

Social and Demographic Characteristics of Elderly and their Lifestyle in Developing Countries: On the Example of Uzbekistan

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Abstract

Background: Elderly people have a variety of medical problems and functional limitations. Most older people experience multiple chronic illnesses as they age, which is one of the reasons for reducing of their physical activity. Undoubtedly, one of the ways to prevent the occurrence and exacerbation of chronic diseases is to maintain a healthy lifestyle, which increases the period of active life and helps support physical activity.

Method: We used a random selection method to obtain reliable and representative data: cluster and stratified selection. In Tashkent city, we selected 2 clusters out of 11 clusters, where the proportion of elderly and senile people was the highest and 674 elderly were included into the research; in the Tashkent region 3 clusters were selected, and 473 elderly were included to our sample. Our sample was divided into 3 social categories: the first category included lonely elderly people living alone in their apartments in the amount of 310 people, the second one included lonely elderly people living in nursing homes for the elderly, in the amount of 240, and the 3rd category included elderly people living with their families, in the amount of 597 people. In order to assess the respondents' lifestyle, we studied their daily routine, dietary regimen and nature, leisure, bad habits and physical activity.

Results: Married respondents were 2.1 times more among elderly living with their families, and 5.7 times more among elderly living alone in their apartments compared to elderly living in nursing homes. Lonely elderly of "middle-old" age are in more difficult state due to significant proportion of this age-category suffer with various disabilities. It is found out that most respondents of the research do not pay proper attention to a balanced diet. Every second elderly person in our study suffered with obesity and had an increased body mass index (BMI: 25.1<). More than half of the respondents (54.6 + 3.2%) from nursing homes smoked tobacco products 3 times more than those living with their families. Alcohol consumption among older people living in nursing homes was 6 times higher compared to older people living with their families. With an increase of the age, the number of elderly engaged in any kind of physical exercise decreased sharply.

Conclusions: The study and analysis of the socio-demographic characteristics and lifestyle of elderly in Uzbekistan revealed that divorce and loss of spouse are negative factors, whereas the presence of a family and the residence of elderly with relatives have a positive impact on their lifestyle and, accordingly, on their health status.

Keywords: Loneliness, elderly people, nursing homes, lifestyle, living conditions, bad habits.

Introduction

The group of elderly patients with multiple chronic diseases is growing around the world¹³. On average, there are 2 or more chronic diseases for one elderly patient⁷, while elderly patients experiencing the most sense of loneliness might have 5-6 chronic diseases¹². Polymorbidity, defined as the presence of two or more long-term health conditions, tends to increase with age¹. These health conditions are currently not treatable, but can be controlled with medicines or other treatments³.

Numerous studies indicate that smoking increases the risk of coronary disease and death from cardiovascular diseases in people over 60⁹. In another hand, the alcoholism of the elderly is frequently observed phenomenon that causes significant harm to the health of this category of population. According to research, factors associated with excessive drinking in older people are male gender, social isolation, loneliness, and divorce¹⁰. Some studies have shown a correlation between alcohol abuse and serious somatic diseases, a decrease in self-esteem of one's health, a large number of visits to the doctor², a greater frequency of depressive symptoms, a decrease in social contacts and, as a consequence, a decrease in the quality of life¹¹.

Malnutrition and dehydration in older people leads to an increase the number of falls, the vulnerability to infections, the loss of energy and mobility, the poor healing of wounds, and the confusion. In nursing homes, the low body mass index (BMI) of dwellers is associated with a lower quality of life⁴.

This study helps to understand the social and demographic characteristics of older people in Uzbekistan and their lifestyle, and could be useful in designing measures to protect and strengthen health of elderly in the other low- and middle-income countries.

Method

The objects of the study were people of retired age living in the Tashkent city and the Tashkent region: elder people living alone in their apartments (310), were considered as a 1st social category, elder people living in nursing homes (240), were considered as a 2nd social category, and elderly people living with their families (597), were considered as a 3rd social category. A total of 1147 elderly people composed our sample.

