RESEARCH

HOW AWARE ARE FAMILY PHYSICIANS OF THE SOCIAL LIFE AND LONELINESS OF OLDER PEOPLE?

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Abstract

Introduction: The consequences of social isolation and loneliness on health and well-being in old age are increasingly being acknowledged. In this study, we examined how older patients perceive their social relationships and loneliness and explored family physicians' awareness of these issues.

Materials and Methods: This descriptive study evaluated social relations and the loneliness of older patients using the UCLA loneliness scale (UCLA-LS), the Nottingham Health Profile Social Isolation (NHP-SI) subscale, and a social relations questionnaire. The responses of these patients to loneliness and being socially active were compared with the reactions of family physicians to the same topics.

Results: Five family physicians and 200 older patients participated in this study. According to the patients' education levels and economic status, both scales exhibited significant differences. A significant correlation was found between chronic disease and UCLA loneliness on the scale, while a significant difference was found in the social isolation subscale according to those who lived with. Moreover, the family physicians clearly understood the relationship between living alone and their economic status.

Conclusion: This study revealed that the social isolation of older patients was affected by their education level, economic status, and who they lived with. It was also found that loneliness was affected by education level, financial situation, chronic disease, and disability.

Keywords: Family Practice; Aged; Loneliness; Social Isolation.

INTRODUCTION

It should be remembered that aging is an inevitable process, public perceptions of older people are different in every society, and biological processes differ between people. In addition to biological factors, diversity in psychological, social, and cultural conditions can also affect aging (1, 2). Therefore, given the increased proportion of older people in society, there is a need to design health and social services accordingly, and physicians should develop their professional competencies to meet this challenge (3).

Social problems and the chronic health care of older patients can be neglected when treating daily complaints. Moreover, older people are at risk of social isolation and loneliness due to economic-social losses, functional decline, the death of spouses, and changes in family structure (4,5). However, being socially connected is a requirement for psychological and emotional well-being and positively affects physical well-being and longevity (6).

The Age-Friendly Primary Health Care Center Guide developed by the World Health Organization (WHO) for primary health care center employees supports the health of older people (7). Moreover, physicians working in primary care should evaluate older patients within the discipline of family medicine to improve their health, provide treatment or care, and increase their quality of life (8,9). In this study, we examine older patients' perceptions of their social lives and loneliness and their family physicians' awareness of these issues.

MATERIALS AND METHODS

Study design

This descriptive study compares the senses of loneliness and social isolation of older patients and the responses of their family physicians. The study was carried out with five different volunteer family medicine specialists. A minimum of 40 patients were calculated from each family physician with 80% power and a 5% margin of error in the G-Power statistics program. Each family physician was visited once a week, and data were collected from 3–4 patients each day. Consecutive patients were excluded from the study because family physicians could have become familiar with the questionnaire and caused bias. The data collection process was completed between December 15, 2018, and February 15, 2019.

Participants

Patients who had been registered with each family physician for at least 6 months and who did not have any psychiatric disease or cognitive dysfunction (such as Alzheimer's or dementia) were included in the study.

Data collection tools

A sociodemographic data survey (UCLA-LS), the NHP-SI subscale, and a social relations questionnaire prepared by scanning the literature were applied to each patient and family physician.

Sociodemographic data survey

The sociodemographic data questionnaire included the following pieces of information: gender, age, education level, marital status, who they live with, how many children they have, profession, economic status, chronic diseases, how many months they have been registered with the family physician and the number of patients who had applied to the polyclinic that day. We also asked the following about the family physicians: age, number of years in the profession, duration of employment in their current Family Medicine Unit, proportion of patients aged over 65 years, and the speed of referrals of patients aged over 65 years during the previous 6 months.

UCLA Loneliness Scale

This 20-item scale is designed to measure a person's sense of loneliness and social isolation. Patients rate each item on a scale from 1 (never) to 4

(usually), and the highest points are 80. The higher the total score, the higher the feeling of loneliness, and *vice versa*.

