Lifestyle and Factors Associated with the Elderly People Referred to the Pension Fund

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Abstract

Introduction: The world's elderly population is increasing; along with this growth, their health problems gain importance. Meanwhile, healthy lifestyle is a valuable resource for reducing the incidence of health problems and their consequences. It can enhance recovery, deal with life stressors and improve the quality of life.

Objective: The present study aimed to assess the lifestyle of elderly people and factors related to it in individuals who were referred to the pension fund in Rasht city.

Materials and Methods: This was a cross-sectional study in which 384 members of the pension fund in Rasht city participated. The data collection tools included the demographic questionnaire, the lifestyle questionnaire, including 5 domains of lifestyle and the medical outcomes study-social support survey (MOS–SSS). Data was collected through interviews and then analyzed using the descriptive and inferential statistics, ANOVA, t-test, Spearman's correlation coefficient and regression model.

Results: As many as 65.6% of the sample was men and 34.4% women in the age group of 60–65 years. The mean score of lifestyle was 123.82. The results indicated a statistically significant relationship between the lifestyle of elderly people and the absence of chronic illnesses (p=0.022), education level (p=0.006) and housing status (p=0.022). Regression analysis showed that housing, income and social support conditions are factors associated with lifestyle ($R^2 = 0.15$, p=0.0001).

Conclusion: It was found that the level of education and social support is among the effective factors influencing lifestyle of elderly people. As the lifestyle of most individuals was at a moderate level, it is necessary to conduct training programs of healthy lifestyle for the elderly seriously.

Keywords: **Life Style, Aged, Social Support.**

Introduction

Increase in the elderly peoples' population now is so important that the World Health Organization has considered it as a demographic revolution in the world [1]. Taking a look at the existing figures reveals the depth, intensity and importance of this issue, as at present there is about 600 million people aged over 60 years in the world and this figure will double by 2025 [2]. Based on the last census in 2011 in Iran, the number of people over 60 was about 8.2% of the total population. This figure has seen an increasing trend compared to the results of census 2006 [3]. Due to the rapid increase in the number of elderly people in the past few decades, their health and welfare condition in the society have become an issue of concern [4]. As the number of elderly people in Iran increased in recent years, identifying factors affecting their lifestyle has become one of the concerns of policy makers and healthcare officials [5].

In the process of the population's aging, in addition to decrease in the health condition of elderly people due to aging, other important factors are also effective, including the loss of friends, separation from children, loss of job, loss of income, status and identity. These deficiencies cause significant effects on the health status of elderly people and intensify risk factors in the psychosocial, social, behavioral and environmental domain such as reducing perceived social support and control, unhealthy lifestyle and environmental risks [6]. Healthy lifestyle is a way of living that provides, maintains and promotes the health and well-being of the individuals [7]. It should be noted that elderly people are the main consumers of healthcare services and certainly, aging cannot be prevented; however, by recognizing various aspects of the elderly people's life, their lifestyle can be improved to a great extent.

Adopting a healthy lifestyle among the elderly is influenced by several factors; among them are the individual, familial, economic and social factors [8]. In the meantime, the role of social support in the health condition and lifestyle of the elderly should not be ignored. Informal social support from family, friends, acquaintances and neighbors is an important factor in successful aging. In this regard, formal social support provided by social organizations also has a great impact [9]. It has been found that there is a significant relationship between social support and some domains of healthy lifestyle such as stress management and healthy diet [10].

Different studies have drawn different conclusions about factors related to the lifestyle of elderly people and there are some inconsistencies in this regard; for instance, the results of the studies conducted by Najim [11] and Södergrena [12] have expressed some conflicting findings about the relationship between the marital status and lifestyle of the elderly. Meanwhile, nurses, members of the healthcare system with their preventive role, can make elderly people aware about their lifestyles and thus improve their health conditions. Hence, the researchers of the present study aimed at taking some actions to improve the health conditions of elderly people by determining the lifestyle of the elderly people and factors associated with it in the clients who were referred to the pension fund in Rasht.

Materials and Methods

The present research is a cross-sectional descriptive-analytic study. The study population included all the individuals over 60 referred to the pension fund of Rasht in 2014. The sample size included 384 individuals who were included in the study through sampling (is it all the elderly or selected by some sampling technique?

such as systematic random or convenient sampling).

The sample size was determined to be 384 individuals, according to the mean and standard deviation score of the average lifestyle in the study of Babak et al., [13] (12.8) with the confidence interval of 95% and power of 90%.

Inclusion criteria included age of 60 years or older, having the ability to communicate verbally and respond to questions and consent to participate in the research.

