

STUDY ON ASSESSMENT OF KNOWLEDGE OF PATIENTS FOR THE USE OF NUTRACEUTICALS

By

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CERTIFICATE

This is to certify that the dissertation titled A study on assessment of knowledge of patients for the use of nutraceuticals and submitted by Praneet Devliyal, Enrolment No. 0196 under the supervision of Dr. Sandeep Narula for award of MBA in Pharmaceutical Management at University carried out during the period from 1st April, 2021 to 30th June, 2021 embodies my original work and has not shaped the idea for the award of any degree, fellowship, titles during this or the other institute or other similar establishment of upper learning.

Praneet Devliyal

26 June 2021

Signature

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The journey to become a wise and accountable skilled doesn't compendious to schoolroom learnings. The experience that I gained while working with Emcure Pharmaceuticals Pvt. Ltd, during my internship period acquainted me with the practical aspect of the course & implementation of the theory in the real field. Any compliments require the effort of many people and this work is no different. My sincere thanks to all for taking us ahead in this journey.

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Abstract

The gift study aimed to understand the information of patients regarding the employment of **nutraceuticals**. A self-administered form was distributed to a hundred patients virtually. In the questionnaire, different type of question which could be regarding nutraceuticals use, information about patients and also information to the patient, their positive effects additionally to adverse effects, and conjointly the physician's knowledge towards the dose and dosing technique of nutraceuticals which plays a major role to understand about the mode of transmission and knowledge Results obtained from the study were informative. These days nutraceuticals became a crucial half in **prescription** drugs as well as biological process trade as a result of the dynamical behaviour of individuals that are transiting from curative to preventive (evolution from acute to chronic). The global market of nutraceuticals is rising exponentially. It's attributable to a lot of use of natural merchandise in several sicknesses Example include cancer chemotherapy, in liver and response diseases, however, there are several problems regarding the employment of nutraceuticals in developing countries. With the help of correct information of nutraceuticals to patients, their proper counsel by medicos. virtually every prescription of physicians embodies any nutraceuticals products like vitamins, but among these several physicians don't apprehend the precise dosing technique and attainable damage result in the result of nutraceuticals overdose. thus, proper steps ought to be taken to create nutraceuticals more healthy and useful for people together with providing data to each folk's **victimization** nutraceuticals in addition **to** the coaching of physicians who are prescribing.

KEYWORDS: Nutraceuticals, prescription, victimization

Introduction

A Nutraceutical could be a pharmaceutical-grade and standardized nutrient. within the US, "nutraceuticals" don't exist as a regulative category; they're regulated as dietary supplements and food additives by the agency underneath the authority of the Federal Food, Drug, and Cosmetic Act. A nutraceuticals word contains 'Nutrient and Pharmaceuticals '. consistent with AAFCO, 1996, 'Nutrient' implies that a feed constituent throughout a sort and at the grade that will help, support a period of creature or animal whereas 'Nutraceutical' means any non-toxic food part that has scientifically verified health edges along with interference and treatment of disease. product isolated or sublimate from food are sold in healthful forms not generally concerning food. A nutraceutical features a physiological profit that it protects against chronic diseases. There are vital product quality problems within the international market. within the market, nutraceuticals may be claimed as organic or exotic ingredients. however, there are possibilities that the safety and efficaciousness of those medicines are compromised as a result of a lack of regulations. corporations that are attempting to get additional benefits are reducing the qualities of their product. The Dietary Supplement Health and Education Act of 1994 in the United States outlined the term: — A dietary supplement might be a product taken orally that contains a "dietary ingredient" meant to supplement the diet. The "dietary ingredients" in these product could be resemble from the following including vitamins, minerals, herbs or completely different botanicals, amino acids, and substances like enzymes, organ tissues, glandular, and metabolites etc. Dietary supplements may be extracts or concentrates and can be found in many forms such as tablets, capsules, soft gels, gel caps, liquids, or powders. Dietary supplements don't have to be compelled to be compelled or have to be approved by center before marketing, however, current day's corporations should register with the FDA and follow cGMPs. With certain exceptions, dietary supplements are also marketed to support the structure or operation of the body; this should embrace a label that signifies: —These statements aren't nevertheless evaluated by the FDA. This product isn't necessary to diagnose, treat, mitigate, or interfere with any disease. The exceptions are once the Food and Drug Association has reviewed and approved the claim of health.

