

## KNOWLEDGE ABOUT SELF-MEDICATION AMONG NURSING PROFESSIONALS

### CONCEPÇÕES SOBRE AUTOMEDICAÇÃO ENTRE PROFISSIONAIS DE ENFERMAGEM

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#### ABSTRACT

**Introduction:** self-medication is a common practice performed by the population and by some health professionals, such as nurses, who have easy knowledge and access to medicines. **Objectives:** determining the prevalence of self-medication in nursing professionals, as well as evaluating the epidemiological profile of these professionals and the factors associated with self-medication among them. **Methods:** a transversal character, descriptive, and quantitative study carried out through the application of predetermined questionnaires for nursing professionals working in public and private establishments. **Results:** it was observed that 36% of Nursing Technicians and 30% of Nurses use the practice of self-medication, and the analgesic was the most used medication class (58.72%) to combat signs and symptoms resulting from excessive workload. Of the respondents, 50% attribute the practice of self-medication to the lack of time to go to a consultation. **Conclusion:** self-medication among nursing professionals is quite high, due to their professional experience and daily practice in health facilities.

**Keywords:** nurse; work shift; self-medication.

#### RESUMO

**Introdução:** a automedicação é uma prática habitual realizada pela população e por alguns profissionais da saúde, como os de enfermagem, os quais possuem conhecimento e acesso facilitados aos medicamentos. **Objetivos:** determinar a prevalência de automedicação em profissionais de enfermagem, bem como avaliar o perfil epidemiológico destes profissionais e os fatores associados à automedicação entre eles. **Métodos:** estudo transversal de caráter descritivo e quantitativo realizado por meio da aplicação de questionários pré-determinados para profissionais da enfermagem atuantes em estabelecimentos público e privado. **Resultados:** observou-se que 36% dos Técnicos de Enfermagem e 30% dos Enfermeiros utilizam a prática da automedicação, sendo que o analgésico foi a classe medicamentosa mais utilizada (58,72%) para combater sinais e sintomas decorrentes da carga de trabalho excessiva. Dos entrevistados, 50% atribuem a prática de automedicação à falta de tempo para ir a uma consulta. **Conclusão:** a automedicação entre profissionais da enfermagem é bastante elevada devido à sua experiência profissional e a prática diária em estabelecimentos de saúde.

**Palavras-chave:** enfermeiros; jornada de trabalho; automedicação.

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#### INTRODUCTION

According to the World Health Organization (WHO), self-medication is the selection and use of medications to treat symptoms and diseases without the advice of a qualified health professional for a given function, comprising a stage of self-care <sup>(1)</sup>. Several factors may favor the use of drugs without prescription, among them: experience with the symptom or disease, indiscriminate sale of medications, easy access to professionals working in the health area, belief, limited financial resources, unavailability of time to seek help, among others <sup>(2)</sup>. Advertising about medicines is one of the factors that transmit a harmless view of the product to the lay public, which masks the risks that can cause health, if not used properly <sup>(3)</sup>.

Rational self-medication can bring savings in resources in cases of treatment for minor diseases, as well as reduce absences at work due to small symptoms. Although medicines are important in the treatment of diseases, being responsible for improving the quality of life of the population, their indiscriminate use can pose health risks <sup>(4)</sup>.

The inadequate use of medicines can cause several harmful consequences to the people, such as incorrect diagnosis due to masking of symptoms, choice of medication with inadequate dosage being used in the short or long term, which allows the occurrence of undesirable effects, intoxications, allergic reactions, etc. <sup>(5)</sup>.

Nursing workers, in their daily practice, handle various medications, which favors self-prescription and self-medication. Their workday is complex and

cope with difficulties concerning the conduct of life, this being a theme that should be addressed in educational institutions and health establishments as a strategy for improving professional life<sup>(3)</sup>. Several symptoms of lower limb pain, stress, mood swings, varicose veins, sleep disorder, back pain, and headaches related to work stress have been reported among these workers because they constantly deal with human suffering and being exhausting their workday<sup>(6)</sup>. However, it is verified that not always, self-medication is directly or exclusively related to the presence of pathologies, but rather due to easy access, which would lead to unnecessary consumption of medicines<sup>(1)</sup>.

