REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

Evaluation of the impact of pharmaceutical orientation given to patients on prescribed drugs

Leticia Silva de Oliveira[1] **Luiz Henrique Monteiro**[1] **Mayara Oliveira Ortiz**[2] **Leandro Pinheiro Cintra**[3] **Josiane Moreira da Costa**[1] **Renata Aline de Andrade**[1]

[1]Universidade Federal dos Vales do Jequitinhonha e Mucuri – UFVJM. Diamantina/ MG, Brasil.
[2]Universidade Federal de Minas Gerais – UFMG. Belo Horizonte/MG, Brasil.
[3]Universidade Professor Edson Antônio Velano – UNIFENAS-BH. Belo Horizonte/MG, Brasil.
E-mail: lpcintra@gmail.com

Abstract

The rational use of drugs is considered one of the key elements recommended by the World Health Organization, the absence of which can lead to consequences such as adverse reactions, decreased drug efficacy, economic losses for the government and/or individual, drug interactions, and worsening of the patient's clinical condition. The pharmaceutical orientation service that involves this context has been discussed by few studies, and the use of a validated instrument to demonstrate the impact of providing pharmaceutical guidance to patients on prescribed drugs is considered interesting and constitutes the objective of this work. The methodology used was a cross-sectional study conducted in a Primary Care Center in Diamantina, MG. A questionnaire was used to measure the patient's level of knowledge about their medications before and after receiving pharmaceutical guidance. After pharmaceutical orientation, there was a decrease in the percentage of users who did not know about their medications (73.2%; n=93 to 33.9%; n=43) and an increase in the level of sufficient knowledge (14.2%; n=18 to 18.9%; n=24) and excellent knowledge (11.0%; n=14 to 47.2%; n=60). There was an increase in users' knowledge of all the items that make up the questionnaire. Pharmaceutical orientation had a positive impact on patients' knowledge about their medications and constitutes an essential practice for the Rational Use of Medications.

Keywords: Evidence-based pharmaceutical practice. Health education. Medication use.

INTRODUCTION

The rational use of drugs (RUD) is considered one of the key elements recommended by the World Health Organization for drug policies, as the effects of drugs used irrationally have consequences upon health and is considered a reason for hospitalizations and public health problems[1,2]. Among the goals of sustainable development for the new millennium are the achievement of universal healthcare coverage, access to quality essential healthcare services, and access to essential medicines and vaccines for all in a safe, effective, quality, and affordable way, which corroborates with the promotion of RUD[3].

The consequences of the absence of the RUM are serious and worrying. Among them, adverse reactions, decrease in drug efficacy, economic losses for the government and/or individual, drug interactions and worsening of the patient's clinical condition stand out[4,5].

REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

The knowledge of patients concerning their medication, obtained through pharmaceutical orientation, is one of the keys related to RUD and one of the contributors to obtaining positive results associated with medication use[6]. Pharmaceutical orientation is understood as a process of informing and educating the patient, who receives guidance on the drugs used. This process is of great importance for the pharmacotherapy to be successful and for the user to use the drugs rationally. The information transmitted to the patient is intended to instruct and motivate them about care and responsibility for their own health[7,8].

The pharmaceutical guidance service was discussed by few studies[9]. Therefore, using a validated instrument would be interesting for demonstrating the impact of providing pharmaceutical orientation to patients using prescribed drugs, constitutes the objective of this study.

METHODOLOGY

This is a descriptive, cross-sectional, and interventional study in a Primary Care Center (PCC) located on the outskirts of a city in the Jequitinhonha Valley in Minas Gerais. Analyses of data recorded between April and December 2017 were performed.

The study population consisted of patients (and caregivers) assisted by the PCC medical professional. Sampling was by convenience and selected by availability, without restriction of gender, age, clinical situation, or prescribed medication, consisting of all patients who were referred to this Service during the study period.

For data collection, a questionnaire interculturally adapted from Spanish to European Portuguese was applied to measure the degree of patient knowledge about their medications (CPM-PT-PT)[10]. This questionnaire consists of 16 questions which address indication, dosage , therapeutic scheme, duration of treatment, form of administration, precautions, adverse effects, contraindications, effectiveness, and conservation, while reflecting upon four dimensions: “process of medication use”, “safety”, “therapeutic objective”, and “preservation”[6,11] Chart 1 presents the questionnaire with the original version in Spanish and with the version adapted to Portuguese.

