Level of Knowledge on Medicinal Plants in the Class Group of Elderly in Trinidad, 2023

Ana Elena Rodríguez Cadalso¹, Regina de la Caridad Rodríguez Muñoz², Teresa Isabel Turiño López³, Gonzalo Laureano López Castro³, Eduardo Rafael Águila Turiño⁴, Lisnay Trujillo Rodríguez¹, Yamel Bárbaro Pérez Vásquez³ and Manuel Antonio Pérez García³

1. Pharmaceutical Sciences in the Pharmacology Department, Trinidad 62600, Sanctis Spíritus, Cuba
2. Languages Department, Trinidad 62600, Sanctis Spíritus, Cuba
3. Municipal University Center “Julio Antonio Mella” Unit, Trinidad 62600, Sanctis Spíritus, Cuba
4. Principal in the Municipal University Center “Julio Antonio Mella” Unit, Trinidad 62600, Sanctis Spíritus, Cuba

Abstract: Objectives: To characterize the traditional use of medicinal plants in old men belonging to the class group of elderly of Trinidad in 2023. Methods: To carry out study over the past 5 years and to present a general vision on the use of medicinal plants in the elderly. It was carried out an observational and transversal descriptive study of this class in the period from November 2022 to March 2023. Descriptive statistic was used. Results: The (76.2%) of the group and the feminine sex (95.2%), prevailed with over 65 years. The 95.33% (N = 21) referred knowledge on medicinal plants, (76.2%) with Technical scholarship or high school levels. The 57.1% referred as main source of information radio and television and 71.4% over 30 years consumes medicinal plants. 57.1% request advice on medicinal plants from others old men and 66.6% didn't know that some medicinal plants can produce damages to the organism if they are not use correctly. Conclusions: With the instruments applied, it could be determined the necessity to teach topics related to medicinal plants and to know the importance of sowing medicinal plants in their houses using valid information with scientific arguments. Technological prevision based on the search of articles in the Virtual Library in Health (BVS) and using the key words “medicinal plant”/”old men”/”class group of elderly”/”elder adults”/”elderly”.

Key words: Medicinal plant, old men, class group of elderly, elderly.

1. Introduction

The use of grasses for cure, has very remote origins. Differences exist among the diverse historical texts on the origin of cure by means of plants. The certain thing is that among the first towns that benefitted with grasses, figure the Asians, as for example China. Later the Egyptians and Hebrews, as well as Greek and Roman towns and the first descriptions of medicinal plants arise in the works of Hippocrates, Theophrastus, Galeno and Celso, among others.

The 80% of the world’s population, more than four thousand million people, and uses plants as main medicinal remedy, as it is pointed out in the World Organization of Health (WHO). At world level, the elder population, over 65 or more years, is increasing and it has been projected that for 2050 it will represent the 21% of the total population. Additionally, bibliography reports that consumption of medicinal plants on the part of elder adults has increased during the last decade [1].

The tradition in the use of medicinal plants has been transmitted from generation to generation through thousands of years, but this transmission has been in an oral form, that’s the reason for it has pitifully been losing as time pass by [2]; on the other hand, the increased appearance of modern medicine has also contributed to the disuse of ancestral medicine [3]. However, for decades the practice of traditional or
alternative medicine has contributed to the prevention and restoration human health [4]; so that the WHO has renovated its strategies on traditional medicine up to the 2023 with the objectives of, first, to take advantage of the contribution of traditional medicine to influence in the systems of health, specifically, in the primary attention and, second, to promote the use of traditional medicine throughout investigation projects [5].

2. Methods

It was carried out an observational and transversal descriptive study with old men belonging to the adult’s class of Trinidad in the period from November 2022 to March 2023.

The sample was constituted by 21 adults that integrate the total adult's class in Trinidad, who accepted to be part of the investigation and who had the cognitive and visual capacities for the correct development of the study.

The information was picked up starting from a survey (Annex 1) elaborated by the authors of this work and endorsed by the Scientific Council of the Municipal University Center “Julio Antonio Mella” of Trinidad, which allowed characterizing the level of knowledge about medicinal plants in this group object of study. In the survey a simple language was used and it was read and explained to adults by the authors of the investigation.

There variables studied were: age, gender, scholarship level with specialized formation regarding to medicinal plants, the main source to obtain information about them, varieties of plants sowed in their houses, time they had consumed medicinal plants, people’s that ask them for suggestions about the use of medicinal plants and if they knew that some medicinal plants could produce damages to the organism if they are not used correctly.

Descriptive statistic was used, and the obtained results were expressed as absolute percentage and relative frequencies.

3. Discussion

In Table 1 is shown the data about age: 16 adults that represent the 76.2% are over 65 years and only 5 that represent the 23.8% are from 56 to 65 years (n = 21). In Table 2 is shown that the 21 adults which represent the 100% are over 65 years. 20 adults which represent the (95.2%) from the feminine sex and only 1 that represents the 4.8% are from the masculine sex.

In a similar study in the Integral Center of the Elderly District of Augustinian, Lima, Peru is stated that, According to the age of adults, the 71.7% is between 60 and 70 years, while the 26.7%, is between 71 and 80 years; also the 93.0% was women and only the 7% was male, what agrees with the results obtained in our study [6].

