



## Quality of dental prescription and patients' understanding on pharmacological treatment

### *Qualidade da prescrição odontológica e compreensão do paciente sobre o tratamento farmacológico*

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#### ABSTRACT

The dentist's legal competence to prescribe medication is supported by Law No. 5081/1966 that regulates the exercise of this professional in Brazil. However, despite the regulations regarding prescriptions and the existence of competent professionals to carry out prescriptions, errors still occur in the prescription of medication. This study aimed to analyze the quality of dental prescriptions and the patients' understanding of the proposed pharmacological treatment. The prescriptions were analyzed for legibility and content. The percentage of prescriptions with legible writing ranged from 94 to 100%. The greatest difficulty for patients was to report the indication of precautions and adverse reactions to medications. It was concluded that the prescriptions issued by dentists, in general, have good legibility, however, they are not in conformity with the legislation. A large portion of patients did not know how to safely inform the data that guarantee the safe and effective use of the medication.

**Keywords:** Prescriptions. Pharmacological treatment. Understanding.

#### RESUMO

A competência legal do cirurgião-dentista para prescrever medicamentos está amparada na Lei nº 5.081/1966, que regulamenta o exercício desse profissional no Brasil. Todavia, apesar das normativas, ainda ocorrem erros na prescrição. O objetivo deste estudo foi analisar a qualidade das prescrições odontológicas e a compreensão do paciente em relação ao tratamento farmacológico proposto. Foram utilizados questionários validados para análise das prescrições e verificação da compreensão dos pacientes sobre elas. O percentual de prescrições com grafia legível variou de 94 a 100%. A maior dificuldade dos pacientes foi relatar a indicação das precauções e reações adversas dos medicamentos. Concluiu-se que as prescrições emitidas pelos cirurgiões-dentistas, de maneira geral, apresentaram boa legibilidade, entretanto mostraram inconformidades com a legislação. Grande parcela de pacientes não soube informar com segurança os dados que garantam o uso seguro e eficaz do fármaco.

**Palavras-chave:** Compreensão. Prescrições. Tratamento farmacológico.

*Received in August 26, 2020  
Accepted on November 28, 2020*

## INTRODUCTION

Drug prescription is standardized in Brazil by federal laws<sup>1,2</sup>, resolution of the Brazilian Federal Pharmacy Council (CFF)<sup>3</sup> and ethical aspects established by the Code of Ethics for Pharmacists<sup>4</sup>. It is characterized by a drug description, whose content must faithfully guide the patient in relation to its use. The act of prescribing drugs is performed through a prescription issued by a legally qualified professional, following the provisions of Ordinance SVS/MS No. 344/1998, which recommends that prescriptions can be in three ways: common, magistral and special control<sup>5</sup>.

The common prescription is used in most of the medicines for dental use, represented by analgesics, anti-inflammatories and antibiotics. The magistral is used to select substances or drugs in concentrations that cannot be found in industrialized formulations, as well as pharmaceutical forms suitable for patients whose clinical condition requires some particularity. Finally, those of special control, type B (blue prescription), are intended for the prescription of drugs from list B1 and B2 of Ordinance No. 344/1998<sup>5</sup>. It is worth remembering that this legal provision undergoes periodic updates, carried out through Resolution of the Collegiate Board (RDC), and the most recent is Resolution RDC-Anvisa n° 18, of May 13, 2015<sup>6</sup>.

The dentist's legal competence to indicate medications is supported by Law No. 5,081/1966, which regulates the exercise of this professional in Brazil<sup>7</sup>. However, despite all these regulations, errors related to drugs still occur.

According to The National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP), medication errors (ME) are defined as preventable events, capable of causing or leading to the inappropriate use of medication or damage to the patient<sup>9,10</sup>. Thus, medications are essential components of care and are considered essential in the palliative, symptomatic and curative treatment of many diseases. However, they also cause

significant adverse reactions and are associated with errors<sup>11</sup>, which often occur in hospitals<sup>12,13</sup>, are multi-professional<sup>12</sup> and can occur in one or more stages of the therapeutic chain (i.e., prescription, dispensing and administration). Among the most frequent, those related to prescription stand out<sup>14,15</sup>.

