v. 5, n. 5, 2025

International Journal of Human Sciences Research

EVALUATION OF EDUCATIONAL ACTIONS TO INTRODUCE EDIBLE MUSHROOMS INTO THE EATING HABITS OF VULNERABLE POPULATIONS

Acceptance date: 11/03/2025

Fernanda Silveira Bueno
RJI, Research ProfessorFatec Mogi das Cruzes, Paula Center

Pedro Luiz Frare Junior
Professor, Fatec Mogi das Cruzes, Paula Souza Center

Abstract: Poor people in developing countries suffer from malnutrition and at critical times such as the Corona Virus Pandemic they are the worst affected. A country such as Brazil, which has an abundance of food, needs educational and social actions to ensure that food reaches the needy. The mushroom is one of the most sustainable alternatives for meeting nutritional needs, but it needs educational actions so that it can be incorporated into the daily lives of needy families. As a result of educational and social actions such as the Horta e Fungicultura project in schools, edible mushrooms are being introduced to underprivileged populations. Since 2017, the Horta e Fungicultura nas escolas project has been practicing educational actions to introduce sustainability into the lives of the school community, as well as healthy eating with fruit, vegetables and mushrooms in the diet of students in Brazilian public schools and evaluating the impact of the project on the lives of the participants. Over the course of 3 years, the Horta e Fungicultura nas escolas project has had a significant impact on the lives of the participants, with nationwide publicity, the participating schools receiving the Green Friendly Schools award in 2019; it was considered by the Forum of Tomorrow as one of the projects contributing to making Brazil a better country; Fatec in Mogi das Cruzes was awarded the title of University Institution with Social Action. The project reached 13,000 families. The results showed that mushrooms had an increase of approximately 10% per year in the diet of the participating families, which demonstrates the approval of introducing them into the diet of less privileged populations.
Keywords: Edible mushrooms. Fungiculture. Sustainability. Vulnerable population. Healthy food.

INTRODUCTION

According to the hunger map, 113 million people on the planet face food insecurity. There are 10.5 million people suffering from hunger in Brazil (2020)

Mushrooms are complete foods, with proteins of high biological value, vitamins, rich in fiber and nutraceutical properties, **sustainable food**, small spacesproduced 2 months, in in , with little water, 33L (1kg mushroom) x 15000L (1kg meat), produced with residual raw materials, an important **source of income with high market value** and an alternative for needy populations.

Fungi have protein of high biological value, containing the nine essential amino acids, vitamins, fibers, carbohydrates, beta-glucans and triterpenes that promote better health. Considered a complete food, they are one of the most sustainable alternatives for meeting nutritional needs. However, it needs educational activities so that it can be incorporated into the daily lives of poor families. This is why were carried out educational and social actions in the Horta e Fungicultura project in schools, to introduce edible mushrooms into the daily lives of disadvantaged populations. The Horta e Fungicultura nas escolas project, has been practicing educational activities since 2017 in a project with the Jacareí City Council and the Department of Education, to introduce sustainability into the lives of the school community, as well as healthy eating with fruit, vegetables and mushrooms in the diet of Brazilian public school students, and has evaluated the impact of the project on the lives of the participants.

GENERAL OBJECTIVE

Evaluation of educational actions to introduce edible mushrooms into the eating habits of vulnerable populations

SPECIFIC OBJECTIVES

- Evaluate the impact of the project on the lives of the participants.
- Introducing sustainability into the life of the school community, as well as healthy eating with mushrooms
- Developing active methodologies in everyday school life

METHODOLOGY

- Qualitative and exploratory methodology
- Sample of 200 students per year from Mogi das Cruzes and Jacareí
- Averages and descriptive analyses were carried out.
- Data obtained through 2 questionnaires sent to public school parents, at the beginning of the year and another at the end of each year to assess the impact on the lives of the families involved.

METHODOLOGY

HOW THE PROJECT WORK?

THEY HARVEST

Interns carry out activities with children and mushrooms!!!

cogumelos Brazilis

Provides donations of mushroom substrates to the Project

Training for interns, family members and school teachers.

They build sheds to produce mushrooms

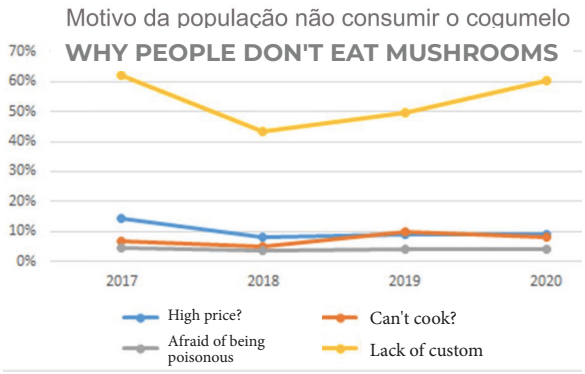
Teachers do activities with children and mushrooms!!!

