

**Research Article****The evaluation of physicians' attitudes toward the elderly**

Hekimlerin yaşlılara yönelik tutumlarının değerlendirilmesi

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Introduction

Novel diagnostic and therapeutic tools increase the life expectancy. According to the national government elderly statistics report in 2018, the rate of older people to the whole population increased to 8.8% and predicted as 22.6% for the year 2060 [1]. The ratio for the European countries was 29.6% in 2016 and is predicted to rise by 51.2% in 2070 [2]. McKinlay et al. reports that elderly patients constitute half of the patients treated at hospitals in the UK [3]. With the statistics given above, it can be assumed that the rate of the elderly would increase.

Providing a successful healthcare service to the elderly is about increasing the knowledge and skills and supporting positive attitudes of all the team members such as doctors, nurses, social workers, and psychologists. In daily clinical practice, internists, neurologists, and psychiatrists may have contact with older people more frequently.

Negative perceptions through elderly patients, especially over 85 and from nursing homes, is due for many doctors [4]. This situation occurs in the form of patronizing the elderly, giving oversimplified information, informing the family instead of themselves, and give less efforts for prevention and saving their lives [5].

Since the population is getting older, it is essential to understand the dynamics underlying the healthcare professionals' attitudes towards the elderly. In this study, we investigated the factors affecting different specialty members' (internist, neurologist, and psychiatrists) attitudes with the University of California at Los Angeles Geriatrics Attitude (UCLA-GA) scale which is the most frequently used scale for the assessment of attitude toward the elderly.

To the best of our knowledge, this is the first study that compares the attitudes of physicians from different specialties to elderly patients.

Methods

Study Participants

A total of 169 physicians (104 neurologists, 42 psychiatrists, and 23 internists) those actively serving in the outpatient clinic, inpatient clinic or intensive care unit that given informed consent were participated in the study. No personal data of the participants were collected during the study.

Study Procedures

Online forms were used for receiving participants answers to questionnaire which consist of sociodemographic information (age, sex, education history, expertise duration, geriatrics training history), existence of >65 years old relatives, visit frequency, relationship with old people, nursing home visit, exposure rate to elderly patients both in outpatient and inpatient clinics. Attitudes towards the geriatric population were assessed with the validated version of the UCLA-GA scale, which consists of 14 questions [6,7]. Each question in the Likert type questionnaire was scored from 1 to 5 in which 1 point means completely disagree, and 5 points means completely agree [7]. The higher the UCLA-GA score indicates the more positive attitudes. The data were compared between neurologists, psychiatrists, and internist participants.

Statistical analysis

The categorical variables presented with numbers and percentages and continuous data were presented as median (interquartile range) or mean \pm standard deviations according to the distribution of the data. Categorical data were compared with the chi-square test, and continuous variables were compared by using Student's t-test or Mann-Whitney U test as needed. The normality of the distribution was evaluated by using Kolmogorov-Smirnov, and Shapiro-Wilk tests. Pearson or Spearman tests were used for correlation analyses. Binary logistic regression analysis and multivariate linear regression analysis was performed to evaluate independent factors underlying attitudes towards older people. The correlation coefficient was considered weak for 0.1-0.3, moderate for 0.3-0.5 and, strong for >0.5 correlation. P-value <0.05 considered as statistically significant.

Results

The hyperlink for the study form was sent to the pre-informed specialist. A total of 169 physicians were accepted to apply for the study and answer the questions. The data was collected anonymously, and no confidential information was stored.

The participants were divided into three groups (psychiatrists, neurologists, and internists) according to their specialties. The age and gender of the participants were comparable ($p>0.05$). Although the groups have a similar rate of marriage, internists have higher rates of having children than neurologists and psychiatrists ($p=0.003$). The specialty expertise duration of psychiatrists was significantly lower than the neurologists ($p=0.001$). The history of geriatrics education was not statistically significant (Table 1).

In participants' social history, having elderly relatives, a history of living with an elderly relative, and nursing home visit rates were similar ($p>0.05$). Monthly seen elderly patient at outpatient condition was significantly higher in internist (342.0 ± 242.8) compared to neurologist (206.1 ± 174.3 , $p=0.002$) and psychiatrist (60.7 ± 64.9 , $p<0.001$). Inpatient number of elderly patients that followed-up by internists and neurologists (48.4 ± 34.0 vs. 43.0 ± 46.8 , $p=0.604$) were higher than that of psychiatrists' (5.6 ± 4.2 , $p<0.001$).