After applying Questionnaire 1, pharmaceutical orientation was given regarding the drugs prescribed during the medical consultation. Patients were informed of the name of the medication(s), dosage, care in use, adverse effects, contraindications, therapeutic indication, and conservation, endeavoring, as much as possible, that the information would reach the patient or caregiver in an easy way to be assimilated and so that it would become healthcare knowledge. According to the answers obtained with the application of Questionnaire 1, some aspects that the patient had answered incorrectly, presented doubts, or answered with “I don't know” were explained in greater detail.

Following the pharmaceutical orientation, Questionnaire 2 was applied, containing the same questions present in Questionnaire 1. To avoid repeating questions to the patient the answer during the application of Questionnaire 1, only the questions that were not answered correctly or those that the patient had doubts concerning or demonstrated not knowing were asked.

To measure the patients' level of knowledge about the prescribed medications and also to measure the impact of the pharmaceutical orientation service, a methodology carried out in a previous study[6] was adopted, in which each of the answers to the questions related to the four determinant dimensions of knowledge

REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

about the medications (question 2 and questions 6 to 15) received a score according to the reference information (medical prescription or scientific literature).

Chart 1 - Questions in the original version of the CPT-ES-ES questionnaire and questions in the final version of the cross-cultural translation of the CPT-PT-PT questionnaire.

Question	Original Spanish version of the CPM-ES-ES	Adapted Portuguese version of the CPM-PT-PT (retro-translated to English)
Item 1	¿Es para usted este medicamento? ¿Es para alguien que está a su cuidado?	Este medicamento é para si? Se não, é para alguém que está ao seu cuidado?
Item 2	¿Cómo se llama este medicamento?	Em relação a este medicamento, por favor registre: Nome comercial, Princípio ativo, Forma farmacêutica.
Item 3	¿Conoce el nombre del medicamento?	Como se chama este medicamento? O doente conhece o nome do medicamento?
Item 4	¿Desde cuando está tomando/utilizando este medicamento?	Desde quando está a tomar/utilizar este medicamento?
Item 5	¿Cuántos medicamentos está tomando además de éste?	Quantos medicamentos está a tomar para além deste?
Item 6*	¿Para qué tiene que tomar este medicamento?	Para que tem que tomar/utilizar este medicamento?
Item 7*	¿Qué cantidad debe tomar/utilizar de este medicamento?	Quanto deve tomar/utilizar este medicamento?
Item 8*	¿Cada cuánto tiene que tomar/utilizar este medicamento?	Quando tem que tomar/utilizar este medicamento?
Item 9*	¿Hasta cuando tiene que tomar/utilizar este medicamento?	Até quando tem que tomar/utilizar este medicamento?
Item 10*	¿Cómo debe tomar/utilizar este medicamento?	Como deve tomar/utilizar este medicamento?
Item 11*	¿Há de tener alguna precaución cuando toma/utiliza este medicamento?	Deve ter alguma precaução quando toma/utiliza este medicamento?
Item 12*	¿Qué efectos adversos conoce usted de este medicamento?	Que efeitos adversos conhece deste medicamento?
Item 13*	¿Ante qué problema de salud o situación especial no debe tomar/utilizar este medicamento?	Em que situações ou casos não deve tomar/utilizar este medicamento?
Item 14*	¿Cómo sabe si el medicamento le hace efecto?	Como é que sabe se o medicamento lhe faz efeito?
Item 15*	¿Qué medicamentos o alimentos debe evitar tomar mientras use este medicamento?	Que medicamentos ou alimentos deve evitar enquanto usa este medicamento?
Item 16*	¿Cómo debe conservar su medicamento?	Que cuidados deve ter para manter em bom estado de conservação o seu medicamento?
Item 17*	¿El problema de salud para el que toma este medicamento, le preocupa... bastante, regular ó poco?	O problema de saúde para o qual toma este medicamento preocupa-o: muito, mais ou menos, ou pouco?
Item 18	¿Quién le digo que tomara/utilizara este medicamento?	Quem lhe disse para tomar/utilizar este medicamento?
Item 19	Género	Gênero
Item 20	Edad	Idade
Item 21	Profesión	Profissão
Item 22	País de origen	País de origem
Item 23	Nível de estúdios	Nível de instrução

* Items that measure the degree of knowledge about the drug.

REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

This score was assigned as follows: incorrect (score equal to -1: the patient's information does not match the reference information), does not know (score equal to 0: the patient indicates verbally or not that they do not know), insufficient (score equal to 1: the patient's response is not complete, it does not ensure that the patient has the necessary information to ensure the correct use of the medication), correct (score equal to 2: the patient's information coincides with the reference information).

