

Study on the Role of Omega-3 Fatty Acid in PCOD

By

Priyanka Kar

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2018-2020



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DECLARATION

I thusly proclaim that this report, submitted in partial fulfilment of the prerequisite for the award of MBA Hospital and Healthcare Management (HM), to Indian Institute of Health Management Research, Jaipur is my unique work and not utilized anywhere for grant of any degree or recognition or association or for comparative titles or prizes.

I further affirm that without any objection or condition, subject to the authorization of the organization where I did my project, I award the rights to Indian Institute of Health Management Research, Jaipur to distribute any piece of the undertaking, on the off chance that they regard fit in diaries/Magazines and papers and so forth without my consent.

Place: Kolkata

Date:

Priyanka Kar
MBA(HM)

CERTIFICATE FROM THE GUIDE

This is to certify that the project titled A study on the role of Omega-3 fatty acid in PCOD has been submitted in partial fulfilment for the award of MBA Hospital & Healthcare Management (HM), 2018 – 2020 of Indian Institute of Health Management Research, Jaipur, is a result of the bonafide project work carried out by Mr. / Ms. Priyanka Kar under the supervision and guidance of Prof. Alok Mathur.

No part of this report has been submitted for the award of any other degree, diploma, fellowship or other similar titles or prizes. The work has also not been published in any journals/ Magazines.

Guide: Prof. (Dr.)Alok Mathur

Place: Jaipur

Date:

Director: Dr. Pankaj Gupta

Place: Jaipur

Date:

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The proceeding and final outcome of this project required a lot of guidance and assistance from many people. Although the present work is an individual project, I could have never reached the heights or explored the depth of this topic without the help, support, guidance, and efforts of them. All praise and heartfelt thanks to the almighty, the merciful who never more got separated from me and bestowed me with provision and faithfulness to go through this venture and my belief that always taught me to stand up in difficulties, to face them with courage and always blessed my life with you.

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It is my radiant sentiment to place on record my best regards, deepest sense of gratitude to all the IIHMR staff members for their careful and precious guidance which were extremely valuable for my study both theoretically and practically.

I perceive this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to attain desired career objectives.

I thank IIHMR Jaipur for giving me this opportunity to work so that I could put to practice, the theoretical knowledge that I imparted from Hospital & Healthcare Management (HM) course.

Errors and omissions are entirely mine.

Priyanka Kar

22nd June 2020

ABSTRACT

Introduction: The impact of omega-3 enhancements in patients with PCOD have announced an improvement in various difficulties and comorbidities, including insulin obstruction, dyslipidemia, hyperandrogenism, and guideline of metabolic pointers; there is an unmistakable lack of studies exploring the dietary admission of these kinds of unsaturated fats. In this manner, more examinations are expected to explore the impact of dietary unsaturated fats on PCOD intricacies. **Objective:** To understand the major causes of PCOD, among the urban population of Kolkata and also to study the doctor's choice of medication in the management of PCOD. To know the role of Omega 3 in management of PCOD. To evaluate factors that will drive the future demand for nutraceuticals in Indian market. To determine fast moving omega 3 brands currently available in the market. **Methodology:** The Research tool is Semi structured questions with both open ended & close ended. The sampling methodology is a non-probability convenient sampling. The study centre is Kolkata. The rationale used as Kolkata is a major pharma hub and it represents all class & section of the customers. The sample plan is of 50 prominent gynaecologists. **Findings:** The results show an opportunity for doctors to prescribe or advice Nutraceuticals as Health & Nutrition products to their patients. The finding also shows an increase in the demand for PCOD management solutions, such as Nutraceuticals, Results are also clearly evident that there is an increase in PCOD cases in last 5 years. This will drive the need for PCOD management solutions. When we refer to the above study, its clearly evident that there is a surge in PCOD cases year on year. Most of the doctors are also aware about the benefits of Omega3 and they also acknowledge the fact that the surge in the PCOD patients will lead to the increase in demand of Nutraceuticals. **Suggestions:** It is suggested that companies who work with Omega3, should focus more on PCOD patients as the study suggest increase in PCOD is very much evident in future. The fast-changing lifestyle, poor eating habits, sedentary lifestyle and pollution will surely increase the numbers of PCOD patients. Companies in the future can really focus on this domain as presently the focus is on child nutrition to cater the demand for omega3. As, the study projects most of the doctors feels that Omega3 is highly effective on PCOD Patients.

Keywords: **PCOD**: Polycystic ovary Syndrome

ABOUT IIHMR UNIVERSITY

IIHMR University is a specialized research University in the management research, postgraduate instruction and preparing in the wellbeing segment. The University expects to produce new information and advances to give proof and contributions to creating successful approaches and wellbeing intercessions and procedures.

The workforce is multi-disciplinary that speaks to general wellbeing, the executives, financial matters, measurements, demography, social and conduct sciences, rustic turn of events, and pharmaceutical part.

The University has joint efforts with significant colleges and establishments like Johns Hopkins University, USA; Chester University, UK; University of Montreal, Canada; Curtin University, Australia; and BP Koirala Institute of Public Health, Nepal.

The Ministry of Health and Family Welfare, Government of India distinguished it as 'Establishment of Excellence' for its noteworthy commitment to reinforcing wellbeing frameworks by advancing and directing wellbeing strategy and program the board, examination, preparing and limit building. In the course of the last three and half decades, the University is occupied with examination, training and limit working in the centre regions of Public Health, Health and Hospital Management, Pharmaceutical Management, Health Economics and Finance, Population and Reproductive Health, Rural Management, Institutional Networking and limit building.

