

Awareness of Antioxidants among the General Population and Recipe Development

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Abstract

With growing awareness and concern for health amongst the population antioxidants have recently gained popularity. A review of the available research literature indicates that antioxidants, from either plant sources or synthetic, are beneficial for health when consumed in acceptable amounts. Therefore many foods, beverages, and skin care products now claim to have the benefits of antioxidants in them influencing the population to purchase them. However, this purchase can be wasteful or even harmful if done with ignorance. Therefore, the purpose of this study was to evaluate the level of awareness of antioxidants among the general population and for this; a survey through a questionnaire method was done. The study aimed at figuring out the interests and views of the general population of varying age groups concerning antioxidants. The survey revealed that the majority of the population has heard of Antioxidants at least once in their life and most have a basic idea about antioxidants. Also, there are a few who might use antioxidant products, but still are not confirmed about its benefits, and some believe Antioxidants to be a hoax. But even though the general population is aware of Antioxidants more information is needed to be spread throughout the population about the benefits and sources of antioxidants. Also, healthy, palatable, antioxidant-rich quick snacks like varieties of chikkies, almond peanut chikki, dates sorghum chikki, chocolate like apple mint chocolate, hazelnut raisin chocolate, walnut raisins chocolate, juices like Amla Spinach juice, golden fruit juice, mango strawberry shake, ginger cumin tea, mouth fresheners, etc. were developed for the convenience of the population with appropriate but controlled amounts of antioxidants.

Keywords: *Antioxidants, chikkies, chocolates, juices, mouth fresheners*

Introduction:

An antioxidant is a substance that, when present at low concentrations compared to those of an oxidizable substrate, significantly delays or prevents oxidation of that substrate. When an antioxidant destroys a free radical, this antioxidant itself becomes oxidized. Therefore, the antioxidant resources must be constantly restored in the body. Antioxidants from our diet play an important role in helping endogenous antioxidants for the neutralization of oxidative stress. The nutrient antioxidant deficiency is one of the causes of numerous chronic and degenerative

pathologies. Each nutrient is unique in terms of its structure and antioxidant function - Vitamin E, Vitamin C, Lycopene, beta-carotene, Selenium, Flavonoids, Omega-3, Omega-6 fatty acids. Although antioxidants have been very popularized in recent years, not much actual information about their uses and benefits exists among the population. Also, much misinformation circulates among the people, creating confusion. The study targets to assess the awareness of antioxidants amongst the population. Also, it aims to create healthy and palatable, anti-oxidant-rich food products, that could be provided to the general population.

Review of Literature:

Researchers like Helmut SIES (1993), and Esra Birben et al. (2012), explored the various ways antioxidants help in fighting free radicals. K. Schlesier et al. (2002), Eric A. Decker (2002), Barry Halliwell (1990) and Norma Franconia Santos-Sanchez (2019) studied the antioxidant mechanism while researchers like Catherine A Rice-Evans et al. (1993), Simon R. J. Maxwell (1995) explored the usage of antioxidants in health and conditions. Anikó Somogyi et al. (2007), Fereidoon Shahidi et al. (2015), studied how to measure antioxidant activity in food stuffs.

Objective: The main objective of the present research

1. To develop anti-oxidant food products.
2. To evaluate the knowledge about anti-oxidants among the general population through a questionnaire.

Material and Methods:

As for primary data collection, the researcher has used – 70 random samplings of the population are taken from different areas. Questionnaire is used as a survey data tool. Interviews were conducted, and the answers given by interviewees were marked in the questionnaire. The mode of communication used was Hindi and English.

As for secondary data collection- Researcher has used Internet explorer, books, publishes. For recipe development, after listing out some of the foods from each food group that have high ORAC value, I tried out various combinations of these foods to make multiple recipes. Hit-and-trial methods for such combinations were used to give final products of acceptable taste. The few that were finalized as acceptable have been compiled in the report.

Results and discussion:-

After conducting the survey through a questionnaire the major findings are:

- The majority of the respondents were aware of what antioxidants are.
- 97.2% of respondents were at least minimally aware of what are Antioxidants.
- 72.9% of the subjects relate antioxidants to food, while 40% of the subjects relate antioxidants to skincare.
- 95.7% of the respondents believe antioxidants to be beneficial for overall health.

- 40% of the population think antioxidants to be Vitamin C, 35.7% Medicine and a considerable amount of the population believe antioxidants to be a hoax (7.1%) and just simply a fashion trend (7.1%).

Mouth fresheners, Juices- Amla Spinach Juice, Mango Strawberry Shake, Golden fruit juice, Ginger cumin tea, Chocolate bars- Apple Mint Chocolate, Walnut Raisins Chocolate, Hazelnut Raisins Chocolate and chikki- Almond Peanut Chikki, and Date Sorghum Chikki were prepared.

Conclusion:

On the basis of results, it may be concluded that most population is aware of antioxidants and its uses. Tasty and antioxidant rich quick snacks can be developed for the ease of consumers. The incorporation of Antioxidant rich recipes not only aligns with this awareness but also offers a practical and accessible avenue for consumers to enhance their antioxidant intake. By creating recipes that are both nutritious and easy to prepare, we contribute to the promotion of a healthier lifestyle.

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