ORIGINAL ARTICLE

REVISTA ENFERMAGEM ATUAL IN DERME

USE AND DISPOSAL OF MEDICINES: PRACTICES AND KNOWLEDGE

USO Y ELIMINACIÓN DE MEDICAMENTOS: PRÁCTICAS Y CONOCIMIENTOS

USO E DESCARTE DE MEDICAMENTOS: PRÁTICAS E CONHECIMENTO

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ABSTRACT
Introduction: A lack of knowledge about the consumption and disposal of medications is a concern for public health agencies since, when practiced improperly, it poses risks to the population and/or the environment. **Objective:** To assess the population's knowledge about the consumption and disposal of household medications. Methods: This was a descriptive, quantitative, nonexperimental epidemiological study. Data collection took place in Family Health Strategy units, the Federal University of Rondonópolis and a technical school in the city of Rondonópolis (MT), and the sample consisted of people aged 18 years or over. **Results:** A total of 359 people participated in the research, of whom 94.4% stated that they used or had some medication at home; 8.4% stated that they did not know the actions and adverse effects of the medications they used; 80.2% purchased drugs without a prescription; 64.3% had stopped taking a medication before completing the prescribed treatment; 62.1% prioritized the disposal of medicines via household waste; and 72.1% claimed to have never received information on the correct way to dispose of them. **Conclusion**: The results indicate gaps in knowledge about the correct use of drugs and their appropriate disposal, highlighting practices that put the health of the population and damage the environment at risk.
Keywords: Self-Medication; Drug Utilization; Waste Management

RESUMEN
Introducción: El desconocimiento en torno al consumo y disposición de medicamentos son temas que generan preocupación a los organismos de salud pública, ya que, cuando se practican de manera inadecuada, plantean riesgos para la población y/o el medio ambiente. **Objetivo:** Evaluar el conocimiento de la población sobre el consumo y la eliminación de medicamentos en el hogar. **Método:** Estudio epidemiológico descriptivo, cuantitativo y no experimental. La recolección de datos se realizó en unidades de la Estrategia Salud de la Familia, de la Universidad Federal de Rondonópolis y de una escuela de educación técnica de la ciudad de Rondonópolis (MT) y la muestra estuvo compuesta por personas de 18 años o más. **Resultados:** Participaron de la encuesta 359 personas, de las cuales el 94,4% dijo usar o tener algún medicamento en casa; el 8,4% dijo desconocer las acciones y efectos adversos de los medicamentos que utiliza; el 80,2% compra medicamentos sin receta; el 64,3% ya ha dejado de tomar algún medicamento antes de completar el tratamiento prescrito; El 62,1% prioriza la eliminación de los medicamentos a través de la basura doméstica y el 72,1% dice nunca haber recibido información sobre la forma correcta de eliminarlos. **Conclusión:** Los resultados indican vacíos en el conocimiento sobre el uso correcto de los medicamentos y su adecuada eliminación, destacando prácticas que ponen en riesgo la salud de la población y dañan el medio ambiente.
Palabras clave: Automedicación; Uso de Medicamentos; Gestión de Residuos.

RESUMO
Introdução: A falta de conhecimento que gira em torno do consumo e descarte de medicamentos são questões que geram preocupação aos órgãos de saúde pública, uma vez que, quando praticados de forma indevida trazem riscos à população e/ou ao meio ambiente. **Objetivo:** Avaliar o conhecimento da população sobre o consumo e descarte de medicamentos de uso domiciliar. **Método**: Estudo epidemiológico descritivo, de caráter quantitativo, não experimental. A coleta de dados ocorreu em unidades de Estratégia da Saúde da Família, Universidade Federal de Rondonópolis e uma escola de ensino técnico do município de Rondonópolis (MT) e a amostra foi composta por pessoas com idade igual ou superior a 18 anos. **Resultados:** Participaram da pesquisa 359 pessoas, das quais 94,4% afirmaram utilizar ou ter algum medicamento em sua residência; 8,4% afirmaram não conhecer as ações e os efeitos adversos dos medicamentos que utiliza; 80,2% compra fármacos sem prescrição; 64,3% já parou de tomar um medicamento antes de completar o tratamento prescrito; 62,1% prioriza o descarte de medicamentos via lixo doméstico e 72,1% afirmam nunca ter recebido informações sobre a forma correta de descarte. **Conclusão:** Os resultados indicam lacunas no conhecimento sobre o uso correto dos fármacos e seu descarte apropriado evidenciando práticas que colocam em risco a saúde da população e danos ao meio ambiente.
Palavras-chave: Automedicação; Uso Racional de Medicamentos; Gerenciamento de Resíduos.

