The Survey of Independency Status Living in Elderly Referring to Tehran Civil Servants Pension Organization in 2015

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Abstract

Introduction: Old age is one of the most sensitive periods in everyone's life, thus, regarding the everyday growth of the elderly population, caring for this vulnerable part of the society is a necessity. Having in mind the confronting limitations in this era and lack of flexibility with the environment, as well as decreasing independence in the elderly, this study aimed at evaluating the level of independent living in the elderly referring to Tehran Civil Servants Pension Organization (CSPO), during year 2015.

Methods: This descriptive study was conducted on 260 elderly individuals referring to Tehran Civil Servants Pension Organization. Samples are selected via the purposive sampling method. The data in this study was collected by a standard questionnaire, including demographic characteristics and physical activity questionnaire in two sections, i.e. Activity Daily Living and Instrumental Activity Daily Living. After completing two questionnaires, the obtained data were analyzed using the SPSS (ver. 23) software through descriptive statistics, independent t-test, as well as One-way Analysis of Variance (ANOVA).

Results: The mean age of the studied units was $68.08 \pm (7.63)$ years. The mean of independency status in this group of elderly people was at the independent level (ADL = 13.61 ± 1.14 & IADL = 14.77 ± 3.79). Moreover, the total mean score of independence status in elderly aged 60 to 74 years with incomes above 7500 to 10 million Rials per month and married elderly, was higher.

Conclusions: Old age is a normal stage in the normal path of life for human beings, which is very different from other life stages. In general, with increasing age, decrease in the level of independent living, and consequently, the degree of dependence on others increases. Also, married elderly and those with more income and younger elderly are more independent than others. Furthermore, the result obtained in this study reveals that the elderly people had higher independence status in eating and sleeping as part of Activities of Daily Living, and at taking medicine and using the telephone in Instrumental Activities of Daily Living.

INTRODUCTION

Aging is a natural phenomenon triggered by time, which starts at birth and continues as life goes on. Gradually, it imposes a limitation upon individuals and disturbs their adaptation to the environment [1, 2]. Therefore, Miller

(2000) states that almost 40% of elderly aged over 65 years have limitations in doing their daily routine activities [3]. Recent developments in medical science and good performance in family management programs brings about a decrease in productivity and an increase in the population of the elderly aged over 60 years [4], in a way that one million people from all over the world are added to this population per year [5]. Although aging of the population mostly reveals medical and sanitary achievements, it brings about an increase in chronic diseases and constant medical and sanitary expenses [6]). Providing sanitation, health, and welfare for senior citizens has a wide variety of dimensions in the society. Thus, one should consider analyzing senior citizens' health level comprehensively, i.e. the physical dimension as well as the mental and emotional conditions, the amount of social activities and quality of life should be considered, simultaneously [7]. The aging phenomenon naturally causes malfunction in the performance of different body parts and leads to gradual disability in personal tasks and social roles [8], thus evoking dependency in the elderly [9]. As expected, the elderly hate to show that they are dependent on other people, therefore encouraging independency and self-reliance in senior citizens is the fundamental purpose in most programs conducted for improving health care and nursing, besides improving their ability in performing self-care without obtaining help from others [10, 11]). Adopting an appropriate active life will significantly decline disease causalities and bring about life expectancy [12]. Also, one of the best ways to evaluate senior's health level is to assess the amount of their activity in daily life, which provides the necessary information to appropriately planning and match the needs of elderly for health care staff [13]. With the increasing population of the elderly in the society, there is a necessity of professional and experienced nursing staffs for caring for potentially susceptible elderly in hospitals, nursing homes, and the society. Nurses, as People who are able to understand the physical, emotional, and social needs of the elderly have an important role in caring for the elderly and are considered as one of the essential pillars of providing health care to the elderly and the society [14]. According to the above reasons, it seems that studying the independency status in the elderly, leads to better understanding of elderly's needs by health care providers, especially nurses, and allows the achievement of better quality of life, a decrease in their problems, and provides them with the most desirable health care services.