Table 1 Age.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number of people</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>56–65</td>
<td>5</td>
<td>23.8%</td>
</tr>
<tr>
<td>≥65</td>
<td>16</td>
<td>76.2%</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2 Age and gender.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Female N (%)</td>
</tr>
<tr>
<td>56–65</td>
<td>-</td>
</tr>
<tr>
<td>≥65</td>
<td>20  (95.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>100  (100%)</td>
</tr>
</tbody>
</table>

In Chart 1, according to the Scholarship level, it can be observed that 8, the highest number of old men have superior educational level, followed by 7 who had high school or technician level, 5 had secondary level and just 1 had primary level.

In a carried-out study to the population of Canton Salcedo, Cotopaxi, Ecuador, by Bermudez del Sol, in 2022, was obtained that old men, had a primary education level what makes think of the possibility that knowledge about the use of medicinal plants is an ancestral knowledge that has been transmitting from generation to generation [7].

In Chart 2 is shown the source of information they
had obtained knowledge on medicinal plants, where 12 refer that they had obtained information from the radio and television, aspect recognized in our country, where through the massive means of diffusion topics about health are approached, 9 refer friends or neighbours, 7 refer newspapers, 5 from internet and just 1 referred to had acquired information from a pharmaceutical or doctors.

Contrasting with a study carried out in indigenous areas of the Amazons, where when investigating on the sources of knowledge for each one of the plants, it was found that the family, especially grandparents, continues having a significant role in the transmission of knowledge through oral tradition and daily activities [8].

Vargas, B., et al [9] refers the necessity of the popularization and the population’s education in connection with the properties of medicinal plants, preparation forms, contraindications, toxicity or interactions with conventional medications that can rebound in a positive way in the perception and handling that could make of them.

Table 3 shows that the 71.4% of the interviewed old men consumes more than 6 kinds of medicinal plants, 14.3 % consumes between 4 and 6 and another 14.3 % consumes between 1 and 6 medicinal plants. Gallegos Zurita M [10], in Ecuador reported that the 92.9% consumed medicinal plants. Also, in terms of the
number of medicinal plants, the 36.9% consumes between 3 and 4 plants, while the 36.1% between 5 and 6 plants; the reason for which they use these plants is because they are in the 69.2% preventive. For Gallegos, the participants of the study consume medicinal plants to treat at least 44 illnesses. In the same way in Chile the 71% use medicine based on medicinal plants, but in Colombia just the 40% use them [11].

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Frequency about the Consumption of medicinal plants.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Number and percentage</td>
</tr>
<tr>
<td>Eat 1 to 6 medicinal plants</td>
<td>3 (14.3%)</td>
</tr>
<tr>
<td>Eat 4 to 6 medicinal plants</td>
<td>3 (14.3%)</td>
</tr>
<tr>
<td>Eat more than 6 kinds of medicinal plants</td>
<td>15 (71.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>21 (100%)</td>
</tr>
</tbody>
</table>

A study carried out in the rural area of a city of Argentina (Córdova) who reported that the entire population knows on the use of medicinal plants, and more than the fourth three parts of them know at least five species of these grasses. [12]

Chart 3 shows the kind of people who request for suggestions to old men in relation with the use of medicinal plants, being observed that 7 young people and 3 adults ask for their uses, and 11 elder adults didn’t ask for their uses and didn’t know so much that some medicinal plants can produce damages to the organism if they are not used correctly.

![Chart 3 Type of population seeking advice on the use of medicinal plants from elderly people.](image)

In addition, it has been pointed out that in developed countries such as United States of North America, over 60% of the elderly do not inform their doctors when consuming herbal or natural products because they believe they are harmless, which constitutes an excellent risk for health [13].

References


Annex 1  Questionnaire.

Anonymous Interview to Old Men Belonging to the Class Group of Elderly in Trinidad, 2023

This interview is directed to old men belonging to the class group of elderly in Trinidad, 2023, with the objective of valuing the traditional use of medicinal plants on these ages.

DATA: ….. /…… /……

1. How old are you?
   O From 56 to 65 years
   O More than 65 years

2. Gender
   O Male
   O Female

3. Which is your scholarship level?
   O Primary
   O Secondary
   O Technician or High School
   O Superior
   Indique _______________

4. What main source do you use to obtain information on medicinal plants?
   O Newspaper
   O Radio/Television
   O Internet
   O Friend/Neighbour/Family
   O Pharmaceutical Doctor
   O Others_________
   O Courses/Congresses

5. How long have you consume medicinal plants?
   O ____ Doesn’t remember
   O ____ Between 5 and 30 years
   O ____ More than 30 years

6. What kind of people requests your suggestions for the use of medicinal plants?
   O ____ Young
   O ____ Adults
   O ____ Elder Adults

7. How many varieties of plants you have sowed in your house?
   O ____ None
   O ____ Some
   O ____ Many

8. What specialized formation do you have regarding medicinal plants?
   O ____ Primary
   O ____ Secondary
   O ____ High
   O ____ Specialized

9. Do you know that some medicinal plants can produce damages to the organism if they are not use correctly?
   O ____ Yes
   O ____ No

Thanks you for your participation!