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INTRODUCTION

From the twentieth century onward, the use of medicines experienced a significant milestone, evolving from the exclusive use of substances of natural origin to the introduction of new drugs. In this context, the industrial production of allopathic medicines, combined with commercial interest, has transformed drugs into priority therapeutic resources, considering their numerous benefits for health recovery [1].

The possibilities of acquiring and consuming medicines, in their various pharmaceutical forms, have grown exponentially. Thus, they have become practical and accessible therapeutic alternatives, going beyond the exclusive use of medicinal plants (such as teas, infusions and tinctures), a priority practice in ancestry[2].

The growing dissemination of allopathic medicines by the media, combined with the ease of acquisition with or without a prescription, has generated a mistaken and indiscriminate view of the use of drugs. To contain this global reality, government health institutions have created and disseminated awareness campaigns to promote the rational use of medicines and reduce the consequences of easy access and consumption[3].

Medicines are conceptualized as active substances, synthetic or natural, that have therapeutic properties. They are developed with high technical rigor to diagnose, prevent and/or relieve pathologies[4]. Although advances have brought great health benefits, the ease of acquiring pharmaceutical products without a medical prescription has become a problem, leading to irrational use and inappropriate practices[5].

The high rates of self-medication and the consequent formation of household stocks of medicines,the so-called 'home pharmacy'—are directly related to the population's lack of knowledge about the health risks that these practices can offer. This situation is maximized by several factors, such as medical prescription errors, successive changes in treatment, nonfractional sale of prescribed doses, sales without a medical prescription (often due to overcrowding and difficulty in attendance), and the storage of these drugs for future use[6].

Notably, the storage of medicines at home often leads to indiscriminate use, which can result in poisoning, adverse reactions, and microbial resistance, among other health problems. In addition, this practice is directly linked to improper disposal in household garbage and sewage networks. Therefore, the rational disposal of medicines is fundamental for the promotion of public health and the preservation of the environment[6, 7].

The large amount of medicines stored at home generates 'pharmaceutical waste', a serious problem that exacerbates damage to the environment. Drugs such as antibiotics, estrogens, antineoplastic agents and immunosuppressants, when present in soil and water, can form toxic, teratogenic, mutagenic and carcinogenic substances in humans and

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animals[8].

Despite the relevance of the correct disposal of medicines, there are still failures in guiding the population in proper management. Most Brazilian municipalities do not have collection programs, even with the existence of the National Solid Waste Policy (PNRS), instituted by Law No. 12,305/2010 [9].

In this context, failures in knowledge about the consumption and disposal of drugs are issues of concern to public health agencies, as improper practices bring risks to the population directly or indirectly through soil and water contamination[6].

In view of this reality, which includes the inappropriate use of drugs and their inappropriate disposal, the research problem is sustained: what are the main gaps in the population's knowledge about the correct management of medicines in their homes, and what are the implications of these gaps for public health and the environment?

Thus, this study aimed to assess the population's knowledge about the consumption and disposal of medicines for home use.

METHODS

This is a descriptive, quantitative epidemiological study with a cross-sectional, nonexperimental design. Data collection took place between November 2023 and June 2024 in Family Health Strategy (ESF) units, Federal University of Rondonópolis (UFR) and 1 technical school, all units located in the city of Rondonópolis/MT.

The municipality of Rondonópolis has 61 ESFs distributed in 4 districts, 58 units in the urban area and 3 units in the rural area. However, data collection was carried out in 13 urban units, with no previous selection criteria, considering only the ease of access by the researchers.

The data were collected through the application of a structured questionnaire, which addressed the socioeconomic and demographic profile, as well as knowledge and practices about the use and disposal of medicines. The data were digitized in a database via Microsoft Excel, and a descriptive analysis was performed via relative and absolute frequencies, which were presented in the form of tables for an effective understanding of the results obtained. The correlation between the question "Have you received any information regarding the proper disposal of medicines?" and "Are you aware of the environmental impacts and possible damage to the health of the population related to the inappropriate disposal of medicines?" was defined via Pearson's chi-square test. For this analysis, binomial and multinomial regression tests were used, with a significance level of $p<0.05$ and a confidence level of 95%, via the statistical program JASP (version 0.14.1.0; JASP Team, 2020).

