

NUTRACEUTICALS AND PHARMACEUTICALS: A COMPARATIVE ANALYSIS

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Introduction:

Today healthcare market is flooded with the different new terminologies. Nutraceuticals, Cosmeceuticals, Biopharmaceuticals, Nanopharmaceuticals, Herbaceuticals, Dermaceuticals and Nutricosmeceuticals are new buzzwords in healthcare market. Different scholars have defined Nutraceuticals, but essence of all definition remains same i.e. “food as medicine”. Here in this study we have attempted to picture out the clear difference between Nutraceuticals and Pharmaceuticals.

Conceptual Difference:

According to Thesaurus dictionary, meaning of pharmaceuticals is “A substance used in the treatment of disease” the term pharmaceuticals include its synonyms drug, medicament, medication, and medicine². Dictionary meaning of drugs says drug is a substance used in the diagnosis, treatment, or prevention of a disease or as a component of a medication. Drug is a substance as recognized or defined by the law of that country. A chemical substance, such as

a narcotic or hallucinogen that affects the central nervous system, causing

changes in behavior and often addiction also considered as drug². Every country has defined the term drug in their regulations for medicine, but essence of all the concepts of drugs remains same.

The term "Nutraceutical" was coined in 1989 by Stephen De Felice, founder and chairman of the Foundation for Innovation in Medicine^{8,9}. He fused the term Nutrition and Pharmaceuticals to derive the new term “Nutraceutical”. In his view “Food or parts of food that provide medical or health benefits, including the prevention and treatment of disease is called as Nutraceuticals”. As per this definition whole food or a part of food if taken for medical or health benefits is considered as nutraceuticals. This is the widely accepted definition of nutraceuticals.

The definition adopted by Health Canada says, nutraceutical is “A product isolated or purified from foods, and generally sold in medicinal forms not usually associated with food and demonstrated to have a physiological benefit or provide protection against chronic disease”⁸. As per this definition nutraceutical is a product isolated,

derived or processed from natural sources and sold in the medicinal form (powder, tablet, capsules, etc. as OTC products) and its benefits can be explained scientifically in human being, such product referred as nutraceuticals. For example, if crude garlic is powdered or sold in the tablet form then it categorized as nutraceutical product. If the lemon oil is extracted from lemon grass and consumed for health benefits, it comes under the category of nutraceuticals.

Many research scholars have different opinion on the nutraceuticals, functional foods, dietary supplements. Some group of scholars considers nutraceuticals, functional foods, dietary supplements are different terminologies, while others consider these all terminologies are parts of Nutraceuticals. USFDA defines functional food as "When food is being cooked or prepared using "scientific intelligence" with or without knowledge of how or why it is being used, the food is called functional food"⁵. Dietary supplement is a product (other than tobacco) that is intended to supplement the diet that bears or contains one or more specified dietary ingredients. According to these definitions, our daily lunch and dinner items can be categorized as functional food. If we are supplementing our lunch or dinner with ghee or curd then it will considered as dietary supplements.

Market Segments:

Pharmaceutical products are targeted in different market segments which includes segments as per different

diseases, age, and lifestyle. Nutraceutical products are mainly promoted and targeted for prevention of disease or avoid future consequences of diseases. For example, garlic tablets are mainly promoted to avoid risk of heart related problems. Nutraceutical products are targeted in different segments in healthcare market; it includes products for men's health, woman's health, energy products, weight management products, and disease preventive products. These segments are viewed as new and highly potential for nutraceutical products.

Regulatory status:

Very few countries have accepted the term "Nutraceuticals". India government has not yet adopted this terminology and product category relevant to nutraceuticals, functional food and dietary supplements are brought under "Prevention of Food Adulteration Act". No separate guidelines are available for nutraceuticals, functional food and dietary supplements in India. United States has mentioned the terminologies in Federal Food Drug and Cosmetic Act and given guidelines for it. Canada government has adopted the term Nutraceuticals and framed its own definition. Health Canada has given guidelines for nutraceuticals under the Food and Drugs Act.

In India several companies are in fray, Lupin, Wockhart, Morepan, Dabur, Parry Nutraceuticals and Himalaya are doing well in nutraceuticals market. Annual growth of nutraceuticals market (25%) is higher than the annual growth

of pharmaceuticals. The global market potential for nutraceuticals is estimated \$80 by 2008⁶.

Nutraceuticals Vs. Pharmaceuticals:

In healthcare, a substance used in the treatment of disease is called as drug and generally it would be from synthetic source. Nutraceutical is a substance used to prevent disorders and generally referred as health products. Nutraceuticals can be from plant, animal and mineral source. License is needed from regulatory body for selling the pharmaceutical product (other than OTC products). No license is needed to sale the nutraceutical product. Pharmaceutical products can be purchased only by prescriptions (other than OTC products). No prescription is required for purchasing nutraceutical products. Stringent guidelines have to be followed for manufacturing the pharmaceutical product.

Conclusion:

It is observed that very few countries have accepted the terminology of Nutraceuticals and designed regulatory guidelines. Absence of regulatory guidelines for nutraceuticals may flood the healthcare market with spurious and inferior quality products. This is high time for India government to accept and define these new terms of Nutraceuticals, Functional foods and Dietary supplements. Government also has to prepare proper regulatory guidelines to control the healthcare market and to restrict the entry of spurious and inferior quality nutraceutical products.

As these terms are very new in healthcare market, enough data on research is not yet available. Nutraceutical companies can focus more on their research and development activities and develop more data to support the claims of their products. There are tremendous opportunities and potential for nutraceutical products in healthcare market, nutraceutical companies should explore these opportunities.

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