Original Article

Illness Anxiety Disorder and Its Relationship with Social Health in the Elderly, Isfahan, Iran

Abstract

Background: The present study investigated the prevalence of illness anxiety disorder and its relationship with social health in the elderly population. **Materials and Methods:** This cross-sectional study was conducted on 400 elderly people in Isfahan referred to the educational health service in 2020. In addition to demographic characteristics, they answered the 36-item Evans hypochondriasis questionnaire and the 28-item social health questionnaire. **Results:** Four hundred elderly participants with a mean age of 68.1 ± 6.6 (range: 60–89) were included in the study. One hundred and ninety-nine (49.8%) were female and 201 (50.3%) were male. Only 24.3% of the geriatrics were in the healthy group and 21.2% in the borderline category. Seventy-two of the geriatric population (18%) had poor social health and 299 of this population (74.8%) had moderate social health, and the social health status of 29 elderlies (7.3%) was favorable. There was an inverse relationship between hypochondriasis score and total social health score and its dimensions ($P < 0.05$). **Conclusion:** High prevalence of hypochondriasis was observed in the geriatrics compared to global studies. Most of the elderly population had moderate social health. Gender and education do not affect hypochondriasis and social health in the elderly. People with higher social health scores were clearly less likely to get hypochondriasis. Therefore, by improving the various dimensions of social health of the geriatrics, we can help reduce the prevalence of hypochondriasis in this age group.

Keywords: *Elderly, hypochondriasis, anxiety disorder, social health*

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Introduction

Due to the increase in life expectancy in the world and Iran and changes in the age structure of the population, it is expected that the number of Iranian geriatric population increases significantly in the coming years. Generally, the general health of the elderly is disturbed, and in addition to the common diseases of this period such as hypertension, heart disease, neurological diseases, and cancer, depressive disorders, anxiety, dementia, nervous stress, and sleep disorders also affect a large percentage of the elderly.[1-3] One in three individuals aged 65–84 years living in different European and associated countries, had experienced at least one mental disorder within the past year, and nearly one in four currently had a mental disorder.[4] In addition to physical and mental problems, another complication that can affect the health of the elderly is illness anxiety disorder (IAD) (previously called hypochondriasis). IAD is a mental disorder that is usually difficult to diagnose and is characterized by a person's belief in a serious illness and concern about it. This mistaken belief must have lasted for at least 6 months in spite of lack of pathology findings in medical and neurological examinations. Its prevalence varies in different studies and has been reported from 0.75% to 5.8%.[5,6]

Patients with IAD often seek medical attention and experience social and occupational disability.[7] Accordingly, addressing the social aspects of health in the elderly can help identify preventive and effective interventions to promote their physical and mental health.

The concept of social health is related to the gap between full health as defined by the World Health Organization and the health status of most people with chronic disease or chronic condition. In this regard, social health recognizes that in order to achieve a state of well-being, individuals can use their limitations in their social and psychological limits, while maintaining a balance between ability and disability, and opportunities to regain some of their abilities.[8]

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The social dimension of health includes the levels of social skills, social functioning, and the ability of each individual to recognize himself or herself as a member of the larger community. In measuring social health, attention is paid to the way a person communicates in the social relation network.[9]

The aim of this study was to investigate the relative frequency of IAD in the elderly and to determine the relationship between this issue and the social aspect of health in this age group.

Materials and Methods

This cross-sectional study was conducted on 400 elderly people in Isfahan who refer to the health service centers in Isfahan, Iran, from September 2020 to March 2021. The inclusion criteria were age 60 years and over and not suffering from a debilitating physical illness that seriously affects their quality of daily life, such as heart surgery (angiography was not considered), malignancies, need of permanent urinary catheterization and catheters (including colostomy-port, etc.), history of ischemic brain diseases that have undergone surgery or caused a major disability, history of psychiatric illnesses for which they are currently receiving medication (sleep problems and the use of sleeping pills alone were not considered). The exclusion criteria were if more than 20% of the questionnaire information was not completed and dissatisfaction at any stage of the research.

The sample size was calculated as 384 participants with a standard deviation of 10.96[10] and d of 0.1. Regarding the nonresponse rate of 10%, 400 elderly people referred to 4 comprehensive educational health service centers were selected by simple random sampling using Excel software.

Data collection tools included demographic data form, Evans hypochondriasis questionnaire, and social health questionnaire. The Evans hypochondriasis questionnaire contains 36 questions, and respondents are divided into healthy group (0–20), borderline group (21–30), mild group (31–40), moderate group (41–60), and severe group (above 60). The validity and reliability of this tool in Iranian society have been reviewed by Talaei *et al*., and Cronbach's alpha is reported to be 0.89.[11]

The social health questionnaire consists of 28 items and 5 subscales of social prosperity-social solidarity-social acceptance-social participation-social cohesion. The items are scored on a 5-point Likert scale (strongly agree = 5 to strongly disagree = 1). Therefore, the minimum and maximum scores will be 28 and 140, respectively. The validity and reliability of this tool in Iranian society were reviewed by Saffari *et al*., and Cronbach's alpha was 0.77.[12] Scores below 67 are considered poor social health, scores between 68 and 90 are considered moderate social health, and scores above 91 are considered good social health. Questionnaires were completed by the elderly themselves.

Data analysis was performed using Statistical Package for Social Sciences (SPSS Inc., Chicago, Illinois, USA) version 22.). The normal distribution of data was examined using Kolmogorov–Smirnov Z-test. The Chi-square test, Pearson correlation, and multiple linear regression analysis tests were used. The significance level was set at 0.05.

