

Review Article

# Dietary Supplements usage in Adults and Elderly

Uma Joshi<sup>1</sup>, Pragya Singhal<sup>2</sup>

<sup>1</sup>Associate Professor, <sup>2</sup>Research Scholar, VMLG (PG) College, Ghaziabad, Uttar Pradesh, India.

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## I N F O

### Corresponding Author:

Pragya Singhal, VMLG (PG) College, Ghaziabad, Uttar Pradesh, India.

### E-mail Id:

prag17j@gmail.com

### Orcid Id:

<https://orcid.org/0000-0002-2582-9988>

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## A B S T R A C T

Dietary supplements are used worldwide and represent a broad category of ingestible products that are distinguishable from conventional foods and drugs. Dietary supplements are vitamins, minerals, herbs and many other products. They can come as pills, capsules, powders, drinks and energy bars. Supplements do not have to go through the testing that drugs do. Dietary supplement are very useful in present time. Many people use dietary supplements in the world, dietary supplement is preferred by all age group of people. Mainly adults used dietary supplements to stay healthy and fit, to fulfil the requirements of the unavailable nutrients and elderly used dietary supplements to cure diseases. The study was conducted on group consisted of 100 person 50 adult and 50 elderly in the age between 20 to 100 years. The objective of the study was to find out the role of dietary supplements in present scenario. In present time, life is running at fast pace so people do not care of their food. Thus, the food pattern has been changed; home cooked meals are replaced by packed food. People prefer fast food by which they do not focus on healthy food and the nutrients deficiencies precipitate. To complete the deficiency of nutrients they use dietary supplements. Thus adult use dietary supplements to stay healthy and elderly use dietary supplements to cure the deficiency of nutrients while they suffer from diseases and many a times.

**Keywords:** Dietary Supplements, Probiotics, Antioxidants, Health, lifestyle

Dietary supplements are defined as products (other than tobacco) intended to supplement the diet that contains at least one of the following ingredients: vitamin, mineral, herb or botanical (including extracts of herbs or botanicals), amino acid, metabolite, or any combination thereof. Mainly, the products such as multivitamins, garlic tablets, fish oil capsules, probiotics, natural weight-loss aids and certain types of energy drinks are examples of dietary supplements. A dietary supplement, also known as food supplement or nutritional supplement, is a preparation intended to supplement the diet and provide nutrients, such as vitamins, minerals, fiber, fatty acids, or amino acids, that may be missing or may not be consumed in sufficient quantities in

a person's diet. Some countries define dietary supplements as foods, while in others they are defined as drugs or natural health products.

Dietary supplements are used for many purposes:

- They can be added to the diet to boost overall health and energy
- To provide immune system support and reduce the risks of illness and age-related conditions
- To improve mental activities; and to support the healing process during illness and disease

### Harmful Effects of Dietary Supplements

Some nutritional supplements can cause upset stomach

and allergic reactions, including rashes, flushing, nausea, sweating and headaches.

## Objective of the Study

The objectives of the present study were:

- To find out the percentage of adult and elderly people consuming supplements
- To access the difference in health status of people using supplements or those are not using supplements
- To find out the most popular supplements used by adults & elderly
- To find out the reasons for which supplements were taken
- To access the awareness of harmful effects of supplements in adults and elderly.

## Review of Literature

The most current data on dietary supplement use in the United States have been collected by the U.S. Department of Agriculture (USDA) in the Continuing Survey of Food Intakes by Individuals (CSFII) - a component of its Nationwide Food Consumption Survey (NFCSS). In 1985, 45% of the men 19 to 50 years of age reported taking a dietary supplement either regularly or occasionally - up from 26% in 1977 (USDA, 1986). In 1986, 55% of the women 19 to 50 years of age took supplements regularly or occasionally - up from 39% in 1977 (USDA, 1987). Of the survey's low-income women 19 to 50 years of age, 45% took supplements during 1986 (USDA, 1987).

The FDA investigators also noted that specialized vitamin and mineral preparations were most commonly taken by the heavy and very heavy users (28% and 14% of all users, respectively). The light and moderate users (42% and 16% of all users, respectively) favoured the broad-spectrum, multi nutrient products.

