Full Length Research Paper

Use of phytoterapics and medicines without professional prescription in a municipality Potiguar, Brazil

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The use of herbal medicines or drugs without professional prescription is a recurrent practice in several regions of Brazil. This action generates risks to the user, such as intoxication, masking of disease symptoms and important pharmacological interactions. The objective of this study was to analyze the profile of phytotherapeutic and drug use, without professional prescription, among residents of the municipality of Santa Cruz, Rio Grande do Norte, Brazil. Thus, a field survey was carried out through the application of a semi-structured questionnaire in the Likert scale model to 180 residents. The majority were women (80%), the predominant marital status were married (56%) and 44% were 49 years of age or older. It was observed that the target population has a low level of knowledge about self-medication, besides a constant consumption of Non-steroidal anti-inflammatory drugs NSAIDs without prescription. In addition, respondents do not have the habit of questioning health professionals, increasing of the self-medication. Therefore, health education actions are necessary in order to clarify the population, the change of habits in this practice, in search of a better quality of life.

Key words: Self-medication, medicinal plants, plant-drug interactions.

INTRODUCTION

Drugs and phytoterapics are frequently used as professional prescription in several Brazilian cities, justifying itself for several reasons, among them, easy access to products, public health service and influence of the media or people close to users. In this context, therapeutic resources are used on their own, and this

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practice is called self-medications (Yadav and Rawal, 2015; Jaramillo et al., 2003; Luras et al., 2016; Luras et al., 2016; Alabatt et al., 2016).

For many of the socially underprivileged regions, going to the pharmacy is an alternative way to solve health problems, where a large proportion of the drugs consumed are over-the-counter, without the prescription. Among the most consumed classes are analgesics, antipyretics and anti-inflammatory drugs (Non-steroidal anti-inflammatory drugs - NSAIDs) (Jain, 2011).

The main risks of this practice are, for example, incorrect choice of therapy, masking of symptoms, possible pharmacological interactions, increase of bacterial resistance, more pronounced adverse reactions and potential intoxications (Silva et al., 2011).

Relative to this, in the search of relief of health problems, the population makes use of medicinal plants. Many of these uses have been oriented through empiricism, that is, in popular knowledge, which in fact may not have the desired therapeutic purpose (Castel-Branco et al., 2015).

Thus, it is inferred that the use of drugs and phytotherapics without professional prescriptions can lead to potential intoxications to the user as well as interactions between the drug, which may compromise the therapeutic goal (Castel-Branco et al., 2015; Lessa and Bochner, 2008). Therefore, the study aimed to investigate the profile of users of basic health units in the municipality of Santa Cruz, Rio Grande do Norte, Brazil on the use of medicines and phytotherapics without professional prescription.

RESULTS

Among those interviewed, it was observed that 80% were women, 56% declared married marital status. Regarding the age group, 44%, were 49 years or older. The same percentage was observed as a predominance in the educational level, being predominant those with incomplete elementary education. In the family income, the majority included in up to a minimum wage (73%).

Respondents were initially asked about the types of health services they attended, with the majority (68%) being referred to the Basic Health Units (BHUs). These institutions provide free services to the local population. Regarding the frequency of use of these basic health units, most of them go at least once a month (49%). Thus, Figure 1 shows the period of access to these services.

When questioned about the habit of practicing self-medication, the majority (62%) reported being a frequent practice. Already, the sources of information on medicines, the majority 59%, pointed out to perform with health professionals. (Figure 2).

As most of the interviewees do self-medication in a frequent basis, they were asked about the safety of this practice applied to some drug classes (non-steroidal anti-inflammatory drugs (NSAIDs), antihypertensives, hypoglycemic agents and antibiotics) - Table 1. NSAIDs were considered by 63% of the interviewees as a group of medicines with low health risks, if consumed without professional guidance.

Relative recent consumption of herbal medicines, 61% claimed to do so, being the most cited: Horsetail (98%), Carqueja (94%), Boldo-do-chile (93%), Green tea (84%), Mint %, Fennel (68%), Boldo Brasileira (63%), Cidreira (57%) and Camomila (53%). Only 6% of the interviewees claimed to question health professionals about these products.

