



## The Influence of Living Arrangements on the Prevalence of Psychosomatic Disorders between Elderlies in the city of Rasht

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**ABSTRACT:** A number of studies have shown that attending elderly care homes (ECHs) increases the risk of negative emotions, conflicts, and psychological stresses and consequently, susceptibility to a variety of diseases in elderlies. Accordingly, the aim of the present research was to evaluate and compare the prevalence of psychosomatic disorders among elderlies living in the ECHs and community dwelling elderlies. Materials and methods: Using cluster random sampling method 160 elderlies of over 65 were sampled from public ECHs, private ECHs, alone elderlies, and elderlies living with their families. Participants completed a demographic questionnaire and a "Psychosomatic disorders checklist". The most striking observation to emerge from the data comparison was that the prevalence of psychosomatic disorders in elderlies who lived alone or with their families was more than that of elderlies who lived in ECHs ( $P < 0.01$ ). There was no significant difference between the prevalence of the disorders between men and women, alone elderlies and those who live with their families, and public ECHs and private ECHs. Despite public opinion, the results of this investigation show that living in care homes, if certain standards and conditions are observed, is less harmful for elderlies than living alone or living with a bad family.

**Key words:** Psychosomatic disorders, Elderly, Elderly care homes, Community dwelling elderlies

### INTRODUCTION

Elderly refers to people aged more than 65 years of age. Aging is considered today as a major global phenomenon, which is due to the increase in the elderly population in the world (Ghahremani et al., 2008). Iran now undergoes the changes in demographic structure. According to the 2006 census, more than 7.26 percent of the population was elderlies. The nation is in transition toward oldness, at the next 15 years 10.7 percent of the population will be elders) Statistical Centre of Iran, 2007(. In fact, among the different age groups, elders have the highest rate of growth in population (Darvishpoor Kakhki et al., 2010). Today, in spite of advances in medical sciences and emergence of professional field of gerontology, still many psychological aspects of elderly remain unknown, and many problems remain unresolved. Physical diseases and disorders along with economic, social, and familial deficiencies cause psychological stress in the elders. However, elderly in no way is a disease, but an inevitable period of life and a natural path of growth.

Psychosomatic disorders are among the most prevalent diseases in old ages. These disorders include a number of physical conditions made worse by psychological factors (Winn, 2001). Psychosomatic disorders are characterized by symptoms of physiological dysfunction in specific organs such as the heart, lungs, stomach, muscles, and neural tissues. Such dysfunction is caused or aggravated by psychological factors such as

emotions, stress, personality, and lifestyle (Spielberger, 2004). The main types of psychosomatic disorders include cardiovascular, respiratory, gastrointestinal, dermatological, and neurological disorders (Spielberger, 2004). The two main factors influencing the incidence of these disorders include stress and the underlying personality variables.

Housing decision of older individuals is a very important issue in their mental health; living in their own homes along with family members, or in a nursing home, has a great impact on their physical and mental health. In recent years, a number of researchers have sought to determine the role of living arrangements in health status of the elders. Previous studies have shown that the mental and physical health of elderly people is closely related to their residential status. Lee and colleagues showed that one of the serious problems in elderly health is the inappropriate housing environment for this vulnerable group (Lee et al., 2007). There is a close relationship between their health and housing environment (Engelhardt, and Greenhalgh-Stanley, 2010). For example, studies show that most elderly people living out of nursing homes suffer from a chronic or acute physical illness, and most of them are in need of medical and nursing care (Yamini, 1987).

Transformation of social structures in recent decades in Iran and transition in traditional family system

from extended family, who emphasizes caring seniors within the family, to nuclear family, who tries to break the family unit and to separate grandparents from children, caused a boom in the elderly housing industry and the culture of attending elderly care centers (Momeni and Karimi, 2010). However, the empirical data are rather controversial, and there is no general agreement about the consequences of living in nursing homes. On one hand, some research suggest that nursing home residents because of the loss of previous social contacts, loss or reduction of family safety net, unemployment, loneliness, and changes in the lifestyle experience more stress in comparison with elders who live with their families. In opposition, research shows older people who live with family or among their children have a more positive self-concept and fewer symptoms of depression (Shoaib et al., 2011). According to Drageset and colleagues, the lack of roles is a stress-producing experience for older people (Drageset et al., 2009).