The 17.7 percent of American adults had used "natural products" (i.e., dietary supplements other than vitamins and minerals) in the past 12 months. In another, earlier national survey covering all types of dietary supplements, approximately 52 percent of adult respondents said they had used some type of supplement in the last 30 days; the most commonly reported were multivitamins/ multi minerals (35 percent), vitamins E and C (12-13 percent), calcium (10 percent) and B-complex vitamins (5 percent). (Levy and Schucke, 1987).

Research has shown that some uses of dietary supplements are effective in preventing or treating diseases. For example, scientists have found that folic acid (a vitamin) prevents certain birth defects and a regimen of vitamins and zinc can slow the progression of the age-related eye disease macular degeneration. Also, calcium and vitamin D supplements

can be helpful in preventing and treating bone loss and osteoporosis (thinning of bone tissue).

Older adults are particularly vulnerable to deficiencies of calcium, vitamin D and vitamin B12. Despite the availability of fortified foods in the United States, intakes of these nutrients among the elderly remain inadequate. Dietary supplements may be a convenient way to improve nutritional status within this population group.

Older adults who use MVM and/or Vitamin/ Mineral supplements to foster better nutritional and health status should read labels carefully and consult their health care provider to ensure appropriate dietary supplement use. (Journal of Nutrition for the Elderly, 02/2008; USA).

Dietary supplement usage by individuals aged 60 years or more to be 16 - 60%. Prevalence is dependent on the population studied and the method of data collection. In general, older supplement users are female, Caucasian and well educated, with healthier lifestyle practices than non-supplement users and they are less likely to be overweight or to smoke. Neither income nor self-rated health status are reliable predictors of supplement use in this group. In many cases older supplement users report higher intakes of several micronutrients from food than older non-supplement users. Current patterns of supplement use by the older person reveal that although they consume a range of products, they do not supplement with nutrients that are of particular benefit to them. The supplements most commonly consumed by individuals aged 60 years and over are multivitamins and minerals, vitamin C and vitamin E preparations. (Brownie Sonya, 2005-2006).

The study conducted by Sonya measure the prevalence of dietary and health supplement use among Australians aged 65 years and over and to contrast the health differences between supplement users and non-supplement users. Data was obtained from 1,263 randomly selected older Australians, who provided general demographic data, in addition to information related to their health, symptoms experienced and uses of medication, including dietary supplements. Supplement use was reported by 43% of the sample (52% of females and 35% of males). (Brownie Sonya, 2004).

A national survey conducted in 2007 found that 17.7 percent of American adults had used "natural products" (i.e., dietary supplements other than vitamins and minerals) in the past 12 months. The most popular products used by adults for health reasons in the past 30 days were fish oil/omega 3/ DHA (37.4 percent), glucosamine (19.9 percent), echinacea (19.8 percent), flaxseed oil or pills (15.9 percent) and ginseng (14.1 percent). In another, earlier national survey covering all types of dietary supplements,

approximately 52 percent of adult respondents said they had used some type of supplement in the last 30 days; the most commonly reported were multivitamins/multiminerals (35 percent), vitamins E and C (12-13 percent), calcium (10 percent) and B-complex vitamins (5 percent).

The 1997 National Nutrition Survey provides information on dietary supplements and nutrition-related clinical measures of New Zealand adults. The survey was carried out from December 1996 to November 1997 and included interviews with 4636 New Zealanders aged 15 years or above.

## Methodology

Methodology is a method of data collection for the purpose of the study designed. The design and methodological steps planned for the study are presented under the following sub heading. Sample for this study consist of people residing in Ghaziabad City. The age group selected was Adult and Elderly. To elicit information regarding the number of sample, questionnaire cum interview schedule are prepared. Appropriate statistical test were used.

## Summary and conclusion

The aim of the study was to see the role of dietary supplements in present scenario. In present time life is so busy so people do not care of their food. Thus the food pattern has been changed also. People prefer fast food. By which they do not focus on healthy food and the nutrients deficiencies precipitate. To complete the deficiency of nutrients people use dietary supplements. Thus adult use dietary supplements to stay healthy and elderly use dietary supplements to cure the deficiency of nutrients while they suffer from diseases. There are several causes of consumption of dietary supplements. Poor eating habits of people include:

- Excessive consumption of fast food
- Meal skipping
- Improper food selection
- Improper cooking method

The present study is based on the consumption of supplements by the adult and elderly and the impact of the supplements like useful and harmful on their health.