The prescription constitutes the first stage of the medication use cycle and is recognized as an important factor that contributes to the global problem of medication errors, causing harm to the patient<sup>16</sup>. An adequate prescription is considered to be a readable form containing sufficient information to allow the correct administration of the drug. It is estimated that, when incorrectly prescribed, it can lead to an increase of 50 to 70% in the expenditure of government resources. Thus, it represents an important cause of morbidity and mortality, being characterized as a significant worldwide public health problem<sup>17</sup>.

In Brazil, several studies have analyzed the quality of medical prescriptions<sup>18,19,20</sup>, observing a high incidence of omission of information related to the duration of treatment. What is more, many of them did not provide all the essential requirements for the correct and safe use of medicines<sup>19</sup>.

In addition to the quality of the prescription, another important aspect that must be considered for obtaining a successful therapy is the patient's understanding of the pharmacological prescription. Several studies in the medical field seek mechanisms to identify the potential of patients to understand the information received from health professionals. Thus, it is necessary to discover the factors that may be contributing to this mismatch between the prescription made by the dentist and the patient's understanding.

Among the important aspects that the patient should be aware of in the prescribed pharmacological therapy, adverse reactions and side effects stand out, as they can trigger adherence failures. The concept of "adverse reactions" is generally understood as "side effects", both by patients and even by the prescribing

professionals. The World Health Organization (WHO) defines adverse drug reaction (ADR) as “any harmful or undesirable and unintended response that occurs with drugs in doses normally used in man for prophylaxis, diagnosis, treatment of disease or for modification of physiological functions”<sup>21</sup>. On the other hand, side effect refers to an effect different from that considered as main one by a drug.

In view of the context presented about pharmacological therapy, the objective of this study is to analyze the quality of dental prescription and the patient’s understanding of the proposed treatment.

## METHODOLOGY

This is an observational, cross-sectional study. It was approved by the Human Research Ethics Committee of the Faculdade de Medicina de Marília (Famema), under number 03948218.7.0000.5413, and also by the Municipal Council for Research Evaluation (Comap) of the city of Marília (SP). All participants signed the Free and Informed Consent Term (ICF), following the current Brazilian legislation for research with human beings (Resolution No. 466, December 12, 2012).

The research was carried out within the scope of the Municipal Health Secretariat (SMS) of Marília (SP). The city has an estimated population of 238,882 people, is located in the central-west region of São Paulo, being a reference for 62 municipalities. It represents the Regional Health Department IX (DRS IX) and covers five health regions (HR): Adamantina, Assis, Marília, Ourinhos and Tupã.

The dental surgeons of SMS from Marília are distributed among the 12 Basic Health Units (UBS), 35 Family Health Units (USF), two Dental Specialties Centers (CEO), two Emergency Care Units (UPA) and the West Region Polyclinic. In addition, dental care also takes place at Santa Casa de Misericórdia and the Interdisciplinary Home Care Program (PROIID). Marília has three municipal pharmacies, located in the north, south and center, which maintain a wide

network of medication dispensing. They are also present in Family Health Units (FHU) in all districts.

The sample was mostly composed by users of the Unified Health System, aged over 18 years, with dental prescription and who agreed to participate in the study during the moment of medication withdrawal at the municipal pharmacy belonging to the Municipal Health Department. Illiterate individuals and those with visual or hearing limitations that prevented them from reading the instruments or listening to the interviewer were excluded.

The sample size was calculated using the G \* Power software, version 3.1.9.2 (Franz Faul, Universität Kiel, Germany) to analyze the association between qualitative ordinal variables using the Chi-square Association test. Considering a type I error margin ( $\alpha$ ) of 5%, a study power of 80% and four degrees of freedom, the minimum amount of sample elements is 48, taking into account a large effect size (0.50).

The collection locations were chosen for convenience - at the pharmacy in the northern and southern regions, due to the availability of adequate physical space for the application of the questionnaires. The data were obtained by the researcher in the morning and afternoon, according to the pharmacy working hours, between March and October 2019.

Initially, the first copies of the prescriptions of the participants who had undergone dental procedures were photographed in a consensual way; the material was archived for further analysis. The first stage of assessing the quality of prescriptions was about legibility and occurred in the months of February and March 2020; involved three recently graduated pharmaceutical professionals (2019) in the Pharmacy degree at a private university in the city of Marília. Then, it was also evaluated by three pharmacists, with professional experience in commercial/municipal pharmacy between 15 and 20 years; all were active in the activity of a municipal pharmacy in the public health network.