ABOUT VEFA ILLAC

Vefa İlaç (Pharmaceuticals) is specialized in the research, development and manufacturing of food supplements & cosmetic products. Vefa has truly outstanding in class WHO GMP and ISO affirmed fabricating abilities in Euroasia/Turkey. They exceed expectations in quality items for human wellbeing and prosperity. The organization's procedure is to deliver and send out pharmaceuticals/food supplements for every worldwide market. Their main goal is to associate mainlands, through pharmaceuticals and food supplement items effectively and play out a specific creation for human wellbeing a thriving.

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Executive Summary

India is one of the fastest growing economy at this moment. With the developing population, India, a creating nation, faces difficulties to guarantee that there isn't just sufficient food gracefully however it likewise meets the necessary dietary levels.

Enormous worldwide food organizations, which are consistently watching out for approaches to broaden their product offering and still turn a benefit, have set up utilitarian food or nutraceuticals divisions. Pharmaceutical organizations are presently receiving the nutraceuticals and the ongoing pattern is intermingling of food fabricating organizations with pharmaceuticals to execute the exploration essential for medicate disclosure; the move into the more affordable and tedious nutraceuticals research process. It is in this way turning into a coherent movement for some, food organizations to go into nutraceuticals advertise.

As Indian customers are getting increasingly cognizant about their wellbeing and what they look like and feel, the market of utilitarian nourishments under nutraceuticals is probably going to observe a higher pace of development in the following five years. Indians are presently opening up to remote players, which is prompting solid rivalry in the segment.

The proposed examination is planned for understanding the current patterns and open doors for nutraceuticals (Omega 3) in Indian market. The examination will assess factors that will drive the future interest for Omega 3 in Indian market for PCOD.

Data in regard to the familiarity with Omega 3 in the treatment of PCOD among the specialists just as immediate shopper brain would empower an organization to recognize the need and consequently to build up showcase mindfulness for Omega 3. Such imperative data of nutraceuticals gathered aides in propelling another item and in growing new methodologies for the showcasing power.

Chapter 1

1.1.Introduction to the Industry

Consumers are profoundly worried about how their medicinal services is overseen, managed and valued. They are baffled with the costly, innovative, illness treatment approach overwhelming in present day medication; the purchaser is looking for reciprocal or option useful items and the formality of oversight care makes nutraceuticals especially engaging. Nutraceuticals (frequently alluded to as phytochemicals or utilitarian nourishments) are common bioactive, concoction aggravates that have wellbeing advancing, ailment forestalling or restorative properties.

With the section of the Dietary Supplement Health and Education Act of 1994, the meaning of nutraceuticals has been extended to incorporate nutrients, minerals, herbs and different botanicals, amino acids and any dietary substance for use by people to enhance the eating regimen by expanding complete dietary admission and in this way expanded the utilization of nutraceuticals drastically.

The credited medical advantages of nutraceuticals are army. Different items are guaranteed not exclusively to lessen the danger of malignancy and coronary illness yet in addition to forestall or treat hypertension, elevated cholesterol, over the top weight, osteoporosis, diabetes, joint inflammation, macular degeneration (prompting irreversible visual deficiency), waterfalls, menopausal side effects, sleep deprivation, decreased memory and focus, stomach related bombshells and blockage.

Nutraceuticals are promoted in concentrated structures as pills, cases, powders and colors either as a solitary substance or as blend arrangements. Nutraceuticals are vague organic treatments used to advance health, forestall harmful procedures and control side effects. These can be gathered into the accompanying three general classes:

Substances with set up nourishing capacities, for example, nutrients, minerals, amino acids and unsaturated fats – Nutrients

Herbs or organic items as concentrates and concentrates - Herbals

Reagents got from different sources (for example pyruvate, chondroitin sulfate, steroid hormone forerunners) serving explicit capacities, for example, sports nourishment, weight reduction enhancements and feast substitutions.

1.2.Introduction to the Project

For a considerable lot of us, it is difficult to get sufficient nourishment from the standard food. Furthermore, present day living condition is profoundly harmful loaded up with contamination and pesticides because of which body loses its appropriate working force. It may be viewed as that the quantity of diseases, for example, ceaseless exhaustion, Epstein Barr, lupus and so forth that are regularly experienced in supplement lack. A reasonable technique to reinforce our framework is limit the utilization of anti-microbials which has lost their adequacy. There are reactions raised because of organization of manufactured medications. A decent quality dietary supplementation ingested and used by the body can genuinely fortify our body and include indispensably, for which we are needing nutraceuticals.

Certain part of the populace devours an imbalanced eating routine which doesn't give adequate calories and adjusted sustenance. In India, almost 20% of the all-out populace and 44% of little youngsters (beneath 5 years old) are presented to lack of healthy sustenance and results in underweight. Then again, there is a tremendous populace that is sustained in calorie consumption yet not regarding supplement admission. This section would commonly incorporate center to privileged populace with adequate buying limit however most likely less mindful about their supplement needs, which again prompts imbalanced nourishing take-up. Since the beginning of the modern age, way of life of individuals has significantly changed. Expanded remaining task at hand, quick living and different mental weights have driven individuals into different dietary patterns like moment and scrumptious dinners, which are regularly diminished in amount and nature of supplements.

Simultaneously, industrialization has caused various air, water, soil and food sully due to broad utilization of different synthetic concoctions, overwhelming metals, electromagnetic waves, and other conceivably destructive man-made things in enterprises. These issues have prompted an expanded rate of diabetes, heftiness, malignant growth, cardiovascular sicknesses, just as other degenerative illnesses. Every one of these conditions raised the requests for social insurance have drastically expanded the expense of clinical consideration. Presently, more individuals understood that a sound body is a higher priority than cash or work. In this way, individuals are attempting to accomplish a superior personal satisfaction by eating more vegetables, natural products, plant nourishments, dietary enhancements or nutraceuticals. (showcase development patterns and-conjecture, 2019)

Buyer enthusiasm for the connection among diet and wellbeing has expanded significantly everywhere throughout the world. Today, there is a lot more noteworthy acknowledgment that individuals can lessen the danger of ailment and infection and keep up a condition of wellbeing and prosperity through solid way of life and diet. Progressing support for the significant job of nourishments, for example, organic products, vegetables, and entire grain oats in ailment counteraction just as dietary cell reinforcements and blends of defensive substances in plants has assisted with giving the drive to advance turns of events.