The selection of participants was made by convenience, in a nonprobabilistic and random manner, covering the morning, afternoon and

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evening periods, according to the presence of the individuals in the places and hours of operation of the data collection units. The sample included 359 individuals aged 18 years or older who signed the informed consent form (ICF).

Those who answered the questionnaire without signing the ICF, individuals with reduced cognitive function, and researchers involved in the project were excluded. The study was conducted in accordance with Resolution No. 466/2012, which governs the ethical precepts of research with human beings (Opinion 5.983.016 and CAAE: 67304122.7.0000.0126).

RESULTS

A total of 359 people participated in the study, most of whom were self-declared females (79.9%), aged between 21 and 30 years (33.7%), had completed high school (52.4%), had a family income between 1 and 2 minimum wages (22.8%) and had children (67.1%) (Table 1).

Table 1 - Socioeconomic characteristics of the research participants. Rondonópolis/MT, 2023-2024.

Variable	N	%
Sex		
Male	72	20,1
Female	287	79,9
Age group (years)		
Between 18 - 20 years old	42	11,7
Between 21 - 30 years old	121	33,7
Between 31 - 40 years old	74	20,6
Between 41 - 50 years	70	19,5
Between 51 and 60 years old	38	10,6
Over 60 years old	14	3,9
Family Income (minimum wage*)		
Up to 1 minimum wage	80	22,3
Between 1 - 2 salaries	82	22,8
Between 2 - 3 salaries	74	20,6
Between 3 - 4 salaries	42	11,7
Between 4 - 5 salaries	20	5,6
Above 5 salaries	25	7,0
Do not know how to inform	15	4,2
He prefers not to declare	21	5,8
Marital status		
Single	188	52,4
Married	106	29,5
Divorced	24	6,7
Widowed	9	2,5
Stable Union	31	8,6
Other	1	0,3
Schooling		
Illiterate	6	1,7

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Incomplete elementary school	27	7,5
Complete elementary school	9	2,5
Incomplete high school	24	6,7
Complete high school	188	52,4
Incomplete higher education	56	15,6
Complete higher education	48	13,4
Postgraduate studies	1	0,3
Offspring		
Yes	241	67,1
No	118	32,9

Source: survey data. *Current minimum wage: R$ 1,412.00.

Among the interviewees, 94.4% (339) reported using or having medication at home. With respect to knowledge about drugs, 38.4% (138) stated that they were unaware of the actions and adverse effects of the drugs they use; 44.6% (160) did not know how to differentiate generic, similar and reference drugs; and 44.3% (159) did not know the meaning of the colors of the stripes present in the drugs (Table 2). A statistically significant difference was observed between the groups in all variables ($p<0.05$), with the exception of the variable referring to the use of medications in the presence of children ($p=0.073$) (Table 2).

Table 2 - Distribution of the population surveyed in terms of knowledge and practices related to the use of medicines at home. Rondonópolis - MT, 2023-2024.

Knowledge	Practice	N	%	IC 95%*	p**
Know the actions and adverse effects of the medicines you use	No Yes	138 221	38,4 61,6	33,4 – 43,7 56,3 – 66,6	< .001
Know the difference between Generic, Similar and Ethical	No Yes	160 199	44,6 55,4	39,4 – 49,9 50,1 – 60,6	0,045
Do you know the meaning of the stripes	No Yes	159 200	44,3 55,7	39,1 – 49,6 50,4 – 60,9	0,035
Read the medicine leaflet	No/Rarely Yes	225 134	62,7 37.3	57,4 – 67,7 32,3 – 42,6	< .001
Uses or has any medication in his residence	No Yes	20 339	5,6 94,4	54,9 – 65,3 34,7 – 45,1	< .001
When when taking a medication, you vomit or spill a little, you use an extra dose	No Yes	271 88	75,5 24,5	70,7 – 79,9 20,1 – 29,3	< .001
Have you ever tried to give a child a medicine saying it was "candy" or "candy" to facilitate administration	No Yes	239 120	66,6 33,4	61,4 – 71,4 28,6 – 38,6	< .001
Uses medication in the presence of children	No Yes	197 162	54,9 45,1	49,6 – 60,1 39,9 – 50,4	0,073
Correctly follow medical guidance regarding the use of the drug	No Yes	49 310	13,6 86,4	10,3 – 17,6 82,4 – 89,7	< .001