The subjects of the study were the social and demographic characteristics of elderly people and their lifestyle.

The lifestyle of elderly was studied by using a sociological research method through the conduction of a survey-interview. All data was entered in the "Elderly Lifestyle Study Questionnaire".

According to the WHO age classification, people aged 60-74 years old are elderly, 75-89 years old are senile, and over 90 years old are centenarians. We took these age periods into account when dividing our research object into the age groups.

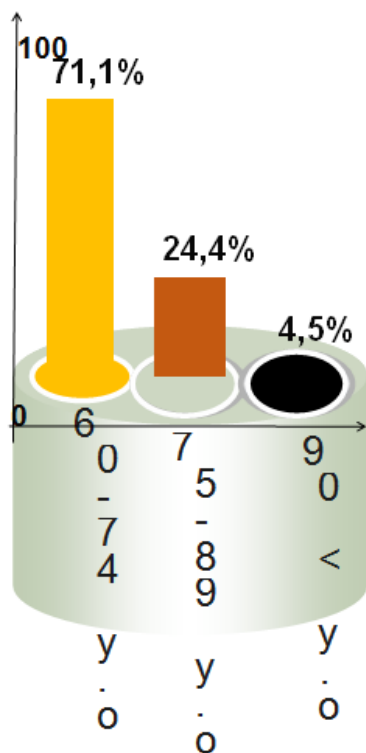
We studied living conditions, daily routine, dietary regimen and nature, leisure, bad habits and physical education along with assessment lifestyle of respondents. Elderly people were asked also about the amount of hot food consumption per day and its character to assess the regimen and nature of nutrition. A special place was given to determining the BMI of the elderly, the amount of consumed meat per week, the number of raw vegetables and fruits served on average per week. During the study the smoking status of respondent (smoker, former smoker, did not smoke at all), the frequency and types of smoked tobacco was clarified. Moreover, the alcohol consumption, its frequency and the amount of a standard dose of consumed alcohol over the past month was also specified to assess their bad habits. All respondents were asked about the performing physical training, its nature (high-intensity, medium-intensity, and low-intensity), frequency and duration of each leisure activity.

The interview data and medical records were transformed into an electronic database - MS Office Access 2018, which was then exported to the IBM SPSS Statistics version 20 statistical package. Relative and average values were calculated with the calculation of mean error (m), confidence coefficient (t) and error probability (R). To conduct the study, the approval from the National Ethics Committee of the Ministry of Health of the Republic of Uzbekistan was obtained. After familiarizing the respondents with the goals and objectives of our study, they filled out the consent to participate in this scientific work.

Results

Analysis of the social and demographic data of our sample showed that the average age of the examined individuals was 72.5 ± 1.6 years. The distribution of our sample by age groups was carried out according to WHO criteria, the group of elderly, from 60 to 74 years old, the group of senile, from 75-89 years old and the group of centenarians, from 90 years and above. A large

proportion of the respondent was in the age group of the elderly (71.1%) and a smaller proportion was in the age group of centenarians (4.5%) (Fig. 1)

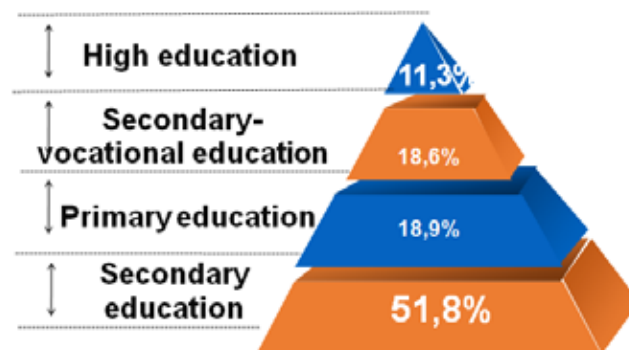


Picture 1. Age structure of respondents

The interesting data was observed in general distribution of the sample according to their social categories; in the category of lonely elderly people living alone in their apartments, 3.4 women corresponded to

one man, and in the category of elderly people, living with their families, 2.4 women, whereas in the category of elderly living in nursing homes, this ratio was reversed with almost 2 times more men corresponding to one woman.