Figure 1 : Demand drivers for health supplements and nutraceuticals

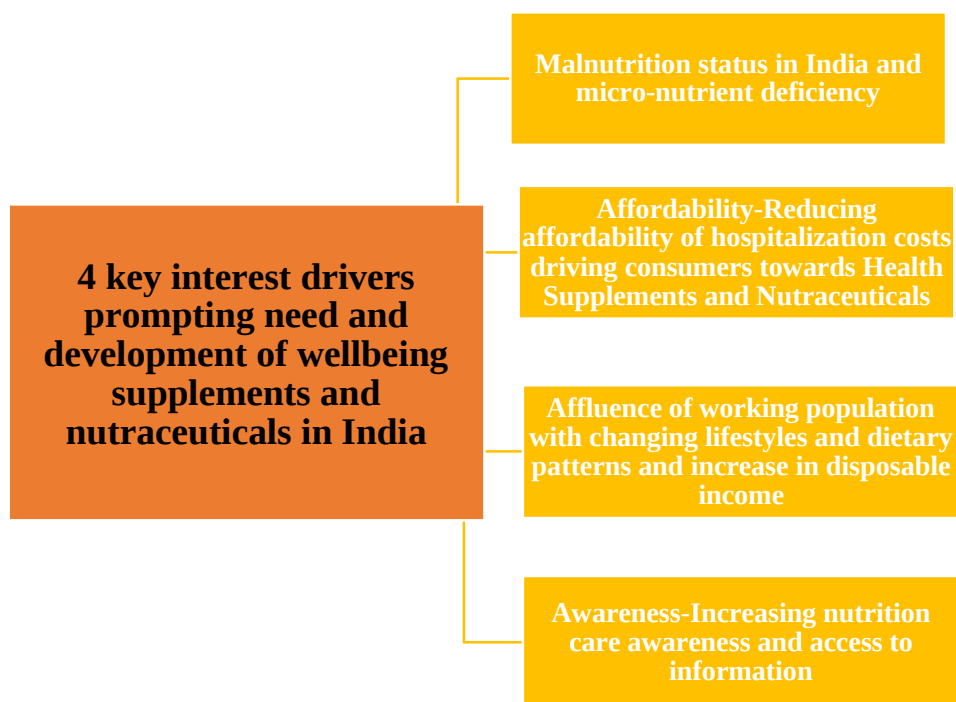


Table 1 : Herbals/Botanicals & associated therapeutic activity

Herbals/Botanicals	
Compound	Therapeutic activity
Aloe Vera gel	Dilates capillaries, anti-inflammatory, emollient, wound healing properties
Echinacea	Immuno-stimulant, treatment of cold and flu symptoms

Evening primrose oil	Dietary supplement of linoleic acid, treatment of atopic eczema
Garlic	Antibacterial, antifungal, antithrombotic, hypotensive, fibrinolytic, anti-hyperlipidemic, anti-inflammatory

N-3 PUFAs are a promising specialist in assuaging entanglements related with PCOS. There are various instruments by which n-3 PUFAs may apply their helpful consequences for PCOS ladies, including hostile to stoutness, glycemic and hormonal homeostasis, calming, guideline of adipokine creation and improvement of endothelial capacity.

While considers examining the impact of omega-3 enhancements in patients with PCOS have announced an improvement in various difficulties and comorbidities, including insulin obstruction, dyslipidemia, hyperandrogenism, and guideline of metabolic pointers; there is an unmistakable lack of studies exploring the dietary admission of these kinds of unsaturated fats. In this manner, more examinations are expected to explore the impact of dietary unsaturated fats on PCOS intricacies. Additionally, there are, evidentially, various helpful impacts related with n-3 PUFA utilization on PCOS complexities, be that as it may, good impacts in regards to the improvement of dyslipidemia, guideline of adipokines and guideline of hormonal elements and endothelial capacities are constrained. Consequently, given the significance of these difficulties in the pathogenesis of PCOS, more preliminaries are justified to examine instruments to explain the metabolic and hormonal impacts of these specialists in PCOS ladies. Furthermore, as far as anyone is concerned, the utilization of n-3 PUFA on barren PCOS patients has not been researched in past investigations, and more examinations are important to survey the job of n-3 PUFA in the treatment of PCOS initiated fruitlessness.

As Indian shoppers are getting increasingly cognizant about their wellbeing and what they look like and feel, the market of utilitarian nourishments under nutraceuticals is probably going to observe a higher pace of development in the following five years. Indians are presently opening up to remote players, which is prompting solid rivalry in the division.

Objectives-

- To understand the major causes of PCOD, among the urban population of Kolkata
- To study the doctor's choice of medication in the management of PCOD
- To know the role of Omega 3 in management of PCOD
- To evaluate factors that will drive the future demand for nutraceuticals in Indian market.
- To determine fast moving omega 3 brands currently available in the market.

Chapter 2

1.1.Literature Review

Nutraceuticals are alluded to as practical nourishments, refreshments and dietary enhancements got from normal food sources that bestow medical advantages. They contain extra supplements that are not found in ordinary nourishments which are driving the market of nutraceuticals. They are for the most part as pills, colors, and containers. Nutraceuticals spread an expansive scope of items including refreshments, dietary enhancements, segregated supplements, hereditarily built fashioner nourishments, home grown items, and handled nourishments.