Nottingham Health Profile Social Isolation subscale

This is a 5-question subscale of the NHP. Since there is no threshold for measurement, each subcategory is evaluated within its own limits. Accordingly, low scores suggest a low impact of the complaint, while high scores reflect an increased effect of the complaint.

Social relations questionnaire

Based on questions used in similar studies in the literature, 5 questions were developed to evaluate the patients' levels of social participation and loneliness. These questions included the following topics: social participation (such as how often they were visited by their relatives at home last month), feeling lonely (even when with company), and having a relative to talk to if they need help (Annex 1).

Social relations questionnaire for family physicians to evaluate their patients

The family physicians were asked 6 questions about each patient. To facilitate comparisons with the patients' answers, the doctors were asked the same questions about their patients (i.e., who they lived with and levels of social participation and loneliness). The other 5 questions were the same as the patients' social relationship questions. (Annex 2)

Statistical analysis

In the statistical analysis, when descriptive statistics were provided for normal distribution conditions, student t-tests and ANOVA were employed to compare the two independent groups in continuous data. The data obtained from the study were evaluated using SPSS 15.0. If the normal distribution conditions were not met, Mann–Whitney U and Kruskal–Wallis tests were applied. For comparisons with categorical data, the kappa values were examined using a chi-square test.

Ethical procedure

Permission was obtained from the local University Faculty of Medicine Health Sciences Ethics Committee with 20478486-050.04.04 dated 04.10.2018. Each patient was informed about inclusion in the study, and their consent was obtained.

RESULTS

A total of 5 family physicians and 200 older patients participated in this study to investigate the awareness of family physicians about the loneliness and social participation levels of their registered patients.

Distribution of patient characteristics

The 200 patients comprised 103 females and 97 males, with a mean age of 72.47 ± 5.82 years. The other characteristics of the patients are displayed in Table 1.

The mean score of the patients on the UCLA-LS was 36.69 ± 6.71. The mean score obtained from the NHP-SI questionnaire was 12.47 ± 24.50. Further, 14.5% of the patients answered "yes" to the question of feeling lonely, 13.5% stated "I have difficulty establishing relationships with people," 8.5% said "I do not feel close to anyone," and 13.5% reported "I think I am a burden on people" (Table 2).

Assessment of characteristics in sociodemographic data using the scales

When the mean scores of the UCLA-LS and the NHP-SI subscale were compared according to the sociodemographic data of the patients, no statistical differences were found according to gender. However, there was a significant difference in both scales according to education level and economic status. Moreover, a vital relationship was revealed between the presence of a chronic disease and UCLA-LS. According to those who lived with the disease, a significant difference was found in the NHP-SI subscale. There was no significant differ-

Table 1. Distribution of Patient Characteristics

Features	S/Ort.	% (veya SS*)
Gender		
Femsle	103	51,5
male	97	48,5
Age		
Mean	72,47	5,822*
Education		
Illiterate	12	6
literate	17	8.5
Primary school	96	48
Middle School	32	16
High school	30	15
University	13	6.5
Marital status		
Married	152	76
Not married (widowed, divorced, never married)	48	24
Economical situation		
Equal to monthly income	73	36,5
Less than monthly income	120	60
More than monthly income	7	3,5
Chronic disease		
Yes	189	94,5
No	11	5,5
With whom she/he lives		
Alone	39	19,5
With his wife	122	61
With his wife and children	19	9,5
Other (caregiver, sibling, relative)	22	11
The length of time she/he was registered with the family doctor		
6-36 months	115	57,5
37-84 months	85	42,5
Child		
0-3	152	76
4-9	48	24

ence between the loneliness scale and with whom the patients lived (Table 3).