A study conducted with 160 nurses working in the hospital network in Rio Branco - Acre showed that 68.3% consider that their work offers health risk and have already self-medicated with analgesics<sup>(7)</sup>. Another investigation about the prevalence of self-medication among nursing workers, which covered 1,509 people, showed that 24.2% of them have already self-medicated, and for 43.4% analgesic was the most used medication<sup>(8)</sup>.

The consumption of medications increases, depending on the workday of the professional, that is, the person who has a double or triple shift has a higher prevalence of self-medication, probably due to emotional and mental exhaustion due to effort and dedication to the patient<sup>(3)</sup>. Given the above, the present study aims to contribute to the research in the area of self-medication among nursing professionals, determining the prevalence of this practice, the drugs most used among Nursing Technicians and Nurses, the frequency of their use, and the risks they suffer when self-medicating.

## METHODOLOGY

Of a transversal character, descriptive and quantitative research was carried out through the application of predefined questionnaires for nursing professionals (Nurses and Nursing Technicians) working in a public establishment and a private establishment, during July 2019. The work was carried out in Nova Aurora - Paraná (PR) which is in the western region of the state. According to IBGE information, in 2019, the population estimate of this municipality was 10472 people<sup>(9)</sup>. It has 30 health facilities, including hospitals, Basic Health Unit (UBS), physiotherapy clinics, pharmacies, dental clinics, clinical analysis laboratories, and laboratory collection stations. The establishments chosen to carry out the research were the private hospital and the BHU.

The city hall has 475 effective employees, of which 67 are health workers.

The private hospital of the municipality has 30 effective employees, among them: cooks, nursing technicians, nurses, pharmacists, pharmacy technicians, receptionists, doctors, chambermaids, individuals responsible for general services and administrative service. The service is performed during the 24 hours of the day, attends under private regime, agreements, and public - SUS. It has 50 beds, emergency room and surgical center with 270 monthly surgeries for adults and children.

For the present study, nursing technicians and nurses working in each health facility were considered, totaling 20 nursing professionals from the private hospital (11 nurses and 9 nursing technicians) and 30 professionals from the Basic Health Unit (9 nurses and 21 nursing technicians).

The information was collected in the form of a pre-elaborated questionnaire, where each professional answered individually according to the orientations passed on by the researchers before completion. The following variables of interest were collected: initials of the name, age, gender, marital status, workday, frequency of self-medication, medications used, comparison between professionals regarding the prescription of medications and self-medication, the practice of self-medicating during working hours, which factor led him to self-medicate and main symptoms to perform such practice.

The collected data were tabulated in the software *Microsoft Office Excel*<sup>®</sup> 2019 and for data analysis and study on the association between variables, the Chi-square test was adopted ( $X^2$ ) at the significance level of 95%.

This study was approved by the Research Ethics Committee of the University Center of the Assis Gurgacz Foundation, opinion number 3,435,056 of July 3, 2019 (CAAE: 15762919.8.0000.5219). According to ethical principles in research with human beings, precautions were taken to ensure that the confidentiality and privacy of the people involved in the study were preserved. All participants agreed to participate and signed the Free and Informed Consent Form (FICF).

## RESULTS AND DISCUSSION

Self-medication is a common practice among several health professionals, but the focus in this study was nursing professionals (nurses and nursing technicians), who have important pharmacological knowledge and handle several medications daily.