METHODS

This descriptive study was conducted on 260 elderly people that had referred to Tehran Civil Servants Pension Organization in 2015. Samples were selected via the purposive sampling method in Civil Servants Organizations during working hours in eight different geographical districts and from Civil Servants of different organizations, in order to cover a greater number of Senior Civil Servants and regarding the amount of referrals to each Civil Servants Organizations during the day, they were selected. In order to evaluate independent living in the elderly, a scale of activities of daily living was used in two sections, i.e. Activity of Daily Living and Instrumental Activity of Daily Living. The activity of daily living section contained seven items with scores of zero to fourteen, which are eating, putting on and taking off clothes, walking, activities related to appearance, bathing, sleeping and waking up, and using the toilet. The instrumental activity of daily living section contained nine items with scores of zero to eighteen, which included using the telephone, travelling almost long distances using a vehicle, shopping, preparing food, doing house chores, washing personal clothes, performing minor house mending, taking medicine, and controlling money issues. These items were rated via three options, i.e. "without help" having two scores, "with little help" having one score, and "I cannot do it" having no score. Higher scores showed independent performance of each individual. According to a study by Moeini et al. (2011) and Masoumi et al. (2011), the mean scores for activity of daily living are divided to three groups, i.e. independent (11-14), slightly dependent (7-10), and dependent (0-6). In the same manner, the mean score for Instrumental Activity Daily Living was divided to three groups, i.e. independent (14-18), slightly dependent (9-13), and dependent (0-8) [13, 15]. The validity of the questionnaire was measured by 10 Associate Professors of the Department of Nursing and Midwifery at Shahid Beheshti University of Medical Sciences, who had adequate knowledge and experience in different fields of nursing and elderly issues. The reliability of the questionnaire was measured by Cronbach's alpha of 0.90. The obtained data were analyzed using the SPSS (version 23) software through descriptive statistics, independent t-tests, as well as One-way Analysis of Variance (ANOVA).

RESULTS

The obtained results showed that the mean ± Standard Deviation (SD) score of age of the studied individuals were 68.08 ± (7.63) and ranged from a minimum of 60 to maximum of 95 years, in which 80.8% of them belonged to the aged group of 60 to 74 years, 59.6% were males, 25.4% had high school diplomas, and 80.4% were married. Furthermore, 52.7% of the studied subjects had a revenue amount of more than one million Tomans per month, and 48.5% were covered by the Iranian Social Security Organization Insurance, 18.8% had blood pressure diseases, and 93.1% lived in their personal house. Overall, 15.4% of the elderly consumed narcotics and 5.8% drank alcohol. Activity of Daily Living and Instrumental Activity of Daily Living status in the elderly referring to Tehran Civil Servants Pension

Organization are shown in Table 1 and Table 2, respectively. The highest amount of independence in Activity of Daily Living was in eating (98.1%) and sleeping (98.5%) and the highest amount of independence in Instrumental Activity of Daily Living was in taking medicine (86.2%) and using the telephone (89.2%).

Table 1: Activity of Daily Living Status of the studied Subjects

Variable	Without help		With a little help		I cannot do it	
	Percent	Number	Percent	Number	Percent	Number
Eating	98.1	255	1.9	5	-	-
Putting on and taking off clothes	96.5	251	3.5	9	-	-
Walking	90	234	26	10	-	-
Bathing	91.9	239	7.3	19	0.8	2
Using toilet	96.9	252	3.1	8	-	-
Sleeping	98.5	256	1.5	4	-	-
Activities relating to appearance	90	234	10	26	-	-

Table 2: Instrumental Activity of Daily Living Status of the studied Subjects

Variable	Without help		With a little help		I cannot do it	
	Number	Percent	Number	Percent	Number	Percent
Using telephone	232	89.2	18	6.9	10	3.8
Travelling almost long distances using a vehicle	188	72.3	17	6.5	55	21.2
Shopping food and clothing	201	77.3	47	18.1	12	4.6
Preparing food (cooking)	159	61.1	73	28.1	28	10.8
Doing house chores	162	62.3	73	28.1	25	9.6
Washing personal clothes	174	66.9	47	18.1	39	15
Performing minor house mending	152	58.5	62	23.8	46	17.7
Taking medicine	224	86.2	32	12.3	4	1.5
Controlling money issues	223	85.8	32	12.3	5	1.9

Table 3 shows the relationship between some of the demographical variables with Activity of Daily Living in the elderly referring to Tehran Civil Servants Organization, according to which Activity of Daily Living had a statistical relationship with age and amount of revenue variables ($P < 0.05$). The highest mean score for Activity of Daily Living belonged to the age group of 60 to 74 years old with revenue amount of 7500 thousands to 10 million Rials per month.

Table 3: The Relationship between some of the Demographical Variables and Activity of Daily Living of studied Subjects

Variables	Activity Daily Living score	P value
Gender		0.92
Women	13.59	
Men	13.62	
Age		0.01
60-74 years	13.70	
75-86 years	13.29	
87-95 years	12.66	
Marital status		0.47
Single	14	
Married	13.61	
Divorced	14	
Widow	13.43	
Revenue amount		0.02
Less than 7500 thousand Rails	13.11	
7500 thousand-10 million Rails	13.79	
More than 10 million Rails	13.58	
Consuming narcotics		0.08
Yes	13.77	
No	13.58	

Table 4 indicates the relationship between some of the demographical variables and Instrumental Activity of Daily Living in the studied subjects, in which Instrumental Activity of Daily Living had a statistical relationship with variables of age, marital status, amount of revenue, and consuming narcotics ($P < 0.05$). The highest mean score for Instrumental Activity of Daily Living belonged to 60 to 74 year-old married elderly people with revenue amount of 7500 thousands to 10 million Rials per month and lack of narcotics use.