Correlation of sociodemographic data using the scales

The correlation between educational status and the presence of chronic illnesses and the mean total scores of the UCLA-LS and the NHP-SI subscale were significant. As education levels increased, loneliness and social isolation decreased. Moreover, levels of loneliness increased in the presence of chronic illnesses. The mean total scores of the UCLA-LS were significantly positively correlated with the mean total score of the NHP-SI total score mean ($r = 0.680$, $p < 0.001$).

Assessment of participation in social life and the perception of loneliness

When evaluating the social relations toward the patients, 42% of the patients stated that they never participated in social activities outside, and 18% felt lonely even when in the company of others. Patients' answers such as "I feel alone when I am with others or relatives" and "who is living with" were evaluated mutually, and a significant difference was found ($p = 0.009$).) The social isolation subscale score of patients whose relatives visited was significantly lower ($p < 0.001$). Further, the social isolation subscale scores were considerably lower for patients who visited other people's homes ($p < 0.001$).

Distribution of Family Physicians' Characteristics

Five family physicians (four female and one male) participated in the study, with a mean age of 39.8 years. The mean work time in the profession was 15.8 years and had been working in their current Family Medicine Unit for an average of approximately 4.8 years. The percentage of patients aged over 65 years in the general population was 5%–11%, while the referral rate of patients over 65 years of age to family physicians varied between 8% and 24% daily.

Table 2. Frequency of patients' responses to UCLA Total score, NSP-SI subscale total score, and NSP-SI subscale

		Median	Sd	Min./Max.
UCLA Loneliness Scale total score		36,69	6,71	28/61
NHP-SI subscale total score		12,47	24,50	0,00/100
Nottingham Health Profile /Social Isolation subscale				
	N (%)	**Median**	**Sd**	**Min./Max.**
I feel alone				
Yes	29 (14,5)	3,19	7,76	0,00/22,01
No	171 (85,5)			
I have difficulty interacting with people				
Yes	27 (13,5)	2,61	6,63	0,00/19,36
No	173 (86,5)			
I don't feel close to anyone				
Yes	17 (8,5)	1,71	5,62	0,00/20,13
No	183 (91,5)			
I think I'm a burden to people				
Yes	27 (13,5)	3,04	7,71	0,00/22,53
No	173 (86,5)			
It's hard to get along with people				
Yes	24 (12)	1,91	5,20	0,00/15,97
No	176 (88)			

Family physicians' perceptions

There were two significant variables in the assessment of whether the five family physicians knew about the social relationships and loneliness of the patients. The first was the relationship between the economic status of individuals over the age of 65 and doctors' ability to predict whether their patients lived alone ($p = 0.035$). The second was the doctors' predictions of whether these individuals were alone, according to the marital status of those in the group who did not live alone ($p < 0.001$). It was not statistically significant whether doctors knew their patients were truly alone in terms of gender, presence of chronic disease, and occupational and social participation parameters (Table 4).

Comparison of Family Physician and Patient Answers

The family physicians reported that 34 of 39 patients said they lived alone, 113 of 122 patients reported living with their spouses, 7 of 19 patients reported living with their children, and 3 of 20 patients reported living with their caregivers or other persons. The kappa value of this comparison was 0.636, and the p-value was <0.001. It is worth noting that the doctors predominantly knew who their patients were living with (Table 5).

Table 3. UCLA-LS, and NHP-SI subscale evaluation with Sociodemographic data of the patients