Living in care centers makes elders lose their familial, social, and economic roles and the natural sense of control over their life, and consequently their conflicts and stresses will raise. Uncontrollable stress due to the lack of an active role in the nursing homes and the lack of control over their life, affects the immune system of the elderly more than youngsters, and causes more heart diseases and strokes than those seniors who are living outside nursing homes (Sharifzadeh et al., 2010). Living in nursing homes, and especially seeing other elder's death, is a stressful event that plays an active role in the mortality of seniors (Comer, 2001).

Depression is another widespread condition among elderlies. Overall, as many as 20 percent of people experience depression at some point through old age (Knight et al., 2006). However, it rises much higher among aged persons who live in nursing homes (Carlson, & Snowden, 2007).

Another problem, apparently on the increase, is the misuse of powerful medications at nursing homes. Research suggests that antipsychotic drugs are currently being given to almost 30 percent of the total nursing home population in the United States, despite the fact that many such individuals do not display psychotic functioning (Lagnado, 2007). It appears that these influential and dangerous drugs are often given to control and handle the elders. On the other hand, some research examined the positive effects of nursing care facilities on maintaining physical and mental health of older people. According to these studies living in care homes, help elderlies to overcome their limitations. Attending care home is a decision that helps older persons to adjust with probable losses in resources and assure the future of different aspects of their life. Caring institutions can compensate for the decline of functional capacity and lost independence of older people, or at least make it tolerable for them. Living

in a nursing home has some benefits for older people, which include easy access to health care and facilities, avoiding loneliness and depression, and relations with peers and counterparts, which can be effective in maintaining the mental health of the elderly (Darvishpoor Kakhki et al., 2010). Schoenberg and colleagues argued that if elders physically need care homes, and if care practices are appropriate, care centers would be good choices, which only need elders' adjustability (Schoenberg, Coward, and Albrecht, 2001).

However, since the mental and physical health of elderly people is closely related to their residential status (Kim et al., 2003), and since the results of the research regarding different residential statuses are controversial, an important question arises as to which residential condition more benefits elders' health. Therefore, the purpose of this study was to examine the effects of residential status on incidence of psychosomatic disorders among elderlies. For this purpose, we compared the frequency of psychosomatic disorders between men and women elderlies living in nursing homes (both public and private) and those living out of nursing homes with their families, or alone.

## MATERIALS AND METHODS

**Participants:** This study is based on data collected from public and private elderly care homes located in the city of Rasht. The sample consisted of 160 men and women. To be eligible for contribution in the study, elders had to be aged 65 years or over, with no serious cognitive deficiency, and able to communicate satisfactorily. Short admissions, planned to last less than 6 months, were excluded. Thirty elders recruited equally from each private and public care homes, and fifty elders recruited equally from alone elders, and elders who live with their families. **Measures:** Participants were presented with an experimental booklet. The first page of the booklet explained the voluntary nature of the study; the second page contained questions about participants' demographic characteristics such as age, gender, education, previous job, number of children, income, and residential status. The booklet also included Psychosomatic Disorders Symptoms Checklist (PDSC) to measure psychosomatic symptoms of participants.

A group of physicians (cardiologists, gastroenterologists, neurologists, dermatologists, and psychiatrists) in Iran have developed this checklist to assess the symptoms of eight psychosomatic disorders relating to five main groups of cardiovascular (essential hypertension, cardiac arrhythmias, and migraine), respiratory (asthma), gastrointestinal (ulcers, and intestinal ulcers), neurological (anorexia nervosa), and dermatological disorders. PDSC has excellent psychometric properties. Test-retest reliability correlations ranged from 0.73 to .86 across subscales in elderly

population over a ten-day period. Cronbach's alpha also was employed to find reliability; the scale had a Cronbach alpha of 0.84. The booklet was administered in face-to-face interviews, lasting about 1 hour. Data relating to chronic physical conditions were also obtained from participants' dossier.