Literature Review

1) Saeah S and Kingsburry researched on use of nutraceuticals use in degenerative joint disease and declared that we tend to enclose certain subjects out of which 55% male, mean age of 61 years, 71% white. At baseline, 68% reported frequent use of a traditional analgesic or nutraceutical for joint pain for over half of the previous month. Non-prescription non-steroidal medicament medication (NSAIDs) were the foremost often reported medications with 26%, even in those a lot of them are 75-years old. Multiple conventional analgesics were utilized by 11%. Frequent analgesic use was more possible in ladies and other people with more pain. nutraceutical use was less possible in non-whites those over 74-years

2) M.Whitman & margarine (2001) reportable that Nutraceuticals are biological therapies accustomed promote wellness, stop malignant processes, and management symptoms. the use of complementary and totally different nutraceuticals accumulated dramatically once passage of the Dietary Supplement and Health Education Act of 1994. Motivations to be used of these merchandise embrace changes in consumption patterns, problems regarding adequacy of purchaser food supply, and interactions with normal attention suppliers that are looked as if it would be insensitive, too brief, or uncaring. By turning into intimate complementary and different nutraceuticals and so the nutritional needs of people with willcer, human activity empathetically and patience, and involving dietitians, pharmacists, and totally different good givers as needed, drugs nurses will give correct information and support for folks with cancer and their families.

3) Zubeck & Bishop (2012) studied that correct nourishment may be a growing concern with increasing world populations, property sources of nutritionary price are needed. because of the varied nutritional elements alga will turn out and concentrate, alongside their straightforward and rising characteristics, these flora organisms are passing desired to be used in nutraceuticals and nutritional supplements. many varieties of algae have documented health edges from strengthening the system to fighting cancer and cardiopathy

AIMS AND OBJECTIVES

Objectives of Study

The objectives of this study are as follows-

- 1) To assess the baseline level of awareness of practical foods and nutraceuticals among the patients.
- 2) The study additionally correlates impact on health whereas the employment of nutraceuticals.
- 3) to review the necessity of nutraceuticals within the patients as prevention in disease prevention.

Significance of Study

As very little work is finished during this regard in Asian country this study provides us helpful information concerning the knowledge of nutraceuticals among patients in various regions. This study provides useful data relating to additional common prevailing diseases because of deficiency disease and additionally helps to require preventive measures to avoid complications that we have a tendency to occur frequently. As comparison of this study and former studies are done to assess the knowledge and use of nutraceuticals among the patients. Besides that data is assessed with reference to age, sex and socioeconomic status. During this study we value the positive and negative impact of nutraceuticals use. To some extent the study additionally verifies major want of nutraceuticals in major cities of India. The study also determines the compliance of patients toward prescribed regimens. This study also provides valuable info concerning thinking and angle of community towards nutraceuticals throughout illness.

METHODOLOGY

Study design:

A cross-sectional study design was accustomed to verify the data of patients regarding the employment of nutraceuticals in major cities of geographical area. Analysis population the information is collected from major cities of India like Jaipur, Delhi, Mumbai etc. These are the key cities of India having a large population and these are the quickest growing cities in India. Peoples belonging from these cities were mainly used for this study and various investigation regarding the attention of the employment of nutraceuticals. A restricted variety of persons were self-addressed in our study.

Method:

A structured questionnaire was used for the aim of an assortment of knowledge for the assessment of knowledge of patients concerning the employment of nutraceuticals. this can be a cross-sectional survey distributed through google form in rural and urban areas region among the patients about the use of nutraceuticals throughout the amount of January to May 2021 by students of faculty of pharmacy.

The individuals concerned during this study were children, adults, and elders. A pre-designed questionnaire was used for the conduct of the study. To facilitate this study the form was translated into English and hindi throughout the interview of patients and to maximize the result validity. as a result of most of the patients don't understand English that the queries were asked in their native language. Data of patients concerning the employment of nutraceuticals were the result variables of our study. knowledge was collected from the patients based on their response from the google forms. Our try was to make sure the validity of knowledge for the aim of this we tend to got facilitate by medical officers and our revered teachers. The variables are age, gender, monetary status, occupation.

Study tool:

For the aim of the study, a pre-designed form was ready and accustomed get the information concerning the utilization of nutraceuticals from patients.

Patient Perspective:

We used a tool containing queries on patient's demographic characteristics and awareness of nutraceuticals together with cognition and its correct use. The form consists of questions on knowledge of nutraceuticals in patients. queries regarding patient compliance throughout the utilization of nutraceuticals. The impact of nutraceuticals on patient health? include such different questions that are related to proper use and their impact on health and what conditions could cause the use of nutraceuticals.