The self-medication can have its negative effects on the health of the user intensified, if this uses still phytotherapics without professional guidance. Some examples of these effects are listed in Table 2 (Brazil, 2011).

Finally, we performed an Analysis of Variance involving the socio-demographic variables of the study as the frequency and knowledge about the risks of self-medication, through ANOVA. Statistically relevant (p≤0.05) the level of schooling and income, according to Table 3.

Through the analysis of Cluster it was possible to verify through the analysis of variance between socio-demographic variables and self-medication, it was observed a relationship between Income, Schooling, Frequency with which practice self-medication, With whom doubts about medicines and Level of knowledge about risk of self-medication (p≤0.05). Figure 3.
**Figure 1.** Frequency of use of BHUS (Basic health units) and types of services most used. Health Unit Used (1. Public hospital; 2. Private Hospital; 3. Basic health Unit; 4. Beauty Therapy; 5. Health insurance) Basic Health Unit - Frequency use (1 - daily; 2. Weekly; 3. fortnightly; 4. Monthly; 5. Semiannually).

**Figure 2.** Frequency with which the interviewees practice self-medication and with whom they have doubts about medication. Frequency of self-medication (1. daily; 2. Weekly; 3. fortnightly; 4. Monthly; 5. Semiannually) Drugs doubts (1. Friend, 2. Relative, 3. Health professional, 4. Internet, 5. Tv).
Table 1. Percentage of interviewees who consider the self-medication of some drug classes without danger.

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Percentage of risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-steroidal anti-inflammatory drugs NSAIDs</td>
<td>63</td>
</tr>
<tr>
<td>Antihypertensives</td>
<td>11</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>19</td>
</tr>
<tr>
<td>Hypoglycemic agents</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 2. Phytotherapeutic-drug/phytotherapeutic interaction-pathological conditions.

<table>
<thead>
<tr>
<th>Medicinal plant</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cavalcinha (Equisetumsp.)</td>
<td>-</td>
</tr>
<tr>
<td>Carqueja (Baccharistrimera)</td>
<td>Avoid concomitant use with antihypertensives and for diabetes.</td>
</tr>
<tr>
<td>Boldo-do-chile (Peumusboldus Molina)</td>
<td>Contraindicated for people with gallstones, obstruction of the bile ducts and severe liver diseases.</td>
</tr>
<tr>
<td>Alecrim (Rosmarinusofficinalis L.)</td>
<td>Do not use in people with gastroenteritis and a history of seizures.</td>
</tr>
<tr>
<td>Chá verde (Camelliasinensis var assamica)</td>
<td>-</td>
</tr>
<tr>
<td>Hortelã (Menta x piperita L.)</td>
<td>Do not use in diabetics and people with urinary lithiasis or in cases of treatment with simvastatin and felodipine.</td>
</tr>
<tr>
<td>Erva-doce (Pimpinellaanisum L.)</td>
<td>In case of allergic reactions, discontinue use immediately.</td>
</tr>
<tr>
<td>Boldo-brasileiro (PlectranthusbarbatusAndrews)</td>
<td>It should not be used by hypertensive patients with obstruction of the biliary tract. Do not use in the case of treatment with metronidazole or disulfiram, CNS depressants and antihypertensives.</td>
</tr>
<tr>
<td>Cidreira (Cymbopogoncitratrus (DC.) Stapf)</td>
<td>It may potentiate the effect of sedative drugs.</td>
</tr>
<tr>
<td>Camomila (Matricariarecutita L.)</td>
<td>Occasional allergic reactions.</td>
</tr>
</tbody>
</table>

Adapted from: Pharmacotherapeutic Form of the Brazilian Pharmacopoeia (2011).