It is commonly realized that food sources don't just give supplements to sustenance however may likewise present extra wellbeing benefits for the counteraction and treatment of different sorts of ailments. As of late, there is a pool of proof proving the wellbeing cases of specific nourishments because of the bioactive mixes they contain (Paloza PN, 2010). These wellbeing advancing nourishments or mixes are either classified as practical food sources or nutraceuticals.

Subsequently nutraceuticals can be extensively characterized as "elective advantageous items structured entirely or incompletely from food that keeps up ideal wellbeing and act against healthfully instigated ailments, in this way advancing the personal satisfaction."

Likewise, it is characterized as any substance considered as a food, or its part which, notwithstanding its ordinary healthy benefit gives medical advantages including the anticipation of malady or advancement of wellbeing.

In Britain, the Ministry of Agriculture, Fisheries and Food has given a definition for nutraceutical as "A food that has a segment joined into it to give it a particular

clinical or physiological advantage, other than absolutely nourishing advantage."

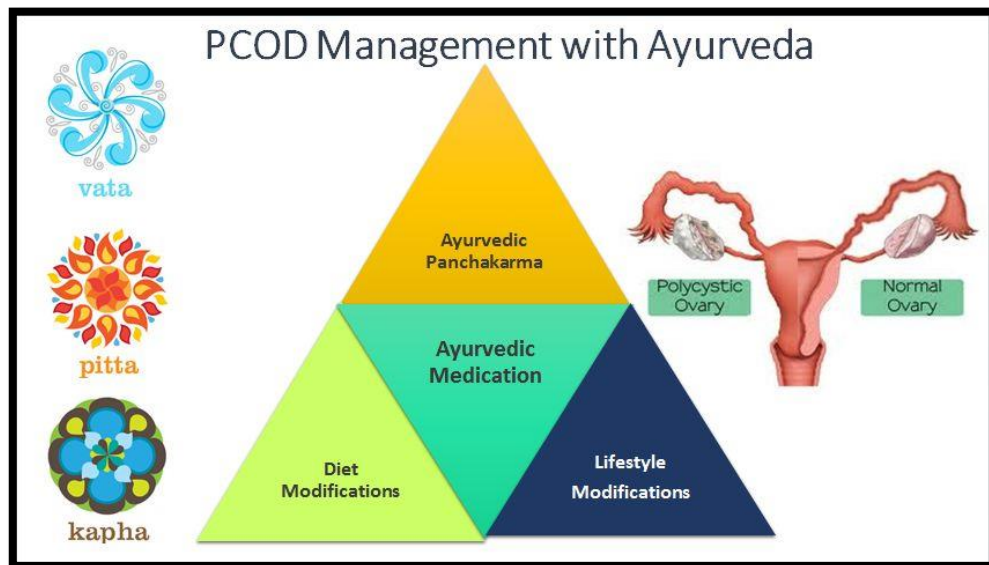


Figure 2 : Management of PCOD

Under 50 percent of ladies are appropriately analyzed, leaving a large number of ladies living with PCOD undiscovered.

Like any confusion, there are regular side effects to search for. For PCOD, those indications to a great extent incorporate fruitfulness issues, unpredictable menstrual periods, unnecessary body and facial hair, skin break out, melancholy and heftiness.

Also, ladies with PCOD regularly have numerous little sores in their ovaries. It's likewise significant that PCOD is accepted to be a hereditary issue, so ladies ought to likewise consider family ancestry.

Be that as it may, in opposition to the ramifications of "polycystic," not every person with PCOS has growths. What's more, while up to 80 percent of ladies who have PCOS are hefty, a lot of ladies with the confusion don't give any indications

of weight gain. PCOS isn't one size fits all.

In excess of 50 percent of ladies with PCOD will have diabetes or pre-diabetes before the age of 40. Also, the danger of coronary episode is four to multiple times higher in ladies with PCOD.

Furthermore, that is not all. Ladies with PCOS are likewise multiple times bound to create endometrial malignancy than those without. The wellbeing ramifications of PCOS go a long way past the run of the mill side effects. In this way, it's critical to constantly deal with your PCOD so you can help decrease the danger of genuine medical problems later on.

- Remove nourishments from your eating routine that trigger irritation, to be specific gluten and bovine based dairy
- Anything that is prepared or fake (for example refined sugars and flours) ought to likewise be expelled from your eating regimen
- Focus on eating well fats and great, clean protein
- Cut back on practices that leave you feeling excessively exhausted, and add quality and opposition preparing to your daily practice
- Try practices that attention on the psyche body association (for example yoga, Pure Barre)
- Add a decent multivitamin, nutrient D, and a fish oil enhancement to your eating regimen

- PCOD is the most widely recognized reason for female barrenness.

Be that as it may, it is anything but an act of futility. Ongoing examination by Penn State College of Medicine found that the medication letrozole, a class of medication that squares estrogen creation, brings about higher birth rates in ladies with PCOS than the recently favored barrenness treatment sedate, clomiphene, generally alluded to as Clomid.

Polycystic ovarian condition (PCOS) related with different introduction in females despite the fact that it is regular issue however because of absence of information females frequently delays in getting affirm conclusion and treatment. PCOD stays a disorder and as such no single demonstrative measure, (for example, hyper-androgenism or PCO) is adequate for clinical determination. PCOD likewise stays a determination of rejection. Known scatters that copy the PCOD phenotype ought to be prohibited.

Media don't simply furnish buyers with wellbeing data, in any case; they additionally make social developments of wellbeing, disease, and clinical consideration that have suggestions for how customers see and deal with their wellbeing

Chapter 3

2.1. Research Methodology

The Research tool is Semi structured questions with both open ended & close ended. The sampling methodology is a non-probability convenient sampling. The study centre is Kolkata. The rationale used as Kolkata is a major pharma hub and it represents all class & section of the customers. The sample plan is of 50 prominent gynaecologists.