Study Sample and setting:

The size of this study was 100 patients using nutraceuticals.

the dimensions of this study were one hundred patients victimization nutraceuticals which was collected online through the response of google forms and they were given the consent form regarding the confidentiality of their response which is to be maintained

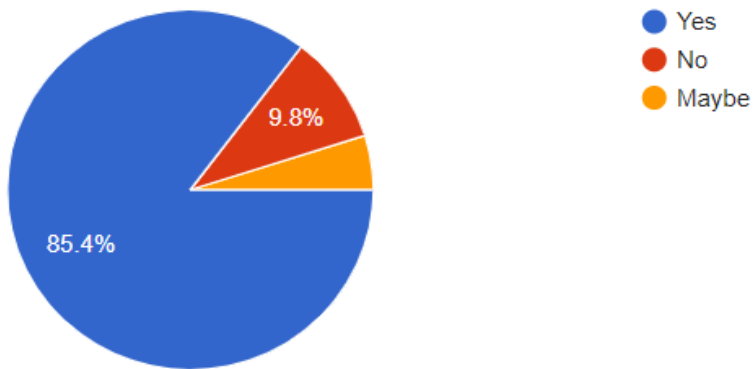
Inclusion and Exclusion Criteria:

The study was done on children, adults and elder patients regard of gender and each male and feminine also are enclosed during this study. Exclusion of subjects was taken place if they don't realize the nutraceuticals, state of mind condition, or any other condition, and people who couldn't actively participate during this study supported the researcher's judgment. On the opposite hand, those patients were thought-about in inclusion criteria that had active participation within the conduct of study

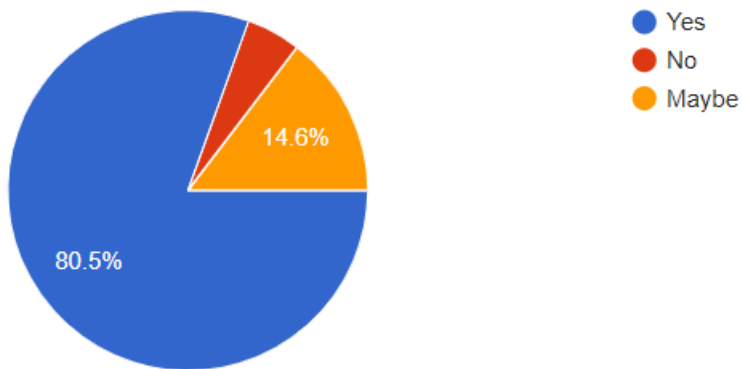
Results

We analyze the assessment info of patients about the utilization of nutraceuticals in numerous cities of India. These cities are Jaipur, Delhi, Mumbai etc. The results obtained from this research are as follows: These results obtained once inquiring the patients over that 85% patients have clear information relating to the nutraceuticals, there are 80% folks that assume nutraceuticals are useful for his or her health, 58% thinks that nutraceutical have better impact on health while taking it. there are 68% patients that follow the advice of physicians, 22.5% of patients think that nutraceuticals affect badly to their health, 51% patients like taking science lab check whereas mistreatment nutraceuticals.

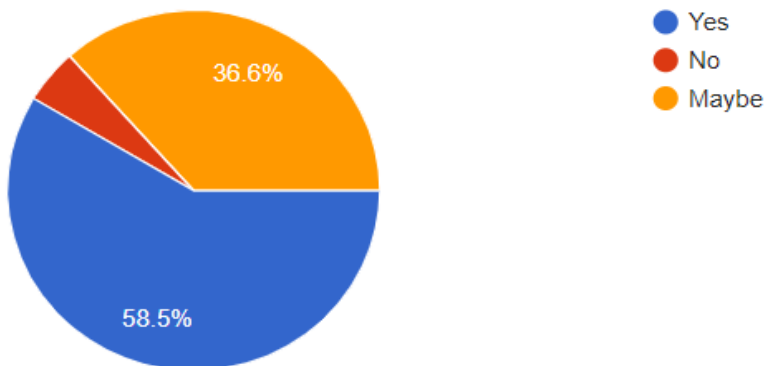
Do you know what actually nutraceuticals are?