The data was collected using a three-part questionnaire which in its first part included individual and economic factors, the second part included social support survey and the third part had lifestyle questions. The social support questionnaire used here was a questionnaire on medical outcomes study-social support survey (MOS-SSS) by Sherbourne and Stewart [14] designed in 1991 and includes 19 questions graded in a 5-point Likert scale (never =1 point, rarely=2 points, sometimes=3 points, often=4 points and always=5 points). The lowest score was 19 and the highest score was 95 and total points (score) were divided in three groups viz. unfavorable social support (19–44), average social support (45–69) and favorable social support (70–95).

The lifestyle questionnaire used here was taken from the Iranian elderly lifestyle questionnaire designed by Eshaghi et al., [15] which contains 11 items in the domain of prevention, 5 items in the domain of physical activity, sports, leisure and entertainment, 14 items in the domain of healthy nutrition, 5 items in the domain of stress management and 7 items about social and interpersonal relations. Classification was in the form of scores 42 to 92: undesirable lifestyle, scores 92 to 142: moderate lifestyle and 142 to 193:

favorable lifestyle; so the lowest score of the questionnaire was 42 and the highest was 193.

The study tools were assigned to an expert panel of 14 individuals to check the validity and CVI and CVR scores were calculated; thus, by maintaining items with scores more than 70%, four items of lifestyle questionnaire were deleted, but all the items in social support questionnaire were approved. Internal consistency was used to evaluate the reliability; this step was carried out using a pilot study on 84 elderly people referred to the pension fund. Cronbach's alpha coefficient for the lifestyle questionnaire was obtained at α=0.72 and for the social support questionnaire it was α=0.86. After obtaining institutional ethical clearance, the researcher contacted the pension fund in Rasht and after receiving verbal consent of the subjects, he completed the questionnaire through a face-to-face interview. ANOVA was used for data analysis, t-test for evaluating the relationship between chronic disease and lifestyle, Spearman test for the relationship between social support and lifestyle and linear regression model was used to determine the factors related to lifestyle. The significance level was considered to be 0.05.

Results

Among a total of 384 subjects, 132 subjects (34.4%) were women and 252 (65.6%) men. Most of them were aged between 60–65 years (32.3%). Most of the elderly people had taken part in this study and the subjects had an educational level up to ninth grade (45.1%). A total of 65 subjects (16.9%) had chronic diseases, most of them were married (62.8%) and most of them lived with their wife and children (69.3%). Most individuals were unemployed (70.1%) and most of them

Table 1. The mean score and standard deviation of the studied subjects' lifestyle scores

Lifestyle	Number	Percent	Mean	Standard deviation	Maximum	Minimum
Undesirable	50	13	89.68	1.64	85	91
Moderate	246	64.1	123.36	8.41	106	142
Favorable	88	22.9	144.5	1.87	143	149
Total	384	100	123.82	17.23	85	149

Table 2. The mean score and standard deviation of lifestyle domains

Lifestyle domain	Mean score	Standard deviation	Minimum	Maximum
Prevention	30.25	3.25	21	38
Physical activity	11.07	1.59	7	16
Nutrition	41.8	7.57	22	55
Stress management	18.16	4.49	8	25
Relation	22.53	5.39	11	32

had incomes between 150-300$ (60.9%) and majority of them lived in rental houses (51.6%). According to the results, most of the subjects (56%) had a favorable social support. Furthermore, the most common lifestyle among the subjects was moderate (64.1 %) (Table 1).

The lifestyle scores of subjects regarding prevention, physical activity, nutrition, stress management and relations are given in table 2.

Based on the results, the lifestyle mean score of the subjects with chronic disease was 120.45 ± 17.01 and lifestyle of the subjects who had no chronic disease was 125.02 ± 17.18. The t-test between these two groups showed a statistically significant difference (p <0.05). Average score of lifestyle for illiterate subjects was 110.0, while for academic education level subjects it was 126.37, which is statistically significant (P <0.05).

Based on the results, the mean score of lifestyle for subjects who lived alone was 110.352, mean score of lifestyle for subjects who lived with spouse was 128.52, average score of seniors' lifestyle who lived with wife and son against average of mean score of lifestyle for subjects who lived with wife and children was 125.18 and it was 119.70 for the subjects who lived with their children. Based on the analysis of variance, F value was 10.22 and the significance level was 0.0001. The highest score of lifestyle was seen in the case of living with spouse. The results showed that social support of 56.3 percent of the subjects were at a desirable level.