Results

Four hundred elderly participants with a mean age of 68.1 ± 6.6 (range: 60–89) were included in the study. One hundred and ninety-nine (49.8%) were female and 201 (50.3%) were male. Thirty-six (9%) participants were illiterate, 100 (25%) were undergraduate, 110 (27.5%) had diplomas, and 154 (27%) had university degrees. The mean score of hypochondriasis and social health in the participants was 33.7 ± 17.6 and 76.6 ± 9.7, respectively. Based on the hypochondriasis score, 97 (24.3%) were healthy, 85 (21.2%) were borderline, 88 (22%) were people in low condition, 101 (25.2%) were in moderate status, and 29 (7.3%) were in severe condition. The mean score of hypochondriasis was not statistically significant in females and males (34.9 ± 18.2, 32.5 ± 16.9, $P = 0.15$).

Based on social health score, 72 members (18%) had poor social health and 299 of them (74.8%) had moderate social health. Meanwhile, the social health status of 29 elderly people (7.3%) was favorable. Independent *t*-test showed that the mean total score of social health and its dimensions were not significantly different between male and female participants [Table 1].

Pearson correlation coefficient showed that there was an inverse relationship between hypochondriasis score and total social health score and its dimensions [Table 2].

Multiple linear regression analysis showed that by controlling the variables of age, sex, and level of education, the best predictors for hypochondriasis score among the dimensions of social health were social participation scores, social solidarity, and social flourishing [Table 3].

Discussion

In this study, which aimed to evaluate the prevalence of IAD in the elderly, less than one-quarter of the participants were in a healthy state. However, the prevalence of this disorder in the fifth revised version of the Diagnostic and Statistical Manual of Mental Disorders was about 2%–7%.[6] One of the reasons for the difference in frequency is the target group we were studying. The prevalence reported in our study is related to the elderly. Another possible reason is the higher prevalence of chronic diseases in the elderly, and since the elderly may have more interactions with social groups of the same age, according to the social learning theory, this relationship with the patient's peers can lead to IAD in the elderly. However, a closer look at the causes of higher prevalence of IAD in the study population than global average needs more study.

Table 1: The mean score of social health and its dimensions by gender

Dimensions of social health	Male (*n*=201)		Female (*n*=199)		*P*
	Mean	SD	Mean	SD	
Total score	02/77	5/9	2/76	9/9	39/0
Social flourishing	4/18	9/4	9/17	9/4	28/0
Social cohesion	3/19	3/4	4/19	7/4	88/0
Social participation	6/17	9/2	6/17	1/3	91/0
Social solidarity	4/11	3/2	3/11	4/2	55/0
Social acceptance	2/10	6/1	02/10	7/1	26/0

Independent *t*-test. SD: Standard deviation

Table 2: Correlation between hypochondriasis score and total social health score and its dimensions

Dimensions of social health	Hypochondriasis score	
	r	*P*
Total score	−0/284	<0/001
Social flourishing	−0/207	<0/001
Social cohesion	−0/103	0/04
Social participation	−0/175	<0/001
Social solidarity	−0/200	<0/001
Social acceptance	−0/158	0/001

Pearson correlation

Table 3: Linear regression analysis to predict hypochondriasis score based on scores of social health dimensions by controlling the variables of age, sex, and level of education

Dimensions of social health	Unstandardized coefficients	Standardized coefficients	*P*
Social flourishing	−0/385	−0/108	0/03
Social cohesion	−0/341	−0/087	0/11
Social participation	−0/866	−0/150	0/005
Social solidarity	−0/848	−0/113/	0/01
Social acceptance	−0/835	−0/077	0/13

Multiple linear regression

Studies show that somatization is generally seen in people with lower social status and less educated people, but it is unclear whether these generalizations can be used for hypochondriasis. In this study, no significant relationship between education level, sex, and hypochondriasis score was found. In Pandey *et al*.'s study, the prevalence of IAD was higher in females and people on a lower income.[13]

In our study, only 7.3% of the participants had good social health. Considering the increasing life expectancy index in Iran and the world and the growing population of the geriatrics, ensuring the general health of the elderly is one of the issues that require special attention. Most of the geriatrics in the study population had moderate social health status; increasing attention and planning to improve the status of social health indicators in the geriatrics are necessary.

In this study, it was found that there was an inverse relationship between hypochondriasis score and total social health score and its dimensions. Therefore, by improving the social health of the geriatrics, it is possible to help reduce the prevalence of IAD in this age group. This study showed that by controlling the variables of age, sex, and level of education, the best predictors for IAD score among the dimensions of social health are social participation, social solidarity, and social flourishing, and by improving social communications of the geriatrics, prevention lonely feeling in them and participating more in social activities helped reduce their IAD. Barnett *et al*. discussed the role of loneliness in activating threat systems, and noted that in older adults, feeling lonely was associated with more hypochondria.[14]

This study also had its limitations. For example, the study group consisted of people referring to the health system that should be careful in generalizing the results to the whole community. Furthermore, given that people knew they were being studied, they may not have chosen reality in answering the questions. Of course, to reduce this problem, the purpose of the study and the confidentiality and anonymity of the questionnaires were explained to the participants at the beginning of the study.

Conclusion

Less than one-quarter of the elderly participants were in a healthy state. We also found an inverse relationship between IAD and social health and its dimensions, and people who have a higher social health score clearly have less IAD.

Ethics approval

In this study, the principles of the Helsinki Declaration were followed. The Ethics Committee of Isfahan University of Medical Sciences has approved the current study (IR.MUI.MED.REC.1398.538). After explaining the objectives and method of this study, informed consent was obtained from all participants.

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Conflicts of interest

There are no conflicts of interest.

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