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Health Profile of Urban and Rural Aged Population in Hills of North India

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Abstract: **Ageing is a process whereby deterioration in the body functions takes place and the capacities of the aged to carry on certain functions or the day-to-day routine activities also start declining. The resistance decreases and vulnerability to catch infections and other ailments increases. It is therefore assumed that ageing, morbidity and health status of the aged are inter-related with each other. The concern for the health of the aged also arises due to the fact that there is a definite relationship between the health needs and costs. A sample size of 150 was selected for conducting this study in rural as well as urban elderly population and the study is based on door to door data collection with the help of a suitable questionnaire. Various disorders precipitating body break down include acute illness like pneumonia, heart disease, bone fractures etc. The data on the mental health indicate that a large number of aged suffer from anxiety (18.07 percent), depression (15.66 percent), sense of alienation (12.19 percent) insomnia (14.66 percent) and feeling of ill tolerance/irritation (11.74 percent). The physical health problems of permanent type in the senior citizens in rural areas include arthritis, asthama, loss of eye sight and loss of hearing and about 62 percent suffered by these problems. Further, about 52.62 percent of urban population go to government dispensary and primary health centre whereas; one third of the total tries self medication. On the contrary, almost 50 percent of the respondents in the rural sample experiment self medication or treatment through local techniques. With regard to hospitalization when suffering from permanent health problems, the data suggest that only 23 percent were hospitalized. The rural-urban differences indicate more number of rural senior citizens hospitalized in comparison to urban senior citizens.**

Keywords: **Ageing, deterioration, morbidity, acute illness, hospitalization, self medication.**

1. INTRODUCTION

India is a country having the second largest population in the world. According to Warbhe and Warbhe (2015), almost 506 million population age above 65 years was present in all over the world which was 7% of the global population and predicted to be almost doubled means 14% in year 2040 and the share of India's population aged 60 and older is projected to climb from 8% in 2010 to 19% in 2050 (Leon 2012, UNPD 2011). In India, the elderly covered around 7% of the total population, of which 66% live in rural area and nearly 50% of them in poor conditions (Lena et al 2009). At the age of 60 years, the life expectancy has increased from 13.5 to 17.5 years in rural areas and from 15.7 to 19.1 years in urban areas (Central Statistics 2016). Like other Indian states, Himachal Pradesh, a hilly state of North India is witnessing a progressive increase in proportion of aged people from 8% in 2001 to 10.2% in 2011 (MOSPI 2012; ww.agewellfoundation.org). Hence, the health status of the elder population has a significant impact on the well-being of the country. Hence, the appropriate inclusion of all categories of food in diet needs to be taken care of. Since nutrition of the elderly affects immunity as well as functional ability, it is an important component of elderly care that warrants further attention (Lesourd 2004). Older population has grown up due to advancement in health services; literacy status and economic development. Increasing life expectancy and poor health care leads to increase in disability among the old age

resulting in poor mobility, vision, hearing, inability to eat and digest food properly, a decline in memory, the in ability to control certain physiological functions and various chronic conditions (Lena et al (2009); Harris and Grootjans (2012); Subaiya and Dhananjay (2011); Pandve and Deshmukh (2010) and Bhatia et al (2007). Higher burden of non-communicable diseases also seen in old age in the coming decades (Thakur et al 2013).

Nutrition plays an important role as a determinant in contributing to the well being and quality of life of an individual. Health and well being of any individual depend on various factors like physical, social, psychological and nutritional factors. According to Genuis (2005), the ailments like hyper-insulinaemia, hypertension, dyslipidaemia, CHD and type 2 diabetes are now common. Nowson (2007) also enlisted some of the nutritional challenges faced by the elderly like unintentional weight loss, chronic illnesses, increased protein, calcium and vitamin D requirements and reduced energy requirements. Payette (2000) conducted study to assess the role of nutrition status on 288 elderly participants and reported weight loss, limited capacities and reduced functional capability in elders with health and functional status. Swami et al (2005), carried a survey study in Northern India and assessed obesity among elderly participants and found 33 percent elderly to be overweight, 8 percent obese and 14 percent underweight. The study on malnutrition among the rural elderly about 14 percent was malnourished and 49 percent were at a risk of malnourishment (Vedantam et al. 2009).

2. MATERIAL AND METHODS

The methodology in social sciences refers to the conceptual and procedural aspects of the research problem. It is obvious from the foregoing discussion on the research problem, the hypotheses and the objectives that the present study is comparative in nature focusing on the life of elderly people in the rural and urban areas. The present study on the emerging problem of ageing conducted in the context of Himachal Pradesh, which constitutes a peculiar socio-cultural setting, is a beginning, as to the best knowledge of the researcher there does not exist any such study on the elderly in district Shimla. In this way, the study first attempts at exploring the problem, its extent and magnitude. It is in the light of the empirically observed facts that it would describe and explain the health problem of ageing in the hilly areas.