2.2. Methods & Materials

Primary method

Through questionnaire method primary data was obtained from doctors, chemists and consumers. (Annexure 1)

Secondary method

The related information was obtained from- Textbooks, Pharma biz, Medical Journals, Pharma pulse, Research papers

Survey area-

The survey was carried out in Kolkata- South Kolkata, Central, Western, Suburban Kolkata and Hugli beyond areas were covered.

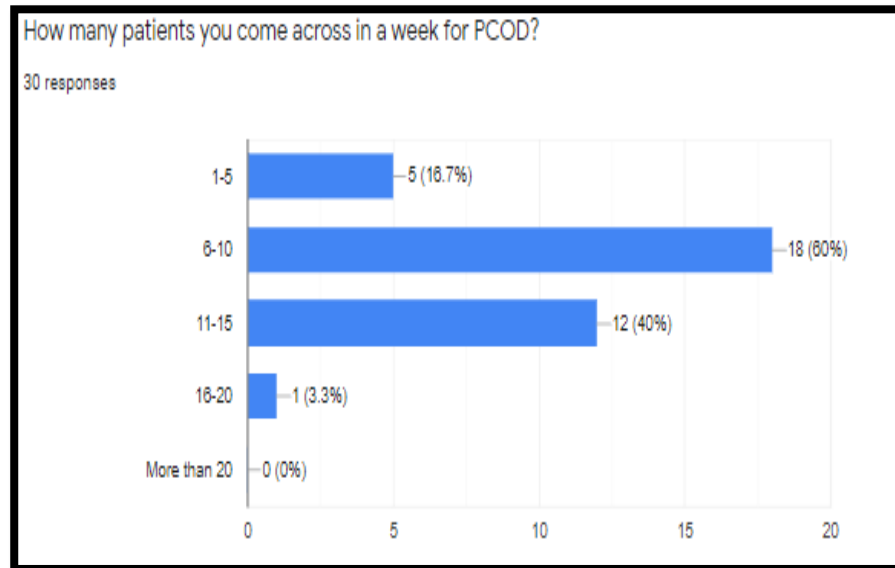
Sample size-

The sample size consisted of 50 doctors (gynecologists).

Chapter 4

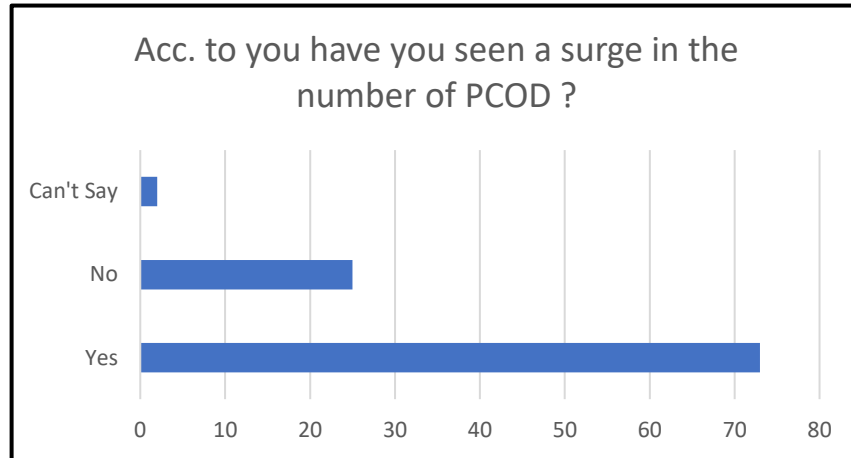
3.1.Data Analysis & Findings

1. Frequency of PCOD



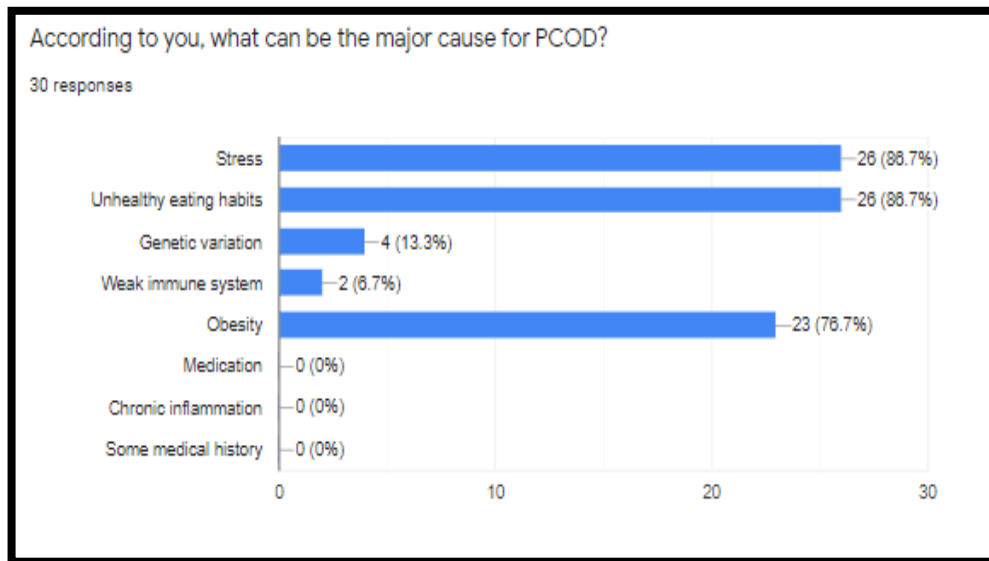
Result- In clinical practice doctors come across 6-10 patients in a week i.e 60% of patients are detected with PCOD. Thus the case for PCOD is rising day by day as we can see 40% of doctors come across 11-15 PCOD patients. Thus, there's an opportunity to prescribe or advice Nutraceuticals as Health & Nutrition products to their patients. This also shows an increase in the demand for PCOD management solutions, such as Nutraceuticals,