In the present study, it was observed that the professionals who work are mostly female, which corresponded to 93% in the public establishment (28 people) and 80% in the private establishment (16

people), as defined in Table 1, and this was confirmed by the statistical test ( $p=0.013$ ). This coincides with the results of other studies<sup>(3)</sup>. These results demonstrate intense feminization, like that which occurs in all health areas, and this trend is marked in some of the professions such as nursing and obstetric nursing. According to the Federal Nursing Council (2015), the nursing team is predominantly female, but the presence of 15% of men is recorded<sup>(10)</sup>.

Regarding age, it was found that most of the participants were between 31 and 40 years old, which corresponded to 46% of the study population. Also, 24% belonged to the younger age group, i.e., they were between 20 and 30 years old, while 30% were 41 or older. These data are similar to those described in the study by Carrilho et al (2013)<sup>(11)</sup>, who demonstrated that among 1,194 health professionals (nurses and nursing assistants) of a University Hospital who answered questionnaires applied, 66.7% were aged between 31 and 50 years old, 15% were between 20 and 30 years old and 18.5%, were over 50 years old. In the public department, the statistically significant majority were between 31 and 40 years old ( $p=0.005$ ). Most public service professionals were married when compared to private service. In the private service, when compared to the public, an important portion of the population was divorced ( $p<0.001$ ).

Regarding the professional category, it was found that for the public sector a statistically significantly higher number of nursing technicians (70%), while in the private sector, there was a greater number of nurses (55%) ( $p<0.001$ ). Regarding the working period, it was verified that professionals who work 40 hours per week are in greater quantity (50%) for the public establishment, while in the private establishment, both professionals who work 40 hours per week and those who perform day shift 12/36 hours were in the same amount, that is, 7 individuals, which corresponded to 35%; however, these differences were not significant ( $p=0.071$ ).

Table 1. General characteristics of professionals (nurses and nursing technicians) working in the establishments under study, Nova Aurora – PR

| Features    | Public<br>N (%) | Private<br>N (%) | P-<br>value |
|-------------|-----------------|------------------|-------------|
| Gender      |                 |                  |             |
| Female      | 28 (93)         | 16 (80)          | 0,013       |
| Male        | 2 (7)           | 4 (20)           |             |
| Age (years) |                 |                  |             |
| ≤ 20        | 2 (7)           | 0 (0)            | 0,005       |
| 21-30       | 6 (20)          | 4 (20)           |             |
| 31-40       | 15 (50)         | 8 (40)           |             |
| ≥ 41        | 7 (23)          | 8 (40)           |             |

|                       |         |         |        |
|-----------------------|---------|---------|--------|
| Marital status        |         |         |        |
| Married               | 21 (70) | 11 (55) | <0,001 |
| Single                | 9 (30)  | 5 (25)  |        |
| Divorced              | 0 (0)   | 4 (20)  |        |
| Professional category |         |         |        |
| Nurse                 | 9 (30)  | 11 (55) | <0,001 |
| Technician            | 21 (70) | 9 (45)  |        |
| Working shift         |         |         |        |
| Day shift 12/36 h     | 6 (20)  | 7 (35)  | 0,071  |
| Night shift 12/36h    | 5 (17)  | 3 (15)  |        |
| Day shift 6 h         | 4 (13)  | 3 (15)  |        |
| Night shift 6 h       | 0 (0)   | 0 (0)   |        |
| On-call 40 h/weekly   | 15 (50) | 7 (35)  |        |

These results are similar to the study by Muniz et al (2005)<sup>(7)</sup>, who found that the working hours of 160 nursing professionals from the hospital network of Rio Branco - Acre was in the range of 30 to 40 hours per week (44%). Despite the struggle of the category to reduce the workload, so that it becomes less aggressive, even, most professionals continue to exercise a workload of 40 hours per week.

When asked about the use of medications, the professionals presented different answers, and these are compiled in Figure 1. It was found that the practice of self-medication is higher, that is, 75% in nurses when compared to nursing technicians (60%). It was also found that both nurses and nursing technicians tend to practice self-medication more commonly than using medical prescription. ( $p=0.034$ ). This proportion was higher than that identified in a study by Tomasi et al (2007) among nurses from the primary school of Pelotas - Rio Grande do Sul, which demonstrated 32.4% self-medication among them<sup>(12)</sup>.

