

THE INFLUENCE OF AGE AND GENDER ON SELF-MEDICATION AMONG MEDICAL STUDENTS

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ABSTRACT

Self-medication is a widespread practice among medical students, influenced by various demographic factors such as age and gender. This study aimed to demonstrate whether the age and gender of medical students impact the practice of self-medication. This is a systematic review of the literature covering the period from 2018 to 2023, including articles in Portuguese and English, excluding all studies that used secondary data and data prior to 2018. The findings suggest that self-medication is more frequent among female students and younger students, which may reflect variations in risk perceptions and motivations for medication use. Awareness of the potential risks associated with self-medication, as well as specific educational interventions, are essential to reduce this practice. In this context, higher education institutions play a key role in training future doctors who are aware of the risks involved in self-medication, offering resources and support to promote safe and responsible health practices.

Keywords: Self-medication; medicine students; gender; age;

INTRODUCTION

Self-medication is defined as the use of medicines on one's own, without a medical prescription, to treat self-diagnosed health conditions. This practice includes the use of over-the-counter medicines, the reuse of previously prescribed medicines, or self-medication with medicines from family members or friends (WHO, 1998). In Brazil, self-medication is a common practice, especially among specific groups such as medical students, who have easy access to medical information and medications (MINISTRY OF HEALTH, 1998).

The practice of self-medication among medical students is not only a reflection of their academic and professional pressures, but also a phenomenon influenced by culture and social norms. Women, for example, tend to report and treat symptoms more frequently than men, which may partly explain why the prevalence of self-medication is higher in this group (DOMINGUES et al., 2017). In addition, access to over-the-counter medications and the medical knowledge acquired during their studies may reinforce confidence in self-medication as a safe practice, underestimating the risks associated with it (BERNARDES *et al.*, 2020).

Thus, medical students are a group of special interest in the study of self-medication, given the knowledge they acquire during their training and the intense pressure they face in their academic environment. Two fundamental sociodemographic factors, age profile and gender, have shown a significant influence on the practice of self-medication. Therefore, the present study aims to demonstrate whether the age and gender of medical students impact the act of self-medication.

METHODOLOGY

The study is a systematic review of the literature from the following repositories: PubMed (<https://www.ncbi.nlm.nih.gov/pubmed>), Scielo (<http://www.scielo.org/php/index.php>), and Virtual Health Library (BVS) (<http://brasil.bvs.br/>). Articles covering the period from 2018 to 2023 will be included. The descriptors used will be: "self-medication," "medicine students," "age," and "gender," in both Portuguese and English. After initial screening, all studies that used secondary data and data prior to 2018 were excluded. Nine studies were selected for the systematic review based on their methodological relevance and adherence to the established criteria. All included studies were evaluated for methodological quality, considering aspects such as study design, clarity in the definition of variables, and adequacy of samples, in order to ensure the robustness and validity of the findings presented in this review.

RESULTS

The use of nonprescription drugs is widely observed among younger Brazilians, especially in the 16-24 age group (69%), which coincides with the age group most frequently found in academic settings. The 20-24 age group showed the highest frequency of self-medication, followed by the 18-19 age group, with a decrease in prevalence as age increases (DE BRITO; CASTILHO, 2021). However, even in the presence of these data, this scenario contrasts with the study by Pismel (2021), which did not find statistically significant differences in the use of non-prescription drugs in relation to age (PISMEL et al., 2021).

Thus, when considering a broader scope, it is evident that most studies reveal a predominance of women in the samples studied, and the use of non-prescription drugs is more common among medical students (FILHO et al., 2020).

Thus, it is possible to see that gender plays a significant role in self-medication patterns, with women often more likely to self-medicate, especially with medications for pain and emotional disorders, such as analgesics and anxiolytics. Furthermore, regarding the types of drugs used, the most frequent were analgesics, corresponding to 52.05%, followed by anti-inflammatories, with 17.81% (MORAES et al., 2018), which reinforces the ease of access to drugs that do not require a prescription. However, even with the robustness of data corroborating self-medication in females, these figures contrast with the studies by Pismel and Tognoli, who found no significant association between gender and the practice of self-medication in their respective studies (TOGNOLI et al., 2019; PISMEL et al., 2021).

Regarding gender, Kanwal (2018) observed a predominance of women in the practice of self-medication, but the author attributes this fact to the higher number of female students enrolled in medical school, a fact that contributes to lower statistical significance. This perspective is corroborated by Tognoli (2019), who also did not identify a statistically significant association between self-medication and variables such as gender, age, previous higher education, or marital status.

Corroborating the data found by other researchers, a study conducted in 2019 with 320 medical students revealed that 309 of them self-medicate, with a predominance among women aged 21 to 23 years. The main symptoms that led to self-medication were headache and myalgia, and a preference for previously used medications, especially analgesics and anti-inflammatories, was observed. This reinforces data found in other studies, in which analgesics are also among the most used by female medical students (SILVA DELMONDES; MEDEIROS SOUTO; DORIA DOS SANTOS, 2024).

Regarding the motivation that leads medical students to self-medicate, approximately 97.1% of participants indicated that they resort to self-medication mainly for reasons of convenience and ease, according to the studies reviewed (BERNARDES et al., 2020; MEDEIROS; ARAÚJO; GOMEZ, 2022).

Thus, this practice is influenced by several factors, including easy access to information about medications and knowledge acquired throughout medical school, which can lead students to believe that they are capable of self-managing their health without the need for a formal medical consultation (TOGNOLI et al., 2019) (BERNARDES *et. al.*, 2020). (FILHO et al., 2020)

CONCLUSION

Finally, it is evident that self-medication is a widespread practice among medical students in Brazil, with significant variations according to the gender and age of the students. Women, in particular, are more likely to self-medicate, especially to treat symptoms such as pain and anxiety. Younger students also stand out as a group vulnerable to self-medication, possibly due to their limited clinical experience and high level of academic stress. However, this study highlights the scarcity and need for further studies involving, mainly, the relationship between age and self-medication in medical students, so that this topic can be explored in greater depth.

These findings highlight the need for targeted educational interventions that consider the specificities of each demographic group. The promotion of rational drug use should be integrated into the curriculum from the beginning of medical school, with an emphasis on raising awareness about the risks of self-medication and encouraging students to seek appropriate professional guidance. Higher education institutions play a crucial role in training future doctors to be aware of the risks associated with self-medication and should provide the necessary resources and support for students to develop safe and responsible health practices.

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