The present study is conducted in rural and urban areas of Himachal Pradesh, a hill state located in the north-west Himalayas. It is difficult to cover all the areas as most of these do not qualify in terms of the need of the study. Therefore, the study is restricted to Shimla urban and rural having approximately 20,437 and 13,393 families respectively. The total population of the elderly in urban and rural Shimla, according to the informal tentative estimate is around 13818. The city of Shimla being the only class I urban area of the district as well as the state, it became the rational choice. Within the city Sanjauli area was further selected for the purpose of field work. The possible number of the elderly was identified on the basis of the voters' lists which carried village-wise information on the male and females with their age. In this way a sample of 300 elderly was chosen for the study by giving 50 per cent representation to rural and urban areas. The random sampling procedure was used to contact the elderly population.

The data for the present study was collected by carrying out field work. In the selected development blocks and villages within these blocks. The data were collected through primary sources. The data was collected with an interview scheduled designed keeping in view the hypotheses and objectives of the study. Since structural variations i.e. the social and economic status of the elderly is found to be crucial in determining their life style and life chances. The schedule consisted of both open and closed ended questions based on variables on dietary patterns, social, psychological and health problems faced by the aged. Lastly, the questions pertained to in what way the ageing population can become self-reliant rather than dependent on others by contributing to family through work participation and its seizure activities. The data collected was coded and all the qualitative information was transformed into quantitative data. The entire data were processed in accordance with the need of each objective of the study.

3. RESULTS AND DISCUSSION

Ageing, as has been noted above is a process and the aged do not constitute a homogenous category. They are classified into three different categories namely active (60-70 years), passive (71-80) years and dependent (81years and above) ageing. It provides insights into the age specific needs of the ageing population in a given society. There were totally 450 individuals belonging to the age group of ≥60 years during the study, out of which 300 (rural+ urban) individuals responded to the questionnaire for the present study. Other elderly were unable or refused to respond.

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Table 1: Socio-Demographic characteristics of elderly residing in rural and urban areas of Himachal Pradesh (n=300)

Characteristics	Category	Frequency					
		Rural	Percentage	Urban	Percentage	Total	Percentage
Age group (in years)	60-70	101	67.34	114	75.99	215	71.66
	71-80	39	25.99	20	13.34	59	19.67
	81 and above	10	6.67	16	10.67	26	8.67
	Total	**150**		**150**		**300**	
Gender	Female	68	45.33	59	39.33	127	42.33
	Male	82	54.67	91	60.67	173	57.67
	Total	**150**		**150**		**300**	
Education	Illiterate	96	64.00	41	27.33	137	45.67
	Primary	37	24.66	24	16.00	61	20.33
	Higher secondary	4	2.67	26	17.33	30	10.00
	Graduate/post graduate	13	8.67	59	39.34	72	24.00
	Total	**150**		**150**		**300**	
Occupation	Unemployed	52	34.67	38	25.33	90	30.00
	Employed	8	5.33	34	22.67	42	14.00
	Agriculture	79	52.67	16	10.67	95	31.67
	Self employed/pvt	11	7.33	62	41.33	73	24.33
	Total	**150**		**150**		**300**	

Table 1 shows the socio-demographic characteristics of the study participants. Among 300 individuals interviewed, majority 173 (57.67%) were males. The age of the study participants ranged from 60 to 81 years or above and the majority 215 (71.66%) were in the age group of 60–70 years. Further, the education among participants, a major group of 137 (45.67%) had no formal education irrespective of rural or urban background with a highly educated group of 39.34% in urban area. It is evident from the data presented in Table 1 that agriculture is the major occupation of population residing in rural areas 52.67% whereas the aged peoples residing in the urban areas are more dependent on private sector of self employment. But a huge group of 30% in total is unemployed which is the major problem and causing socio-economic imbalance in the rural as well as urban areas of the state.

The income-wise distribution of the respondents in rural and urban comparison further indicates that 65.33 per cent of the spouses and 14.66 per cent of the males in the urban areas are placed in similar situation. In the case of rural areas 55.33 per cent of the spouses and 16.66 per cent of the respondents are placed in the no income categories.

Dietary habits and nutritional status

The physiological dilemma of the old people is that they need balanced and nutritious diet to sustain their body functions. But their declining digestive capacities, morbidity conditions do not allow them to eat beyond certain limit and particular type of food items. But the diet remains an important aspect of the life of the ageing people as it is the source of energy to the body and supports the sustenance of life. It is a proven fact, as it has been emphasized in many studies. Bagchi (1999) on the basis of their studies argue that the significance of the diet is undoubtedly very high in the case of aged. It is further stated that there is certain type of food excess of which considerable amount is potentially injurious to health of the people in general and the elderly in particular. The various items included in such type of tools are excess of fat, carbohydrates and salt. Diet per serve is not only significant but also to be regulated for the maintenance of the health of ageing human beings and especially those who have some illness or disorder.

