Original Research

Medicine Science 2019; ():

Attitudes of health professionals working in a university hospital towards ageism

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Received 07 July 2018; Accepted 24 July 2018
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Abstract
This study was carried out to determine the attitudes of health professionals working in Erciyes University Hospitals towards ageism and the related factors. In this cross-sectional study, 351 people working in Erciyes University hospitals and accepting to participate in the research were included. In the statistical analysis, unpaired t-test, one-way ANOVA test (post hoc Scheffe), covariance analysis and Pearson correlation analysis were used. Of the study group 34.8% is male, 65.2% is female and the mean age is 33.6±7.8 years. In the study group, the mean total score of the AAS was 84.5±8.2 and mean score was found to be higher in physicians than nurses and other health professionals. The effect of gender, marital status, and economic status, living with elderly individuals and the frequency of care for elderly people in their occupation on the AAS total score was not statistically significant. On the other hand, those who are 40 years of age and above, those who work more than 10 years, those who are willing to give care to elders and the physicians have a higher AAS mean total score. The ageism scores of the health professionals working in university hospital are positive but moderate. Larger studies should be carried out to evaluate the attitudes of health professionals towards elders and to improve their attitudes positively.

Keywords: Health professional, elderly, attitude, ageism

Introduction
As part of human life, old age is a period of change starting from the first days of life until death. The facilities that technology provides to human life, the developments in medicine, consciousness about the protection and maintaining of health, the rise in life expectancy and the proportion of the elderly population in the total population is steadily increasing [1,2]. In the majority of studies on the basis of aging, in the definition and classification of aging, the physiological dimension of aging is handled. Chronologically, aging is considered to be over 65 years old [3].

According to WHO's 2011 Global Health and Aging Report with 8% 524 million people worldwide are over 65 years old, in 2010 [4]. WHO states that while the proportion of the population over 60 years old is 12% in 2015, in 2050 it would be 22%. It is estimated that this number will be 2 billion in 2050, one out of every five people will be over 60 years old and part of this elderly population will be in developed countries [5,6].

Our country is among the developing countries where the aging process is fast. According to 2013 Turkey Demographic and Health Survey, in recent years while the population growth rate of the younger age groups declined, the population of older age groups has increased faster than the average of Turkey’s population [7]. Elderly population rate of approximately 8.5% in Turkey in 2017 [8]. According to projections; elderly population ratio will rise to 10.2 percent in 2023 and Turkey will be among the “very old” population countries according to the United Nations definition [9].

In addition to the physiological changes that occur with aging, various health problems arise in elderly people due to the effects of chronic diseases [10]. The coexistence of the medical and social problems of the elderly, more than one health problem and the maintenance of these problems are increasing elderly people’s need for health care. As is the case globally, the increasing population of elderly people in our country makes it necessary to plan social and health services for elderly and elderly health and to take precautions in this regard [11]. The term ‘ageism’ was first used by Butler in 1969. Butler, defined ageism as a term that can turn into action such as racial discrimination and gender discrimination towards elderly people. [12]. Ageism is also defined as a term expressing prejudice towards older people through attitudes and...
behaviors [13,14].

In the literature, there are also studies showing that health workers have negative attitudes [15-16] besides studies showing that they have positive attitudes towards elderly people [17-20]. In other studies about ageism on university students, it has been reported that students generally have positive attitudes [21-26].

The negative attitudes of the society towards elderly individuals and aging affect the efficiency and quality of the health services offered to these people. The negative prejudices, values, beliefs, and attitudes of related health personnel towards elderly individuals, is reflected the quality of care given to elderly people. For this reason, it is very important for health professionals to raise their awareness about aging and elderly and to make efforts their development of positive attitudes [27].

There are not enough studies in our country about health professionals’ knowledge and attitudes about ageism. This research was carried out to evaluate the attitudes of health professionals working at Erciyes University hospitals towards ageism and related factors.

Materials and Methods

This cross-sectional study was carried out in Erciyes University Hospitals in first three months of 2016. Erciyes University Hospitals have a total capacity of 1300 beds and a total of 2255 health professionals are employed. Of the health professionals 593 are physicians, 899 are nurses and 763 are other health workers (technicians, medical secretaries, care workers etc.). Ethical approval from Erciyes University Ethics Committee for Clinical Investigations, administrative permission from Deenergy of the Faculty and verbal approvals from participants were received.

