

Anthropometry of Geriatric People

Farzana Akter¹, Satya Prio Dhar², Most. Luthy Begum³ and Md Zahid Hasan Khan^{4*}

¹Nutrition Officer, UNICEF, Bangladesh

^{2,3,4}Master of Public Health, Northern University Bangladesh

*Corresponding Author: Md Zahid Hasan Khan, Master of Public Health, Northern University Bangladesh.

Received: August 11, 2016; Published: December 19, 2016

Abstract

Geriatric people are increasing day by day due to declining mortality and improved public health interventions. The present study is an attempt to assess anthropometry of aged people. It was a cross sectional descriptive study. The subjects were selected conveniently. Anthropometric data such as height and weight of the study subjects were collected by using standard techniques. Mean \pm SD age of respondents was 68.29 ± 6.18 years. Malnourish and nourish were 44% and 56% respondents. Most respondents took rice 2-3 times/day. Meat and egg usually took weekly. Vegetables and soyabean were taken randomly. Number of nourish female was less in terms of nutritional status. We should give priority to geriatric people particularly food habit which ultimately reflects nutrition.

Keywords: Anthropometry; Geriatric people

Volume 1 Issue 1 December 2016

© All Rights Reserved by Strollo Felice., et al.

Introduction

Ageing is the accumulation of changes in a person over time. [1] Research shows that even late in life, potential exists for physical, mental, and social growth and development. Roughly 100,000 people worldwide die each day of age-related causes. [2] Present total population of Bangladesh is about 15 crore and 30 lac [3] will account about half of the world's total elderly population by 2025 along with other four Asian countries. The rapidly increasing elderly population is a new and important group in terms of social economic and changing cultural context. According to Bangladesh census 2001 the number of elderly population was 7.8 million. The UNO projection suggests that by 2025 elderly population of Bangladesh will be 16.2 million and by 2050 it will raise to 42.2 million which will be little over 9 percent and 20 percent respectively of the total population. The assessment of nutritional status requires the integration and interpretation of at least anthropometry biochemical and dietary intake. Rural elderly people have prevalence of Chronic Energy Deficiency (CED) 26% and at risk of CED 57% of the study population. [4] Comprehensive health policy exists for the elderly in Bangladesh. Geriatric problems are ignored in medical education and profession. There is a lack of information and research on elderly in health sector. There is scope for improving nutritional problems of the elderly people.

Citation: Md Zahid Hasan Khan., et al. "Anthropometry of Geriatric People". *Nutrition and Food Toxicology* 1.1 (2016): 16-19.

Methodology

This study was designed as cross cut because of time constrain and limited resources. Non probability convenient sampling was done. Face to face interview was conducted. Height and weight was recorded at standard technique. Anthropometry was divided into two group: nourish and malnourish. Food habit was obtained by food frequency questionnaire. Data were checked and rechecked prior analysis. Verbal consent was taken before initiation interview.

Results

Table 1 shows that 24%, 40%, 23%, 3.5% and 9.5% of respondents represented from 60-64, 65-69, 70-74, 75-79 and 80-85 years age group respectively. Mean age of the respondents was 68.29 ± 6.18 years. Most respondents took rice 2-3 times/day. Milk and fish was taken by 20 and 40 respondents at 2-3 times/day. Meat and egg usually took weekly. Vegetables, lentil and soyabean were taken proficently. (Table 2) Nourish and malnourish among male were 25.5% and 43% whereas among female it was 18.5% and 13%. (Table 3)

Age Group	Number	Percentage
60-64	48	24
65-69	80	40
70-74	46	23
75-79	7	3.5
80-85	19	9.5
Mean \pm SD	68.29 ± 6.18	

Table 1: Distribution of respondents by age.

Food item	2-3/d	1/d	2-3/w	1/w	Never
Rice	80	18	0	2	0
Ruti	6	44	26	8	16
Parata	0	14	32	14	40
Muri	6	14	42	22	16
Milk	20	18	22	14	26
Fish	40	16	32	2	10
Meat	12	6	28	36	18
Egg	16	6	32	26	20
Leafy vegetables	64	2	20	4	10
Non leafy vegetables	33	1	8	8	0
Fruits	36	4	12	12	36
Soyabean	100	0	0	0	0
Lentil	44	2	36	0	20
Singara	4	2	26	24	44
Puri	4	0	20	24	52
Biscuit	8	6	32	30	24

Result expressed as %

Table 2: Food intake pattern of respondents.

