

SHORT ARTICLE

Status of Dietary Intake of Calcium in Women of Reproductive Age in Delhi, IndiaNighat Yaseen Sofi¹, Umesh Kapil², Monika Jain³¹Research Scholar, ³Associate Professor, Food Science and Nutrition, Faculty of Home Science, Banasthali University, Banasthali Vidyapith - 304022, ²Professor, Department of Gastroenterology and Human Nutrition. All India Institute of Medical Sciences, New Delhi

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Corresponding Author

Address for Correspondence: Dr Umesh Kapil, Professor, Department of Gastroenterology and Human Nutrition. All India Institute of Medical Sciences, New Delhi.

E Mail ID: umeshkapil@gmail.com**Citation**

Sofi NY, Kapil U, Jain M. Status of Dietary Intake of Calcium in Women of Reproductive Age in Delhi, India. Indian J Community Health. 2016; 28, 1: 106 - 107.

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Background: Calcium (Ca) plays an important role in bone formation. Attaining optimal bone mass and peak bone densities is essential to prevent osteoporotic fractures in future life. In conditions of Ca deficiency, Ca from the bones maintains the blood levels of Ca leading to its depletion in bones. Calcium depletion leads to poor bone density and a higher risk of osteoporosis particularly in women who have repeated episodes of pregnancy and lactation. **Aim & Objective:** To assess the dietary intake of calcium. **Material Methods:** the study was conducted among 200 healthy women of reproductive age group of 20-49 years. **Result:** The dietary intake of calcium was less than the Recommended Dietary Allowances of 600mg/day. Women from upper socioeconomic class had a higher intake of dietary calcium 435±268 mg/day as compared to women from low socioeconomic class with a dietary intake of 295±163 mg/day. **Conclusion:** The dietary intake of calcium improved with an increase in socioeconomic class.

Key Words

Diet; Calcium; Socioeconomic class

Introduction

A low dietary intake of Ca in women of reproductive age could reduce bone accretion rates and increase the risk of osteoporosis. The fracture rate at the neck of femur has been shown to occur 12 to 15 years earlier in females from low income group with low level of Ca intake as compared to females from high income group. The women from low income group are exposed to greater risk of developing bone abnormalities due to low dietary intake of Ca. There is lack of scientific literature on the dietary intake of Ca in women of reproductive age from India.

Aims & Objectives

To assess dietary intake of Calcium in healthy women attending a tertiary care hospital in Delhi as attendants of patients availing OPD services.

Material and Methods

A total of 200 women in the reproductive age group of 20-49 years were included. A semi structured questionnaire was used to record information on identification data and socio economic profile. Modified Kappuswamy's socioeconomic status scale (1) was used to assess socioeconomic class. The dietary intake of Ca was assessed by administering 24 hour dietary recall method. Each subject was enquired about the amount of food consumed during last 24 hours. The equivalent amount of raw food was calculated from the quantity of food consumed. From the raw weights of food, the Ca intake was calculated using the food composition table on Nutritive Value of Indian foods by National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.

Results

The mean age of subjects was 36.5±7 years. The percentages of subjects from upper socioeconomic class were (25.5%), upper middle (34%), middle (25.5%) and lower socioeconomic class (15%). The mean dietary intake of Ca was 364±177.4 mg/day against Recommended Dietary Allowance (RDA) of 600mg/day (2). Daily dietary Ca intake was less than the RDA. The mean dietary intake of Ca in women from upper socioeconomic class was (435±268 mg/day), upper middle (370±174 mg/day), middle (307±128 mg/day) and lower socioeconomic class (295±163 mg/day) respectively. It was found that as the socioeconomic status improved, the dietary intake of Ca increased. The earlier studies conducted across the country amongst women of reproductive age have documented a lower dietary intake of Ca of 293 mg/day (3), 306 mg/day (4) and 262 mg/day (4) in women of reproductive age. Studies have also documented dietary intake of 544 mg/day (5) and 572.5 mg/day (6) of Ca which was higher than the present study.

Conclusion

The present study revealed that women of reproductive age group had a lower dietary intake of calcium as compared to their RDA. These women may possibly have a higher risk of development of osteoporosis in future life.

Recommendation

There is a need of conducting more studies on a larger sample size to assess dietary intake of calcium in women of reproductive age group from different

parts of the country to substantiate the findings of the present study.

Authors Contribution

All authors had contributed equally in this study.

Acknowledgement

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