The diet besides being a bodily conditioned need is also a social and cultural phenomenon. In this part of the country this is a socially accepted and culturally advocated norm that the diet must include pure ghee (butter oil) and butter. The staple food of the people in general is constituted by wheat, maize and rice in the north-western states. The data (Table 2) on consumption of staple foods shows that the wheat and rice are consumed by all the respondents as 99 percent of the respondents consume it and only a few gets inadequate quantity, however, the maize is consumed by almost 50 percent of the respondents in the rural as well as urban areas. The data therefore suggest that the rural population consumes more

maize than the urban population. The consumption of rice in comparison to wheat is slightly less than that of wheat (Table 2). However the urban based respondents in this category are more than the rural respondents. This is also due to the fact and as also said earlier rice and wheat constitute staple food for the people.

Table 2: Dietary habits (routine) and nutritional status of elderly residing in rural and urban areas of Himachal Pradesh (n=300)

Dietary habits	Category	Rural	Percentage	Urban	Percentage	Total	Percentage
Wheat Chapatti	No intake	-	-	-	-	-	-
	Inadequate	3	2.00	4	2.64	7	1.17
	Adequate	147	98.00	146	97.36	293	98.83
	Total	**150**		**150**		**300**	
Maize Roti	No intake	88	58.66	54	36.00	142	47.33
	Inadequate	11	7.33	12	8.00	23	7.66
	Adequate	51	34.00	84	56.00	135	45.00
	Total	**150**		**150**		**300**	
Rice	No intake	7	4.66	13	8.66	20	6.66
	Inadequate	0	0	11	7.34	11	3.67
	Adequate	143	95.34	126	84.00	269	89.67
	Total	**150**		**150**		**300**	
Vegetables	No intake	5	3.34	1	0.66	6	2.00
	Inadequate	46	30.66	5	3.34	51	17.00
	Adequate	99	66.00	144	96.00	236	81.00
	Total	**150**		**150**		**300**	
Milk	No intake	68	45.33	31	20.66	99	33.00
	Inadequate	0	0	15	10.00	15	5.00
	Adequate	82	54.67	104	69.34	186	62.00
	Total	**150**		**150**		**300**	
Meat	No intake	46	30.67	89	59.33	135	45.00
	Inadequate	14	9.33	22	14.67	36	12.00
	Adequate	90	60.00	39	26.00	129	43.00
	Total	**150**		**150**		**300**	
Egg intake	No intake	116	77.34	99	66.00	215	71.67
	Inadequate	2	1.33	5	3.33	7	2.00
	Adequate	32	21.33	46	30.67	78	26.33
	Total	**150**		**150**		**300**	
Chicken (Broiler)	No intake	106	70.67	96	64.00	202	67.34
	Inadequate	5	3.33	24	16.00	29	9.66
	Adequate	39	26.00	30	20.00	69	23.00
	Total	**150**		**150**		**300**	

Pasricher and Timmay (1997) advocated balanced diet for the elderly. It is argued that dietary habits which help in the maintenance of good health should be incorporated in the diet charts of the elderly people. The balanced diet includes light, digestible and nutritious food items. Sachdeva (1994) developed dietary strategies for promoting healthy ageing and disease prevention among the ageing population.

A variety of seasonal vegetables and fruits are generally considered protective against disease. The people rely more on vegetarian food. This includes seasonal vegetable and the number of rural respondents is higher than the urban respondents. The majority of respondents (81 per cent) comprising more than 96 percent of urban and about 66 per cent in rural areas consume vegetable every day. The data thus indicate that the consumption of vegetable is much higher in urban areas in comparison to rural areas. The non-consumers might be because of low income or other socio economic conditions. It is therefore recommended and suggested that balanced diet and regular physical exercise, relaxed mind and

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positive attitude are essential for maintaining optimum health. Vijayalaxmi and Chittemma (1988), Thimmayamma (1993) and Mehta and Shringarpure (2000) also lay stress on diet, nutrition and health profile of the elderly populations. This is also argued that socio demographic factors have considerable influence on the diet, nutrition and health profile of the ageing population. In almost all the studies it is suggested that the diet to be taken by the elderly population must include vegetables, fruits, fibers complex, carbohydrates, non or low fat meat, fish etc. It is also proposed that higher the degree of simplicity of food lowers is the risk factor involved as for as the health of the elder population is concerned.

Further, the consumption of milk is found among two third of the aged respondents. The data (Table 2) indicate rural-urban differential among the daily consumers as well as non-consumers. Among the daily consumers of milk the urban respondents number almost three-forth in comparison to rural respondents, who number only 83.00 percent.