Features		N	UCLA-LS			NHP-SI		
			Med.	Sd	p	Med.	Sd	p
Gender	**Female**	103	36,05	6,38	0,171	9,94	21,15	0,133
	Male	97	37,36	7,02		15,15	27,47	
Education	**Illiterate**	12	43,91	8,24	**0,002**	34,86	33,44	**0,008**
	literate	17	35,23	4,23		6,56	10,48	
	Primary school	96	37,16	6,72		14,82	25,96	
	Middle School	32	35,18	6,68		8,06	24,79	
	High school	30	35,36	4,18		6,22	15,98	
	University	13	35,15	8,75		7,44	21,70	
Marital status	**Married**	152	36,42	6,99	0,241	11,71	23,20	0,093
	Not married	48	37,52	6,63		14,88	24,92	
Economical situation	**Equal to monthly income**	120	35,32	6,19	**0,038**	6,73	18,93	**0,003**
	Less than monthly income	73	37,55	6,96		16,52	27,24	
	More than monthly income	7	36,14	6,06		2,87	7,60	
Chronic disease	**Yes**	189	37,01	6,76	**0,000**	13,09	25,03	0,108
	No	11	31,18	1,40		1,76	5,83	
With whom she/he lives	**Alone**	39	38,15	7,73	0,157	15,36	25,83	**0,043**
	With his wife	122	35,91	6,27		10,84	24,91	
	With his wife and children	19	36,63	6,02		11,83	22,39	
	Other (caregiver, sibling, relative)	20	36,69	6,71		17,38	21,58	

DISCUSSION

The concepts of loneliness and social isolation in older people were assessed in detail using all their components. The rate of loneliness was between 40% and 50%, with females aged 80 years and over having relatively higher loneliness rates (10,11). In a study carried out in Spain, 36.7% of individuals over the age of 65 years lived alone, and 56% of men and 72% of women in this population reported that they felt increasingly lonely with age (12).Approximately 33% of the Dutch population over 55 years of age live alone, and 4% experience severe loneliness (13). In comparison, we found that 14.5% of the patients felt lonely, and that the mean loneliness score of 41% was above average. In Denmark, 17.6% of older patients who applied to a family physician felt lonely (14).

The total scores of our patients (from UCLA-LS and NHP-SI) correlated with their education level. It has been determined that as educational levels increase, loneliness and social isolation decrease. A similar relationship between education level and loneliness was found in Sweden and Iran (10,15). In Iran, 29% of patients felt lonely according to the UCLA-LS scale. Here, a high education level, high income level, and having a current job were inversely related to feelings of loneliness. Moreover, marital status, having several children, gender, place of residence, living in a nursing home, low-income level, and healthy self-assessment level were found to be positively associated with loneliness (15).

In New Zealand, a negative relationship was found between loneliness and physical health and psychosocial well-being (16). We found that lone-

Table 4. Evaluation of the loneliness status of their patients by family physicians

Features		Those who live alone			Those who do not live alone		
		Family physician's answer			Family physician's answer		
		Not alone	Alone	p	Not alone	Alone	p
Gender	Female	1	17	0,349	83	2	0,256
	Male	4	17		71	5	
Chronic disease	Yes	5	34	1	7	143	0,464
	No	5	34		0	11	
Economical situation	Equal to monthly income	17	0	**0,035***	56	0	0,084
	Less than monthly income	17	5		92	6	
	More than monthly income	0	0		6	1	
Marital status	Married	2	6	0,248	141	3	**0,000***
	Not married	3	28		13	4	
Visited by relatives in the last month	At least once a week	3	20	0,688	79	2	0,106
	Less than once a week	1	11		64	3	
	Never visited	1	3		11	2	
Visiting relatives in the past month	At least once a week	2	13	0,318	42	2	0,900
	Less than once a week	1	16		78	3	
	Never visits	2	5		34	2	
Participation in out-of-home activities in the past month	At least once a week	1	8	0,201	31	3	0,065
	Less than once a week	0	12		56	4	
	Never participated	4	14		67	0	

liness and social isolation decreased significantly with improvements in the patient's economic situation, and the UCLA-LS loneliness score was considerably higher in patients with chronic diseases. These results were similar to a study in Iran, where it was revealed that self-perceptions of loneliness decreased as financial situations improved (15). Hence, low-income levels, living alone, and having a chronic illness were determined to be factors that increased levels of loneliness in older patients (17,18).