Subsequently, the patient's knowledge of the medication (PKM) was calculated using the formula[12]:

$$PKM = \frac{[1.2 \sum Pi^{A}] + [1.1 \sum Pi^{B}] + [0.85 \sum Pi^{C}] + [0.6 \sum Pi^{D}]}{(1.2x5) + (1.1x2) + (0.85x3) + (0.6)}$$

Pi^{X} = score obtained by the patient for each question of each X dimension. A = Process of use: Name of the drug (question 2), dosage (question 6), frequency of administration (question 7), duration of treatment (question 8), form of administration (question 9); B = Therapeutic objective: Indication (question 15), effectiveness (question 13); C = Safety: Precautions (question 10), adverse effects (question 11), contraindications (question 12); D = Conservation: conservation (question 14).

The maximum score per question related to the patient's knowledge about the medication was 2 and the minimum 0. Knowing (2 points) the first 5 questions was defined as a minimum criterion. If the partial score of any of patient was less than 2, it was considered that the patient did not have the necessary information to ensure a correct RUD (PKM = 0).

The patient's knowledge about the medication was characterized as: not familiar with the medication (0 points), insufficient knowledge (0.60 to 1.26), sufficient knowledge (1.27 to 1.60), and excellent knowledge (1.61 to 2).

The categories "does not know" and "insufficient knowledge" were considered as "does not know the medication", and the categories "sufficient" and "excellent knowledge" were considered as "knows the medication". A comparison was made of the results of the patient's knowledge about the medication obtained with the application of the questionnaire before and after the pharmaceutical orientation to verify changes in knowledge.

The analysis of the PKM results of each patient was carried out using the SPSS program (Statistical Package for the Social Sciences), which included calculations of the relative frequency of the data. For the variables gender, education, age, type of job, concern about the health problem, number of medications, and use of medications other than those prescribed in the last consultation, absolute and relative frequency tables were created.

The study was approved by the Research Ethics Committee (REC) of the Federal University of Vales do Jequitinhonha e Mucuri (FUVJM) in November 2018 under opinion number 3.043.166.

RESULTS

The questionnaire was applied to 132 patients or companions who consulted with the PCC physician during the study period. Five questionnaires were discarded at the time of analysis of responses, due to inconsistency and incompleteness of information. Therefore, the sample consisted of 127 participants.

Table 1 presents the sociodemographic characteristics, the health problem presented, and the prescribed drugs. It was obser-

REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

ved that 78.0% (n=99) were women and the mean age was 41.6 years (SD 17.8). It was identified that 43.3% (n=52) of the patients had jobs that did not require schooling above high school (for example, cleaning lady, street vendor), and 30.9% (n=37) were housewives, retired, or unemployed. With regards to education, 37.6% (n=47) reported "Incomplete Elementary School".

As shown in Table 1, 81.9% (n=104) of the patients were receiving medical prescriptions for their own use and 53.2% (n=67) stated that they gave great importance to the health problem they had. Regarding the medications that were on the medical prescription, 66.9% (n=85) received a prescription for 2 to 4 medications and 44.9% (n=57) used other medications in addition to those prescribed.

Table 2 presents the prescribed drugs, grouped according to the Anatomical Therapeutic Chemical (ATC) classification. A total of 263 medications were observed, with an average of 2.1 medications per prescription. The most prescribed were drugs belonging to the "Cardiovascular System" group (23.2%; n=61), followed by the "Nervous System" group (17.1%; n=45) and "Musculoskeletal System" (14.5%; n=38).

By calculating the PKM, it was identified that 74.8% (n=95.1) of the users declared not knowing about the medication(s) they would use, corresponding to the classifications "does not know" (73.2%; n=93) and "insufficient knowledge" (1.6%; n=2.1). It is noteworthy that 32 patients (25.2%) were aware of the medication(s), corresponding to the classifications of "sufficient knowledge" (14.2%; n=18) and "excellent knowledge" (11.0%; n=14).

Table 1 - Sociodemographic characteristics, related to the presented health problem and prescribed medication – Diamantina, MG, 2019.

Variables	N (%)
Total patients	**127 (100)**
Mean age (SD)	**41.6 (17.8)**
Sex	
Female	99 (78.0)
Male	28 (22.0)
Education[1]	
Illiterate	9 (7.2)
incomplete primary education	47 (37.6)
Complete primary education	11 (8.8)
Incomplete high school	16 (12.8)
Complete high school	25 (20.0)
incomplete higher education	8 (6.4)
complete higher education	9 (7.2)
Occupation[1]	
Housewives/retired/unemployed	37 (30.9)
Unskilled work	52 (43.3)
Students	15 (12.5)
Teachers	4 (3.3)
Administrative jobs and merchants	9 (7.5)
Skilled work	3 (2.5)
Education[1]	

to be continued...