To accomplish the objectives, purposive random sampling was done. Samples were taken from Shastri Nagar Colony in Ghaziabad city in which specific information included general profile, eating habits, health status, use of supplements and their effect through questionnaire to assess the status of adult and elderly. After collecting all the information, conclusion were drawn.

The finding of the study can be summarized as follows:

- In this study total 100 respondents were taken. The selected respondents were between 21 - 50 and 51 - 100 year of age

- The survey founded that among adult group maximum 74% of the respondents were adult female and among elderly group 66% of the respondents were elderly female
- The study shows that the maximum 88% adult and 80% elderly respondents were belong to moderate activity
- The study reveals that the maximum 72% of adult and 88% of elderly respondents belong to nuclear family and 28% of adult and 12% of elderly respondents were belonging to joint family
- The survey reveals that maximum 86% of adult and 88% of elderly were belonging to middle income group
- The survey shows that maximum 60% of adult and 44% of elderly were vegetarian
- It was concluded that 96% of elderly were taking 3 meals in a day and 70% of adult were consuming 2 meal in a day
- The survey shows that 34% of adult were consuming fruits twice in a week and 72% of elderly were consuming fruits once in a day
- In this study 50% of adult were eating out twice in a week and 58% of elderly were eating out occasionally
- It was concluded that maximum 78% of elderly were currently being treated for a medical condition
- The study shows that maximum 6% of adult and 46% of elderly were experiencing bad sleep pattern
- The study reveals that maximum 70% of the adult respondents did not exercise
- In this study 14% of the adult had family history of life style diseases
- The study found that maximum 78% of elderly were consuming medicine
- It was concluded that 30% of the adult were consuming supplements occasionally and 28% of elderly were consuming supplements regularly
- The study reveals that 28% of adult and 26% of elderly were consuming supplements by doctor recommendation
- In this study 22% of adult were consuming supplements from a months and 14% of elderly were consuming supplements from a year
- The study shows that 24% of adult and 20% of elderly founded performance enhanced by using supplements
- The study reveals that no one found the harmful effects of the supplements

How to take a supplement as safely as possible:

- Tell your health care provider about any dietary supplements you use
- Do not take a bigger dose than the label recommends
- Check with your health care provider about the supplements you take if you are going to have any type of surgery
- Read trustworthy information about the supplement

## References

1. <http://espace.library.uq.edu.au/view/UQ:74160>
2. <http://espace.library.uq.edu.au/view/UQ:77116>
3. [http://www.researchgate.net/publication/23555538\\_Vitamin\\_and\\_mineral\\_supplements\\_barriers\\_and\\_challenges\\_for\\_older\\_adults](http://www.researchgate.net/publication/23555538_Vitamin_and_mineral_supplements_barriers_and_challenges_for_older_adults)
4. [www.fda.gov/Food/DietarySupplements/Alerts/orthe](http://www.fda.gov/Food/DietarySupplements/Alerts/orthe%20Alerts%20and%20Advisories) "Alerts and Advisories" section of the NCCAM Web site at [nccam.nih.gov/news/alerts](http://nccam.nih.gov/news/alerts).
5. [www.fda.gov/Food/DietarySupplements/Alerts/orthe](http://www.fda.gov/Food/DietarySupplements/Alerts/orthe%20Alerts%20and%20Advisories) "Alerts and Advisories" section of the NCCAM Web site at [nccam.nih.gov/news/alerts](http://nccam.nih.gov/news/alerts)
6. <http://www.reportlinker.com/ci02037/Vitamin-and-Supplement.html>
7. [http://en.wikipedia.org/wiki/Dietary\\_supplement](http://en.wikipedia.org/wiki/Dietary_supplement)
8. <http://www.britannica.com/EBchecked/topic/162791/dietary-supplement>
9. <http://www.nnfa.org>
10. (<http://www.livestrong.com/article/458910-food-supplements-for-the-elderly/#ixzz2QLuDSzTo>)
11. (<http://www.naturalhealthmag.com>.)
12. ([http://en.wikipedia.org/wiki/Dietary\\_supplement](http://en.wikipedia.org/wiki/Dietary_supplement))
13. ([http://www.nap.edu/openbook.php?record\\_id=1222&page=509](http://www.nap.edu/openbook.php?record_id=1222&page=509))
14. (<http://www.fda.gov/forconsumers/consumerupdates/ucm050803.htm>)
15. <https://medlineplus.gov/dietarysupplements.html>.