To investigate the relationship between lifestyle and social support based on the results, the coefficient of Spearman was 0.253 and significance level was 0.0001, which is statistically significant. Also, according to the regression model, the social support was the predicting index for the lifestyle. Based on the results of income indices, social support and housing status were predicting indices for lifestyle (table 3).

Table 3. The regression coefficient of the predicting factors for lifestyle

	Variable	Non-standardized coefficients		Standardized coefficients	Statistics of F	Sig.	Square coefficient of variations
Model 1	Fixed	107.88	2.81		38.35	0.0001	0.085
	Income	7.97	1.34	0.29	5.93	0.0001	
Model 2	Fixed	91.36	4.78		19.1	0.0001	0.12
	Income	7.64	1.31	0.27	5.80	0.001	
	Social support	6.73	1.59	0.20	4.22	0.0001	
Model 3	Fixed	99.51	5.18		19.18	0.0001	0.15
	Income	7.56	1.29	0.27	5.84	0.001	
	Social support	6.84	1.56	0.20	4.36	0.0001	
	Housing status	-4.69	1.25	-0.17	-3.73	0.001	

Discussion

Based on the results of the present study and on the grouping of tools used for lifestyle, majority of the subjects studied were in the moderate level and this result is consistent with the results of the studies done by Babak et al., [13], Ueno et al., [16] and Hanioka et al., [17]. The findings of the study done by Heshmati et al., [18] about the lifestyle in Golestan province have reported a desirable lifestyle of the elderly people. The lifestyle score of the subjects in the areas of physical activity, hobbies and sport shows the low level of physical activities of the subjects which is consistent with the result of the study done by King [19], but the mean score of physical activity in the present study is less than King's study. This seems to be due to cultural and economic differences and facilities available to the elderly in the present study compared to the Americans.

The lifestyle score of individuals in the area of nutrition was moderate. This result is consistent with the results of the studies done by Södergrena et al [12], King et al [19] and Eshaghi et al [20). The results of these studies have shown that nutritional

status has a prominent role in the health of elderly people and there is need to improve the nutritional status of this age group by providing appropriate nutrition programs.

The lifestyle score of the subject in the area of stress management is almost moderate which is in line with the results of the study done by Taghdisi (2014). Several studies have shown that inclusion of relaxation method trainings in the healthy lifestyle programs ensures that physical and mental health are good and decreases mental stress and its physical symptoms [20].

The lifestyle score of the subjects regarding relations was moderate. The results show that the mean score of the study done by Taghdisi et al., [21] in Tehran is lower. The difference could possibly be due to cultural differences between the two communities.

The results of the present study showed that there is a significant relationship between the education level and lifestyle, which means that increasing education level of people results in a better lifestyle. These results are consistent with the result

of Babak et al., [13] which was done with the aim of determining the lifestyle of elderly people in Isfahan province and also with the result of Najimi [11] with the same goal.

The results showed that there is not any significant relationship between marital status and lifestyle, but there is a significant relationship between living with family and lifestyle; which means that living with spouse and children leads to an increase in lifestyle scores. These results are consistent with the results of Mahmoudi [22].

In connection with the economic factors, there is a significant relationship between income and lifestyle which shows that the lifestyle scores increase with rising incomes. This result is in line with the study of Babanejad [23] which was done with the aim of investigating the socio-economic characteristics of the elderly people of Ilam.

Regarding the social factors related to elderly peoples' lifestyle, the result of the regression model showed that social support is one of the factors that can predict the lifestyle. Similar results have been obtained from several studies, for example, Taghdisi et al., [21] Alipour and Sajjadi [24]. The greatest amount of social support is seen in individuals with desirable lifestyle. The study by Taghdisi et al., [21] showed social support as the key factor affecting the lifestyle of elderly people [21].

The elderly population in all countries is increasing in line with the improvement of health indicators. Iran is not an exception, and during the next few years it will experience a significant increase in the elderly population. Therefore, it is necessary to prepare a policy and plan by knowing the global and local evidence to deal properly with this phenomenon so as

to meet the needs of this age group and improve their health. Awareness of the factors promoting the lifestyle of the elderly people is an important step in improving the health of this age group. Providing adequate income to elderly people to meet their financial needs, their families and communities' social support and paying attention to their mental and physical needs are among the important factors to improve their health status. Creating the belief that the elderly person has an important role in his/her health promotion and he/she should try to improve his/her health is among other factors promoting healthy lifestyle in this age group. We can draw the attention of elderly people and their relatives, decision makers, planners and policymakers to improve the elderly population's health by providing these facilities and investing in them. Since the tool of investigating the variables in this study was a questionnaire, it is possible that indistinguishable mental states exist in the subjects at the time of completing the questionnaires. It is possible that such mental states could not be identified by the researcher and they may affect the results.