Revista O Mundo da Saúde

DOI: 10.15343/0104-7809.202347e13612022I

...continuation - table 1

Variables	N (%)
Illiterate	56 (18.0)
1 to 4 years	148 (47.6)
5 to 8 years	44 (14.1)
9 to 11 years	35 (11.3)
12 years or older	28 (9.0)
Concern about health problem[1]	
Little	24 (19.1)
Somewhat	35 (27.7)
Very much	67 (53.2)
User (who answered the questionnaire)	
Own use	104 (81.9)
Caregiver	23 (18.1)
Number of drugs	
Monotherapy	38 (29.9)
2 to 4	85 (66.9)
Polymedicated (≥5)	4 (3.2)
Used other medications, in addition to those prescribed in the last consultation	
No	70 (55.1)
Yes	57 (44.9)

[1]Number of valid answers.

Table 2 - Prescribed drugs, grouped according to Anatomical Therapeutic Chemical (ATC) classification.

ATC Therapeutic Groups	N (%)
Total number of prescribed drugs	**263 (100)**
A – Digestive system and metabolism	34 (12.9)
B – Blood and hematopoietic organs	4 (1.5)
C – Cardiovascular system	61 (23.2)
D – Dermatological therapy	6 (2.3)
G – Genitourinary Therapy	4 (1.5)
H – Hormone Therapy	8 (3.1)
J – Anti-infective therapy	29 (11.0)
M – Musculoskeletal system	38 (14.5)
N – nervous system	45 (17.1)
P – Antiparasitic chemical, insecticides, and repellents	13 (4.9)
R – Respiratory system	17 (6.5)
S – Sensory organs	4 (1.5)

REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

Table 3 - Comparison between the chances of presenting good knowledge in post-intervention period when compared to the pre-intervention period – Diamantina, MG, 2019.

Items	Total Low knowledge Before N (%)	Total Low knowledge After N (%)	Total Good knowledge Before N (%)	Total Good knowledge After N (%)	*Odds ratio* (OR)	Confidence Interval (IC)	P value
Drug name	86 (67.7)	53 (41.7)	41 (32.3)	74 (58.3)	0.342	0.205 - 0.570	P < 0.0001
Dosage	56 (44.1)	7 (5.5)	71 (55.9)	120 (94.5)	0.074	0.032 - 0.171	P < 0.0001
Frequency of administration	57 (44.9)	15 (11.8)	70 (55.1)	112 (88.2)	0.165	0.087 - 0.313	P < 0.0001
Duration of treatment	54 (42.5)	19 (15.0)	73 (57.5)	108 (85.0)	0.238	0.130 - 0.434	P < 0.0001
Form of administration	15 (11.8)	3 (2.4)	112 (88.2)	124 (97.6)	0.181	0.051 - 0.641	P = 0.008
Recommendation	19 (15.0)	11 (8.7)	108 (85.0)	116 (91.3)	0.539	0.245 - 1.185	P = 0.124
Effectiveness	14 (11.0)	3 (2.4)	113 (89.0)	124 (97.6)	0.195	0.055 - 0.697	P = 0.012
Precautions	58 (45.7)	31 (24.4)	69 (54.3)	96 (75.6)	0.384	0.225 - 0.656	P = 0.001
Adverse effects	113 (89.0)	55 (43.3)	14 (11.0)	72 (56.7)	0.095	0.049 - 0.183	P < 0.0001
Contraindications	71 (55.9)	36 (28.3)	56 (44.1)	91 (71.7)	0.312	0.185 - 0.526	P < 0.0001
Conservation	39 (30.7)	10 (7.9)	88 (69.3)	117 (92.1)	0.193	0.091 - 0.407	P < 0.0001

Regarding the impact of pharmaceutical orientation on users' knowledge about their medications, through analysis of the questionnaires applied after this session, it was observed that there was a decrease in the percentage of users who did not know their medications, from 73.2% (n=93) to 33.9% (n=43). Moreover, there was an increase in the level of sufficient and excellent knowledge, from 14.2% (n=18) to 18.9% (n=24) and from 11.0% (n=14) to 47.2% (n=60), respectively. Thus, after pharmaceutical orientation, there was an increase of 4.7% (n=6) in the number of patients who had sufficient knowledge and there was an increase of 36.2% (n=46) in the number of patients who had excellent knowledge about their medications.