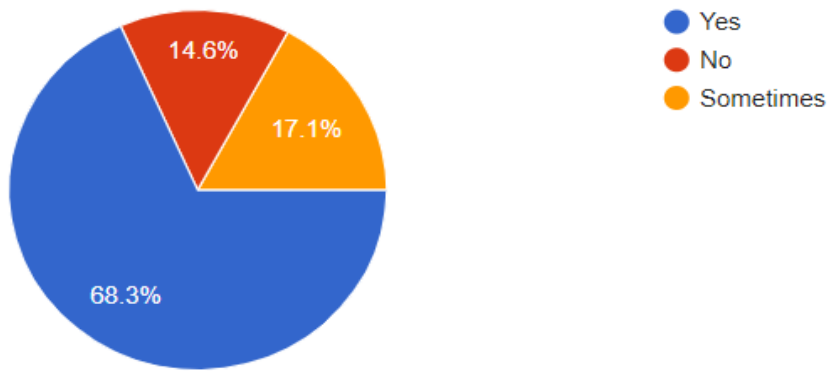
Do you think that nutraceuticals are good for your health?



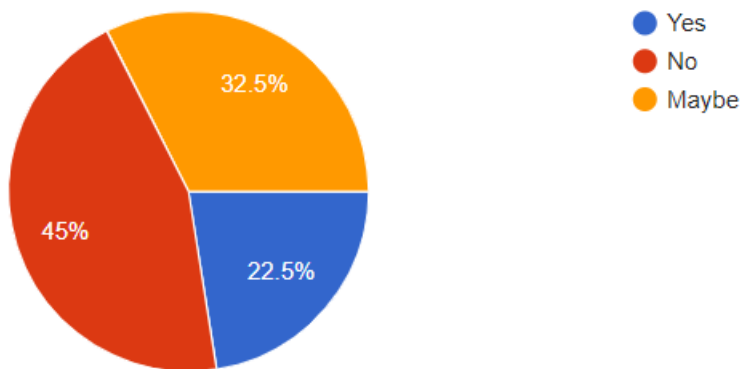
Do you think you have better impact on your health while you are taking nutraceuticals?



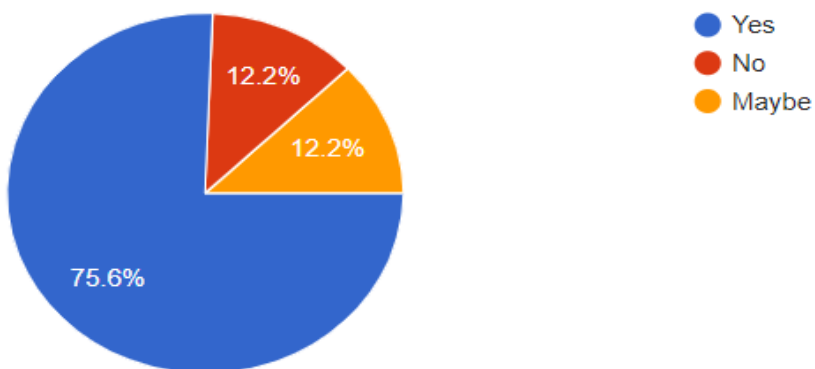
Do you follow recommendations of physician while using nutraceuticals?



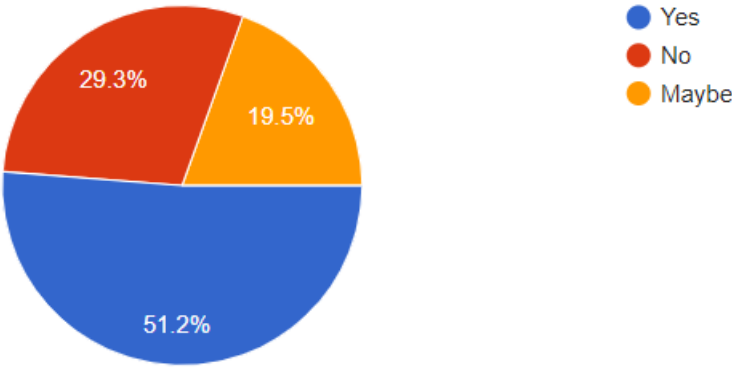
Do you consider any bad impact on your health while using nutraceuticals?



Do you consider that you should use real food rather than nutraceuticals?



Do you prefer the labroatory results while using nutraceuticals?