Bearing in mind that the analysis of the legibility of a prescription goes through subjective processes according to the experience of the evaluator, a standard based on validated instruments was established, making the evaluation more homogeneous and minimizing aspects of the subjectivity involved in the judgment. Every prescription collected by the researcher was examined in an environment with adequate brightness, and the evaluators were instructed to analyze its legibility according to the criteria of Rosa et al.<sup>8</sup>, based on three categories:

- a. Writing with good legibility - read normally, without problems for understanding it;
- b. Poorly legible or questionable writing - requires more reading time, without certainty of full understanding of all words, numbers, symbols and abbreviations;
- c. Illegible writing - impossible understanding of writing; it was considered illegible when at least 50% of the words are indecipherable.

This last criterion helped to reduce differences in interpretation between the evaluators, favoring the achievement of more consistent results.

In addition, following the guidelines of the authors, the prescriptions were classified as: pre-typed (made in computer and printed); handwritten; and mixed (partly typed and partly handwritten).

The next step, carried out by the main researcher of this study, consisted of the analysis of the information contained in the prescription in relation to the normative administrative acts and the current legislation<sup>22,1</sup>. Law No. 5,081/1966 establishes that it is up to the dental surgeon to prescribe and apply pharmaceutical specialties for internal and external use, indicated in Dentistry, in addition to the prescription and application of emergency medications in the case of serious accidents that compromise life and patients' health (article 6, items II and VIII)<sup>7</sup>.

Data analysis contained in the prescriptions was carried out in relation to:

- I. legibility and absence of erasures and seams<sup>22</sup>;
- II. user identification<sup>22</sup>;
- III. identification of the drug, concentration, dosage, pharmaceutical form and quantity<sup>22</sup>;
- IV. method of use or dosage<sup>22</sup>;
- V. duration of treatment<sup>22</sup>;
- VI. place and date of issue<sup>22</sup>;
- VII. signature and identification of the prescriber with the registration number with the respective professional council<sup>22</sup>;
- VIII. presence of a generic name corresponding to the Brazilian Common Denomination (DCB) and, in its absence, to the International Nonproprietary Name (INN)<sup>1</sup>;
- IX. prescription written in ink, vernacular, in full and legible form, observing the nomenclature and the official system of weights and measures<sup>1</sup>;
- X. use of abbreviation of pharmaceutical forms - therefore, write a tablet or capsule, and not "tab." or "cap."; routes of administration should not be abbreviated, that is, it is necessary to write "by mouth" or "intravenous", and not "PO" or "IV"; the intervals between doses should be described "every 2 hours", instead of "2/2 hours"<sup>1</sup>;
- XI. presence of the expression "if necessary", which is incorrect and dangerous, as it illegally transfers the responsibility for the prescription to the patient or to whom the drug should be administered, encouraging self-medication<sup>1</sup>;
- XII. existence of a written statement from the prescriber if he/she does not wish to allow the interchangeability of his/her prescription by the generic one<sup>1</sup>.

The information contained in the prescriptions that had antimicrobials was analyzed, observing the following mandatory data:

- 1). patient identification: full name, age and sex<sup>23</sup>;
- 2). name of the drug or substance prescribed according to the Brazilian Common Denomination (DCB), dose or concentration, pharmaceutical form, dosage and quantity<sup>23</sup>;
- 3). identification of the prescriber: name of the professional with his/her registration with the Regional Council or name of the institution, full address, telephone, signature and graphic mark (stamp)<sup>23</sup>;
- 4). date of issue<sup>23</sup>.

As a data collection instrument for the analysis of the user's understanding of the prescribed pharmacological treatment, a questionnaire available in the literature was used, validated through a pilot study and then applied to the study participants after consultation at dental services. For examining the information, scores were defined by which different points were assigned to each item, according to their importance for the safe use of drugs<sup>24</sup>.

The classification of the level of information as "insufficient", "regular" and "good", proposed by Dresch, Amador and Heineck<sup>24</sup>, serves as an indicator to verify whether the participants are able to safely use the prescribed drugs. Considering that the aspects included have different degrees of importance for the safe use of them on an outpatient basis, different scores were given to each item. For essential items to the correct acquisition and administration of the drug, score 2 was assigned; for the other items that do not usually influence the correct administration decisively, but which, depending on the occurrence of unexpected events, may gain greater importance, it was assigned score 1<sup>24</sup>.