Regarding the distribution of the study population's level of knowledge for each of the items that make up the questionnaire before and after the pharmaceutical orientation, it is noteworthy that approximately 68.0% (n=86.0) of the patients did not have adequate knowledge about the name of the medication(s). The results of the other evaluated items can be seen in table 3.

Revista O Mundo da Saúde

DOI: 10.15343/0104-7809.202347e13612022I

DISCUSSION

This study sought to assess the impact of pharmaceutical orientation on patients' knowledge about their medications. There are few studies on KPM, therefore, this work is important for further understanding of this event and is the first study on this subject conducted in the Jequitinhonha Valley.

It was observed that women had a higher participation rate (78.0%; n=99). As in other surveys, females constitute the group of users who most seek healthcare services and use medication[13-15]. Most participants (81.9%; n=104) received medication prescriptions for their own use, a result which is similar to another study[11]. Although 53.2% (n=67) reported giving great importance to the health problem, it is worrying that 46.8% (n=59) of the interviewees were "little" or "somewhat" concerned with the health situation.

Low concern is related to the lack of knowledge about their own health status and leads to critical decisions, such as, interruption of treatment and non-compliance with the instructions received. It is known that patients who are more concerned about their health problems tend to act with more responsibility and care[16].

In this study, 263 drugs were prescribed, with 2 to 4 drugs per prescription (66.9%; n=85). Additionally, a high percentage of patients used other medications (44.9%; n=57), which has been considered common, since self-medication is a highly prevalent practice in the population[17]. Therefore, it is essential to determine whether the patient uses other medications at the time of prescription and dispensing, either through self-medication or due to a previously received prescription, in order to identify possible drug interactions. The average number of medications per patient found in this investigation (2.1) was similar to other studies that revealed averages of 2.4 and 2.6 medications per patient[2,4].

The predominance of prescription drugs related to the respiratory system was similar to other studies[11,18] and the profile of prescribed drugs revealed that most patients had systemic arterial hypertension (SAH), considered of great importance and widely prevalent in Brazil[19,20]. Therefore, it is imperative that these patients obtain knowledge about pharmacotherapy to control the disease.

Regarding the therapeutic group that presented the second highest number of prescriptions (17.1%; n=45), that is, the drugs that act on the "Nervous System", it is valid to consider that the respective patients would need an evaluation by a psychiatrist, to then confirm the need for their rational use, which many times have been prescribed indiscriminately. However, the question of the need to consult a psychiatrist also comes up against another point, which is the difficulty of referral by the Unified Health System (UHS) to specialized care[21].

We highlight the identification of a significant percentage of those not knowing about the drugs they use (73.2%; n=93.0). This percentage was similar to those exposed by other studies that obtained results of 82.5% and 66.0% through the same evaluation instrument[11,15]. The scenario of not knowing about the medications in use is worrying, since it can corroborate in drug-related problems (DRP), which can lead to negative drug-related outcomes (NDO)[22].

Non-adherence to treatment can be attributed to the fact that the patient does not know how to use the medications prescribed to them, either because they do not understand the instructions they received or because there were not advised on the importance of correctly following the treatment. The administration of subtherapeutic doses of a drug, as well as overdose, can be consequences of not knowing the dosage and the necessary administration interval. Still, other factors are associated with the occur-

REVISTA O MUNDO DA SAÚDE

DOI: 10.15343/0104-7809.202347e13612022I

rence of subtherapeutic doses, such as drug-drug or drug-food interaction, which may impair the achievement of the desired therapeutic dose[23].

Thus, it is understood that the pharmaceutical orientation given to patients should emphasize different aspects of the RUD, which involves being informed from knowing the reason for use to the form of administration and adherence[24].

Regarding the "Indication" of the medication(s), approximately 23.0% (n=29) of the patients do not know or have insufficient or incorrect knowledge. Not knowing the "Indication" of the medication reveals that a considerable number of patients are not aware of this aspect of medication use. This fact can lead to problems such as a lack of knowledge about what to expect from a given treatment, its possible effects adverse effects, and, furthermore, their evidence of effectiveness. A study points out that the lack of information of most patients about the adverse effects of a medication is associated with the little importance attributed to this item by those who prescribe and/or by those who use the medication, as well as due to the omission of this information on the part of health professionals[12]. These results lead to the questioning whether these issues are not addressed during the medical consultation or whether the patient receives them, but does not understand them.