Table 3. Analysis of Variance between the statistically relevant variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Between SS</th>
<th>df</th>
<th>Withinss</th>
<th>df</th>
<th>F</th>
<th>Significance P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schooling</td>
<td>151.3315</td>
<td>1</td>
<td>89.6992</td>
<td>96</td>
<td>161.9616</td>
<td>0.000000</td>
</tr>
<tr>
<td>Yield</td>
<td>5.9402</td>
<td>1</td>
<td>78.1292</td>
<td>96</td>
<td>7.2930</td>
<td>0.008183</td>
</tr>
<tr>
<td>F Self-medication frequency</td>
<td>6.2661</td>
<td>1</td>
<td>178.9992</td>
<td>96</td>
<td>3.3606</td>
<td>0.009872</td>
</tr>
<tr>
<td>Risk of Self-medication</td>
<td>4.1167</td>
<td>1</td>
<td>124.2200</td>
<td>96</td>
<td>3.1815</td>
<td>0.047636</td>
</tr>
<tr>
<td>Doubts about drugs</td>
<td>5.1237</td>
<td>1</td>
<td>88.2519</td>
<td>96</td>
<td>3.2476</td>
<td>0.02367</td>
</tr>
</tbody>
</table>

DISCUSSION

Most of the interviewees (68%) said they attend basic health units, being public services for primary health care. However, there is no frequent departure from these services, which could be explained by several factors in the Brazilian reality. Among these, the difficulty of marking the service or access, or even the availability of time (Graden et al., 2015), since these units work in the daytime. This pecularity may make it difficult to guide people about various health issues, such as the correct use of therapeutic devices.

This reality may be aggravated by some social factors, such as low education and income of the population, since access to information could be compromised. The target audience of the study, fits this profile, a fact that can influence the therapeutic use of the device without proper professional guidance. This may lead to incorrect dosage, negative pharmacological interactions and masking of pathological symptoms (Abrahão et al., 2013; Torres et al., 2014).

This was a practice performed by most of the enrolled, although largely claim to consult health professionals about medications. This may be due to difficulty access
to health care, marketing influence or induction to consumption in drugstores (Wehling, 2014).

This is worrying, since most respondents (74%) say they have little or no knowledge about the risks of self-medication, demonstrating that actions to clarify this public should be carried out. As for the specific classes of medicines, the majority claimed to take some NSAIDs on their own, since they believe there is no health hazard (Basic Health Unit). These drugs have three main effects: anti-inflammatory, analgesic and antipyretic action, being exerted through the inhibition of cyclooxygenase (COX).

However, they are not risk-free medicinal products, which can trigger a series of adverse effects such as: gastrointestinal bleeding, dyspepsia, peptic ulcer, dysfunction and renal failure due to incorrect use (dose, route of administration, pharmacological interactions) inhibition of platelet aggregation and increased bleeding time, jaundice and interactions with other drugs (Wehling, 2014; Torres et al., 2014; Silva et al., 2013).

Complementarily, the interviewees were asked about their level of knowledge about phytotherapics / teas and possible interactions with drugs, and how they have questions about this topic. Since 89% of the interviewees do not clarify doubts with health professionals, TV and friends are the main sources of information about herbal medicines and teas. This reinforces the low knowledge that most (87%) claims about the interaction of herbal and medicinal products, proving to be a cause for concern, since innumerable drugs may present interactions with herbal / phytotherapeutic risks to the user's health.

Although there is a variation between different groups of schooling, it is variable and income is not enough to influence the practice of self-medication or knowledge about the risks of this practice, confirming the descriptive analysis that is a common practice in the group analyzed. Especially in developing countries, given the lack of health education and service qualities complicate this reality (Hussain et al., 2011).

**Conclusion**

The set of results obtained in this research allows us to visualize that the interviewed group performs the use of medicines and phytotherapeutics, mostly without proper guidance from a qualified health professional.

Therefore, they are more exposed to the undesirable effects of this practice, among them, masking disease symptoms and the risk of major intoxication.

In this way, health education actions, quality service provision and professional qualification should be instigated to better guide users about the risks of this practice.

**Conflict of Interests**

The authors have not declared any conflict of interests.
REFERENCES


