



Assessment of Knowledge Level and learning Interest of Old People Regarding Dietary Modifications as a Need of Ageing

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ABSTRACT

Background: Old age is a stage of physical degradation but at the same time reaching mental stability and mature thinking which naturally occurs after 60 years. An integrated efforts on modification in diet and lifestyle can delayed the geriatric changes and prevent them from environmental stress and various metabolic diseases. So that they should have knowledge regarding their changing dietary need and well aware from protective measures of fitness with ageing even on poor economic condition.

Objective: To assess the knowledge level regarding their changing dietary adequacy as suggested by ICMR. To assess their learning interest on nutrition intervention.

Methods of investigation and Design: A cross- sectional study was carried out on purposive a d randomly selected, 600 lower economic old age people from rural of Saharanpur district. The dietary pattern were assessed by 24 hours recall in dietary survey compare it from dietary recommendations for elders given by (ICMR). The knowledge regarding need of changing dietary and life style pattern and learning interest were assessed by interview schedule through a structured questionnaire.

Results: On the status of dietary knowledge, among 83% old age respondents scored for very low level, 8.33% with low level, 5.66 % medium level and but 3.01% respondents found with good level of awareness towards their dietary changes with ageing. Only 20.5 % elders were found to be highly interested to participate in nutritional intervention for learning the essentials for good health and wellness on ageing.

Key words: Dietary pattern, nutritional intervention, dietary modifications, learning interest.

Introduction:

In human life cycle the old age has been > 60 years, as determined by WHO. It's a matter of conflicts that what age should be considered in old age, in many developed countries. But under the scientific study of geriatric condition, in the area of gerontology, it determines some commonly accepted ways to define "old age". These changes are much able to worsen the physical health of a person during ageing. As the reduction in lean muscle mass and thereby basal metabolic rates the energy need of body decreases. All the micro-nutrients are then required in decreased amount and micro-nutrients in increased amount accepted sodium. Apart from essential nutrients some functional and medicinal foods those have some bio-active compounds work for maintaining the body functioning and fitness in this old age are needed to delay the consequences of ageing. Some of these foods contain antioxidants bio-active compounds as generally as some vitamins such as C, E and A and some minerals like selenium containing in food. The decline secretion of oestrogen level in post-menstrual state of women during ageing this may promote belly fat storage leads pear shaped obesity. This hormonal imbalance promotes also the reduction of calcium from bones and teeth (inhibit calcification). Calcium absorption is also reduced from intestine with iron and vitamin B12 due to destruction of cells releasing the gastric acid.

All these changes can possess the nutritional deficiencies and their consequences and metabolic changes makes them very prone to have a manifestation of degenerative diseases as well as infection due to decline immunity of the body. Especially in poor economic condition when the elders are ignored self health and nutritional care. Ageing can be enjoyed when the old people of their family members are aware properly to dietary modifications and life style change even in low income or limited purchasing power.

Methodology:

A cross sectional study was designed to imparting nutritional awareness among the old age peoples.

Sampling: The purposive and random sampling techniques had adopted to select 600 (300 male and 300 females) old age respondents of low income group from rural region (5 selected blocks) of Saharanpur district. Low socioeconomic group (LIG) had an inclusion criterion and the socioeconomic scale (SES) given by B. G. Prasad (2019) was used for that.

Data Collection: Suitable methods and tools has been used in study. The demography and dietary survey were carried out with the help of questionnaire to investigate their dietary pattern in ageing induced naturally changing

physical status and know the nutritional knowledge and practices. A structured questionnaire also used to know their learning interest on nutrition intervention when it provides them.

Data Analysis: The statistically analysis was made from Excel Microsoft using mean, percentage, correlation coefficient, chi Square and t test.

Results:

After collection and analysis of obtained data, results were found and diagrammatically presented and discussed in following manner:

1. From demographic investigation:

Age and education are most important variables which affects to determine the attitude and practices with setting of confidence for decision making. The distribution of old age respondents on their demographics are showing in table number 1.1 and 1.3.

1.1 Age group: Age group wise distribution shows that maximum (53.5%) were found from 70 – 80 years age group. Most (58%) of the females found from this age group, although the ratio showed highly significant difference at 0.001 level between male and females on the age group > 80 years age group, as on total 46 respondents: 37 (80.43%) were females in this age group. The reasons behind this most of the females were come to interact with researcher during investigation. It maybe dignified that > 80 years life expectancy is high in females, because most of the females were found to be single in age group > 80 years, as stated by WHO (2002) and health arthritis of many nation.

Table no. 1.1 Gender wise age group classification of old age respondents

Age group (years)	Male (N = 300)		Female (N =300)		Total		P value
	N	Percent (%)	N	Percent (%)	N = 600	Percent (%)	
60 - 70	144	48.0	89	29.66	233	38.83	0.0043
70 - 80	147	49.0	174	58.0	321	53.5	0.046
>80	09	3.0	37	12.33	46	7.66	0.001*
Total	300	100.0	300	100.0	600	100	

*significant at 5%

1.2 Marital status of respondents: It is presented in table no. 1.2 that maximum old age respondents (48.16%) had their spouse followed by 28% widow and 11.33 % were found to be widower. 11 % females had divorced which found only 1.5 % in males. The present reveals has been supported by the findings of **Taheri M. et al. (2013)** as they found maximum 54.1 % elderly with their spouse in marital status, but only 1.8 % found in single or divorced condition in their research study. Whereas 11 % females and 1.5 % male had divorced or single marital status among the LIGs old age people of the rural Saharanpur district in present research.