For the patient and drug user, having a professional who is easily accessible and who focuses their actions and objectives on promoting knowledge about the drugs is of great value, as it opens up space for doubts to be clarified and new habits to be established. The presence of a pharmacist integrated into the multidisciplinary team results in RUD and an increase in positive health outcomes. Thus, the role of the pharmacist in Primary Care is an opportunity for the pharmacist to qualify comprehensive care to the user, in addition to enhancing actions together with other professionals[25]. This professional has an important role in the rational and safe use of medicines through patient-centered actions, which encompass appropriate verbal communication to the reality of a given individual. For this, instruments such as pamphlets, posters, and demonstrations can be useful to transform information into knowledge[26].

It should be noted that in order to receive the classification "good understanding", the interviewee needed to completely answer the 5 questions regarding dosage, frequency of administration, duration of treatment, form of administration, and indication. Thus, the classification of no knowledge refers to the need for investment in at least one of these themes, with the impossibility of identifying the theme that requires greater investments being one of the limitations of this study. Additional limitations include the use of a convenience sample and the impossibility of evaluating the effectiveness of the pharmaceutical intervention in the long term.

CONCLUSION

Pharmaceutical orientation had a positive impact on patients' knowledge about their medications, with an increase in the percentage of patients who demonstrated "Excellent Knowledge" and "Sufficient Knowledge" about their medications and an increase in patients' knowledge of all evaluated items, which constitutes an essential practice for RUD.

It is believed that this methodology can contribute to the rational use of medication from its implementation as an activity performed by the clinical pharmacist in healthcare establishments where medications are prescribed and/or dispensed. The importance of the validated questionnaire was verified as an instrument capable of verifying the effectiveness of the pharmaceutical orientation service.

DOI: 10.15343/0104-7809.202347e13612022I

Author Statement CRediT

Conceptualization: Oliveira LS; Andrade RA. Methodology: Oliveira LS; Andrade RA. Validation: Costa JM. Statistical analysis: Oliveira LS; Andrade RA. Formal analysis: Oliveira LS; Andrade RA. Research: Oliveira LS; Andrade RA. Resources: Costa JM. Elaboration of the original draft: Oliveira LS; Andrade RA. Writing and proofreading: Cintra LP; Costa JM; Ortiz MO; Monteiro LH. Visualization: Cintra LP. Supervision: Andrade RA; Costa JM. Project management: Andrade RA.

All authors read and agreed with the published version of the manuscript.

