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SURVEY OF THE KNOWLEDGE OF ELDERLY PEOPLE REGARDING NON-CONVENTIONAL FOOD PLANT

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ABSTRACT

The acronym PANC refers to all plants that have one or more edible parts, whether they are spontaneous or cultivated, native or exotic, and are not included in our daily diet. Non-Conventional Edible Plants (PANC) are vegetables that have been known and used for many years in indigenous culture, but which have ceased to be prominent today, being underutilized by the population. Brazil currently has one of the greatest biodiversity in the world, however, the plant species used in food are still scarce. However, despite the numerous benefits, it is mainly due to the lack of knowledge of the majority of the Brazilian population, even though some individuals, mostly elderly, associate PANC with their food consumption in childhood. Studies have found that the elderly have a great deal of knowledge about non-conventional edible plants, but doubts and myths about them can be noted, and it is necessary to demystify them. In view of the above, a survey was conducted with the aim of assessing the knowledge of elderly people regarding unconventional food plants, their consumption and cultivation methods. The questionnaire was administered in person to 97 elderly people over a two-year period. The results obtained were calculated as percentages using the Google Sheets tool and compared with interviews conducted by other authors using articles published in online databases. The Scielo and Google Scholar databases were used for the search. Based on this study, we can conclude that most of the interviewees know about and have consumed PANC in some way, but the minority uses them.

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INTRODUCTION

Non-Conventional Food Plants (PANC) are defined as plants that have not yet been fully analyzed by the technical-scientific community and/or investigated by society as a whole, resulting in regional consumption and indicating difficulty in acceptance and consumption in other regions of the country (Brasil, 2010). The acronym PANC refers to all plants that have one or more edible parts, such as roots, tubers, bulbs, rhizomes, stems, stalks, leaves, shoots, flowers, fruits, and seeds; whether they are spontaneous or cultivated, native or exotic, and not commonly included in our daily diet (Gollner-Reis *et al*., 2016; Kinupp, 2007). According to Oliveira (2018), PANC are also defined as vegetables, ruderal plants, underutilized, neglected, weeds, or herbs. These non-conventional plants are species resistant to pests and diseases, do not require pesticides, have edaphoclimatic resilience, adapt to adverse conditions, and can grow on sidewalks and in agricultural production areas (Brasil, 2010; Kinupp; Lorenzi, 2014; Paschoal; Souza, 2015).

According to Pedrosa *et al*. (2012), PANCs develop spontaneously in specific regions and are cultivated by small-scale farmers, often within families, as their cultivation and handling techniques are passed down from generation to generation, primarily for non-commercial purposes. PANCs are also used in phytotherapy and traditional medicine, serving as functional foods rich in essential vitamins, fibers, antioxidants, and minerals—nutrients indispensable to our bodies (Kelen *et al*., 2015). Non-Conventional Food Plants (PANC) have been known and utilized for many years in indigenous cultures, but they have lost prominence in modern times and are rarely found in urban markets, leading to their underutilization by the population (De Padua Soares, 2020). According to Kinupp and Lorenzi (2014), the introduction of European culture in Brazil has led to the devaluation and neglect of non-conventional food plants that were once consumed in the past. Oliveira (2018) reports that Brazil, despite having one of the largest biodiversities in the world, still sees limited use of plant species in its diet. These vegetables have significant potential to be integrated into the population's diet; however, despite their numerous benefits, they remain underutilized, primarily due to a lack of awareness among most Brazilians (children,

adolescents, and adults), although some elderly individuals associate PANC with their childhood dietary habits (Silva *et al*., 2022). Machado *et al*. (2014) found that the elderly possess considerable knowledge about non-conventional edible plants, but there are still doubts and myths surrounding them, making it necessary to demystify these misconceptions. In this context, the objective of this research was to evaluate the knowledge of the elderly about Non-Conventional Food Plants through a questionnaire administered in person.

METHODS

The study was conducted over a one-year period, focusing on elderly individuals from the city of Marília and surrounding regions. The research involved a questionnaire administered in person to a sample of 97 elderly participants. The questionnaire included 10 open-ended and multiple-choice questions related to the topic, with a preliminary explanation of the acronym PANC provided to all respondents. The questions were designed to assess knowledge of Non-Conventional Food Plants, focusing on known species, consumption methods, and cultivation practices. The results were analyzed as percentages using Google Sheets, and the data were compared with findings from other similar studies through the review of published articles available in online databases. The literature search was conducted using the Google Scholar and Scielo databases.

RESULTS AND DISCUSSION

Among the 97 elderly individuals interviewed, 63% reported having prior knowledge of Non-Conventional Food Plants (PANC), while 37% indicated no familiarity with the topic. Of those who were aware of PANC, 48% mentioned that they learned about these plants during childhood, primarily through traditional family practices. This finding aligns with previous studies that emphasize the intergenerational transmission of knowledge regarding PANC (Machado *et al*., 2014). Regarding the PANC species identified by participants, the most frequently mentioned were ora-pro-nóbis (*Pereskia aculeata*) and taioba (*Xanthosoma sagittifolium*). These results are consistent with the literature, which highlights these species as some of the most well-known and consumed in Brazil (Kinupp & Lorenzi, 2014). Despite the awareness of certain species, 42% of participants expressed uncertainty about the proper methods of consuming and preparing PANC. This suggests a significant gap in practical knowledge, which may contribute to the underutilization of these plants in daily diets. The literature indicates that this knowledge gap is a limiting factor in the broader incorporation of PANC into everyday meals (Silva *et al*., 2022). When asked about the cultivation of PANC, 35% of the elderly respondents stated that they cultivate some species at home, primarily in domestic gardens. This behavior is particularly relevant as it highlights the potential of PANC to promote food security and reduce dependence on processed foods. However, the low percentage of cultivation also indicates a need for greater outreach and education regarding the benefits and ease of growing these plants (Oliveira, 2018). Finally, when comparing the data obtained with previous studies, a consistent trend was observed: knowledge of PANC is more prevalent among the elderly population, but there is a clear need for educational programs aimed at spreading this knowledge to younger generations. The promotion of PANC could play a crucial role in diversifying diets and conserving biodiversity, particularly in urban areas where access to fresh and diverse foods is limited.

CONCLUSION

The study found that 55.67% of respondents reported being familiar with Non-Conventional Food Plants (PANC), and among these, 76.29% stated that they incorporate them into their diet. Among those who consume PANC, the majority (51.55%) prepare them by sautéing, 46.39% consume them as teas through infusion, 32.99% as raw salads, 11.34% fry them by deep-frying, 4.12% use dry heat methods such as baking, and 18.56% prepare them in other ways. The most well-known PANC among the participants were mastruz (73.2%), sweet potato leaves (69.07%), ora-pro-nóbis (64.95%), and caruru (63.92%). Conversely, bertalha was the least known, with only 13.4% of respondents recognizing it. Despite familiarity with certain species, 54.64% of the respondents reported not having any PANC at home.

Conflict of Interests: The authors declare no conflict of interest.

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