Regarding the name of the medication, the answers whose pronunciations were the same or similar to that described in the prescription were considered correct. For the item "therapeutic indication", the correct answer should mention the pharmacological class (e.g.: "anti-inflammatory") or the diagnosis (e.g.: "for inflammation"), considering that generally the dental prescriptions include drugs that act in the same place<sup>24</sup>.

In this sense, two points were assigned for the name of the drug, dose and frequency of administration, and one point for the duration of treatment, therapeutic indication, adverse effects and precautions, totaling a maximum of ten points<sup>24</sup>.

Starting from the definition of safe use of the drug as one that does not cause damage to the patient's health and well-being, three levels of information were defined:

- a. good level - allows the patient to use the medication safely in any circumstances (9 and 10 points)<sup>24</sup>;
- b. regular level - allows the patient to use the medication safely in ideal conditions, without any complications during treatment (6 to 8 points)<sup>24</sup>;
- c. insufficient level - does not allow the patient to use the medicine safely ( $\leq 5$  points)<sup>24</sup>.

## RESULTS

Of the total of 62 patients interviewed in municipal pharmacies in the public health network, ten were excluded from this study; therefore, the final sample was 52 participants (83.9%). Among the excluded ones, four (6.4%) did not know how to read and write or literacy was insufficient to complete the questionnaire. Five (8%) were excluded from the study, due to reports of hurry or pain, and 1 (1.6%), due to lack of data.

The socio-demographic profile of the population participating in this work was composed predominantly of female individuals, aged 18 to 39 years, complete high school, with work activity at the time of the interview and average family income up to two Brazilian minimum wages (Table 1).

**Table 1.** Numerical and percentage distribution of the participants' socio-demographic characteristics (n = 52; Marília/São Paulo – Brazil, 2019)

Variable	Category	n	%
Sex	Male	22	42,3
	Female	30	57,7
Age (years)	18-39	26	50
	40-59	21	40,4
	> 59	5	9,61
Schooling	Elementary School	21	40,4
	High School	27	51,9
	Higher School	4	7,7
Occupation	Work	33	63,5
	Do not work	19	36,5
Family income (minimum wages) *	0–2	30	57,7
	3	16	30,8
	> 3	4	7,7
	Not informed	2	3,8

\* Brazilian minimum wage (+/- US\$ 242,82 – November 2019).

Source: research data

Fifty-seven prescriptions were analyzed, as five participants had two prescribed ones by the same professional; 43 were mixed, 13 were pre-typed and only 1 was handwritten.

The newly graduated pharmacists who evaluated the prescriptions were identified as F1, F2 and F3, and those with 15 to 20 years of work experience in commercial/municipal pharmacy, F4,

F5 and F6. In general, they were considered with good legibility, both by examiners with more professional experience and by recent graduates. The percentage of prescriptions with legible writing ranged from 94 to 100%, and two of the three most experienced evaluators considered them all legible. The analysis of the legibility of the dental prescription is shown in Graph 1.



\* F1 to F3 stands for the newly graduated pharmacists; and F4 to F6, those with professional experience.

Source: research data

**Graph 1.** Distribution of the percentage of dental prescriptions in relation to legibility (n = 57; Marília/São Paulo – Brazil, 2019)

The examination of the information contained in the prescriptions in relation to that recommended by the normative acts and current legislation is shown in Table 2. It was found that all prescriptions contained the patient's name, medication name, dose, stamp, signature and interval between doses. On the other hand, what was most absent was the route of administration, observed in only 49.1%.

With regard to abbreviations, the use of this resource to represent the pharmaceutical form (64.9%) and the interval between doses (61.4%) has

been observed. Abbreviations were used to designate the route of administration in only 4% of prescriptions. This type of error demonstrates failures that can result in the occurrence of "medication errors".

Among the 57 prescriptions analyzed in the present study, 45 (78.9%) contained antibiotics. In these cases, the lack of characterization of the patient in relation to age and sex was perceived, not complying with the prescription rules for antimicrobials established by RDC/Anvisa 20/2011.