In order to verify resulting data and increase the reliability of information, semi-structured interviews were made with managers, attending physicians, elders' family members, and the nursing staff. Data were analyzed using chi-square, odds ratio (OR), and relative risk (RR) tests. For all analyses, SPSS 16 was used and a p value below 0.05 was considered significant.

## RESULTS

The average age of the participants was 71 years (SD = 6.73), and the age range for them was 16 years (66-82 years). The education level of the majority of the research participants was twelfth grade or less (n = 134, 84%), and the remaining participant population was more than high school (n = 26, 16%). The length of time (total number of months) that the participants have lived in the care homes ranged from 9 to 66 months. Approximately fifty-five percent of participants benefited retirement salary. Table 1 presents the number and percentage of participants with psychosomatic disorders according to their gender and living arrangement.

**Table1:** The distribution of participants with psychosomatic disorders

Living arrangement	Gender	N (percent of total)	Percent of patients
Public care homes	Women	2(3.17 % )	6.35
	Men	2(3.17 % )	
Private care homes	Women	4( 6.35 % )	11.11
	Men	3(4.76 % )	
Alone	Women	15( 23.81 % )	42.86
	Men	12 ( 19.05 % )	
With family	Women	14 ( 22.22% )	39.68
	Men	11( 17.46% )	
<b>Total</b>		63(39.375 % )	100

As table 1 show, 63 participants (39.37 percent) were diagnosed as suffering from psychosomatic disorders, some of them suffering more than one disorder. Comparing the prevalence of psychosomatic disorders between different living arrangements using Chi-square revealed higher incidence of these disorders among elderlies living alone ( $\chi^2$  (2, N = 160) = 18.63, P <0.01) or with their families ( $\chi^2$  (2, N = 160) = 18.63, P <0.01) than those who live in care homes (public or private). Elders who live out of care homes were more likely to have psychosomatic disorders than those who live in care homes (odds ratio= 4.82, 95% CI= 2.25 - 10.34, relative risk = 2.84). Recording an odds ratio of 4.44 indicates that elders who live out of care centers were over 4 times more

likely to report a psychosomatic disorder than those who live in these centers. There was no significant difference neither between elderlies living alone with those living with their families ( $\chi^2$  (1, N = 100) = 3.005, P >0.05), nor between public and private care home dwellers ( $\chi^2$  (1, N = 60) = .45, P >0.05). The Chi-square test did not also show any significant difference between elderly men and women. Reviewing the distribution of psychosomatic disorders among study sample indicates that almost all five kinds of these disorders are more or less common among the elderlies. The distribution of frequency of subcategories of psychosomatic disorders in terms of living arrangements is shown in table 2.

**Table 2:** Distribution of psychosomatic disorders among elderlies

Type of disorder	Living arrangements				N	Percent
	Private care homes	Public care homes	With family	Alone		
Dermatological disorders	1	0	0	0	1	0.92
Cardiac arrhythmias	2	0	13	19	34	31.19
Migraine	1	1	3	5	10	9.17
Essential Hypertension	3	1	21	17	42	38.53
Asthma	0	0	2	2	4	3.67
Ulcer	2	2	1	3	8	7.34
Intestinal ulcers	2	0	1	1	4	3.67
Anorexia nervosa	1	2	3	0	6	5.51
<b>Total</b>	12	6	44	47	109	100

Comparing the frequency of subcategories of psychosomatic disorders reveals that cardiovascular disorders, including essential hypertension, cardiac arrhythmias, and migraine have the highest incidence (%78.89) among the elderly. Gastrointestinal (%11.01), respiratory (%3.67), neurological (5.21), and dermatological disorders (%0.92) are in next places respectively.