The most common outpatient diagnosis of elderly patients was hypertension (36.2%), diabetes (27.5%) and cardiac disease (18.8%) for internist, stroke (36.8%), dementia (23.3%) and headache (9.6%) for neurologists and depression (35.7%), anxiety (33.3%) and dementia (27.7%) for psychiatrists. The most common inpatient diagnosis was diabetes (34.7%), cardiac disease (23.1%) and hypertension (17.3%), for internist, stroke (36.5%), dementia (27.5%) and vertigo (25.6%) for neurologists and depression (30.1%), anxiety (19.8%) and dementia (19%) for psychiatrists.

Table 1. The comparison of the characteristics of the participants

Variable	Internist (n=23)		Neurologist (n=104)		Psychiatrist (n=42)		p
	Pos (n=16)	Non-pos (n=7)	Pos (n=75)	Non-pos (n=29)	Pos (n=24)	Non-pos (n=18)	
Gender (M/F)	12/11		33/71		15/27		0.179
	9/7	3/4	23/52	10/19	10/14	5/13	
Age (years \pm SD)	37.61 \pm 7.35		36.04 \pm 7.86		34.19 \pm 8.35		0.224
	37.9 \pm 7.4	36.8 \pm 7.6	35.6 \pm 7.8	37.1 \pm 8.0	33.5 \pm 8.0	35.0 \pm 8.9	
Married, n (%)	19 (82.6)		74 (71.1)		32 (76.1)		0.751
	14 (87.5)	5 (71.4)	53 (70.6)	21 (72.4)	16 (66.6)	16 (88.8)	
Having children, n (%)	19 (82.6) ^{a, b}		55 (52.8) ^a		16 (38) ^b		0.003
	14 (87.5)	5 (71.4)	38 (50.6)	17 (58.6)	10 (41.6)	6 (33.3)	
Living with a core family member, n (%)	21 (91.3)		79 (75.9)		33 (78.5)		0.266
	15 (93.7)	6 (85.7)	58 (77.3)	21 (72.4)	18 (75)	15 (83.3)	
Post-graduate year (>10 years), n (%)	17 (73.9)		67 (64.4)		23 (54.7)		0.288
	11 (68.7)	6 (85.7)	48 (64.0)	19 (65.5)	11 (45.8)	12 (66.7)	
Duration of general practitioner expertise (years)	9.4 \pm 3.8 ^c		6.9 \pm 2.4 ^{c, d}		9.1 \pm 4.2 ^d		<0.001
	9.7 \pm 4.4	8.8 \pm 2.1	7.0 \pm 2.2	6.8 \pm 2.9	9.3 \pm 5.3	8.8 \pm 2.2	
Duration of specialty expertise (years)	5.8 \pm 6.4		9.0 \pm 8.3 ^e		3.9 \pm 6.8 ^e		0.018
	5.7 \pm 5.9	5.8 \pm 7.9	8.6 \pm 7.6	10.2 \pm 9.7	3.0 \pm 4.6	5.1 \pm 9.0	
Number of participants received Geriatrics education in medical school, n (weeks)	6 (4.6 \pm 4.4)		27 (2.7 \pm 1.1)		14 (2.9 \pm 2.7)		0.654 (0.175)
	4 (6.2 \pm 4.7)	2 (1.5 \pm 0.7)	19 (2.7 \pm 1.1)	8 (2.6 \pm 0.9)	10 (2.2 \pm 1.1)	4 (4.7 \pm 4.8)	
Number of participants received Geriatrics education in residency, n (weeks)	7 (6.8 \pm 3.0)		17 (2.3 \pm 1.0)		2 (18 \pm 8.4)		0.021 (<0.001)
	5 (8.0 \pm 2.8)	2 (4.0 \pm 0.0)	12 (24. \pm 1.2)	5 (2.2 \pm 0.4)	1 (24)	1 (12)	
Number of participants have elderly relatives, n (%)	21 (91.3)		98 (94.2)		39 (92.8)		0.860
	16 (100)	5 (71.4)	72 (96)	26 (89.6)	23 (95.8)	16 (88.8)	
Number of participants living with elderly relatives, n (%)	13 (56.5)		40 (38.4)		21 (50)		0.185
	8 (50)	5 (71.4)	26 (34.6)	14 (48.2)	12 (50)	9 (50)	
Number of nursing home visitor, n (%)	9 (39.1)		44 (42.3)		13 (30.9)		0.445
	7 (43.7)	2 (28.5)	27 (36)	17 (58.6)	6 (25)	7 (38.8)	
Number of outpatient elderly patients in a month	324.2 \pm 242.8 ^{f, b}		206.1 \pm 174.3 ^{f, d}		60.7 \pm 64.9 ^{b, d}		<0.001
	332.3 \pm 260.7	364.2 \pm 213.0	213.4 \pm 186.1	187.4 \pm 140.1	71.7 \pm 79.7	46.2 \pm 34.5	
Number of inpatient elderly patients in a month	48.4 \pm 34.0 ^b		43.0 \pm 46.8 ^d		5.6 \pm 4.2 ^{b, d}		<0.001
	47.2 \pm 29.6	51.1 \pm 44.9	44.3 \pm 53	39.9 \pm 27.8	6.3 \pm 4.6	4.8 \pm 3.5	