Studies associated with self-medication argue that knowledge is linked to academic training, that is, the higher the degree of study, the greater the practice of self-medicating by knowledge about drugs. It was observed that this practice is present in the routine of nursing professionals, which may compromise health and enable the worsening of problems, in addition to masking the disease. Self-medication is considered part of society's culture; accumulated knowledge enables self-confidence and security to practice<sup>(13)</sup>.

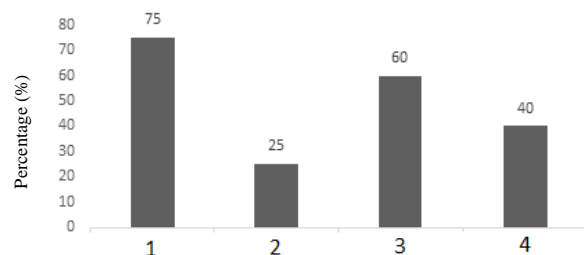


Figure 1. Use of medications by prescription and self-medication between: 1 - Nurses / Self-medication, 2 - Nurses / Prescription, 3 - Technicians / Self-medication, 4 - Technicians / Prescription, Nova Aurora - PR. P value = 0.034

Among the health professionals who practice self-medication, 66% mentioned acquiring medications without a prescription and self-medicating during working hours. It was observed that analgesic was the most used drug class, corresponding to 58.72% of cases (37), with dipyron being the most consumed, 34.92% (22) of the cases; followed by non-steroidal anti-inflammatory drugs in 31.74% (20) of the cases, as defined in Table 2.

Study by Barros (2009)<sup>(8)</sup> identified analgesics as the most used (43.4%) and for Pissara (2007) the categories most consumed by nursing professionals were analgesics (20.7%) and anti-inflammatory drugs (17.5%)<sup>(14)</sup>. A study by Muniz (2005) reports that analgesics are the most used class (53.6%) and points out that this practice is due to the lack of service to the health care of the server in work units<sup>(7)</sup>. Given these data, we should not disregard that self-care can cause serious health consequences such as risks of drug interactions and the occurrence of delayed diagnosis by masking symptoms and adverse reactions. In their daily lives these professionals are exposed to stress, long-term work hours, physical and psychic disorders; being, therefore, what classifies them as a risk group due to the factors mentioned in<sup>(15)</sup>.

Table 2. Frequency of drugs consumed by self-medication among nursing workers, Nova Aurora – PR

| Medicines     | Absolute (relative) | P-value |
|---------------|---------------------|---------|
| Dipyron       | 22 (34,9)           | 0,001   |
| Acetaminophen | 15 (23,8)           |         |
| Ibuprofeno    | 13 (20,6)           |         |
| Nimesulide    | 7 (11,1)            |         |
| Omeprazole    | 5 (7,9)             |         |
| Buscopan      | 1 (1,6)             |         |

Excessive use of analgesics can result in poor working conditions, leading to fatigue and the use of medications by the high musculoskeletal disorder already described among nursing workers<sup>(8)</sup>.

According to Pissara (2007), the professional categories with the highest self-medication index were nurses and dentists (32%). Nursing has been the target of study by impact stress at work, presenting higher risks of self-medication<sup>(14)</sup>. This profession exposes its workers to various problems. The ineffective number of employees in the sector can be one of the triggers of problems, and the work is higher if the number of workers is lower<sup>(16)</sup>.

Other factors that precede self-medication are reports of minor severities such as headache, in 36% (21) of cases in the public sector and 45% (14) of cases for the private sector, followed by muscle pain in 21% (12) of cases in the public sector and 23% (7) of cases for the private sector, as mentioned in Table 3. The studies of Muniz (2005), Barros (2009) and Pissara (2017) show that the drugs most used in their research were those for headaches, muscle pain, tiredness/stress, as being the most representative<sup>(7,8,14)</sup>.