**Table 2.** Numerical and percentage distribution of information contained in the prescriptions recommended by current legislation (n = 57; Marília/São Paulo – Brazil, 2019)

Variable	Frequency	%
1. Patient's name	57	100
1.1 Patient's address	38	66,6
2. Route of Administration	28	49,1
2.1 Use of abbreviations (PO or IV)	4	7,0
3. Drug name	57	100
4. Quantity	42	73,6
5. Administration		
5.1. Dosage	57	100
5.1.1. Use of pharmaceutical abbreviations (e.g.: "tab.", "cap.")	37	64,9
5.2. Interval	57	100
5.2.1. Use of abbreviations (e.g. 8/8 hours)	35	61,4
5.3. Duration of treatment	54	94,7
6.0 Date of prescription, stamp and prescriber signature		
6.1. Date of prescription	51	89,4
6.2. Stamp	57	100
6.3. Signature	57	100
7.0 Prescriber		
7.1. Prescriber's name	55	96,5
7.2. Prescriber's address	44	77,1
7.3. Prescriber's telephone number	37	64,9

Source: research data

Unlike private health services, in which the prescription is at the discretion of the prescriber, being able to describe the medication by a generic or commercial name, within the scope of the SUS, the prescriptions will mandatorily adopt the DCB, and in their absence, the INN. In this sense, all prescriptions presented the name of the drug or substance prescribed in the form of DCB.

In the prescriptions examined, no written manifestations were found by the prescriber to prevent the interchangeability of his/her prescription by the generic drug.

Another aspect analyzed by this study was the understanding of patients in relation to dental prescriptions. Table 3 shows the frequency of correct answers about the information related to their prescriptions. Most of them knew how to mention both the name of the medication and the therapeutic indication. Regarding the understanding of the prescriptions, the participants found it easier to report the name of the medication, the frequency of doses, the therapeutic indication and the dose; however, there was greater difficulty in relation to the indication of precautions and adverse reactions of the prescribed drugs.

**Table 3.** Numerical and percentage distribution of correct answers of patients in relation to information about prescribed drugs (n = 52; Marília/São Paulo – Brazil, 2019)

Variable	Frequency	%
Name	47	90,4
Therapeutic indication	37	71,1
Dose	36	69,2
Frequency of doses	43	82,7
Precautions	11	21,1
Adverse reactions	7	13,5
TOTAL	52	100

Source: research data

Table 4 shows the results related to the patients' level of knowledge about the prescribed drugs. It is possible to observe that only a minority

of the members of the sample had a good level of understanding about their prescription, reaching scores above 8 points.

**Table 4.** Numerical and percentage distribution of patients' understanding on prescription (n = 52; Marília/São Paulo – Brazil, 2019)

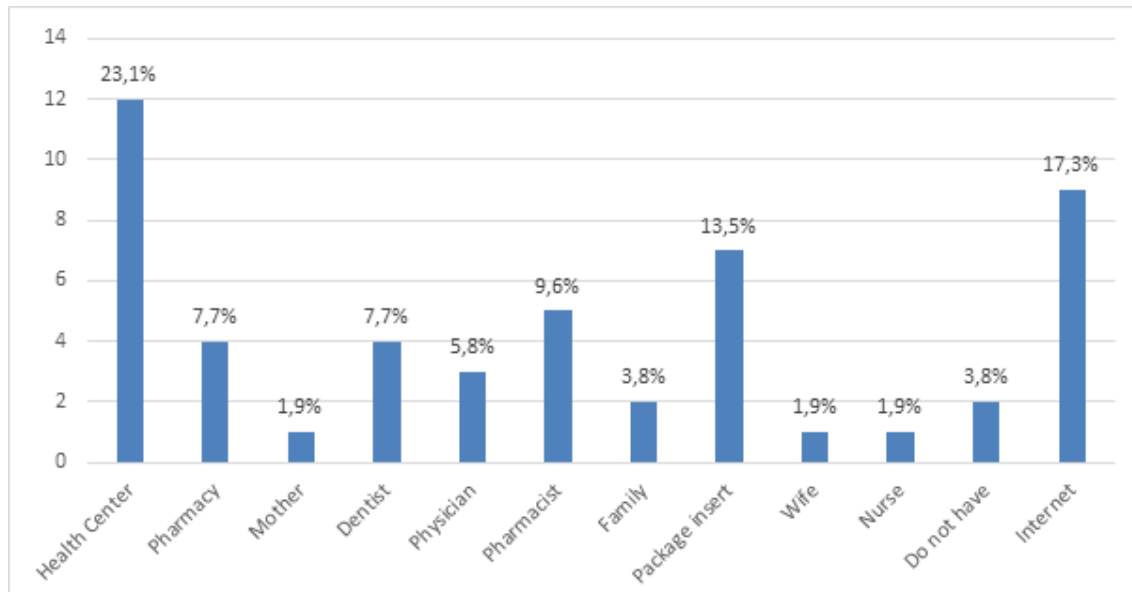
Level of information	Frequency	%
Insufficient (less than 6 points)	12	23,1
Regular (from 6 to 8 points)	34	65,4
Good (more than 8 points)	6	11,5
TOTAL	52	100

Source: research data

The source that the participants use to answer their questions about the use of the medication was also verified. In general, they reported that they seek information mainly at the health center (23.1%), on the Internet (17.3%) and in the package inserts (13.5%) (Graph 2).