p= probability, Pos= positive attitude, non-pos= non-positive attitude, ^a= internist vs neurologist p= 0.009, ^b= internist vs psychiatrist p<0.001, ^c=internist vs neurologist p<0.001, ^d= psychiatrist vs neurologist p<0.001, ^e=neurologist vs psychiatrist p=0.001, ^f= internist vs neurologist p=0.002

The percent of attitude (negative/neutral/positive) towards the elderly by internist (21.7/8.6/69.5), neurologist (23.0/4.8/72.1), and psychiatrist (26.1/16.6/57.1) was similar ($p=0.182$) according to UCLA-GA.

The factors affecting a positive attitude towards the elderly were evaluated. No significant relationship was observed with specialties, gender, age, marital status, parental marital status, living with family members, history of living with elderly relatives, having relatives at nursing home, duration of specialty expertise, and having geriatrics education in medical school and/or during residency, monthly followed-up elderly patients in inpatient and outpatient condition. The positive attitude was significantly related to having a relative older than 65 years old.

The evaluation of UCLA-GA results reveals that neurologists significantly highly think that older people are pleasant to be with someone. Neurologists also did not think that older people contribute equitably toward paying for their healthcare (Table 2).

Table 2. Mean scores of each item of UCLA-GA scale

UCLA-GA Questions	Internist (n=23)	Neurologist (n=104)	Psychiatrist (n=42)	p
1. Most old people are pleasant to be with	3.9±1.2 ^a	4.4±0.6 ^{a, b}	4.2±0.7 ^b	0.004
2. The federal government should reallocate money from Medicare to research on AIDS or pediatric disease	2.5±1.0	2.3±1.0	2.2±0.8	0.407
3. If I have the choice, I would rather see younger patients than elderly ones	2.6±1.1	2.6±1.2	2.6±1.0	0.994
4. It is society's responsibility to provide care for its elderly persons	4.0±1.1	4.0±1.1	4.1±0.8	0.842
5. Medical care for older people uses up too much human and material resources	2.7±1.0	2.8±1.1	2.5±1.0	0.279
6. As people grow older, they become less organized and more confused	3.7±1.1	3.8±1.0	3.5±0.9	0.393
7. Elderly patients tend to be more appreciative of the medical care I provide than are younger patients	3.4±1.4	3.8±0.9	3.7±0.9	0.294
8. Taking a medical history from elderly patients is frequently an ordeal	3.2±1.2	3.5±1.1	3.29±0.9	0.416
9. I tend to pay more attention to and have more sympathy for my elderly patients than my younger patients	3.8±1.0	3.6±1.0	3.5±0.9	0.537
10. Old people in general do not contribute much to society	2.6±1.0	2.31±1.0	2.0±0.8	0.056
11. Treatment of chronically ill old patients is hopeless	2.7±1.0	2.7±1.0	2.7±0.9	0.955
12. Old persons do not contribute their fair share toward paying for their health care	2.0±0.9	2.4±0.9 ^c	1.9±0.7 ^c	0.023
13. In general, older people act too slow for modern society	3.0±1.0	3.2±0.9	2.8±0.9	0.119
14. It is interesting listening to old people's accounts of their past experiences	3.8±1.1	4.0±0.8	3.8±1.0	0.488
Total UCLA-GA Score	44.3±10.0	45.7±6.7	43.3±3.8	0.113

internist vs neurologist p=0.002, ^b= neurologist vs psychiatrist p=0.031, ^c= neurologist vs psychiatrist p=0.012

While there was a significant positive correlation with UCLA-GA score and the number of elderly patients seen at outpatient ($r=0.16$, $p=0.038$), the positive correlation with the number of elderly patients followed-up at inpatient clinic ($r=0.107$, $p=0.172$) was not statistically significant. Negative correlation observed with UCLA-GA score and age ($r=-0.110$, $p=0.153$) and duration of specialty expertise ($r=-0.44$, $p=0.568$) could not reach the statistical significance.