It was accepted that mean total Ageism Attitude Scale (AAS) score of the health care professionals may be approximately 80 and standard deviation 10 points [28]. Minimum sample size was calculated as 325, by taking confidence level 0.95, power 0.90 and tolerance value 2. At least 350 people were decided to include in the study. Health professionals were classified as physicians, nurses, and other health workers. The number of people who would be taken in the study from each group was calculated. The sample size is proportional to the size of the entire universe and it has been determined how many of each group should be taken. All the units in the hospital were visited and data collection was completed by accessing the person to be taken from these three working groups.

A socio-demographic questionnaire and the Ageism Attitude Scale (AAS) were used as data collection tools. Socio-demographic questionnaire consisting of 26 questions was prepared by the researchers. AAS which was developed by Vefikuluçay [28] includes 23 items quintet likert types. AAS has positive and negative attitudes. All expressions are evaluated as: totally agree (5 points), agree (4 points), undecided (3 points), disagree (2 points), absolutely disagree (1 point). AAS consists of three sub-dimensions as; restricting the life of the elderly; (items 1, 5, 12, 14, 17, 19, 21, 22, 23), positive ageism; (items 2, 4, 6, 7, 8, 9, 13, 20), and negative ageism (items 3, 10, 11, 15, 16, 18). The responses of negative statements about ageism are reversed and total scores are calculated [28]. AAS total scores may be between 23-115 points, restricting the life of the elderly dimension scores between 9-45, positive ageism dimension scores between 8-40, and negative ageism dimension scores between 6-30. Higher points for total AAS score and sub-dimension scores indicate that the attitude towards ageism is positive. Total AAS score and sub-dimension scores do not have cut off points. The AAS’s Cronbach Alpha value was found to be high at 0.80 [28].

All departments of the hospital were visited by the researchers and the purpose of the study was explained to the 552 health professionals who were reached. Sociodemographic questionnaire and AAS were given to those who accepted to participate in the study and the forms were collected after filling. A total of 374 people agreed to participate in the study, 23 questionnaires were excluded because of the missing data. In this article, 351 people were evaluated.

The dependent variables of the study are the total AAS score and sub-dimension scores and independent variables are gender, occupation, age, education, marital status, economic status and working status etc.

Kolmogorov–Smirnov test was used to examine whether the AAS scores fit the normal distribution. For statistical analyzes, frequency and percentage, mean value, standard deviation, highest and lowest values were used for descriptive statistics. Chi square test was used for statistical analysis of the categorical data. Unpaired t-test, one-way ANOVA test (post hoc Scheffe) and covariance analysis were used for statistical analyzes. The Pearson simple correlation coefficient was calculated to analyze the relationship between quantitative variables. Values of p<0.05 were considered statistically significant in all analyzes.

Results

Of the study group 34.8% is male, 65.2% female, 74.7% married and 90.3% in the nuclear family structure. The mean age of the whole group was found 33.6±7.8 years. It was determined that 27.9% of the participants were physicians, 39.9% were nurses and 32.2% were other health workers, 44.4% of respondents defined the economic status as good, while 49% mentioned as moderate. Of the participants, 15.3% have high school, 54.0% undergraduate and 30.7% graduate degree education.

It was determined that 58.7% of participants are working in internal sciences and 41.3% in surgical sciences departments. Participants have mentioned themselves as 30.5% less than five years, 26.8% 5-10 years and 42.7% above ten years when they were evaluated in terms of service duration in the units they were working in. When the participants were asked what the concept of old age meant to them; 76.9% were kindness and compassion, 51.3% were weak, 33.6% were wisdom, 59.0% were ill, 47.0% were loneliness, 35.6% were addicted, 10.5% were exclusion and 8.5% were happiness stated.

While 49.3% of participants stated that they stayed with elderly people for their lifetime, it is stated that 11.1% of the participants are still living with their 65 years old and above relatives. 6% of those in the nuclear family structure and 58.8% in the extended family structure still live together with elderly individuals. When the frequency of care for elderly people in the working
environment was questioned, 76.4% of the participants stated frequently. In order to express their willingness to care for elderly people, 68.1% of the participants expressed themselves as willing, 26.2% undecided and 5.7% unwilling. When willingness to care for elderly people is evaluated among the occupational groups, 61.2% of the physicians, 62.9% of the nurses, and 80.5% of the other healthcare workers stated that they were willing to serve elderly people. And the difference between the groups was found to be statistically significant ($X^2:14.721$, p<0.05). While 76.1% of the participants described themselves as religious, 20.5% described less religious.