Most of the respondents had a secondary education, however, it should be noted that the largest proportion of elderly people living in nursing homes were people with primary education (31.7%). (Fig. 2)



Picture 2. Distribution of respondent's education level

In the structure of marital status elderly people who interpreted their condition as "widowhood" (40.5%) were dominated. Married respondents, among elderly living with their families, were 2.1 times more than elderly living in nursing homes and 5.7 times more than lonely elderly living alone in their apartments (table 1)

Table 1: Distribution of family status of respondents according to their social categories (in %)

Marital status	Social categories			Total
	1 st Category	2 nd Category	3 rd Category	
Married	9,7±1,6	25,8±2,8	55,1±2,0	35,7±1,4
Divorced	10,6±1,7	31,2±2,9	11,1±1,2	15,2±1,06
Never married	23,2±2,3	7,9±1,7	1,2±0,3	8,6±0,8
Widows/widowers	56,5±2,8	35,1±3,0	32,6±1,9	40,5±1,4
Total	100,0	100,0	100,0	100,0

It is noteworthy that there were almost 3 times more divorced elderly in nursing homes than among the 3rd social category, i.e. elderly living with their families¹¹. This, which may be due to two reasons: firstly, in older generations, divorce and widowhood are an unpleasant and negative factor that lead to loneliness; secondly,

according to various studies, the presence of a family is one of the factors that have a positive effect on the residence of the elderly in around of relatives and, naturally, on life expectancy¹⁰.

It should be noted that lonely elderly are in the most

difficult situation, because a significant large proportion of these people have various disabilities. Unfortunately, the largest proportion of elderly is in the senile age group, which amounted to 63.8%.

The study of the composition of the social status of the participants in our sociological survey showed that 2/3 of them (65.0% + 1.4%) were non-working pensioners, disabled people of the groups I, II and

III, composed respectively, 0.53%, 13.5% and 3.8%. Working retirees accounted for only 3.7%.

The social position in the context of social categories is significantly varies. It is important to note that in the 1st social category, people with disabilities of the groups I and II were mostly observed, whereas, in the 3rd social category elderly people had II and III disability groups. There were no persons with disabilities of the group III in the 1st and 2nd social categories (table 2).

Table 2: Distribution of social status of respondents according to their social categories (in %)

Social status	Social categories			Total
	1 st Category	2 nd Category	3 rd Category	
Disabled of the I group	12,9±1,9	0,84±0,5	-	0,53±0,2
Disabled of the II group	20,0±2,2	14,2±2,2	9,9±1,2	13,5±1,0
Disabled of the III group	-	-	7,4±1,1	3,8±0,5
Working retirees	2,3±0,7	5,8±1,5	3,7±0,7	3,7±0,5
Non-working retirees	67,2±2,6	51,7±3,0	69,0±1,8	65,1±1,9
Others	9,0±1,6	27,5±2,8	10,0±1,2	13,4±1,0

Every second elderly person in our study was suffered with obesity and had an increased BMI (25.1<). Respondents with a BMI of 18.1-25.0 accounted for almost 1/3 of all social categories. The data shows the

presence of obesity in the studied individuals, which may be associated with the peculiar nutrition and physical activity of the respondents (table 3).