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Uses medication in the dark (with the light off)	No Yes	325 34	90,5 9,5	87,0 – 93,4 6,6 – 13,0	< .001
Check the expiration date	No Yes	42 317	11,7 88,3	8,6 – 15,5 84,5 – 91,4	< .001
Observes the look/appearance of the medication before using it	No Yes	71 288	19,8 80,2	15,8 – 24,3 75,7 – 84,2	< .001
Buying over-the-counter medications	No Yes	71 288	19,8 80,2	15,8 – 24,3 75,7 – 84,2	< .001
Have stopped taking a medication before completing the prescribed treatment	No Yes	128 231	35,57 64,3	30,7 – 40,9 59,1 – 69,3	< .001
Keeps old recipes	No Yes	226 132	63,1 36,9	57,9 – 68,1 31,9 – 42,1	< .001

Source: Survey data
95% CI: 95% confidence interval; * Pearson's chi-square test

The results indicate that 40.7% (146) of the interviewees save medicines for future use, whereas only 12% (43) deliver them to pharmacies or health units for reverse logistics. When discarded, the priority option is domestic waste (62.1% - 223), although 56.3% (202) believe that this form of disposal is not adequate. In addition, 72.1% (259) have never received information about correct disposal, and 56.8% (204) do not know the environmental and health impacts resulting from improper disposal (Table 3).

Table 3 - Distribution of the population surveyed in terms of knowledge and practices related to the disposal of medicines. Rondonópolis, 2023-2024.

What it does with leftover medicines	**N**	**%**
Discarded	175	48.7
Save to use again	146	40.7
Doa for Friends/Family	18	5.0
Delivery to the pharmacy/health unit	20	5.6
How to rule out		
Bury	1	0.3
Delivery to the pharmacy/health unit	43	12,0
Stock up at home	2	0.6
Household trash	223	62.1
Sink/tank	35	9.7
Burning	4	1.1
Solo/grama	2	0.6
Toilet	49	13.6
He thinks that the option adopted is correct		
No	202	56.3
Yes	157	43.7

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Have you received some guidance on the correct way to dispose of it		
No	259	72.1
Yes	100	27.9
Knows the environmental and health impacts resulting from improper disposal		
No	204	56.8
Yes	155	43.2

Source: Survey data

Bivariate analysis of the variables "have you received, at some point, guidance on the correct way to dispose of medicines?" and "Do you know the environmental and health impacts related to the improper disposal of medicines?" shows a significant association between them ($p < 0.001$), indicating that they directly influence each other's reality (Table 4).

Table 4 - Bivariate analysis: At some points, the patient received guidance on the correct way to dispose of medicines and was aware of the environmental and health impacts related to the improper disposal of medicines. Rondonópolis - MT, 2023-2024.

Variable	Answer	Total N (%)	p value*
Did you receive, at any time, guidance on the correct way to dispose of medicines?	No	259 (72,1)	< 0.001
	Yes	100 (27,9)	
Do you know the environmental and health impacts related to the improper disposal of medicines?	No	204 (56,8)	
	Yes	155 (43,2)	

Source: Survey data
* Pearson's chi-square test

DISCUSSION

The higher prevalence of females (79.9%) in this study confirms the more frequent use of health services by women, which leads them to treat their problems more emphatically. Consequently, when they have more nursing and medical consultations, they receive more diagnoses and drug prescriptions. This factor is directly linked to the creation of "home pharmacies" and to the greater consumption of medicines, not only by women but also by other residents of the same household, since they share the same socioeconomic context [10].

When considering the female gender with offspring, which represented 67.1% of our interviewees, these women still face lower

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salaries in the labor market because of the cultural devaluation of their services. On the other hand, this scenario is also related to the fact that women with children and employment contracts consume a greater percentage of medications and more frequently maintain "home pharmacies" because of their long working hours[11], and it is more practical to store the drug at home for later use.

Table 1 shows that the interviewed population is mostly composed of young adults with low family income (one to two minimum wages), which indicates a lower class profile. In this socioeconomic context, schooling has an intrinsic relationship with the type of employment relationship and acts as a determining factor for economic growth. This results in family incomes that barely cover basic human needs, with no possibility of accumulation or monetary growth[12].