AAS scores obtained from the study group are shown in Table 1. The mean total AAS scores of participants was 84.5±8.2.

As shown in Table 1, in the study group, the mean total AAS score was 84.5±8.2. Restricting the life of the elderly score was 36.3±3.75. Positive ageism score was 30.53±5.13, Negative ageism score was 18.23±3.37. Attitudes of the study group about ageism were positive, but scores were found to be moderate.

As the age of participants was grouped with 5 age groups, AAS score of 40 years and over increased significantly, so the study group was divided into 2 groups as age to express this significance. It was found that AAS scores were higher among the people who are 40 years and over age, those who expressed the economic status as good and those living in the nuclear family (p<0.05). There is a positive relationship between age and total AAS scores. As age increases, AAS score also increases a positive correlation was found at 0.01, indicating a weak relationship (p<0.05). Effects of gender and the presence of elderly individuals in the family on AAS score and sub dimensions scores were not found significant, Positive ageism was found higher only in male. (p>0.05) (Table 2).

AAS scores were shown in the Table 3 according to the working status of the health professionals. As seen in the table, the mean total AAS score and restricting the life of the elderly score of the physicians were higher than the nurses and the other health workers (p<0.05). After adjusting for the terms of age and gender, the difference between physicians and nurses and the other health workers was found to be significant. (By adjusting the effect of the level of education in physicians and the female gender in the nurses on the dependent variable). The effect of the level of education on AAS score, restricting the life of the elderly score and negative ageism score were found significant, and as the level of education increase, the mean of AAS scores also increased and there is a weak correlation between the level of education and AAS scores at the 0.01 level (p<0.05). After adjusting for the terms of the level of education, there was no significant difference between the occupational groups (p>0.05). (It is seen that the difference between the working groups is due to the education levels.)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Groups</th>
<th>n</th>
<th>Restricting the life of the elderly (X±SD)</th>
<th>Positive ageism (X±SD)</th>
<th>Negative ageism (X±SD)</th>
<th>AAS total score (X±SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(X±SD)</td>
<td>(X±SD)</td>
<td>(X±SD)</td>
<td>(X±SD)</td>
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<tr>
<td>Gender</td>
<td>Male</td>
<td>122</td>
<td>35.8±4.2</td>
<td>30.9±5.3</td>
<td>18.3±3.5</td>
<td>85.1±8.5</td>
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<tr>
<td></td>
<td>Female</td>
<td>229</td>
<td>36.6±3.5</td>
<td>29.5±5.0</td>
<td>18.2±3.3</td>
<td>84.3±8.0</td>
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<tr>
<td></td>
<td>p</td>
<td></td>
<td>0.069</td>
<td>0.013</td>
<td>0.696</td>
<td>0.380</td>
</tr>
<tr>
<td>Age (year)</td>
<td>40 and over</td>
<td>74</td>
<td>37.1±3.8</td>
<td>30.9±5.1</td>
<td>19.6±3.3</td>
<td>87.6±8.4</td>
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<tr>
<td></td>
<td>p</td>
<td></td>
<td>0.041</td>
<td>0.077</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>260</td>
<td>35.7±3.9</td>
<td>29.9±5.1</td>
<td>18.3±3.4a</td>
<td>84.7±8.2</td>
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<tr>
<td></td>
<td>Single</td>
<td>80</td>
<td>36.6±3.7</td>
<td>30.5±5.4</td>
<td>17.3±3.4a</td>
<td>83.8±8.4</td>
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<tr>
<td>Economic status</td>
<td>Other</td>
<td>11</td>
<td>36.6±2.7</td>
<td>28.4±5.1</td>
<td>20.3±3.0b</td>
<td>85.3±7.3</td>
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<tr>
<td></td>
<td>p</td>
<td></td>
<td>0.192</td>
<td>0.375</td>
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<td>0.643</td>
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<tr>
<td></td>
<td>Good</td>
<td>156</td>
<td>36.9±3.5a</td>
<td>30.4±5.1</td>
<td>18.3±3.4</td>
<td>85.6±8.3a</td>
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<tr>
<td></td>
<td>p</td>
<td></td>
<td>0.009</td>
<td>0.256</td>
<td>0.963</td>
<td>0.051</td>
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<td>Family type</td>
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<td>29.0±5.7</td>
<td>18.3±3.4</td>
<td>82.0±8.6b</td>
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<td></td>
<td>p</td>
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<td>0.049</td>
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<td>29.9±5.2</td>
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<td>Extended</td>
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<td>30.1±4.9</td>
<td>17.6±3.5</td>
<td>81.9±7.8</td>
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<tr>
<td></td>
<td>p</td>
<td></td>
<td>&lt;0.001</td>
<td>0.806</td>
<td>0.167</td>
<td>0.548</td>
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<td>36.2±3.8</td>
<td>31.0±5.1</td>
<td>18.1±3.4</td>
<td>85.3±8.1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>312</td>
<td>36.4±3.8</td>
<td>29.8±5.1</td>
<td>18.3±3.4</td>
<td>84.4±8.2</td>
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<tr>
<td></td>
<td>p</td>
<td></td>
<td>0.806</td>
<td>0.167</td>
<td>0.713</td>
<td>0.548</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>351</td>
<td>36.3±3.8</td>
<td>30.0±5.1</td>
<td>18.2±3.4</td>
<td>84.5±8.2</td>
</tr>
</tbody>
</table>