Comparing with whom the patients lived and their social isolation status, it was determined that people living alone were significantly more isolated than other groups. It was also found that those who had never married, were widowed, or divorced, and those who lived in nursing homes were statistically and significantly more lonely compared to those who lived with their spouses or had children. The mean loneliness scores of older people living in two different nursing homes in Turkey were 51.10 and 39.05, compared to 40.43 and 45.36 for those living at home or in institutions, respectively (19). In Denmark, it was found that older people who lived alone were 3.5 times more likely to experience loneliness, while those with low levels of social participation were 4 times more likely to feel alone. Furthermore, females were 1.8 times more likely to feel alone (20).

The frequency of being visited by relatives at home and visiting relatives were positively related to the patients' NHP-SI scores. It was also observed that as the frequency of mutual visits increased, the

Table 5. The overlap between the answers of the Family physician / patient for the question of whom the patients live with

Who Lives With						kappa	p
Patient's Answer	Family Physician's Answer						
	Alone N (%)	With his wife N (%)	With his wife and children N (%)	Other N (%)	Total		
Alone	34 **(82,9)**	2 %1,6	2 %6,1	1 %100	39	0,636	**0,000***
With his wife	2 (4,9)	113 **%90,4**	7 %21,2	0 %0,0	122		
With his wife and children	0 (0,0)	7 %5,6	12 **%36,4**	0 %0,0	19		
Other (caregiver, sibling, relative)	5 (12,2)	3 %2,4	12 %36,4	0 **%0,0**	20		
Total	41	125	33	1	200		

perception of social isolation decreased. A prospective study conducted with 334 older people (mean age of 72.6 years) in Germany predicted that being socially isolated was associated with low levels of outside physical activity and more depressive symptoms. Here, depression, living alone, and low social participation levels were determined as the three most effective parameters associated with feelings of loneliness (6). However, only 15.2% of our patients who were experiencing loneliness shared this situation with their doctors.

The responses of the family physicians and patients to the question of who the patients lived with significantly overlapped, with 14.5% of the patients reporting that they lived alone compared to family physicians, estimating that 21.5% lived alone. The family physicians knew 82.9% of those who lived alone in their answers. They also knew 47.4% of the patients who reported living alone and 81.9% of not-alone patients (14). In a similar study conducted in Denmark, 17.6% of patients said that they were lonely, while the family physicians stated that 23.2% of their patients felt lonely.

Generally, we found that the family physicians did not know about the patients' social relationships/social participation, whether they felt lonely when with others, or whether they had a relative to talk to when they needed support. In another study in which the social participation of patients was examined, the patients were analyzed by grouping them into two levels. The doctors knew that the involvement of patients in social activities was low and moderate, at 56.4%, and the higher ones were known by 62.8%. It was also found that family physicians were more unsuccessful in identifying whether patients felt alone if they were not living alone and thought their social participation was high (14).

In this paper, when the doctor and patient answers about who the patients lived with were compared, the family physicians correctly predicted that 82.9% lived alone. In a qualitative study in the Netherlands, it was determined that family physicians never asked patients about loneliness. This apparent contradiction could be because the family physicians included in our study had been working with the same patient group for a long time or because the study in the Netherlands was carried out in a limited group due to the employed methodology (13).

Strengths and Limitations

The strength of this study was guaranteed by examining five different Family Medicine Units, one of which was rural. In addition, we did not include consecutive applied patients to avoid familiarity with

the family physician's questions. The selection of family physicians from volunteers could have been a weakness of the study. This is because the sample did not reflect all family physicians' patients, since only patients who could come to the family physician and answer the questionnaire were included in the study.

CONCLUSIONS

This study revealed that social isolation was affected by the education level and economic status of the patients and with whom they lived. Furthermore, loneliness was affected by education level, financial situation, and the presence of a chronic disease. These results suggest that family physicians should be aware of their older patients' perceptions of loneliness and social isolation and should create an environment in which they can share these concerns. Considering that elderly patients who are socially isolated and living alone may require health institutions more frequently, family physicians should pay special attention to the social isolation and loneliness of the elderly.

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