The results indicate that around 55% of the studied population resort to health services or directly to health professionals such as doctors, dentists, nurses and pharmacists. On the other hand, a contingent of 17.3% reported seeking information about medicines from questionable sources, such as the Internet.





**Graph 2.** Distribution of the percentage of sources of information on drugs used by the participants (n=52; Marília/São Paulo – Brazil, 2019).

Source: research data

## DISCUSSION

The legibility analysis generates, in its classification, a certain degree of subjectivity to be considered, since numerous individual factors of the evaluator and the environment can directly interfere in the activity. Among them, visual acuity, professional experience, brightness, use of carbon paper to obtain the duplicate, knowledge in pharmacology and familiarity with the prescriptions stand out<sup>25</sup>.

Thus, in order to mitigate these aspects, the assessment was carried out independently by each professional - first by the recent graduates and then by those with extensive experience in reading the prescriptions. The establishment of clear legibility criteria, with theoretical references, such as the one used in the present study, based on the work carried out by Rosa et al.<sup>8</sup>, collaborated to improve the objectivity of the work.

Law No. 5,991/1973<sup>1</sup>, which provides for the sanitary control of the trade in drugs, medicines, pharmaceutical inputs and related items, and provides for other measures, highlights in art. 35, “a” of Chapter VI, that only the prescription that is

written in ink, vernacular, in full and legible form, observing the nomenclature and the official system of weights and measures, will be filled. Failure to comply with legislation and institutional rules has caused medication errors that can lead to the mistaken substitution of one medication for another during dispensation, use of it beyond the necessary time and lack of adherence to treatment<sup>20</sup>.

The realization of a detailed prescription, guided by the dentist transmits to the necessary information for pharmacological treatment to the patient, reducing the search for other professionals to answer questions or even obtain them through unsafe sources<sup>24</sup>.

The two data collection locations in the present study belong to the public health network, so they provide free supply of medicines upon presentation of the SUS card and prescription. The delivery of the drug is made by pharmacists who advise the patient on its use, representing a second way of reinforcing the information contained in the prescriptions.

The findings of the present study contrast with those found in a research carried out in a

municipality in the State of Goiás, which characterized 4.2% of medical prescriptions analyzed as illegible, and 32.6%, with little legibility<sup>20</sup>. However, an important aspect that can justify this discrepancy in the results between these two studies is the fact that 90.3% of the prescriptions in the study from Goiás were handwritten, whereas in the present study only one prescription presented this characteristic.

Errors such as illegibility were found in several studies analyzing medical prescriptions<sup>8,16</sup>. One of them, developed at three Dental Schools and two Medical Schools in India, showed that knowledge about prescription writing was inadequate among dentists and doctors. However, although statistically insignificant, dentists performed better in this regard. The authors stressed the need for students to be warned about the importance of writing the prescription properly in order to maintain the safety of patients, as well as the doctor's and the dentist's<sup>26</sup>.

A similar study that aimed to assess the quality of medical prescriptions found that they did not provide all the essential requirements for the correct and safe use of the medication, corroborating the findings of the present study<sup>19</sup>.

It is necessary to create more effective mechanisms so that the prescription is more correct, thus minimizing errors and complying with current institutional rules and legislation<sup>19</sup>. The effects of illegibility can be minimized through pre-typed prescriptions, observed in 22.8% of the prescriptions in this study. However, care must be taken in preparing them, in order to avoid the appearance of new types of errors or the simple transposition of old problems into a new prescription mode<sup>8</sup>.

An important aspect is the existence of a very large variety of drugs prescribed in the medical field, whereas in the field of Dentistry this contingent is more restricted. This difference can favor the minimization of errors in dental prescriptions, because intuitively the pharmacist can more easily identify the correct medication in situations of illegibility.

