

# ROLE OF MULTIVITAMIN SUPPLEMENTS AMONG GENERAL PUBLIC DURING PANDEMIC SITUATION

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## ABSTRACT:

Multivitamins are directly intaken supplements that are believed to increase human health. Multivitamins thrive in providing a stable health and easier way. The urge to meet the growing population, the need to provide them with the at most health benefits has brought in the development of multivitamin supplements. The consumable products are a combination of minerals and vitamins that are packed under one capsule to bring about the health needs satisfaction. These multivitamins are consumed at variable high levels without understanding its underlying mechanism it has on health thereby the importance in the role of health is a must for which a thorough search was done in the database like Google scholar, research gate, PMC using keywords “multivitamin”, “role of multivitamin”, “general public knowledge”, pandemic situation. Articles with similar data were collected and added to the current study. It is important to know the role, consumption forms, attitude of the general public towards multivitamins especially during cases of pandemic to also create awareness on the side-effects caused by the intake of multivitamins under self prescribed methods.

**KEYWORD:** immunity, multivitamins, pandemic, role among general public, supplement.

## INTRODUCTION:

The dietary supplementation, including multivitamin supplements in the diet has increased more substantially over the past few decades (McNaughton *et al.*, 2005). On an average scale of about 20-30% of people most among the developed and developing countries register a high-level on usage of multivitamins (El-Kadiki and Sutton, 2005). Among the manufacturing industries, food industries especially those that belong to the production of multivitamins report to be the fastest growing (Foote *et al.*, 2003). Although these extra supplements on diet provide health and allow essential nutrients into the diet (Sirico *et al.*, 2018). It also has potential side-effects (Sebastian *et al.*, 2007). The increase in the population has brought the urgent need in meeting the public's general health in an easier way (Rajeshkumar, Agarwal, *et al.*, 2018; Sharma *et al.*, 2019). This has seen a marked increase in the usage of multivitamins. The hike in the level is that people believe it to be effective and consume it rather than recommended by doctors or dieticians but by majority on self prescribing.

Multivitamins are indeed to serve as dietary supplements that are vitamins and directly minerals composing of vitamins C (Chakraborty *et al.*, 2014), B, B2, B3, B4, B5, B6, D7, benign, B12, A, E, D2/D3, K, potassium, selenium, borate, calcium, magnesium, beta car can and iron and may not include herbs, hormones or drugs.

## CURRENT SCENARIO

In the situation with more literate people and health-conscious public who are capable of making their very own decisions regarding their healthcare together provided with wide availability of such supplements, the objective of this review is to summarise overall the pattern of use, public knowledge and attitude towards consumption of multivitamins during pandemic situations. All the search was performed using the database like Google scholar, research gate using the keywords” multivitamin supplementation in courts, role of multivitamin”,” among general public , pandemic situation the search was performed using the database like Google scholar, research gate using the keywords“ multivitamin supplementation in courts, “role of multivitamin“,” among general public”, pandemic situation with no specification of date and year and articles with similar data was collected and analysed and has been included in the study.

## MULTIVITAMINS:

A multivitamin is a preparation intake to serve as a dietary supplement and other nutritional elements such as preparation in the forms of tablets, capsules, powder, liquid and injectable forms. These are recognised by the Codex Alimentarius Commission as a category of food(‘Antioxidants in Food, Vitamins and Supplements’, 2014). In healthy people, scientific evidence indicates that multivitamin supplements do not prevent cancer, heart disease and other elements and regular supplementation is not necessary(‘Office of Dietary Supplements (National Institutes of Health)’, 2010),(Bjelakovic et al., 2012; Anitha and Ashwini, 2017; Ashwini, Ezhilarasan and Anitha, 2017). However certain groups of people benefit from supplementation as in people with poor nutrition or those that are at higher risks of macular degeneration(Yetley, 2007; Lakshmi et al., 2015).