RESULTS

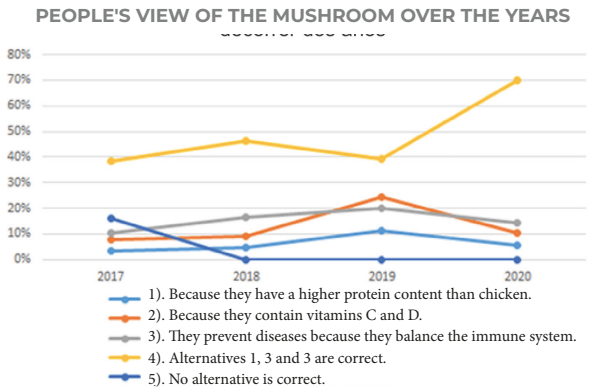
The activities carried out during the project introduced mushrooms into the eating habits of the Jacareí school community, which introduced Meatless Monday and Mushroom Monday! The children's involvement through the mushroom production activities, daily care, harvesting and participation in games that involved fungi in the children's daily lives aroused a lot of interest in the lessons and in mushrooms in general. The project also encouraged mushroom consumption at home by sharing mushroom recipes and nutritional information with the participating families.

The project resulted in two participating schools in Jacareí receiving awards as Green Friendly Schools.

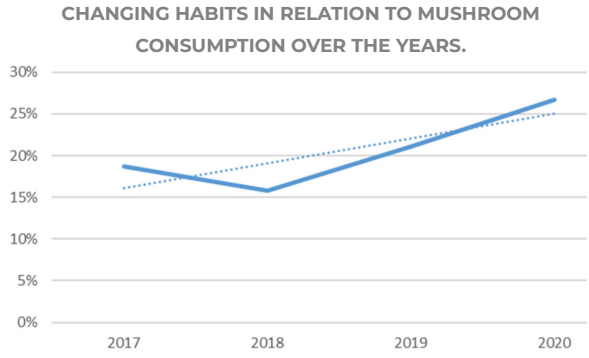
When asked why they didn't buy mushrooms, the families in the first year of the survey said it was due to a lack of knowledge. However, later on the project achieved its objective of spreading the word about fungi and their nutritional potential to those involved, reducing the participants' lack of knowledge by 20% over the course of the project.



Knowledge about the nutritional properties of mushrooms has increased by 30% over the years



There was a 30% increase in mushroom consumption by the families involved over the three years of the project.



CONCLUSIONS

- The project had an impact on the lives of the participants, providing them with important information about the benefits of mushrooms and how to prepare them.
- The project also promoted changes in habits regarding the consumption of mushrooms by vulnerable communities.
- Mushrooms can be an important source of protein and income for underprivileged populations.

REFERENCES

EIRA, A. F; BUENO,F..S. Cultivo de cogumelosShiitake em substrato - Cultivo Axênico e Pasteurização Severa. Viçosa - MG, CPT, 2005. 196p.

URBEN.A.F. Produção de cogumelos por meio de tecnologia chinesa modificada: biotecnologia e aplicações na agricultura e na saúde.Editora EMBRAPA. Ed.3 - Brasília, DF: Embrapa, 2017.

SILVEIRA. L.M. Projeto Educação não pode esperar. Ações para minimizar os impactos negativos à educação em razão às ações de enfreitamento ao Corona virus. Comitê Técnico de Educação do Instituto Rui Barbosa. 56 págs. 2020.

PRIMAVESI A. Cartilha do solo. Editora Fundação Mokiti Okada,ISBN-13: 9788588173071. Ipeúna, SP. Ed.1. 2006.

IBGE. Panorama Nacional e Internacional da Produção de Indicadores Sociais. Disponível em: , 2021.

SILVA.,B.M. Metodologias Ativas e a Formação de Profissionais Classe Mundial. Palestra Centro Paula Souza de formação de professores na Fatec de Mogi das Cruzes. Dez. 2018

BRASIL. **Constituição da República Federativa do Brasil**. Brasília (DF): Senado, 1998.

BEZERRA, J.A.B. **O comer na escola significados e implicações**. 2002. 243f. Tese (Doutorado em educação) – Faculdade de Educação, Universidade Federal do Ceará, Fortaleza (CE), 2002.

BORGES. A.T., PAIVA. R. S. Utilização do Jardim Sensorial como recurso didático. **Revista Metáfora Educacional**. ISSN 1809-2705. Versão on line n.7 dez/2009. Indexada ao Latindex (Sistema Regional de Information in Linea para Revistas Científicas de America Latina, el Caribe, Espana y Portugal). http://www.valdeci.bio.br/revista.php

_____. Lei Federal n. 11346, de 15 de setembro de 2006. **Cria o Sistema Nacional de Segurança Alimentar e Nutricional** – SISAN com vistas em assegurar o direito humano à alimentação adequada e dá outras providências. Diário Oficial da União. Brasília (DF), 2006.