## DISCUSSION

The present study was designed to determine and compare the prevalence of psychosomatic disorders in elderlies who live in nursing homes with those who live in community. Unlike the results of some previous research, and contrary to expectations, this study showed that psychosomatic disorders are less prevalent among nursing home residents compared to elderlies living outside nursing homes, with their families or alone. This rather contradictory result may be due to a decrease in social activities and social relations of elderlies who live alone outside nursing homes (Drageset et al., 2009). Since living alone is considered to be a powerful stressor for older people, it increases the risk of stress-related physiological responses precipitating or exacerbating stress related diseases (Comer, 2001), including psychosomatic disorders. Another possible explanation for this is that feelings of insecurity and being abandoned and uncertainty about the future of their lives as a stressor exacerbates the situation.

On the other hand, older people who live with their families experience many stressful factors, among them are the feelings of being a burden, lack of respect and consideration they expect, lack of responsibility commensurate with their abilities, problems arising from generational incompatibilities, presence of high expectations among the elderly and children, and inevitable exposure to stressful news, economic and social problems, and family conflicts of children. Since uncontrollable stress has a greater negative impact on the immune system of the elderly than younger people (Davison et al., 2004), it is normal to be exposed to these stressors increase the possibility of psychosomatic disorders in the elderly. It seems that children cannot always provide a great cheer for their old parents. Old parents do not feel comfortable with their children to talk freely about their needs, special conditions, or past memories, compared to their same age friends. Indeed, according to Chappell and Badger widowed elders who live with their children feel lonelier than those who live alone (Chappell & Badger, 1989). Parents who live with their children are less likely to be integrated into informal networks of friends, neighbors, and relatives. They report the lowest levels of positive and the highest levels of negative relationship quality with their children (Ha & Carr, 2005).

On the other hand, old people who live in nursing homes have appropriate social and emotional relationships with their housemate counterparts, who deeply comprehend them; in addition, they enjoy regular sleep program, bath, healthy diet, and periodic medical examinations. They encounter stressful social, economic, and family factors less than their community dwelling counterparts; and those nurses care for them who are experienced and had appropriate trainings. In addition, since most of the elders in this study had poor living conditions before entering the nursing homes, their low expectations led to increased satisfaction with being in caring centers.

The findings of the current study are consistent with those of Tu, Wang, and Yeh who found elderly residents within nursing homes benefit improved perceived empowerment and quality of life, if some conditions in nursing care practice were satisfied (Tu et al., 2006). The present finding seems also to be consistent with other research, which found that because of experiencing less stress, senior residents of care homes experience less psychosomatic disorders (Pirmohammadi, 1996). The study also showed no difference between private and public nursing homes residents in terms of the prevalence of psychosomatic disorders. This result might be explained by the fact that there is not any significant difference between the living conditions of elders in these two types of caring centers. In spite of the differences in the financial resources of the centers, voluntary donations to private nursing homes reduce any difference in living facilities.

It seems that the findings of such researches must be interpreted with caution because there are several types of elderly care homes in Iran, which vary greatly in their conditions, and are very different from those in developed countries in terms of their quality and facilities. One of the great benefits of elderly care homes is that there is positive interactions between same age counterparts and trained staff who can provide substantial source of social support for the elderlies, which can be an effective factor in their health. According to Berk, living in care centers has numerous beneficial impacts on seniors' physical and mental health and help them to overcome their motor limitations and to increase social participation (Berk, 2007). Given the current trend of increasing attendance of the elderlies in nursing homes in Iran, it is suggested to decrease existing negative misinformation against these centers, producing increased levels of concern among families. Instead, it is essential to increase governmental and social support and supervision to enhance the quality of the homes and turning them to an active and dynamic place for self-confident and self-reliant residents. Previous intervention studies on health-promotion programs in long-term care settings have confirmed that lifestyle enhancement is important and indeed possible in these

people. On the other hand, elderlies out of these centers, including those who live alone or with their families, should not be neglected, it is necessary to expand community supportive network over them.

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