1 One Way ANOVA (post hoc Scheffe) a, b, c: The difference between the groups that do not carry the same letter in each column is significant (p<0.05)
The frequency of care to elderly people in the workplace did not have a significant effect on the AAS score and sub dimensions scores. On the other hand, those who defined themselves as unwilling to provide elderly care were found to have lower total AAS score and positive ageism score. Participants whose total working time was more than ten years have the total AAS score and the mean of positive ageism score higher than the ones who worked less than ten years (p<0.05). When working period thought above ten years of the participants the mean age was higher and the effect of AAS scores were considered, after adjusting for age; the duration of the study was not influenced by the total AAS score but the impact on positive ageism scores continued after the correcting. When the participants’ working units were examined, professionals working in the internal sciences departments were found to be higher positive ageism score than in the surgical sciences departments.

Participants who defined themselves as religious were found to have a lower level of restricting the life of the elderly and negative ageism scores than the ones who described themselves as less religious. There was no difference in terms of total AAS scores between the participants who defined themselves as religious and less religious.

Discussion

In the study, the attitudes of the health professionals working in a university hospital to the ageism were evaluated using the AAS. It was determined that the participants had a generally positive attitude about the ageism, but their scores were moderate. In the literature, there are also studies showing that health workers have positive attitudes [21-24,29] besides studies showing that they have negative attitudes towards elderly people [15,16,30]. In our study, the mean total AAS score was found 84.5±8.2. The mean total AAS score was found in the study by Demir et al. [79.49±9.04 among health vocational college students in Kırşehir [25]. In another study, this score was found by Çağır and Yılmaz as 86.72±7.6 among nursing students in health vocational college and 83.74±8.7 among elderly care program students in Ağrı [24]. In Yılmaz and Özkan’s study, this score was found by 100.92±5.6 among nursing students studying at Health College [23]. It can be said that the attitudes towards elderly are positive in Turkey because of the traditional structure of Turkish society; elderly have a high respect and prestige among the people. However, moderate scores also indicate that ageism may be among health professionals.

The mean total AAS score and score and restricting the life of the elderly score were found to be higher in the age group of 40 and over, those who stated that the economic situation was good, those living in the nuclear families and those with the graduate education (p<0.05). In some studies, there was no significant relationship between age and AAS scores [20,22-26]. In our study, it was determined that the attitude toward the elderly changed positively as the age progressed similar to other studies [29,31]. The development of people’s ideas and attitudes towards elderly
can be attributed to the recognition of the fact that aging is a physiological process, the development of empathy, the increase in the number of elderly people in their surroundings and in their relatives, and the frequent involvement of elderly individuals.

The mean AAS score and restricting the life of the elderly score were found to be higher among those living in nuclear families and those who expressed economic status as good. The higher AAS scores in the group with a good economic status can be interpreted as reflecting the responsibilities and difficulties of economic troubles to the attitudes of the individuals.

