



Assessment of Milk Consumption in Young Females

KEYWORDS

Miss. Shubhadarshini G Pawar

2nd MBBS Bharati Vidyapeeth Medical College, Pune

Pranita Ashok

Assistant Professor, Dept. of Physiology Bharati Vidyapeeth Medical College, Pune

A R Joshi

Professor & HOD Dept. of Physiology Bharati Vidyapeeth Medical College, Pune

ABSTRACT *Introduction- Recent studies have shown that milk is an excellent source of calcium and provides eight additional essential nutrients, including proteins, potassium, phosphorus, vitamins A, D and B12, riboflavin and niacin. In recent years milk consumption is markedly reduced due to soft drink consumption in young adults. A recent study concluded that women with low milk intake during childhood and adolescence have less bone mass in adulthood and they are at greater risk of fractures. So the present study was planned to assess consumption of milk in these young females with the help of questionnaire.*

Objective- Assessment of milk consumption using food questionnaire in young females.

Method: Dietary milk intake was taken into consideration by using food-frequency questionnaire of 64 medical MBBS female students aged between 18-25 yrs. History of previous milk intake for last 3 months was taken into consideration in terms of amount of milk and its consumption daily, weekly or monthly. The quantity and frequency was of milk consumption was noted.

Results: We found that 68% females were consuming milk in some form or other whereas 32% female were not consuming milk at all. Out of 68%, 51% females were consuming milk regularly while 17% were consuming milk occasionally.

Conclusion: Health benefits of milk should be emphasized to the students for their long term effects in adulthood. Follow up with administration food questionnaire is needed for improvement of milk consumption to prevent future risks.

Introduction :

Humans first learned to consume other mammals milk regularly following the development of agriculture and animal husbandry. This development occurred in several places around the world from as early as 900–700 BC in Southwest Asia to 350–300 BC in the America. Studies have shown that dairy concept came into existence in early phases of agriculture in Southwest Asia.⁴

Recent studies have shown that Milk is an excellent source of calcium and provides eight additional essential nutrients, including proteins, potassium, phosphorus, vitamins A, D and B12, riboflavin and niacin.¹ Women who consume at least three servings of milk every day may increase the availability of folate in other foods. Folate may help to prevent heart disease and stroke and is especially important for women of childbearing age to reduce the risk of birth defects.² Milk consumption is severely affected by soft drink consumption in young adults.³ A recent study concluded that women with low milk intake during childhood and adolescence have less bone mass in adulthood and greater risk of fractures.⁶ So the present study was planned to assess the consumption of milk in young females using a simple questionnaire

Methodology : The study was conducted in first year MBBS students immediately after their admission to college. A personal interview was conducted to collect the history of milk consumption. The ethical committee approval was taken and written consent was obtained from the students. We have used validated food frequency questionnaire which includes milk consumption on daily, weekly and monthly basis & different types of milk like buffalo, cow, goat in 64 medical MBBS female students aged between 18-25 yrs. History of milk intake for last 3 months was noted. Amount of milk consumed and its frequency was asked. Subjects were also asked to recall how often they consumed what type of milk, including milk added to cereal while cooking. Small amounts

coffee or tea was not taken into account.

Result :

Table 1: Percentage of female consuming milk

Milk consumption	Female (%) n=64
Regular	51
Occasional	16
No	32

Table 1: Percentage of type of milk consumption (out of 68%)

Milk consumption	Female (%) n=64
Cow	53
Buffalo	18

Discussion :

Table 1 & 2 showed that 51% females were taking regular milk. 17% females were consuming milk occasional i.e weekly or monthly. 32% of female were not consuming any type of milk.

Dietary calcium intake is recommended to increase during childhood and adolescents to achieve peak bone mass and ultimately reduce the risk of osteoporotic fracture⁸. The long-term benefit of increased calcium intake during growth to reduce disease risk later, is uncertain. In contrast, studies supplementing the diet with milk or milk-derived calcium showed positive effects on bone mass 1.5–3.5 years even after the supplementation was discontinued⁹

Identification of the independent effects of milk and or calcium intake during specific periods of life is important for efficient targeting of interventions to maximize their long-term benefit. The objective of this study was to determine whether milk intakes.

Women who consume at least three servings of milk every day may increase the availability of folate in other foods. Folate may help to prevent heart disease and stroke and is especially important for women of childbearing age to reduce the risk of birth defects.

Women with low milk intake during childhood and adolescence have less bone mass in adulthood and are at greater risk of fractures.⁶

During last few decades, soft drink consumption has steadily increased while milk intake has decreased. Excess consumption of soft drinks and low milk intake may pose risks of several diseases such as dental caries, obesity, and osteoporosis.

Eventhough habit is formed during young adulthood it has

harmful impact on later life . Unfortunately there are no nutrition education programs to guide the youth .

In one study , class-based nutrition education has shown a positive impact on milk consumption in young adults . There are several nutrition courses designed for college population to change their diet habits towards health.Only nutrition knowledge may not promote dietary changes so there is a need to develop curriculum targeting specific nutrition behaviors in college students so that practices regarding diet can be recommended in them.

Acknowledgement :

Dept of Physiology,Bharati Vidyapeeth Medical College,Pune.

REFERENCE

- 1)Derman O, et al. Premenstrual syndrome and associated symptoms in adolescent girls. *European Journal of Obstetrics & Gynecology*. 2004; 116: 201-206. | 2] Picciano M, et al. Effect of cow's milk on food folate bioavailability in young women. *American Journal of Clinical Nutrition*. 2004; 80:1565-1569. | 3] Kalkwarf HJ, et al. Milk intake during childhood and adolescence, adult bone density, and osteoporotic fractures in US women. *American Journal of Clinical Nutrition*. 2003; 77: 257-265. | 4] Pan Sai, et al. A case-control study of diet and the risk of ovarian cancer. *Cancer Epidemiology Biomarkers & Prevention*. 2004; 13(9): 1521-1527. | 5] Bellwood, Peter (2005). "The Beginnings of Agriculture in Southwest Asia". *First Farmers: the origins of agricultural societies*. Malden, MA: Blackwell Publishing. pp. 44–68. ISBN 978-0-631-20566-1. | 6] Heidi J Kalkwarf, Jane C Khoury, and Bruce P Lanphear Milk intake during childhood and adolescence, adult bone density, and osteoporotic fractures in US women1–3 . *Am J Clin Nutr* 2003;77:257–65. | 7] Eun-Jeong Ha ,Natalie Caine-Bish1, Christopher Holloman2 and Karen Lowry-Gordon. Evaluation of effectiveness of class-based nutrition intervention on changes in soft drink and milk consumption among young adults*Nutrition* ,2009; 8:50-56 | 8. Standing Committee on the Scientific Evaluation of Dietary Reference | Intakes. *Dietary reference intakes for calcium, phosphorus, magnesium, | vitamin D, and fluoride*. Washington, DC: National Academy Press, 1997. | 9. Bonjour JP, Chevalley T, Ammann P, Slosman D, Rozzoli R. Gain in | bone mineral mass in prepubertal girls 3–5 years after discontinuation | of calcium supplementation: a follow-up study. *Lancet* 2001;358: | 1208–12. |