In other words, the effects of the schooling/employability/financial contribution triad are a reality present in a large part of society, generating impacts even in a mostly adult population. Although age has little influence on wages, schooling directly affects employability, which, in turn, significantly impacts consumption patterns, including the use of medications [12].

The results concerning the use of medicines indicate a scenario of indiscriminate use. "Home pharmacies" are formed, in part, by the surplus of medicines or by the purchase of drugs without the need for a prescription[8], such as antacids, antiemetics, antidiarrheals, antispasmodics, antihistamines, antiinflammatories, antifungals, antimycotics, and parasitics, among others, which, despite being sold without the need for a prescription, can present consequences to the population, such as toxicity and drug interaction[7].

Medicines are essential for the daily life of a large portion of the population, contributing to a better quality of life through the treatment of diseases. However, in certain situations, exaggerated and indiscriminate consumption, especially through self-medication, can cause drug interactions and toxic events, aggravating the patient's clinical condition.

Drug interactions are pharmacological responses that occur when a drug or chemical substance affects the action of another drug administered before or at the same time. They can lead to death, hospitalization and irreversible problems and are classified as mild when the patient feels only discomfort without drastic changes in their therapy; moderate when the patient's clinical condition regresses, making it necessary to request additional treatment; and severe when the patient has irreversible damage that is life-threatening[4].

Over-the-counter drugs (OTCs) have their commercialization provided by law and are regulated for over-the-counter sale, also acting as enhancers in the reduction of unnecessary care in health units and helping meet the demand of the system. However, the easy access to these medications, provided by "home pharmacies",

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encourages self-medication and has consequences for the population, since no drug is free from adverse events[12].

Among the effects of self-medication are toxicity, the possibility of masking symptoms of more serious pathologies (diagnosed or not), the potentiation of preexisting diseases, and the development of drug resistance by some pathogens, which reduces therapeutic options [13].

Like drug interactions, self-medication increases the risk of adverse reactions. These reactions, which are a manifestation of a drug's toxicity, are defined as harmful, unintended responses that occur at usual doses of treatment. As a major public health problem, adverse reactions favor increased morbidity, mortality and costs for patients and health systems [14, 4].

The Ministry of Health acts to reduce access to and inappropriate consumption of medicines and, consequently, reduce the undesirable effects of the irrational use of drugs[15]. To this end, it uses awareness campaigns (advertisements and mandatory guidelines on packaging) and vaccination and disease prevention campaigns. At the same time, the National Medicines Policy (PNM), in partnership with the federal, state and municipal spheres, implemented effective access, with quality and therapeutic safety to medicines. This policy also defines strategies to expand the population's access to pharmaceutical collection and reduce the prices of the categories of originated, generic, and similar drugs [16].

However, concepts and prerequisites regulated by the National Health Surveillance Agency (ANVISA) for the commercialization of medicines are mostly not considered by the population at the time of acquisition. This fact corroborates what was found in this survey, in which 44.6% of the interviewees did not know the difference between original, generic and similar drugs, which was based only on the lowest price at the time of purchase.

Although a small portion of the interviewees did not check the validity and appearance of the drugs before use, it is crucial to remember that expired or improper drugs represent a considerable risk of poisoning. This occurs due to the chemical alteration of its components, which can cause undesirable effects and the loss of the expected pharmacological effectiveness [10].

Another factor that facilitates drug toxicity is the presence of children. In our study, a considerable percentage of respondents reported using medications in front of children and even offering the drug, saying it was "candy" or "candy" to facilitate administration. In children, especially those under 5 years of age, everything they witness or absorb information generates motivation for repetition. Pediatric medications generally have attractive colors and pleasant flavors precisely to reduce refusal[17].

In line with the improper disposal observed in this research, another concern for public health is the disposal of medicines, which can cause damage to the environment. This

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practice is common in households globally and in both rural and urban areas. In both cases, the consequences are a negative impact on soils and water.

Drugs are composed of chemical substances that can remain stable or transform into toxic substances unknown to the original formulation when exposed to adverse conditions of temperature, light and humidity. Therefore, proper final disposal prevents chemical variants of drugs from reaching the environment and generating consequences for public health. However, a portion still reaches the environment because of pharmaceutical residues present in the urine and feces of drug users[18].