The data (Table 2) further indicates that more than two third of respondents do not take egg, the rural respondents constitute 77.33 per cent and urban are 66 per cent. The daily consumers of egg are only 15 percent. In the food intake, egg is one of the common used proteins, but the intake of egg is also governed by religious consideration. However in the case of ageing population egg sometimes is not advised as it adds to cholesterol level there by leading to hypertension. The other component of food is consumption of chicken or broiler. Since chicken is costly item, its consumption every day by respondent is very limited, rather negligible. However 22.33 percent respondents mentioned consumption of chicken on alternate days. Among them the number of rural respondents is higher in comparison to urban respondents. It is also observed that meat being high fat item is consumed more than chicken in hilly regions due to climatic reasons. This is particularly in the case of rural areas. In comparison to consumption of eggs and chicken only 45 percent are non consumers of meat among the aged. The above observations reveal that the consumption of non-vegetarian food is limited.

Table 3: Dietary habits (modern supplements) and nutritional status of elderly residing in rural and urban areas of Himachal Pradesh (n=300)

Dietary habits	Category	Rural	Percentage	Urban	Percentage	Total	Percentage
Butter intake	No intake	12	8.00	35	23.33	47	15.66
	Inadequate	4	2.66	13	8.67	17	5.67
	Adequate	134	89.34	102	68.00	236	78.67
	Total	**150**		**150**		**300**	
Jam/Jelly	No intake	137	91.34	82	54.67	219	73.00
	Inadequate	2	1.33	6	4.00	08	2.66
	Adequate	11	7.33	62	41.33	73	24.34
	Total	**150**		**150**		**300**	
Honey intake	No intake	105	70.00	100	66.67	205	68.34
	Inadequate	2	1.33	12	8.00	14	4.66
	Adequate	43	28.37	38	25.33	81	27.00
	Total	**150**		**150**		**300**	
Cheese	No intake	52	34.66	17	11.33	69	23.00
	Inadequate	14	9.34	50	33.33	64	21.33
	Adequate	84	56.00	83	55.33	167	55.67
	Total	**150**		**150**		**300**	
Juice/Fruit Beverage	No intake	84	56.00	140	93.33	224	74.66
	Inadequate	18	12.00	4	2.67	22	7.34
	Adequate	48	28.32	6	4.00	54	18.00
	Total	**150**		**150**		**300**	
Soup	No intake	141	94.00	60	40.00	201	67.00
	Inadequate	1	0.66	17	11.33	18	6.00
	Adequate	8	5.33	73	48.67	81	27.00
	Total	**150**		**150**		**300**	

The consumption of butter as part of diet taken by the aged people indicates differential patterns. There are two aspects of butter consumption; one pertains to affordability the other refers to avoidance. The data evidence that 15.66 percent of the total senior citizens (8.00 percent in rural and 23.33 percent urban) do not consume butter (Table 3). The senior citizens who take butter daily are more in urban areas than the rural areas. However in the case of those taking butter on alternate days number more in rural areas (51.33 percent) in comparison to urban areas (24.00 percent). The data further indicate that the 73 percent elderly in both rural and urban areas do not take modern supplements like jam etc. But on the basis of data this is also clear that the elderly who do not show their interest in such food are found more in rural areas than the urban areas.

Further, the distribution of rural and urban elderly on the basis of honey intake is also differing from each other. The majority of elderly who do not take honey are more in rural area (70 per cent) then the urban area (66.66 percent) having non-significant difference (Table 3). The elderly who take honey on alternate days are more in rural area (28.66 percent) than urban area (18.00 per cent). Primarily a milk product, cheese provides protein to the body. Since this is also costly item as many as 23 percent of the ageing respondents stated they do not consume it. In the case of daily consumers of cheese a very small percentage of the aged fall in this category.

The data on the consumption of juices indicate almost three-fourth of respondents not consuming juices. Among them the number of rural respondents is 93.33 percent whereas the urban respondents constitute 56 per cent. It therefore implies that the consumption of juices is found more in urban areas (Table 3). Similarly the consumption of soups is also quite limited only to one third of the respondents. Among the non consumers the percentage of rural respondents is 94 percent and that of urban is only 40 percent. This implies that 60 percent of urban respondents supplement their food with soups.

4. CONCLUSION

The intake of non-vegetarian food is not much is comparison to vegetarian food. The food intake is also governed by religious consideration and sometimes non-vegetarian diet is not advised as it adds to cholesterol level there by leading to hypertension. The modern food items like jams, juices, soups etc. are also consumed but their frequency is not very high in rural areas. Moreover, such items are found more of urban consumer items. The consumption of nutritional rich food is more in urban areas and now the rural peoples are also becoming aware about the dietary patterns and consuming foods with better nutritional qualities. On the whole the dietary patterns reveal rural-urban variations.

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