2. Increase in PCOD patients



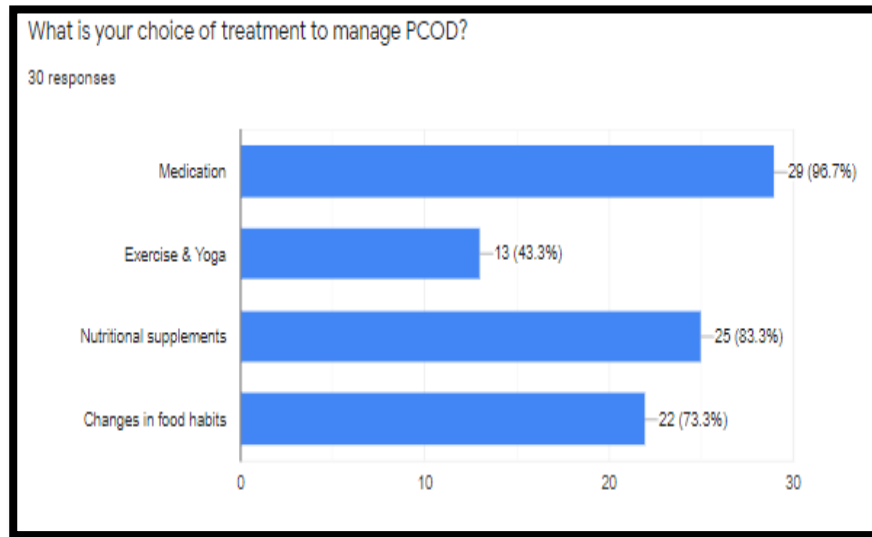
Result- According to doctors, 73% of the doctor felt that there is a surge in the number of patients in their clinic. 25% felt there is no surge in the number of patients and rest (2%) can't say. This is clearly evident that a there is an increase in PCOD cases in last 5 years. This will drive the need for PCOD management solutions.

3. Causes of PCOD



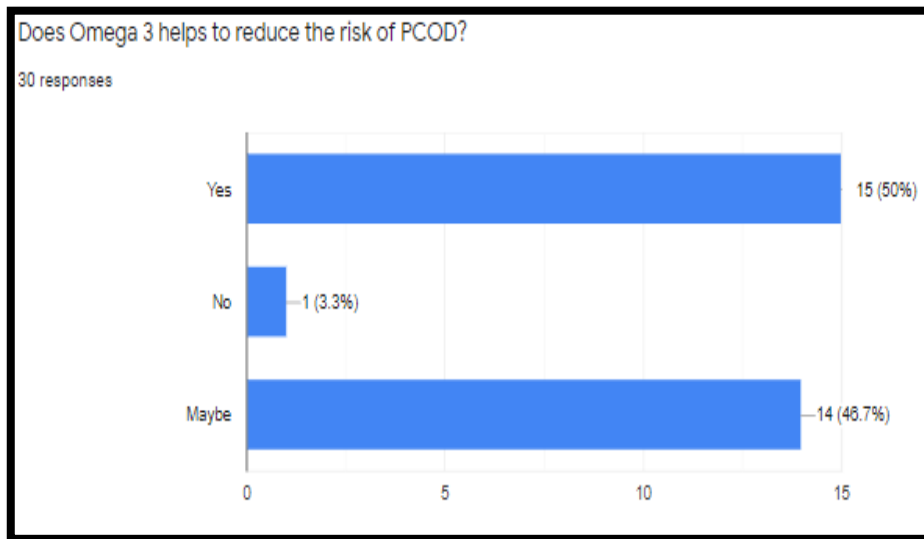
Result- According to doctors, the main cause for PCOD is Stress (86%), Unhealthy eating habits (86%) and Obesity (77%). These are the important causes of PCOD whereas genetic and weak immune system can be the supporting reasons.

4. Management of PCOD



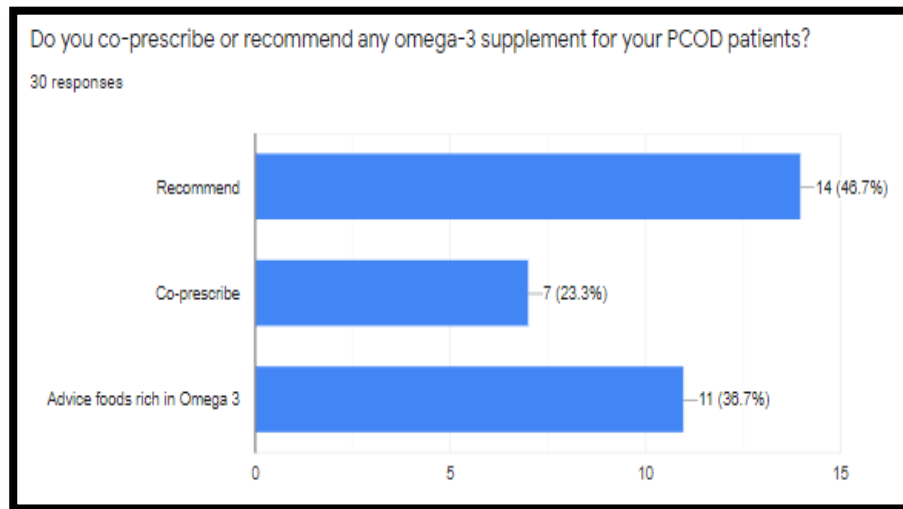
Result- The first choice of treatment given by doctors is medication (76%) to their patients followed by Nutritional supplements (83%) and Changes in food habits (73%). Thus medication with nutritional supplement is the best way for PCOD management. Nutritional supplements thus play a very important role in the management of PCOD.