Most medicines are disposed of in common garbage or in untreated sewage effluents or those that pass through wastewater treatment plants (WWTPs). However, they have high potential for bioaccumulation and low biodegradability in conventional water treatments. Thus, pharmaceutical waste can reach various destinations, such as soils, surface and groundwater, rivers, lakes and oceans, causing socioenvironmental consequences, regardless of whether the waste has expired [19].

Studies in the Zivny stream (Czech Republic) and the bay of Cádiz (Spain) have shown that aquatic organisms such as *Hydropsyche* sp. *Erpobdella octoculata* and *A. brevicornis* have deleterious effects. These include oxidative DNA damage, neurotoxicity, and neuroendocrine disruption resulting from the passive consumption of chemical drug residues in aquatic environments. In addition, fewer antibiotics are removed in wastewater treatment plants, which poses a high risk to aquatic biota and human health by promoting bacterial resistance. This is especially worrisome for riverine populations, who use and work in contact with water, gradually ingesting this waste on a daily basis [20].

Vegetables in aquatic environments and those irrigated in agriculture can also be affected by chemical contamination of drugs in the water, impacting photosynthesis and the appearance of roots, stems, and leaves. In other words, the risks of improper disposal of medicines go beyond those already known, creating a chain of impacts on flora and fauna, which requires greater attention from public health[20]. The survey corroborates these impacts, showing that 56.8% of the respondents were unaware of the environmental and health effects of improper disposal.

The improper disposal of medicines in society is a widespread practice for several reasons, but it is linked mainly to the lack of information and health education offered to the population about the correct and final destinations of these products. Notably, the population's knowledge of collection points is nonexistent or is not limited by health units. Although the population can access the website of the National Information System on Solid Waste Management (Sinir) to locate the nearest collection unit[7], this is not a priority for drug users.

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For Family Health Strategy (FHS) units to promote health education on drug disposal, they first need to prepare their Health Services Waste Management Plan (PGRSS). This plan should cover the municipal logistics of generation, segregation, packaging, collection, storage, transportation, treatment and disposal. However, many of these units and their professionals do not receive the necessary support for this education, either because of the absence of the PGRSS, the lack of training in health departments or the high demand for daily work in ESFs[20].

Most professionals who carry out health education with the population do so independently and without the support of health regulatory bodies. Even those seeking adequate medication management cannot use the FHS units as collection points for disposal, as they are unable or do not know how to activate the reverse logistics of the responsible health departments[20].

Thus, although the correct management of waste is part of health care and should be carried out by the team, several factors make it difficult for this service to be offered effectively to the population. Despite having knowledge about the legislation, professionals are inserted into a disjointed system between health units, local health surveillance and reverse logistics services. These factors have direct consequences for the population, resulting in the incorrect disposal of medicines and actions that encourage the irrational use of these drugs, affecting humans, fauna and flora globally, as already mentioned.

CONCLUSIONS

The study noted that the population often stores and disposes of medicines inappropriately in their homes. This has caused a series of types of damage to the environment and public health. In addition, self-medication combined with incomplete treatment are points of concern that can lead to adverse reactions, such as poisoning.

The nurses' attributes are aligned with those of the multiprofessional team in the health-disease process, whether in private or public health units. Through nursing consultation, which involves excellent data collection, accurate diagnoses, planning, implementation of care and evaluation, nurses can access patients' characteristics and relationships with medications. Thus, throughout the consultation, he can provide adequate guidance on the rational consumption of medicines (dose, times and days) and the appropriate disposal (leftovers and/or disposal of expired medicines) within the reverse logistics implemented in the municipality in which he operates.

Health education, both inside and outside the office, is essential to combat the irrational use of medicines. This approach helps to clarify drug interactions, the development of pathogen resistance due to unregulated use, and the short- and long-term effects that drugs can cause. In other words, nurses are crucial facilitating agents

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in this information process, as they offer continuous and comprehensive care.

With inadequate consumption and storage, the disposal of medicines is also a negative consequence of this scenario, which requires the attention of public and environmental health management agencies to implement current legislation, offering training to health professionals such as nurses, nursing assistants and technicians, doctors and pharmacists. The scientific knowledge of professionals is of paramount importance so that they can safely guide and promote the reach of this information to the population.

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