Table no. 1.2 Marital status of old age respondents

Marital status	N = 600	Percentage (%)
Living as couple/ with spouse	289	48.16
Single male/ divorcee	09	1.5
Single female/ divorcee	66	11
Widow	168	28
Widower	68	11.33
Total	600	100

1.3 Educational status: Table no. 1.3 reveals that about 50.33 Percent respondents were found to be only primary to middle class level of education, followed by 21.83% from high school to intermediate and only 14.5% had higher education. Whereas 13.33 percent were illiterate on this status. Education makes the people's attitude towards the living pattern in all aspects of life including health and nutrition.

Table no. 1.3 Educational status of old age respondents

Educational level	N = 600	Percentage (%)
Illiterate	80	13.33
Primary to middle	302	50.33
High school to intermediate	131	21.83
Higher education	87	14.5

2. Awareness Status of old age respondents regarding changing dietary need for wellness in ageing:

Table no.2 shows that the awareness of elderly regarding nutritional care during ageing as prevention to combat ageing induced deficiency and degenerative diseases. The 5 aspects of nutrition were selected to instigate their consciousness and each aspects consists 5 questions in structured questionnaire and had a maximum score 10, so that on 5 aspects it 50 maximum scores. The gained scores then categorized in different levels. The mean scores of total population was 19.83 and males scored 20.8 and females gained 19.3 score. A significant difference has

been found between awareness level on two group. On the basis of gender, the mean scores were found highly significant at 5% level on 2 and 5 aspects of nutrition.

Table 2. Knowledge level of respondents about nutrition for healthy ageing

Status of awareness on different aspects of nutrition for healthy ageing (Maximum scores of each aspect = 10)	Mean scores (Maximum Score = 50)		P Value
	Male (N=300)	Females (N=300)	
About balancing the diet through reducing calories & increasing micro-nutrients in daily diet with textural modifications. (1)	3.79	3.5	0.025
Inclusion of diversified form on seasonal fruits and vegetables with low cost oil seeds. (2)	4.63	1.45	0.002*
Inclusion of functional medicinal foods and suggested recipes in proper amount and proportion in daily diet specially for healthy ageing.(3)	3.22	3.19	0.62
Maintaining kitchen hygiene and cleaning with good practices at home. (4)	5.44	5.33	0.064
Follow up an active life style with some laughing exercises, yoga and mediation avoidance of alcohol, tobacco and other narcotic agent. (5)	3.72	5.83	0.003*
Total	20.8	19.3	0.023

* significant at 5%

3. Status of learning interest of old age respondents on nutritional intervention:

Table no. 3.1 indicates that the level of learning interest for active participation in formulated Nutritional intervention programme was investigated according to age groups. It was found that the learning interest and age groups has inversely proportion as age increases the learning interest of people has decreases. Most (41.33) of the old age respondents were showed their poor interest followed by 38.16% showed moderately and minimum 20.5 % had highly interest towards learning. Among the highly interested most of them found from 60 – 70 years age group.

Table no. 3.1 Age group wise level of interest for learning nutrition care for healthy ageing

Age groups (year)	Level of learning interest of old age respondents (N=600)			Total N = 600
	Not interested N (%)	Moderately N (%)	Highly N (%)	
60 – 70	32 (13.73)	89 (38.19)	112 (48.06)	233 (38.83)
70 – 80	172 (53.58)	138 (43.30)	11(3.42)	321(53.5%)
>80	44 (95.65)	02 (4.3)	0 (0.0%)	46 (7.66%)
Total in level of interest	248 (41.33)	229 (38.16)	123 (20.5) =	600

Table no. 3.2 learning interest of respondents on different aspects of nutrition intervention: Table no. 3.2 revealed the most likely to be learn message from selected aspects of nutrition among the respondents those were highly interested to learning by elders were message no.-3 (by 47.15 % elders) , followed by no.-1, 2 and 4 by 29.26 % , 17.07% and 6.50% elders respectively. No any interest of learning had showed on aspect no. 5 by elders.

Table no. 3.2: Interest of learning on different aspects of nutrition and health care showing by elderly

Imparting Nutritional knowledge for wellness in ageing	Learning interest of old age respondents (N=123)	
	N	Percentage (%)
To balancing the diet through reducing calories & increasing micro-nutrients in daily diet with textural modifications. (1)	36	29.26
To inclusion of diversified form on seasonal fruits and vegetables with low cost oil seeds. (2)	21	17.07
To Inclusion of functional medicinal foods and suggested recipes in proper amount and proportion in daily diet for healthy ageing.(3)	58	47.15
To Maintaining kitchen hygiene and cleaning with good practices at home. (4)	08	6.50
To adopted active life style with some laughing exercises, yoga and mediation avoidance of alcohol, tobacco and other narcotic agent. (5)	0	0.0

Conclusion:

The results of the study have been concluded that among the old age respondents most of them from 70 – 80 years as most of the females founded from this group and from > 80 years. Most of them were living with spouse in their marital status. The level of awareness was scored very poor on almost all the selected aspects in pretest exposure. The learning interest was found very poor among them in oldest age group (>80 years). But 20.5% elders showed their highly interest in learning, especially on nutritional recipes preparation with functional and medicinal foods. The elders from 60 – 70 years were showed their high interest whereas > 80 years had no interest. Therefore, it is suggested to policy makers that very special nutrition intervention programme should be formulate for elderly with inclusion of their family members necessarily, who give them care. All the messages should be include as the interest of elderly to imparting the nutritional knowledge to attract their interest in learning. Because healthy ageing is an integrated part for improving the quality of their life of elderly.

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