5. Role of Omega 3 in management of PCOD



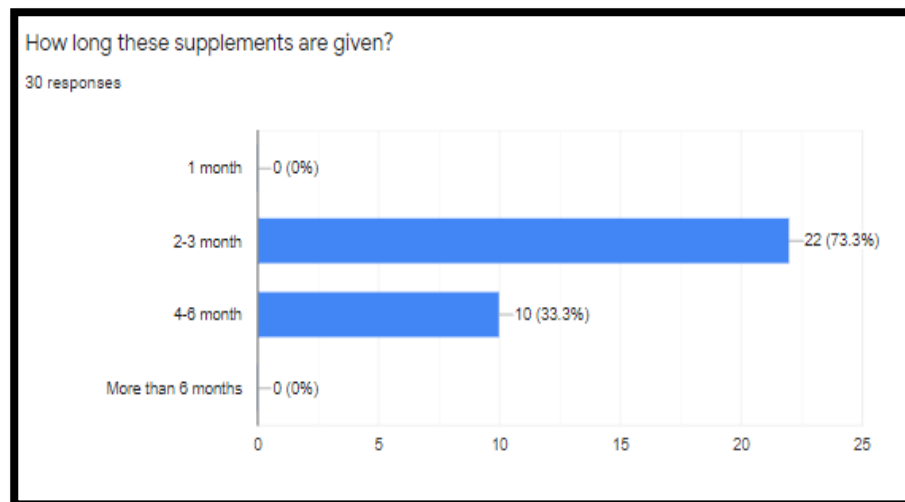
Result- 50% of the doctors believe that Omega-3 supplements play an important role in the management of PCOD where as 46% are unsure about its role in the management of PCOD. As 50% of doctors believe in Omega-3, thus it can be considered that Omega-3 supplements help to lower down the risk of PCOD.

6. To determine where Omega-3 supplements are co-prescribed or recommended to a PCOD patient



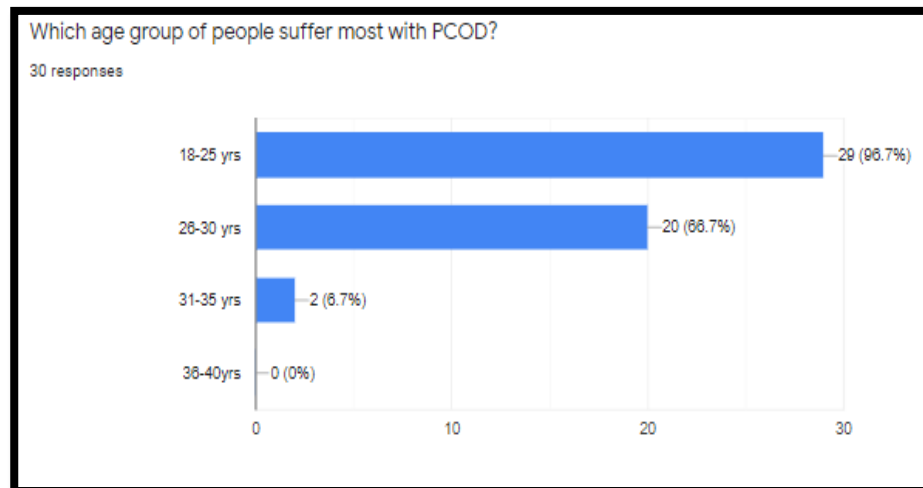
Result- As per doctor, Omega-3 supplements are mostly recommended (46%) where as 36% of the doctor advice foods in Omega-3. Thus we can say that Omega-3 supplements play an important role in management of PCOD.

7. Duration for Nutritional supplementation



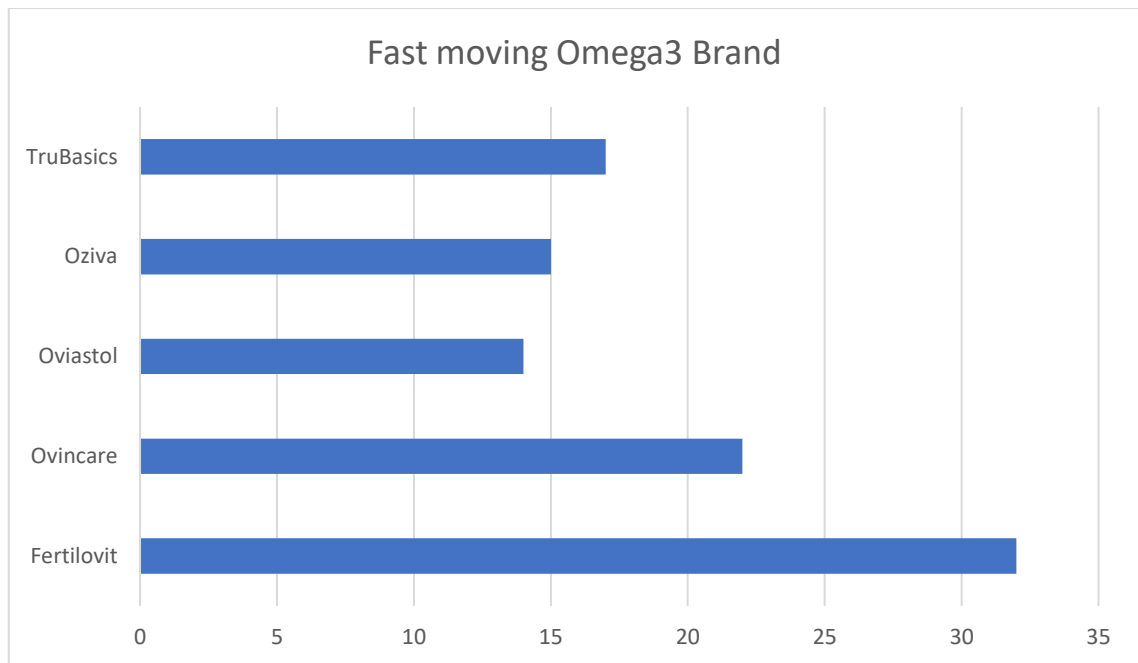
Result- According to doctors, the nutritional supplements (Omega-3) is given for about 2-3 months (73%) whereas for 33% prescribe for about 4-6 months.