Conclusion

Nutraceuticals are being prescribed at numerous organizations by virtually every physician, however, the foremost issue within the prescribing is that the prescriber further because the patients to whom these nutraceuticals are being prescribed as they don't have the correct data regarding nutraceuticals, so these prescriptions are less convincing. therefore there's a requirement to extend awareness about nutraceuticals at every level in the health care system as well as among the patients. these challenges need a general and well-coordinated approach between each personal and public health care system for higher outcomes and growth. As the nutraceutical business among alternative medical aid industry is growing exponentially, therefore there ought to be a system for customers and patients to ascertain the Pharmacoeconomics and efficaciousness of nutraceuticals, so there should be how to seek for any value-effective alternatives. The on top of observations were created to check the data in patients regarding the employment of nutraceuticals for that purpose, and an informed cluster from society was chosen for his or her knowledge about the use, need, correct information, and supply of nutraceuticals, so it was found there was a moderate knowledge of nutraceuticals. therefore, correct steps ought to be taken to supply attention regards to the employment of nutraceuticals.

Discussion

We performed this study in order to check the awareness and knowledge about the nutraceutical among the patients in various cities of India which are Delhi, Jaipur, Mumbai etc. We studied that nutraceuticals are the fastest growing sector in medicine industry. As we found nutraceuticals are replacing the contemporary concept of medication, various natural products are being extracted and discovered for several diseases like cardiovascular diseases, the chemotherapeutic agents for cancer like anti-oxidants and other agents and growth simulators including various supplements and hormonal products. Actually, the nutraceuticals are helping the health sector to transit from curative to preventive therapy. But there are many issues that are needed to resolve regard to the use, studies about their efficacy, quantitative techniques to determine the proper dose, the information and awareness among the people and health care provider.

Our study includes process of collection of data from 60% female and 40% male in these cities which show that the use of nutraceutical is more common among females than males because the females face the problems such as anaemia, calcium deficiency, iron deficiency, menstruation, abortion and other problem like this. Critical observations were made during this study that infers that the patients have very limited knowledge about the nutraceuticals, some patients are even unaware about the word nutraceutical, they don't know about the efficacy, adverse effects, dosing of nutraceuticals, there was lack of counselling among the patients to a dangerous level. About 15% even don't know either nutraceuticals are good or bad for their health. And 45% patients found bad impact on their health while using nutraceuticals

According to the facts that nutraceutical industry is growing exponentially, India lacks the regulations about the spread and use of nutraceuticals. Our custom and health law lacks the steps to control the spread and provision of information to the patients. Nutraceuticals are being manufactured without performing basic preclinical studies. The data about the efficacy and toxicity is limited. Manufactures don't provide basic literature about their products.

This study additionally recommended that there ought to be an instantaneous incorporate increasing the notice concerning Nutraceuticals. the current challenges need a scientific approach and correct coordination between the non-public and public attention sectors for higher growth.

In India it's also suggested that the worldwide market is presently experiencing amount of growth post-recession even when result of recession fades, the marketplace for nutraceutical is probably going to stay within the growth part that is driven by rising market of nations like India, China, and Brazil and so forth just in case of plant extracts and phytochemicals, that the proper steps ought to be taken to manage the employment of nutraceutical impact on their health.

Sample questionnaire (Unfilled)

STUDY ON ASSESSMENT OF KNOWLEDGE OF PATIENTS FOR THE USE OF NUTRACEUTICALS

My name is Praneet Devliyal, a student of IIHMR University. I am conducting this survey as a part of my dissertation project needed for the completion of my post-graduation degree. I am requesting you to provide your views on "STUDY ON ASSESSMENT OF KNOWLEDGE OF PATIENTS FOR THE USE OF NUTRACEUTICALS". Please answer the question with due responsibility. I hereby assure you that the information provided by you will be confidential and will be use just for this research purpose. I am looking forward to your co-operation and Thank you for your participation

Mail Id - praneet.j19@iihmr.in

I agree to participate in this study.

- ☐ Yes
- ☐ No
- ☐ Maybe

if above question is NO you can close the survey

Thanks for your time

Name *

Short-answer text

City *

Short-answer text

Do you know what actually nutraceuticals are?

- ☐ Yes
- ☐ No
- ☐ Maybe

Do you think that nutraceuticals are good for your health

- ☐ Yes
- ☐ No

Do you think you have better impact on your health while you are taking nutraceuticals

- ☐ Yes
- ☐ No
- ☐ Maybe

Do you follow recommendations of physician while using nutraceuticals

- ☐ Yes
- ☐ No
- ☐ Sometimes

Do you consider any bad impact on your health while using nutraceuticals

- ☐ Yes
- ☐ No
- ☐ Maybe

Do you consider that you should use real food rather than nutraceuticals

- ☐ Yes
- ☐ No
- ☐ Maybe

Do you prefer the laboratory results while using nutraceuticals

- ☐ Yes
- ☐ No
- ☐ Maybe

Thank You for the participation (feedback is optional)

Description (optional)

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THANK YOU

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