Sex	Nourish	Malnourish
	N (%)	N (%)
Male	51 (25.5)	86 (43.0)
Female	37 (18.5)	26 (13.0)

Table 3: Anthropometry of the study subjects.

Discussion

Body composition and therefore energy stores change during ageing, making malnutrition comprise a greater risk. Many other factors contribute to increasing the risk of malnutrition. A study conducted by Samad and Abedin [5] found that majority of older people are in Bangladesh belong to the age group 60-69 years and same findings was found Taj Uddin and Chowdhury study which has a similarity with the findings of this study. [6] Nutritional status of the present study subjects represents that malnourish and nourish were 44% and 56% respondents. In 2004 a study was conducted in our country, they found that the prevalence of malnutrition among older people living in rural community in Bangladesh was 26%. [7] Elderly individuals in rural Bangladesh are either undernourished or at risk of malnourishment. About 4.8% was malnourished, 26.2% was at risk of malnutrition and 69% was well nourished in Mongolian elderly. In terms of body mass index, 4 in 5 of the elderly had values > 21 kg/m². [8] The prevalence of malnutrition was more common among the relatively older elderly women, which suggests worsening nutrition with advancing age. [9] Another study [10] provides an anthropometric profile of elderly population living in urban Bangladesh and indicates high prevalence of malnutrition among them. In central Uganda, the prevalence of malnutrition based on BMI and mid upper arm circumference within the population aged 60-90 years is reported to be 33% and 52% respectively. [11] In Poland Wojszel ZB found that 12% of them were malnourished, 61% were at risk of malnutrition and 27% were well nourished according to the MNA test. [12] Most respondents took rice 2-3 times/day. Milk and fish was taken by 20 and 40 respondents at 2-3 times/day. Meat and egg usually took weekly. Vegetables and soyabean were taken randomly. Lentil was taken daily. Similar literature was not found.

Conclusion

It is concluded that about half of the respondents were malnourished. Number of nourish female was less in terms of nutritional status.

References

1. Bowen RL and Atwood CS. "Living and dying for sex. A theory of ageing based on the modulation of cell cycle signaling by reproductive hormones". *Gerontology* 50.5 (2004): 265-90.
2. Aubrey DNJ and de Grey. "Life Span Extension Research and Public Debate: Societal Considerations". *Studies in Ethics, Law, and Technology* 1.1 (2007): 5-9.
3. Daily Prothom –Alo November 24, 2012.
4. Ferdous T, *et al.* "The multidimensional background of malnutrition among rural older individuals in Bangladesh-- a challenge for the Millennium Development Goal". *Public Health Nutrition* 12.12 (2009): 2270-2278.
5. Samad A and Abedin S. Implications of Asia's population future and the elderly: The case of Bangladesh, ESCAP (1998).
6. Uddin M., *et al.* Status of elderly people of Bangladesh: health perspective. *Proc. Pakistan Acad. Sci.* 47.3 (2010): 181-189.
7. Kabir ZN., *et al.* "Mini Nutritional Assessment of rural elderly people in Bangladesh: the impact of demographic, socio-economic and health factors". *Public Health Nutrition* 9.8 (2006): 968-974.
8. Oyunkhand R., *et al.* "Nutritional status of Mongolian elderly". *Asian J Gerontol Geriatr* 6.1 (2011): 42-6.
9. Yassin Z and Terry RD. "Anthropometric characteristics of rural elderly females in Malaysia". *Ecology of Food and Nutrition* 26.2 (1991): 109-17.

10. AS Faruque., *et al.* "Anthropometric characteristics of elderly people: observations at a large diarrheal hospital in Dhaka, Bangladesh". *The Southeast Asian Journal of Tropical Medicine and Public Health* 37.4 (2006): 784-792.
11. Kikafunda JK and LukwagoFB. "Nutritional status and functional ability of the elderly aged 60 to 90 years in the Mpigi district of central Uganda". *Nutrition* 21.1 (2005): 59-66.
12. Wojszel ZB. "Determinants of nutritional status of older people in long-term care settings on the example of the nursing home in Bialystok". *Advances in Medical Sciences* 51.1 (2006): 168-173.