindamonhangabense, Educação e Cultura.

Goulart, F. C., Lazarini, C. A., & Silva, F. M. (2014). Caracterização da prática de automedicação e fatores associados entre universitários do curso de Enfermagem. *Revista Eletrônica de Enfermagem*, 16(3): 644-51. Doi: 10.5216/ree.v16i3.20850.

Gutierrez, M. L., Hoepfner, L., Kruger, K. E., Olsen, K., Pereira, J.R., Soares, L., & Tonini, K. (2008). Riscos da automedicação: tratando o problema com conhecimento. *Joinville: Univille*, 20.

Instituto Oncoguia. (2015). *Orientações sobre a utilização dos medicamentos*. Acesso em 06 de junho, em <http://www.oncoguia.org.br/conteudo/orientacoes-sobre-a-utilizacao-dos-medicamentos/8005/168/>.

Jacomini, L. C. L., & Silva, N. A. D. (2011). Interações medicamentosas: uma contribuição para o uso racional de imunossuppressores sintéticos e biológicos. *Revista Brasileira de Reumatologia*, 51(2), 168-174. Doi: 10.1590/S0482-50042011000200006.

Kerkhoff, C. E., Lopes, C. P., Menezes, H. S. & Vitor, R. S. (2008). Padrão de consumo de medicamentos sem prescrição médica na cidade de Porto Alegre, RS. *Ciência & Saúde Coletiva*, 13, 737-43. Doi: 10.1590/S1413-81232008000700024.

Lacerda, J. T. D., & Monteiro, E. R. (2016). Promoção do uso racional de medicamentos: uma proposta de modelo avaliativo da gestão municipal. *Saúde em Debate*, 40, 101-16. Doi: 10.1590/0103-1104201611108.

Melo, F. H. Q. (2010). A prática da automedicação do contexto dos antimicrobianos. *Anhanguera Educacional Ltda: Anuário da Produção de Iniciação Científica Discente*, 13 (20): 147-159.

Munaretto, P., & Oliveira, K. R. (2010). Uso racional de antibióticos: responsabilidade de prescritores, usuários e dispensadores. *Revista Contexto & Saúde*, 10(18): 43-51. Doi: 10.21527/2176-7114.2010.18.43-51.

Muccillo-Baisch, A. L., Silva, M. G. C., & Soares, M. C. F. (2012). Self-medication in university students from the city of Rio Grande, Brazil. *BMC public health*, 12(1): 339. Doi: 10.1186/1471-2458-12-339.

Perassolo, M. S., & Vieira, J. K. F. (2011). Avaliação do conhecimento sobre uso correto e cuidados com medicamentos em cuidadores de pacientes na unidade pediátrica de um hospital. *Revista Eletrônica de Farmácia*, 8(3): 16-16. Doi: 10.5216/ref.v8i3.15800.

Pereira, A. S., Shitsuka, D. M., Parreira, F. J., & Shitsuka, R. (2018). *Metodologia da pesquisa científica*. [e-book]. Santa Maria. Ed. UAB/NTE/UFSM. Disponível em: https://repositorio.ufsm.br/bitstream/handle/1/15824/Lic_Computacao_Metodologia-Pesquisa-Cientifica.pdf?sequence=1.

Silva, S. V. L. (2017). *A interação do álcool com medicamentos e seus efeitos no organismo*. (Trabalho de conclusão de curso). Faculdade de Educação e Meio Ambiente.

Uniará. (2011). Guia de medicamentos. Centro Universitário de Araraquara. Acesso em 06 de junho, em <https://www.uniara.com.br/arquivos/file/cursos/graduacao/farmacia/guias-de-medicamentos/guia-medicamentos.pdf>.

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