Some actions can reduce such errors, among which are: simplification and standardization

of prescription, dispensing and medication administration processes; implementation of prescription by computerized system; use of pharmaceutical software as a source of information about medicines and checking prescriptions<sup>16</sup>; avoid abbreviations; prescription of medicines by generic names; use of clear and legible letters (in the case of handwritten prescriptions); and continuing education of prescribing professionals<sup>20</sup>.

An important aspect to improve the quality of prescriptions is to invest in the training of health care professionals who will act as prescribers. In this sense, a study with undergraduate students from the last year of Dentistry pointed out the need for changes in the teaching methodologies of the subjects of Pharmacology and Drug Therapy, proposing greater integration with those involving clinical practice<sup>27</sup>.

In addition to the need to carry out educational actions aimed at improving the quality of the prescription, this study showed the importance of also being concerned with the degree of understanding of patients about their prescriptions. Although the participants adequately mentioned the name of the drugs and the therapeutic indication, their precautions and adverse reactions were unknown to them. This fact becomes more worrying when it is verified that sources of information such as the Internet constitute resources that are widely used by this population.

In a survey carried out in the dental field to verify the level of knowledge of patients in relation to the prescribed drugs, the authors observed that 86% knew the name of the drugs, 85% the frequency of doses, 66% the therapeutic indication and 65% dose. Only a small part was able to inform about the precautions (20%) and adverse effects (9%) of them, thus there could be no guarantees regarding the effectiveness and safety of the proposed drug therapy<sup>24</sup>. Similar results were obtained in the same study, which showed a frequency of correct answers of only 11.6% and 8.5%, related to precautions and adverse reactions, respectively<sup>24</sup>.

Early detection of ADR is important to identify patients who are at increased risk for these events and require more cautious management of pharmacological therapy in order to avoid unwanted results<sup>28</sup>. The low level of knowledge of the participants about precautions and adverse reactions to medications and their impact should be a matter of concern in the scope of public policies, as this lack of knowledge - both by professionals and patients - can generate underreporting of ADRs.

A study carried out with 286 patients, using a methodology similar to the present study, analyzed the patients' level of knowledge in relation to the drugs prescribed in dental services<sup>24</sup>. It was found that most of them had a regular level (54.6%), thus corroborating the results found in this research.

Approaches of this nature may be useful in identifying the indicators for creating strategies that aim to fill the gaps in understanding about information related to the health of public network users. Therefore, the way the patient faces the disease and its symptoms will provide elements that can reach his/her cultural universe, allowing the health professional to influence adherence to drug treatment, through an effective communication of the reality of the disease and the benefits of the correct use of medication.

An alternative to make sure that the patient understood the pharmacological information during the consultation is to ask him/her to give a feedback of what was explained by the health care professional. The absence or inefficiency of information provided by the prescribers may favor the inappropriate use of the medication. Most of the drugs available for free in municipal pharmacies do not include package inserts, making it essential for the prescriber to provide the patient with detailed information.

One of the limitations of this study refers to the process of verifying the legibility of the prescriptions, due to the fact that this goes through the subjective criteria of the evaluator. It was not possible to carry out a calibration of the evaluators aiming at greater uniformity in the analyzes, a process

that could be operationalized through a pilot study or even a consensus meeting to establish the parameters. However, this aspect was partly counterbalanced by the large number of pre-digitized or mixed prescriptions, reducing the difficulty of evaluations. This may have influenced the high legibility rates attributed in the present study.

Another aspect that must be taken into account is that it is a cross-sectional study, so the data collection was performed in a single moment. Future work, with other designs, will be able to follow the patients in a longitudinal way, even with the incorporation of qualitative instruments that explore the specificities related to the patients' difficulties in understanding the prescriptions.

## CONCLUSION

The present study suggests that, in general, the prescriptions issued by dentists were well legible; however, non-conformities with the current legislation were found in relation to the information contained in the prescriptions.

Regarding the patient's understanding of the prescribed pharmacological treatment, it was found that the population of this study had an intermediate level of knowledge and was unable to safely provide the necessary data to ensure the safe use of the proposed drugs.

Together, these data reinforce the need for greater investments in continuing education aimed at professionals in Primary and Secondary Health Care, aiming to correct the inconsistencies found in the communication process between the dentist and the patient.

Bearing in mind that the prescription represents a communication tool for the patient's care plan, it must be filled out clearly and in accordance with current legislation. In addition, communication with the patient needs to go beyond the information contained in the prescription, thus ensuring greater security in relation to the proposed therapy.

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