When some other studies were examined, there was no significant relationship between family structure and AAS scores [16,22, 23, 26]. In our study, participants living in a nuclear family were found to be higher AAS scores. This can be explained by the fact that more than half (58.8%) of the extended family members of our study lives with elderly individuals in their families. Those individuals with an extended family structure are faced with old age problems and have difficulties living with physical, social and cultural changes brought about by their aging.

In the literature, there are also studies that show the gender can influence attitude towards elderly [20,21] beside it is ineffective [22,24]. In our study, there was no significant difference between men and women in terms of AAS scores. This data shows that elderly respect is transferred to the future generations regardless of gender.

In our study, it was determined that AAS score, restricting the life of the elderly score and negative ageism score increased as the level of education increased. These data are similar to some studies showing that the level of education affects the attitude towards the elderly positively [20,31]. In some studies which were conducted on the students, there was a significant difference between the upper and lower classes in terms of AAS scores [23,24,32-34]. These data shows that as the level of education increases, the increasing knowledge and experience effect positively attitudes towards elderly.

Physicians, the mean AAS score and restricting the life of the elderly score were higher than the nurses and other health workers (p<0.05). However, after the correction according to the level of education, there is no difference between the occupational groups. This indicates that the difference between physicians and other occupational groups in terms of the mean AAS scores can be attributed to the level of education rather than differences among the professions. Physicians all have a post-graduate education, and the majority of nurses and other occupational groups have education at undergraduate level.

In our study, the effect of care to elderly people in the workplace and the total number of AAS scores of the units that the participants worked in were not significant.

Altay [32], in a study on nursing students, did not find any effect on the AAS scores of giving care to the elderly. On the other hand, another study on nursing students found that the experience of care to elderly people improved positive attitudes towards elderly [29]. While elderly care can affect the attitudes towards the elderly in the process of student life, it can be attributed to the fact that this effect is not seen in working life more frequently than elderly individuals and attitudes and thoughts are formed with age and experience.

When the study evaluated from the point of view of the working period, total AAS scores were found to be higher in the cases with more than 10 years of total working period. In a study of surgical nurses in Trabzon, there was no significant effect on the attitudes towards ageism in the study period [20]. Since our study is not targeted at the whole of the healthcare groups of similar studies, there is a source inadequacy in terms of the extent to which a variable such as the working year may affect the attitude towards elderly. In our study, higher AAS scores in the group with more than 10 years of total working time indicates that attitudes towards elderly can be improved positively by experiences gained.

In our study, there was no significant difference in total AAS scores between health professionals living with elderly and not living with elderly in their families. In similar studies, there was no significant relationship between individuals living with elderly and ageism [16,32,33]. On the other hand, there was a significant difference among mean total AAS scores between the groups that defined themselves as unwilling to give care to the elderly in the various studies and the willing and undecided ones [20,32,33]. In our study, it was determined that unwillingness to give care to elderly affects attitudes towards elderly negatively.

In addition, there is a significant difference between subscale dimension scores among the groups in terms of religiosity perception. There is no difference between total AAS scores because of the fact that Turkish society has generally a traditional family structure. Traditions, and religious beliefs are intertwined, and social and cultural factors are combined with the perception of religiosity. But it may be envisaged that the perception of piety can be affected by gender, age, socio-economic and cultural factors.

Limitations of the Study
There are two limitations of this study. The study was conducted in only one hospital and nonprobability sampling was used to create the study sample.

Conclusion
The ageism scores of health professionals working in the university hospital are positive but moderate; the total AAS score was found higher in those are physicians, those 40 and over age group, those expressing the economic status as good, those living in the nuclear family, those having graduate level education and those willing to give care to the elderly. There was no significant effect of gender, marital status, and the frequency of elderly care, living together with elderly individuals and religiosity on the total AAS scores.

In order to improve the attitudes of health professionals towards elderly, course contents related to seniors should be added to educational programs at all levels, especially health-related programs. In addition, the same topics should be included in in-service training of health professionals.

The reasons for unwillingness to serve elderly in health professionals should be investigated and efforts should be made to improve health professionals’ attitudes towards elderly patients.
New and comprehensive social policies should be developed, taking into account the fact that the country’s elderly population is rapidly increasing and that ageism can cause serious problems.

**Competing interests**

The authors declare that they have no competing interest.

**Financial Disclosure**

The financial support for this study was provided by the investigators themselves.

**Ethical approval**

Before the study, permissions were obtained from local ethical committee.

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