## Role of multivitamin in health :

Multivitamins are composed of various minerals and essential dietary supplements, folic acid components help in protection against neural tube defects(Panel and NIH State-of-the Science Panel, 2007).Multivitamins provide basic necessities that the regular diet lacks(Combs and McClung, 2016) and of that treating certain in cancer(Ezhilarasan et al., 2017; Perumalsamy et al., 2018) and also during inflammatory responses(Mehta et al., 2019) Study reveal that certain intracanal medicaments[propolis] provide effective against enterobacter(Marickar, Geetha and Neelakantan, 2014).Certain treat against anti bacterial agents(Ashwin and Muralidharan, 2015) majority of the multivitamin supplements undertaken are generally to treat stress(Ezhilarasan, 2018)

The regular role of multivitamin on health shows that its side-effects are widely being used during pregnancy and are widely in reducing risk of cataracts and common eye diseases and cardiac diseases (Ezhilarasan, Sokal and Najimi, 2018).On a average scale majority of multivitamin supplements comprises of vitamin C by regulating cytotoxic activity(Gheena and Ezhilarasan, 2019)

Immune boosting(Choudhari, Vishnu Priya and Gayathri, 2016) again certain infections and information energy metabolism with central blood flow and proper brain function. Neuro therapy as in it helps in potential to promote nerve repair.

## General public attitude towards multivitamin:

On a higher scale of level studies conducted(Block et al., 2007) revealed that 53% of report ends and that frequently consume multivitamins as dietary supplements. Health-conscious people nowadays feel happy to consume thinking that they are actively participating in the day and taking care of their health(Boini et al., 2006)(Ramesh et al., 2016) while they are not aware about naturally present supplements such as

acacia catechu that induces benefits over squamous carcinoma cells and in recent advancement of multi supplement vitamins inclusion of aloe vera in oral health is prone more effect than any ayurvedic treatment (Subasree, Murthykumar and Dhanraj, 2016)

Multivitamin intake by recommendation of doctors and healthcare professionals were less(United States, Congress. House. Committee on Interstate and Foreign Commerce, 1973) where those that consumed self prescribed on a daily basis were high and were found that median daily allowance for some certain vitamins are above the recommended daily allowance level(Sharma, 2014).

Reasons quoted for the using vitamin supplements by self prescribes were found that whatis for maintaining wellness(Dickinson et al., 2011; Karthiga, Rajeshkumar and Annadurai, 2018; Menon et al., 2018; Rajeshkumar, Venkat Kumar, et al., 2018). Ignoring The potential side effects that include diarrhoea, vomiting, neurea and other possible health diseases.

### **Multivitamin supplement during pandemic**

Pandemic is an epidemic disease that has spread across a large region of multiple continents/worldwide affecting a substantial number of people. Throughout human history there have been several pandemic cases such as smallpox and tuberculosis. Current focus is on the COVID-19.

During such times the intake of multivitamins in order to boost the mail system and stay healthy is the general public attitude. General public is not aware of what type of multivitamin to consume and what dosage, without proper guidance of medical awareness consumes self prescribed dosages in regards to recommendations by friends and families on a porn advertisement through television.

It is not much advisable in consuming multivitamins under self prescribing whereas natural exposure to sunlight and intake of proper diet filled new trains are advisable during such conditions and self health home remedies methods are advisable to follow.

### **Advancement in multivitamin:**

The increasing demand in order to provide a better lifestyle and to bring about maintenance of good health in an easy way has brought in the necessity to improve the efficiency of multivitamin. Bioavailability of the multivitamin is being announced in order to provide better health care needs as in further harassment in developing by your availability of the product. Potential benefits in improving cognitive performance and also providing mental well-being.. Dietary guidelines advisory committee is taking measures in testing and carrying out tests in order to provide better outcome and results on health benefits('Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2000', 2000). Further Studies are being carried out to study the effect, efficiency over self prescribe multivitamins in order to provide better health awareness.

### **CONCLUSION:**

The overall usage of multivitamins is increasing and general consumption is in the forms of tablets and powders providing significant health benefits along with the potential side effects if not undertaken in proper guidance. At times of pandemic cases public on with their general knowledge about multivitamin tend to consume it more believing it might help them against building immunity and also help them response to the infection in a better way providing them with essential nutrient their diet lacks. If proper consumption methods are followed, this might further provide a futuristic scope on better pavement in studying and analysing the benefits of multivitamin and its recognition in health metabolism.

## **AUTHOR CONTRIBUTIONS:**

The idea was conceptualized by Lakshminarayanan Arivarasu and the manuscript was drafted by S. Shreenidhi, the revising of the manuscript was done by Vinay sivaswamy.

## **CONFLICT OF INTEREST:**

The authors declare No conflict of interest.

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