Table 3: Comparative analysis of BMI among elderly people according to their social categories (in %)

Social categories	Average age	BMI		
		<18,5	18,6-25,0	25,1<
1 st category	72,4±1,5	10,6±1,8	28,4±2,6	61,0±2,8
2 nd category	73,4±1,6	20,0±2,6	29,2±2,9	50,8±3,2
3 rd category	71,8±1,6	13,9±1,0	28,5±1,3	57,6±1,5

Note: (p≤0,05) in comparison with the respective groups

With the increasing of age, performing physical exercises is reducing. A small amount of elderly people (24.9%) is engaged only in low-intensity physical exercises.

The needs of elderly people for medical and social assistance significantly depend not only on their health status and disability degree, but also on such important factors as living conditions, organization of leisure, nutrition regimen, bad habits, and on physical activity.

Considering the human health as a harmonious development of the bodily and spiritual abilities of a person, it is important to bear in mind that human health is formed in connection with environmental conditions, in general, and in particular with his lifestyle.

One of the important indicators characterizing the living standard of the family and having a significant impact on the state of human health is living conditions, i.e. the conditions where a person lives and spends most

of his time; this applies, first of all, to lonely elderly people. An analysis and a comprehensive assessment of the living conditions of the elderly people indicate that 36.5+2.7% of lonely elderly living in their apartments lived in a one-room apartment, 36.8+2.7% in a two-room apartment, 16.1+2.9% in a three-room apartment and 10.6+1.8% in a four or more room apartment. These indicators among elderly people living with their family, respectively, amounted to 11.2+1.3%, 23.3+1.7%, 22.1+1.7%, 43.4+2.0%. Among elderly people living in nursing homes, 92.9+1.7% of them live in one-room ward, and 7.1+1.7% in two-room ward. The study showed that in all the studied social groups in Tashkent, almost 100% lonely elderly had more than 9 m² area per person, and had a centralized provision of hot and cold water, heating, sewage. Elderly from the 1st social category who live in the Tashkent region, 67.1+2.7% did not have central heating system, half (50.0+2.8%) were not provided with centralized hot water and 21.0+2.3% were not provided with centralized sewage system. Almost the same situation is observed in elderly people living with their family. In general, 23.7+2.3% of the 1st social category, 38.3+2.1% of the 2nd social category and 51.2+2.7% of the 3rd social category are living in good living conditions. The rest have quite satisfactory living conditions.

Almost all lonely elderly have a TV, newspapers and magazines in their house. However, it should be noted that 31.6+2.6% of elderly people living alone in their apartment do not have a TV, 51.3+2.8% did not have

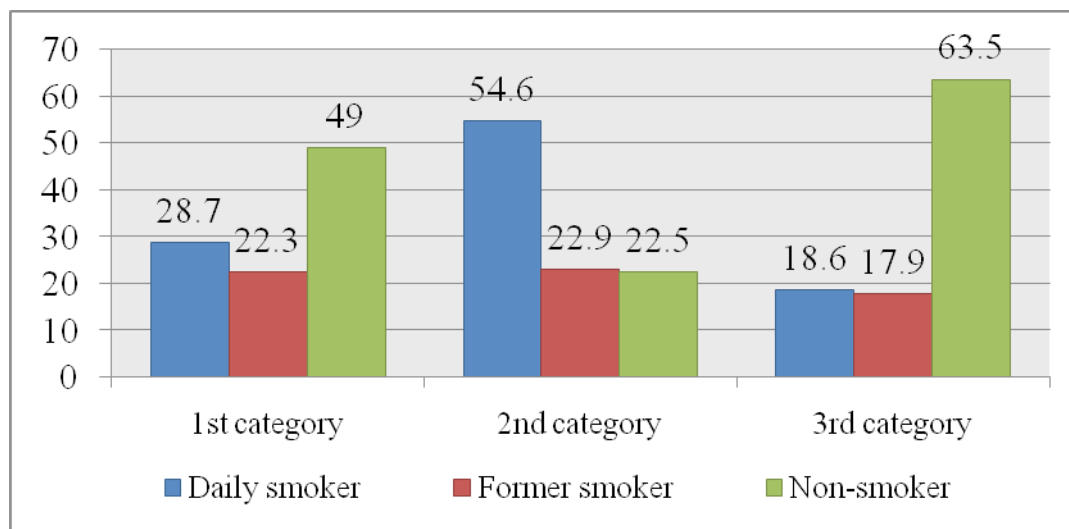
a radio and telephone, and 52.3+2.8% are not provided with newspapers and magazines, 85.5+2.0% do not have a computer. Whereas, people living in nursing homes much better provided with the necessary conditions for their leisure and cultural recreation. So, of those living in nursing homes, 97.9+0.9% responded that they have access to a TV, more than half (64.2+3.1%) replied that they have access to a radio, 49.2+3.2% indicated the availability of updated newspapers, 60.0+3.0% indicated the presence of magazines in the place where they live.