8. Most suffered age group with PCOD



Result- According to doctor, people of age group between 18-25years suffer most from PCOD (96%) whereas 66% of the people of age group between 26-30 years suffer from PCOD.

9. Fast Moving Omega3 brand for PCOD



Result- According to doctor, the most preferred omega3 for PCOD is Fertilovit, Ovincare and TruBasics.

Chapter 5

4.1. Conclusions

When we refer to the above study, its clearly evident that there is a surge in PCOD cases year on year. Most of the doctors are also aware about the benefits of Omega3 and they also acknowledge the fact that the surge in the PCOD patients will lead to the increase in demand of Nutraceuticals.

The proposed study is aimed at understanding the current trends and opportunities for Omega-3 fatty acid with reference to other nutraceutical supplements in Indian market. This study will also present the developing areas of nutraceuticals for human health and evaluate factors that will drive the future demand for Omega-3 fatty acid in Indian market.

Indian nutraceuticals market is estimated grow by USD 149.89 million during 2019-2023. The rising demand for nutraceuticals with medical benefits is one of the major factors driving the nutraceuticals market. Indian market is largely a prescription-oriented market. Many nutraceuticals companies are trying to promote their products through the doctor. General Practitioners, Physicians and Gynecologists are the main prescribers of protein supplements followed by Orthopedic and Diabetologists.

From the surveyed doctors, it was concluded that omega-3 supplements possess good demand in future. Doctors acknowledge the role of Omega-3 in maintaining good health and to prevent secondary complications associated with PCOD. Medical professionals can play beneficial role in making omega-3 a definite position in the consumer mind. Awareness regarding specific product among doctors should be improved, this can be done by:

- Effective detailing
- Regular visits of MR
- Supply of updated information
- Highlight the benefits and safety of the product

In addition to doctors, dieticians are also appropriate health care professionals to make recommendations to consumers regarding the inclusion of Omega-3 in their daily diet. Adequate supply of information about Omega-3 such as booklets, leaflets, pamphlets etc. should be provided to the chemists in order to increase Omega- 3 market.

Companies should concentrate more towards price, promotion, awareness, quality and regular follow up strategies to increase Omega- 3 market.

Maximum awareness can be made through health food stores where current information about Omega- 3 fatty acid health benefits could be supplied to the consumers.

Government can also play important role in increasing awareness about Omega- 3 fatty acid health benefits by dissemination of information, regulation and consumers education in this area.

4.2.Recommendations

It is suggested that companies who work with Omega3, should focus more on PCOD patients as the study suggest increase in PCOD is very much evident in future. The fast-changing lifestyle, poor eating habits, sedentary lifestyle and pollution will surely increase the numbers of PCOD patients. Companies in the future can really focus on this domain as presently the focus is on child nutrition to cater the demand for omega3. As, the study projects most of the doctors feels that Omega3 is highly effective on PCOD Patients.

Demographic factors like age group, per capita income, lifestyle, food habits and increase in diseases are the major growth factors on which the growth of health supplements depends.

In India, nutraceutical has attained greater importance to support environmental initiatives, reduce health care costs, foster economic development in rural communities, and help manufacturers to diversify.

India is rapidly developing so life expectancies is increasing. The ageing population will increase, and demand for supplements and functional foods related to age- related conditions will certainly grow at double-digit rates. People are naturally looking forward to lead longer, healthier and more productive lives. This opens up new vistas for Omega-3 supplements as health consciousness within aging population impacts favorably, thus enhancing the growth of this segment.

Segmentation increases the Omega-3 markets as the products are aimed at target customers. Products aimed at women have been increasing steadily from past with a strong basis that older females due to PCOD problems needs additional nutritional supplements in their regular diet.

Hence, in all probability, there could not be a better timing to enter Omega-3 market in India than now.

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Annexure-1

QUESTIONNAIRE

1. How many patients in a day you come across in a week for PCOD?
 - a. 1-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. More than 20
2. According to you, what can be the major cause for PCOD?
 - a. Stress
 - b. Unhealthy eating habits
 - c. Genetic variation
 - d. Obesity
 - e. Chronic inflammation
 - f. Weak immune system
 - g. Medication
 - h. Medical history
3. What is your choice of treatment to manage PCOD??
 - a. Medication
 - b. Exercise & Yoga
 - c. Changes in food habits
 - d. Nutritional supplements
 - e. Any other, _____
4. Acc. to you have you seen a surge in the number of PCOD patients in your clinic, in the past 5 years?
 - a. Yes
 - b. No
 - c. Can't Say
5. Acc. to you does Omega-3 FA helps to lower down the risk of PCOD?
 - a. Yes
 - b. No

- c. May be
 - d. Don't know
6. Do you co-prescribe any omega-3 supplement for your PCOD patients?
- a. Yes
 - b. No
7. Which brand comes to your mind, when I say Omega-3 FA?
-
8. How long these supplements are given?
- a. 1-3months
 - b. 4-6months
 - c. More than 6months
9. How many patients revisit your clinic, after you prescribe them Omega 3?
- a. All of them
 - b. Most of them
 - c. Few of them
 - d. Can't Say
10. Which age group of people suffer most with PCOD?
- a. 18-25yrs
 - b. 26-30yrs
 - c. 31-35yrs
 - d. 36-40yrs