Research Paper
The Relationship Between Gender and Disability in the Elderly People in Tehran Municipality Pension Organization

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A B S T R A C T

Objectives Because of increasing geriatric population in Iran, the present study aims to plan, prevent, and mitigate the complications among the retired elderly of the Tehran Municipality Pension Organization and then investigate its relation to gender.

Methods & Materials The descriptive and analytic approach was adopted on 300 elderly subjects who were 60 years and older (Mean [SD]: 68.14[7.11] years). The subjects were selected using random sampling method. All the elderly subjects were retired members of the Tehran Municipality Administration. The data were collected by direct reference to the subjects' home and conducting interviews. The data collection tool included questionnaires with two sections. The first section consisted of the demographic, socioeconomic, and health profiles, and the second section consisted of WHO Disability Assessment Schedule 2.0 questionnaire. The obtained data were analyzed by SPSS 18.

Results Among the elderly subjects in this study, 175 (54%) had no disability, 125 (46%) were disabled, and 19.13% had mild disability. The average disability rate was 5.6% in females and 4.38% in males; these rates were high compared to the present rate in the society. However, the lowest rate of disability (0.72% in males and 1.07% in females) was related to self-caring and personal health.

Conclusion In conclusion, the retired elderly of Tehran Municipality Administration showed a lower level of disability compared to those of other developed countries. However, there is an increasing need for setting up geriatric cares units as the population pattern of elderly people is rising in Iran. In addition, the rate of disability was found to be higher in females (58.14%) compared to males (53.31%), which shows a significant relation of disability status with gender and age ($P < 0.001$).

Extended Abstract

1. Objectives

In recent years, there has been a sharp increase in the elderly population in Iran [1]. The aging population has been associated with the increase in the rate of disability among these elderly. Studies have shown that the extent of disability in activities and chronic diseases is inversely related to cognitive performance and quality of life [2]. Disability is a good indicator of health risk assessment in the elderly population that includes the limitation of the ability to perform social roles and activities related to the job or continuing independent life. The incidence of disability is related to several

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factors. No study has been carried out in this aspect in the Tehran Municipality Pension Organization. Therefore, the present study aimed at determining the extent of disability in the elderly people and its relationship with gender.

2. Methods & Materials

The Tehran Municipality Pension Organization has covered over 7400 retired employees. This study is a correlational and descriptive-analytical research carried out on 300 people aged 60 years and older (Mean [SD]: 68.14[7.11] years), who were covered by Tehran Municipality Pension Organization. These participants were selected using random sampling method and the study data were collected by referring to their homes and interviewing them. The data collection tool was a questionnaire consisted of two parts. The first part was about the demographic, economic, social, and medical information, and the second part consisted of the WHO Disability Assessment Schedule 2.0 Questionnaire (with a reliability of 0.86 and internal classification of 0.98) as follows [3]. The first part of the questionnaire included personal sociodemographic information such as age, gender, marital status, education, economic status, home ownership status, employment status, health insurance type, and chronic diseases.

WHO Disability Assessment Schedule 2.0 Questionnaire had 36 questions and measured disability in six areas. The answer to each question was given a score on a 5-point Likert-type scale. The questionnaires were completed by face-to-face interviews with the subjects. However, if the elderly were not able to respond to all questions due to their deteriorated health conditions, some questions were asked from the subject's relatives or they were interviewed over the phone. According to the World Health Organization algorithm, the raw scores were first converted to 1-100. The subjects were classified in the following way in terms of disability: subjects with a score of 1 to 4 as without disabilities; subjects with a score of 5 to 25 as having low disability; subjects with a score of 26 to 50 as having moderate disability; subjects with a score of 51 of 75 as having

severe disability; and subjects with a score of 76 to 100 as having very severe disability. Of 7400 retired employees of municipality, 4300 were old people. Based on the following formula and calculation of the error percentage as well as possible rate of disability, the sample size was determined to be 280 people. However, 300 people were considered for greater certainty. The data were analyzed by SPSS (version 18). Descriptive statistics (including mean, standard deviation, and percentage) and analytical statistics (including t test and ANOVA) were also used. The present study was approved by the Ethics Committee of the University of Social Welfare and Rehabilitation Sciences, Iran.

3. Results

Among the studied elderly, 175(46%) were without disabilities and 125(19.13%) had mild disability. The highest level of disability in the field of social presence was observed in 5.6% of women and 4.38% of men. The minimum average disability related to self-care and personal hygiene was 0.72% in men and 1.07% in women. The present study showed that the mean disability in the age group 70-79 years was two times greater than that of the age group 60-69 years (Reference group). In the present study, there was a significant relationship between the disability level of the elderly people and chronic diseases (P=0.005). The disability in the age group 80 years and older was three times greater than the reference group. Also, for each year of increase in age, the disability of the elderly people has been increasing by approximately 1.1 fold.

In this study, there was a significant relationship between the level of elderly's disability and gender, and women were observed to have a higher rate of disability than men, which was consistent with other studies. 25 women (58.14%) out of 43 were found to be disabled. Of 257 elderly men in the study, 137(53.31%) had some degree of disability. In the present study, it was found that gender and disability had a significant relationship in the elderly. According to the study, the disability percentage in women (58.14%) was more than the men

Table 1. The relationship between disability level and gender in the retired elderly of Tehran Municipality-2015

Variable		Normal	Disability1	Disability2	Disability3	Disability4	Total	X^2	P
Gender	Female	18(42.9)	20(46.5)	3(6)	2(4.7)	0(0)	43(100)	5.239	0.025
	Male	120(46.7)	114(44.4)	16(6.2)	2(0.8)	5(1.9)	257(100)		

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(53.31%), and thus, disability had a significant relationship with age (P<0.001).

The results also showed that the severity of disability increased with older age, lower education levels, living alone and single, and lack of self-employment after retirement. Many old people suffered from at least one or more chronic and debilitating diseases.

Treatment and prevention of chronic diseases, which is the leading cause of disability in the elderly, has a significant role in the prevention of disability in the elderly. In the present study, the disability in the age group 80 years and older was greater than the other age groups, and hence, they were more dependent on others. In Table 1 the extent of mild, moderate, severe, and very severe disability (1-4) had a significant relationship with gender.

4. Conclusion

The elderly people in this study had lower disability rate compared with that of other developing countries. Factors such as older age, lower education, being single, chronic illnesses, and lack of self-employment after retirement have increased the severity of disability. If the municipality authorities take appropriate steps and ensure their implementation along with follow-up, chronic diseases can be controlled and elderly care home can be tracked as these factors play an instrumental role in effectively reducing disability in both genders.

In this study, the comparative analysis of disability in both genders showed that the average disability score of men was higher in the area of understanding and communicating and interacting with people. The average disability score of women was higher in the areas of moving and going around, life activities, and social presence. Possible reasons for the higher disability in women rather than men may be related to the duties of women during their life, including pregnancy, lactation, parenting, menopause, arthritis, and osteoporosis as well as the lack of relative autonomy and probably excessive responsibilities at home and work.

Acknowledgments

Conflict of Interest

The authors declared no conflicts of interest.

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