As a factor affecting human health also can be included factors such as daily routine, nutrition, recreation, and others.

During interview of the studied groups, a total of 4.6+0.6% noted that they have a monotonous food, 66.4+1.4% - a varied food, 8.3+0.8% - diet food, and 11.8+1.0% prefer to eat fatty food.

Most respondents do not pay proper attention to a balanced diet. Most of the respondents from the 1st social category noted that they consuming insufficient amount of meat, dairy products, vegetables and fruits.

The problem of smoking and alcohol consumption among the elderly deserves a separate attention. More than half of the respondents (54.6+3.2%) from nursing homes smoked tobacco products 2.0 times frequently compared to lonely elderly people living alone in their apartments (28.7+2.6%) and 3 times more than elderly people living with their families (18.6+1.6%) (Fig. 3).



Picture 3. Distribution of respondents according to their smoking status by social categories (in %)

The same trend was observed in assessing alcohol consumption. The data presented in Table 4 show that alcohol consumption is 6 times frequent among elderly people living in nursing homes compared with elderly people living with their families, and 3 times more than elderly people living alone in their flats.

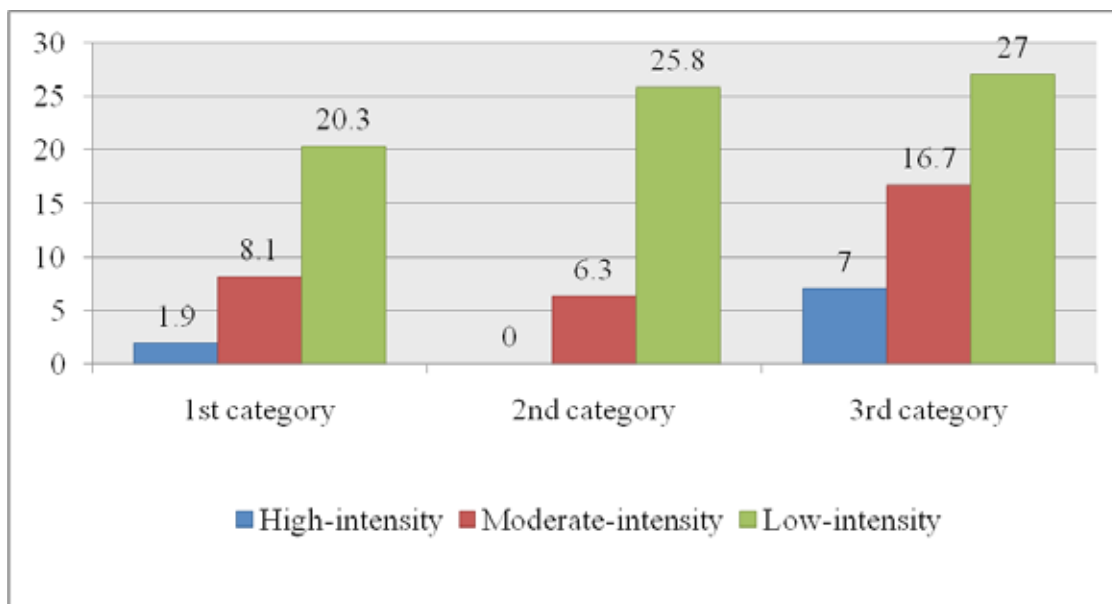
Table 4: Alcohol consumption of elderly people according to their social categories (in %)