References

1. Hatami H, Razevi SM, Eftekhar Ardabili H, Majlesi F, Seyed Nozadi M, et al. (et al after

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2. six authors) Public health comprehensive book. Tehran: Arjmand; 2008; 18-38. [In Persian].

3. Adib-Hajbaghery M, Akbari H. The severity of old age disability and its related factors. Feyz. 2009; 13(3): 225- 34. [In Persian].

4. Statistical Center of Iran. Population and Housing Census [Cited 2011]. Available at: http://www.sci.org.

5. Habibi A, Nikpour S, Seyedoshohadaei M, Haghani H. Health Promoting Behaviors and its Related Factors in Elderly. Iran Journal of Nursing. 2006; 19(47): 35-48. [In Persian].

6. Rashidian A, Eccles MP, Russell I. Falling on stony ground? A qualitative study of implementation of clinical guidelines' prescribing recommendations in primary care. Health Policy. 2008; 85(2): 148-61.

7. Hayden JA. Introduction to health behavior theory. New Jersey: Jones & Bartlett Learning; 2009.

8. Rekha P, Laxmi S. Spirituality and elderly. Journal of wellbeing. 2008; 1(1): 34-38.

9. Park NS. The relationship of social engagement to psychological well- being of older adults in assisted living facilities. Journal of Applied Gerontology. 2009; 28(4): 461-81.

10. Liao WC, Li CR, Lin YC, Wang CC, Chen YJ, Yen CH, et al. Healthy behaviors and onset of functional disability in older adults: Results of a national longitudinal study. Journal of the American Geriatrics Society. 2009; 20(3): 27-30.

11. Toepfer SM. Family social support and family intrusiveness in young adult women. Family Science Review.2010. 2(15); 65-57.

12. NajimA, Ali Moazami Goudarzi. Healthy lifestyle of the elderly: a prospective study, Journal of Health System Research. 2013; 8 (IV).

13. Södergrena Ma. Predicting healthy lifestyle patterns among retirement age olderadults in the WELL study: A latent class analysis of sex differences. Available From: www.elsevier.com/locate/maturitas 2014 41–46

14. Babak A, Arbitration S, Aqdak P. Hajji P. Elderly lifestyle assessment of Isfahan. Isfahan Medical Journal. 2011; 29(149). [In Persian].

15. Sherbourne CD, Stewart AL. The MOS social support survey. Social science & medicine. 1991;32 (6) :705- 14.

16. Eshaghi SR, Babak A. Lifestyle questionnaire designed for the elderly. Journal of monitoring. 1388; 9 (1): 99. [In Persian].

17. Ueno S, Ohara M, Inoue S, Tsugane Y. Association between education level and dentition status in Japanese adults :Japan public center-based oral health study. Community Dentistry and Oral Epidemiology. 2007:12(3) 35-38.

18. Hanioka T, Ojima M, Tanaka K, Aoyama H. Association of total tooth loss with smoking, drinking alcohol and nutrition in elderly Japanese: analysis of national database. Gerontology. 2007; 24(2):87-92

19. Heshmati H. Elderly lifestyle assessment of Kashmar. Journal of Research in Nursing and Midwifery. 93; 1: 5- 7.

20. King A C, Miriam E, Nelson W, Jack R, Steven N, Blair W. Et al. Physical activity and public health in older adults: Recommendation from the American college of Sports Medicine and the American Heart Association. Geriatric Nursing.2007;28(6)339-340.

21. Eshaghi SR, Farajzadegan Z, Babak A. Healthy lifestyle assessment questionnaire in elderly :translation, reliability and validity. Payesh. 2010; 9 (1): 9-91.

22. Taqdisi.m H, Astbsary F, Rahimi F A, Shojaeizadeh C, Dstvrpvr DM, Mostafaei D. Based learning approach to successful aging on health promoting behaviors. Elderly: a randomized clinical trial. Razi Journal of Medical Sciences. 2013; 21:125.

23. Mahmoudi GH, Kiomars need Azeri T (check author). Industrial, lifestyle assessment in the elderly. Journal of Family Health School of Sari Islamic Azad University of Medical Sciences. 1391; 1(3):45-81. [In Persian]

24. Babanejad M. Evaluate the socio - economic status of the elderly in 91. Ilam Journal of the Faculty of Medicine.2012.

25. Ali P F, Sajjadi H, Khedmati I. The role of social support in reducing anxiety and depression in Elderly. Journal of Aging. 1388; XI (88).