Regarding the workday, the study demonstrates that nursing professionals have double working hours or perform domestic activities and take care of their children, i.e., 8 (27%) public sector has two jobs and 7 (35%) private sector, in addition, 16 (53%) public sector and 11 (55%) in the private sector carry out domestic activities after working hours. When compared to the study by Barros (2008), conducted in a University Hospital of Ribeirão Preto - São Paulo, 65% of professionals devoted more than 50 hours per week to professional and domestic activities, which can lead to fatigue and stress is a precursor to the use of analgesics and non-steroidal anti-inflammatory drugs (LINE)<sup>(17)</sup>.

The main reasons that led professionals to self-medicate are described in Table 3. According to the reports, for 38% of the professionals, the practice of daily life was the main reason and for 50% the lack of time to go to a consultation. Oliveira's study (2013) on reasons and values that lead the professional to self-medicate shows that 23.5% perform self-medication due to the practice of daily life either in the hospital or direct acquisition in the pharmacy and 17.6% corresponds to the lack of time to seek the appropriate professional and highlight that working in nursing influences self-medication<sup>(18)</sup>.

Table 3. Characteristics that may be related to self-medication among nursing professionals in health facilities, Nova Aurora - PR

| Features                          | Public N (%) | Private N (%) |
|-----------------------------------|--------------|---------------|
| <b>Double Journey</b>             |              |               |
| Yes. I have two jobs              | 8 (27)       | 7 (35) *      |
| No. But I make DA                 | 16 (53)      | 11 (55)       |
| Yes. And I make DA                | 6 (20)       | 2 (10)        |
| <b>Factor for self-medication</b> |              |               |
| Day-to-day practice               | 9 (30)       | 10 (50) *     |
| Time to go in consultation        | 17 (57)      | 8 (40)        |
| No answer                         | 4 (13)       | 2 (10)        |
| <b>Self-medication at work</b>    |              |               |
| Yes, several times                | 6 (20)       | 7 (35) *      |
| Yes, sometimes                    | 13 (43)      | 8 (40)        |
| No answer                         | 11 (37)      | 5 (25)        |

| Symptoms of self-medication |         |           |
|-----------------------------|---------|-----------|
| Headache                    | 21 (36) | 14 (45) * |
| Muscle pain                 | 12 (21) | 7 (23)    |
| Back pain                   | 7 (12)  | 6 (19)    |
| Fever                       | 3 (5)   | 0 (0)     |
| Flu/cold                    | 8 (14)  | 1 (3)     |
| Sore throat                 | 7 (12)  | 3 (10)    |

DA – daily activities; \* Statistical difference,  $p < 0,05$ .

According to Ribeiro et al (2018), even in the face of circumstances such as lack of time, there are still several individuals who find it difficult to access health and many of these professionals prefer to believe in their knowledge obtained during graduation and their influence of self-medicating, and they seek immediate solutions to relieve symptoms of pain, without impairing the rhythm of the workday<sup>(16)</sup>.

The present study has some limitations, as only one public and one private establishment was used for the study, the findings may not be representative of the reality of this type of establishments in other municipalities. Moreover, the number of professionals who participated in the research was not large, which may also have led to a bias in the results obtained. However, we consider that the work is of great importance since the practice of self-medication has been found and can be dangerous even in professionals who know medicines.

## CONCLUSION

The present study demonstrated that self-medication is a common practice among nursing professionals, being performed by a significantly higher number of nurses when compared to nursing technicians. It is believed that this practice is quite common, mainly due to the easy access to medicines. It was also verified that the most used drug class was analgesics, and Dipyron was used by a statistically larger number of people. Although the use of non-prescription drugs may seem harmless, much caution is needed, as it can lead to intoxications and interactions with other medications, in addition to masking diseases that require specific diagnosis and treatment.

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