Frequency of alcohol consumption	Social categories		
	I	II	III
Daily	4,5+1,2	14,2+2,3	2,0+0,6
Weekly	6,5+1,4	25,0+2,8	2,7+0,7
Monthly	5,8+1,3	12,7+2,1	4,0+0,8
Non-drinking	83,2+2,1	48,1+3,2	91,3+1,2

It has been established that a small number of lonely elderly people regularly engaged in moderate-intensity physical exercises. So, in the first social category, their specific weight was 8.1+1.5%, in the third social

category - 16.7+1.5%, and among people living in nursing homes, the second social category, their amount was significantly low (6.3+1.5%), compared with social categories I and III. Lonely elderly engaged in low-intensity physical exercises in all comparative groups were close to each other, but nevertheless their amount was much lower (Fig. 4).

With an increase the age, the number of elderly people who are engaged in any physical exercise began to decline sharply. So, if for lonely elderly people aged 60-74 years, the proportion of persons regularly engaged in physical exercises was equal to 25.4+2.7%, while in the age group of centenarians(90 years and above) its specific weight was equal only to 3.2+0.5%. Apparently, this is due to the fact that with the increase in the age, the number of chronic diseases increases as well as anatomical and physiological characteristics of the body changes which in turn influence to frequency of performance physical activity.



Picture 4. Assessment of performance physical activity among elderly people according to their social categories (in %)

Discussions

Conducted comprehensive studies of the elderly people revealed specific socio-demographic characteristics and lifestyle features for this category of population.

The average age of all examined individuals was 72.5+1.6 years. 65.1% of the surveyed individuals were non-working pensioners, 17.9% were disabled and 3.7% were working retirees. Every second elderly person living in nursing homes, or separately, in their

apartments, was widows and never married. At the same time, the proportion of people who have never been married, among elderly people living in nursing homes and lonely elderly living alone in their apartments, was 19.3 times (23.2%) and 6.6 times (7.9%) more than elderly people living with their families (1.2%). Most of all, nursing homes in Uzbekistan were crowded with men (64.6%) than women (35.4%), as well as with elderly people with primary education level (31.7%).

Anthropometric indicators of individuals did not practically differ among elderly from different social categories ($p > 0.05$).

Among elderly persons living alone in their apartments, more than 1/3 did not have access to the media compared with elderly people living in nursing homes. A small proportion of elderly people (24.9%) are engaged in low-intensive physical exercises. Elderly people engaged in physical exercises are significantly higher among those who live with their families.

The problem of loneliness in old age gives rise to a whole series of medical and social problems. It was found that 48.0% of the respondents, at the time of survey, lived outside of their families. In older age groups, divorce and widows (widowers) are negative factors that lead to loneliness. The presence of a family, the residence of the elderly in around of relatives has a positive effect on their health status and on their life expectancy. The needs of elderly people for medical and social assistance largely depend not only on their state of health, but also on the degree of limitation of their life activity.

Conclusion

It can be concluded that lonely elderly men are highly dependent on the help of others, and widowers and people with primary education are most likely to be in nursing homes. On a person who is distant from his family, the factor of loneliness affects sharply negatively.

Most of the elderly people live in good and quite satisfactory living conditions and have the necessary leisure facilities for recreation, which should be considered as a favorable factor in the socio-hygienic characteristics of the studied groups.

Along with the development of physiological and biochemical foundations for rationing the nutrition of different population groups, it should be paid special

attention on the necessity of consuming vegetables, fruits, dairy and meat products for the people above the working age to maintain and strengthen their health status.

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Conflict of Interests: The authors declare no conflict of interest.

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