REFERENCES

1.Ministério da Saúde (BR). Uso racional de medicamentos: temas selecionados. 1. ed. Brasília: Ministério da Saúde, 2012. 156 p. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/uso_racional_medicamentos_temas_selecionados.pdf.
2.Lima MG, Alvares J, Guerra Júnior AA, Costa EA, Guibu IA, Soeiro OM et al. Indicadores relacionados ao uso racional de medicamentos e seus fatores associados. Rev. Saúde Pública. [revista em internet]. 2017; 51(2):1-9. Disponível em: https://www.revistas.usp.br/rsp/article/view/139771. DOI: https://doi.org/10.11606/S1518-8787.2017051007137.
3.Trevisam E, Cruciol Junior J. Objetivos do desenvolvimento sustentável: o direito humano e o suporte fático da rede da vida. Rev Jurídica. [revista em internet]. 2019;4(57):328. Disponível em: http://revista.unicuritiba.edu.br/index.php/RevJur/article/view/3776. DOI: http://dx.doi.org/10.26668/revistajur.2316-753X.v4i57.3776.
4.Portela AS, Simoes MO, Fook SM, Montenegro Neto NA, Silva PCD. Prescrição médica: orientações adequadas para o uso de medicamentos? Ciência Saúde Coletiva. [revista em internet]. 2010; 15(3):3523-3528. Disponível em: https://www.scielo.br/j/csc/a/Qh3sjFjWZLFJ7BLjN3NZH7z/?lang=pt. DOI: https://doi.org/10.1590/S1413-81232010000900027.
5.Fernandes WS, Cembranelli JC. Automedicação e o uso irracional de medicamentos: o papel do profissional farmacêutico no combate a essas práticas. Revista Univap. [revista em internet]. 2015; 21(37):5-12. Disponível em: http://revista.univap.br/index.php/revistaunivap/article/view/265. DOI: http://dx.doi.org/10.18066/revistaunivap.v21i37.265.
6.Rubio JS, Iglésias-Ferreira P, Garcia-Delgado P, Matheus-Santos H, Martínez-Martínes F. Adaptação intercultural para português europeu do questionário "Conocimiento del Paciente sobre sus Medicamentos" (COM-ES-ES). Ciência Saúde Coletiva. [revista em internet]. 2013; 18(12):3633-3644. Disponível em: https://www.scielo.br/j/csc/a/mJxWGhqV3cbbMFB844bGSRp/?lang=pt. DOI: https://doi.org/10.1590/S1413-81232013001200019.
7.Oliveira TCA, Farhat FCLG, Fegadolli C. Implantação de protocolo de orientação farmacêutica para indivíduos com Diabetes mellitus em farmácia comunitária. Revista Brasileira de Farmácia. 2012; 93(3):379-384.
8.Lima LF, Martins BCC, Oliveira FRP, Cavalcante RMA, Magalhães, VP, Firmino PYM et al. Orientação farmacêutica na alta hospitalar de pacientes transplantados: estratégia para a segurança do paciente. Einstein. [revista em internet]. 2016;14(3):359-365. Disponível em: https://www.scielo.br/j/eins/a/4kkYyQr6QvqrL5P5RGgrhzD/?lang=pt. DOI: https://doi.org/10.1590/S1679-45082016AO3481.
9.Barros DSL, Silva DLM, Leite SN. Serviços farmacêuticos clínicos na Atenção Primária à Saúde do Brasil. Trab. educ. saúde. [revista em internet]. 2020; 18(1):e0024071. Disponível em: https://www.scielo.br/j/tes/a/Z8nY8RZDgvtDZNS3RTPHMCM/?lang=pt. DOI: https://doi.org/10.1590/1981-7746-sol00240.
10.Garcia-Delgado P, Garralda MAG, Parejo MIB, Lozano FF, Martínez, FM. Validación de un cuestionario para medir el conocimiento de los pacientes sobre sus medicamentos. Atención Primaria. [revista em internet]. 2009; 41(12):661-669. Disponível em: https://www.sciencedirect.com/science/article/pii/S0212656709002637?via%3Dihub. DOI: https://doi.org/10.1016/j.aprim.2009.03.011.
11.Garcia-Delgado P. Conocimiento del paciente sobre sus medicamentos. 2008. Tese (Doctorado en Farmacia). Facultad de Farmacia. Granada.
12.Martins PC, Cotta RMM, Mendes FF, Priore SE, Franceschinni SCC, Cazal MM, Batista RS. De quem é o SUS? Sobre as representações sociais dos usuários do Programa Saúde da Família. Ciência & Saúde Colet. [revista em internet]. 2011; 16(3):1933-1942. Disponível em: https://www.scielo.br/j/csc/a/gSs8LMFXxF3k6h9whJJMqXP/?lang=pt. DOI: https://doi.org/10.1590/S1413-81232011000300027.
13.Oenning D, Oliveira BV, Blatt CR. Conhecimento dos pacientes sobre os medicamentos prescritos após consulta médica e dispensação. Ciência & Saúde Colet. [revista em internet]. 2011; 16(7):3277-3283. Disponível em: https://www.scielo.br/j/csc/a/jDKk6tc4DMnpy9wnM97XnHk/?lang=pt. DOI: https://doi.org/10.1590/S1413-81232011000800027.
14.Motter FR, Olinto MTA, Paniz VMV. Conhecimento sobre a farmacoterapia por portadores de Hipertensão Arterial Sistêmica. Ciência & Saúde Colet. [revista em internet]. 2013; 18(8):2263-2274. Disponível em: https://www.scielo.br/j/csc/a/SbmFy8G5TtLHgP4mqMDxPnr/?lang=pt. DOI: https://doi.org/10.1590/S1413-81232013000800010.
15.Rubio JS, Garcia-Delgado P, Iglesias-Ferreira P, Matheus-Santos H, Martínez-Martínes F. Medida del conocimiento del paciente sobre su medicamento en farmacia comunitaria en Portugal. Ciência & Saúde Colet. [revista em internet]. 2015; 20(1):219-228. Disponível em: https://www.scielo.br/j/csc/a/BPQd7nPsPV4s94p9W3T3mnD/?lang=en. DOI: https://doi.org/10.1590/1413-81232014201.20952013.
16.Tavares NUL, Bertoldi AD, Mengue SS, Arrais PSD, Luiza VL, Oliveira MA et al. Fatores associados à baixa adesão ao tratamento farmacológico de doenças crônicas no Brasil. Revista Saúde Pública. [revista em internet]. 2016; 50(2):1-11. Disponível em: https://www.scielo.br/j/rsp/a/R8pG5F3d3Qwx5Xz7dt6K6nx/?lang=en. DOI: https://doi.org/10.1590/s1518-8787.2016050006150.
17.Almeida-Júnior G, Kamonseki DH, Rostelato-Ferreira S. Perfil de automedicação no município de São Miguel Arcanjo, SP. Espaço para Saúde – Revista de Saúde Pública do Paraná. [revista em internet]. 2016; 17(2):93-100. Disponível em: https://espacoparasaude.fpp.edu.br/index.php/espacosaude/article/view/289/8. DOI: https://doi.org/10.22421/1517-7130.2016v17n2p93.
18.Bandeira VAC, Hermann CTS, Siqueira CM, Oliveira KR. Análise das prescrições dispensadas em uma unidade básica de saúde do