Discussion

A study conducted by Leung et al. [8] evaluation of 122 doctors' (specialty was not mentioned) attitude toward the elderly with Fraboni's Scale of Ageism (FSA) shows that hospital doctors have overall positive attitudes toward older people as in the current study. Our study reveals that since it is not statistically significant, a positive attitude towards the elderly was higher in neurologists (72.1%) than internists (69.5%) and psychiatrists (57.1%).

Female gender, seniority in the profession, and advanced age were found to be related to a positive attitude in the literature [8]. Our results show no significant relationship between gender, age, and duration of general practitioner and/or specialty expertise and positive attitudes (Table 1). It is difficult to obtain medical history since older patients are more disorganized, confused, and slow. Therefore, a longer time is needed for the evaluation of the elderly patient. The high number of patients that needed to be evaluated daily, the appointment patients' pressure for early evaluation can be counted as essential factors for reluctance to evaluate elderly patients and occupational insensitivity. In countries where daily patient burden is high, the above-mentioned factors may explain this insignificance in our study.

There are researches reports on the favorable effects of geriatric education during medical school on physicians' positive attitudes towards older people [9-14]. In another study, stronger positive attitudes were observed in participants who have geriatrics rotation

during internal medicine residency compared to a geriatric course during medical school training [14]. Our results show no significant difference between positive attitude and history of having geriatric education in medical school and residency for all included specialties (Table 1). This condition may be related with relatively shorter geriatric education durations (3.02 ± 2.30 weeks in medical school, 4.77 ± 4.99 weeks in residency), long time since geriatrics education has taken (136.24 ± 90.64 months since graduate from medical school, 40.35 ± 59.50 months since completion of residency) and considerably smaller number of participants that have geriatrics education (Table 1). Post-graduate geriatrics training may improve attitude towards the elderly.

Our results reveal that positive attention was significantly related to having older relatives. Different results were obtained from the previous studies about this context. While some of the studies report that living with older relatives had no effect on attitudes, the others observed positive attitudes in participants that have a history of living with elderly relatives [15,13,7]. This finding thought that more exposure to healthy older people might help individuals to acquire positive attitudes towards the elderly. Unfortunately, in university hospitals, where medical education is given to residents, and medical students, critical and seriously sick older people profile may negatively affect attitude. Duerson et al. [16] reports the contribution of such exposure to the development of negative attitudes towards older people. The solution to this problem may include increasing relationships with the elderly since before high school and might be continued with teaching them how to establish a healthy relationship with older people. To strengthen positive attitudes, medical students would regularly involve interaction with healthy nursing home residents [8]. Undergraduate and postgraduate medical curriculum should be structured to train about handling the older population.

The number of elderly patient evaluation, both inpatient and outpatient conditions reveals that psychiatrist has less exposure than internists and neurologists, but the positive attitude rate was comparable among the groups. Although it is not statistically significant, neurologists and psychiatrists that evaluate the more amount of older patients in a month have the more positive attitude, but this finding was opposite for internists (Table 1). These different findings suggest that the effect of elderly patient exposure on a positive attitude is limited.

In a study, researchers reported more positive attitudes in physicians who had contacts that are more social with older people [8]. Since the difference was not significant, nursing home visitors among internists and neurologists have a more positive attitude rate, but this is opposite for psychiatrists in the current study (Table 1). When we consider the monthly exposure number of older people together, we may conclude that more elderly patients seen in outpatient and inpatient conditions might have a desensitizing effect on physicians' attitudes.

The reasons for applying the specialties of the elderly are different. In our study, while the most common reason for applying internal medicine outpatient clinics was hypertension, it was stroke for neurology and depression for the psychiatrists. Each department is taking care of them from their aspect. There is a strong need to increase the number of geriatrics for a holistic approach because the nutritional and movement disorders, social support, and occupational problems are also essential determinants in the evaluation of older people. Increasing positive attitudes toward older people among physicians is vital to building a trust relationship, which is crucial for adherence to treatment.

Limitations

The small sample size and cross-sectional nature may be considered as a limitation for this study. There is a strong need for new measurement tools to better understand the underlying factors of attitudes towards the elderly. Further studies with larger sample sizes and including more specialties will help authorities to take precautions for increasing awareness about older people's healthcare.

Conclusions

We observed that having a relationship with older relatives is essential in building a positive attitude towards the elderly. Undergraduate and postgraduate education curriculum should include programs that are increasing the exposure to healthy older people may potentiate favorable attitude rates.

The intensity of daily routines and the concern of not being able to complete the busy work schedule can lead to neglect of older patients and create negative attitudes towards them. The organization of working programs should be carried out considering the necessity of a long time to evaluate the elderly.

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