Table 4: The Relationship between some of the Demographical Variables and Instrumental Activity of Daily Living of studied Subjects

Variables	Instrumental Activity Daily Living	P value
Gender		0.80
Women	15.17	
Men	14.43	
Age		0.01
60-74 years	15.56	
75-86 years	11.56	
87-95 years	8.66	
Marital status		0.01
Single	15.05	
Married	16.68	
Divorced	16.33	
Widow	13.12	
Revenue amount		0.04
Less than 7500 thousand Rails	13	
7500 thousand-10 million Rails	14.28	
More than 10 million Rails	15.38	
Consuming narcotics		0.04
Yes	14.52	
No	15.85	

DISCUSSION

This study found that the mean and the SD for Activity of Daily Living score in the elderly referring to Tehran Civil Servants Pension Organization was 13.61 ± 1.14, and the mean and the SD for Instrumental Activity Daily Living in the elderly referring to Tehran Civil Servants Pension Organization was 14.77 ± 3.79. According to the data classification conducted in the studies performed by Moeini et al. (2011) and Masoumi et al. (2011), the mean scores were applied in the independent range. In addition, 96.2% of the studied subjects in normal daily activities and 68.1% in key instrumental activity of daily living belonged to the independent classification. Regarding the fact that all the studied objects were seniors, who were able to refer to the organizations and public centers, these results were not far from expectations [13, 15]. The results of this study were similar to that of the study conducted by Maghsoodi et al. (2016), in which there were relatively similar study subjects. Nevertheless, the achieved results were completely different from the results of studies, such as that of Tavafian et al. (2014) and Moeini et al. (2011), etc., hence the sampling in these studies were done from all the elderly in the society, even from the disabled elderly in houses with a higher average age. The mean score for independent status was higher in the current study in comparison to the mentioned studies [12, 13, 16]. In accordance with the obtained data in the current study and other studies implemented in the same field, it could be concluded that in general, the amount of independent status diminishes in elderly people as they become older and older. Therefore, the amount of their dependence to other people increases as Shahbazi declared that after mid-age, on average, 1.5% of physical efficiency in individuals diminishes each year and very independent elderly people are from 60 to 69 years old [17]. Regarding the relationship, between performing Instrumental Activity of Daily Living and marital status, the obtained results from the current study revealed that the married studied subjects living with their spouse and children tended to be more independent, which is in good agreement with the results of previous studies. In this regard, Adib Hajbagheri et al. declared that married elderly people tended to have much more social relations, whereas lonely elderly people gradually felt more desolate and their participation in social activities and mobility decreases. It seems that this difference roots in the effects of social understanding and support that the married elderly people receive in comparison to other elderly people [18].

In addition, the current study showed that the elderly people with higher revenue amount had a greater amount of independent status. This finding has a good agreement with the results of similar studies, such as that

of Tavafian and Darvishpour. It seems that the individuals possessing a better financial status, tended to have better physical performance due to their ability to afford sources and facilities needed for performing normal and key daily activities [12, 19]. In addition to the above-mentioned cases, evaluation of studies conducted in this field in developed countries, such as the United States and Mexico, in which there are more programs, policies and trainings for the elderly in comparison to developing countries, such as Iran, shows that the amount of independent living is higher in these countries. The obtained data in the current study and other studies, such as that of Moeini et al. (2011) and Masoumi et al. revealed that the elderly people had the highest amount of independence in Activity of Daily Living, such as eating and sleeping, and Instrumental Activity of Daily Living, such as taking medicine and using the telephone. The lowest amount of independence appeared in walking and performing minor house mending. In other words, the highest amount of independence in the elderly was in physical activities, such as walking, that roots in outbreak of chronic musculoskeletal diseases in elderly people, such as osteoporosis and rheumatoid arthritis, etc. as well as lack of enough physical activities and exercises in young ages. This phenomenon severely influences the amount of independent status in the elderly [13, 15].

CONCLUSIONS

Old age is a normal stage in the path of life for human beings, which is very different from other life stages. In general, the results of this study showed that, the independency status in younger elderly with higher income and marriage was higher.

Research Limitation

The instrument was a self-report questionnaire, thus, samples' psychological conditions and other relevant factors were out of reach. Also, the lack of access to retired elderly due to the limitations of physical and mental ability, who couldn't refer to Tehran Civil Servants Pension Organization, has caused of bias and prejudice.

Ethical considerations

Consent was obtained from all participants and all personal information was kept secret. Ethical notes of articles and books, including the author's name in the text and references were taken into consideration. The authors appreciate and thank all the participants of this study. The code of ethic was 1394.339.

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Authors' Contribution

R. Esmaeili led on all aspects of the paper's development from conceptualization to finalization, while the other authors were involved in the reviewing and gathering the data of all drafts of the paper. All of authors approved submission.

Conflicts of Interests

The authors declare that there was no Conflicts interests.

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