Revista O Mundo da Saúde

DOI: 10.15343/0104-7809.202347e13612022I

município de Ijuí-RS. Saúde (Sta Maria). [revista em internet]. 2015;41(1):229-238. Disponível em: https://periodicos.ufsm.br/index.php/revistasaude/article/view/15553. DOI: http://dx.doi.org/10.5902/2236583415553.
19.Malta DC, Gonçalves RPF, Machado IE, Freitas MIF, Azeredo C, Szwarcwald CL. Prevalência da hipertensão arterial segundo diferentes critérios diagnósticos, Pesquisa Nacional de Saúde. Revista Bras. Epidemiol. [revista em internet] 2018 ;21(1):e180021. Disponível em: https://www.scielo.br/j/rbepid/a/3YPnszP7L6kvWJpwg444mdj/?lang=pt. DOI: https://doi.org/10.1590/1980-549720180021.supl.1.
20.Ministério da Saúde (BR). Vigitel Brasil 2017: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico: estimativas sobre frequência e distribuição sociodemográfica de fatores de risco e proteção para doenças crônicas nas capitais dos 26 estados brasileiros e no Distrito Federal em 2017. Brasília: Ministério da Saúde, 2018. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/vigitel_brasil_2017_vigilancia_fatores_riscos.pdf.
21.Silva CR, Carvalho BG, Cordoni Júnior L, Nunes EFPA. Dificuldade de acesso a serviços de média complexidade em municípios de pequeno porte: um estudo de caso. Ciência & Saúde Colet. [revista em internet] 2017; 22(4):1109-1120. Disponível em: https://www.scielo.br/j/csc/a/3KbQ6vf9sMcCkQHsbz6RG5K/?lang=pt. DOI: https://doi.org/10.1590/1413-81232017224.27002016.
22.Comitê de Consenso - Grupo de Investigación en Atención Farmacéutica (Universidad de Granada); et al.. Tercer Consenso de Granada sobre Problemas Relacionados con Medicamentos (PRM) y Resultados Negativos asociados a la Medicación (RNM). Ars Pharm. [revista em internet] 2007; 48 (1): 5-17. Disponível em: http://hdl.handle.net/10481/27954.
23.Correr CJ, Otuki MF. Método Clínico de Atenção Farmacêutica. Disponível em: https://www.google.com/url?sa=t&source=web&rct=j&url=https://edisciplinas.usp.br/pluginfile.php/380717/mod_folder/content/0/CORRER%2520e%2520OTUKI%252C%25202011%2520-%2520M%25C3%25A9todo%2520cl%25C3%25ADnico%2520de%2520Aten%25C3%25A7%25C3%25A3o%2520Farmac%25C3%25AAutica.pdf%3Fforcedownload%3D1&ved=2ahUKEwiKtJLKpOL2AhXxHLkGHX8uBl4QFnoECAgQAQ&usg=AOvVaw1uKVyy_u-pAESco3dZg4x6. Acessado em: 16 de fevereiro de 2023.
24.Villa JJ. El conocimiento de los pacientes sobre su medicación es importante para su uso correcto. Atención Primária. [revista em internet] 2009; 41(12):668-669. Disponível em: https://www.sciencedirect.com/science/article/pii/S021265670900554X?via%3Dihub. DOI: https://doi.org/10.1016/j.aprim.2009.10.004.
25.Nakamura CA, Leite SN. A construção do processo de trabalho no Núcleo de Apoio à Saúde da Família: a experiência dos farmacêuticos em um município do sul do Brasil. Ciência & Saúde Colet. [revista em internet] 2016 ;21(5):1565-1572. Disponível em: https://www.scielo.br/j/csc/a/vzg87dp86cyqPpcCRBMSTJq/?lang=pt. DOI: https://doi.org/10.1590/1413-81232015215.17412014.
26.Costa JM, Andrade RA. Cuidado Farmacêutico na Residência multiprofissional em Saúde do Idoso. Belo Horizonte: Novas Edições Acadêmicas, 2018.

Received: 13 july 2022.
Accepted: 13 march 2023.
Published: 19 june 2023.