

RESEARCH ARTICLE

Healthcare Satisfaction of the Elderly and Associated Factors From Çanakkale

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ABSTRACT

Objective: The prevalence of use of health services increase with age. In Turkey, 48.8% of people who are 15 years old and over and received inpatient services at least once are individuals who are aged 65 years and over. The rate of satisfaction with health services has increased in the last decade, however, comparison of satisfaction levels in terms of age groups is insufficient. The aim of this study was to examine the satisfaction levels of elderly population living in the province of Çanakkale from health service and the factors affecting their satisfactions.

Materials and Methods: This cross-sectional study was conducted in the city center of Çanakkale between May-September 2013. The questionnaires were applied for individuals aged 65 years and over lived. The data were assessed by using SPSS package program version 20.0. Univariate and multivariate analysis were used for statistical evaluation.

Results: It was found that 55.0% of 1001 people who constituted the sample group were female. 87.0% of the participants were satisfied with the health institution. As a result of the analysis, the contributions made by EUROHIS total score was found to be statistically significant. When the EUROHIS total score was below 23 (median value), healthcare dissatisfaction increased 4.5 (95% CI 3.356-6.018) times.

Conclusion: Determining the healthcare satisfaction and the factors affecting the satisfaction is important in order to evaluate the quality of health service delivery and to determine the needs. The relationship between quality of life and health care satisfaction is among the most important results of this research.

Key Words: Elderly, healthcare satisfaction, quality of life, Çanakkale

Çanakkale’de Yaşlı Bireylerde Sağlık Hizmeti Memnuniyeti ve İlişkili Faktörler

ÖZET

Amaç: Sağlık hizmeti kullanımı yaş ile birlikte artmaktadır. Türkiye’de 15 yaş ve üzerinde en az bir kez sağlık hizmeti kullananların %48,8’i 65 yaş ve üzerindeki bireylerdir. Son yıllarda sağlık hizmeti memnuniyeti oranları artmasına rağmen farklı yaş gruplarına göre karşılaştırmalar oldukça yetersizdir. Bu çalışmanın amacı Çanakkale il merkezinde yaşayan yaşlı bireylerde sağlık hizmeti memnuniyetinin ve memnuniyeti etkileyen faktörlerin incelenmesidir.

Gereç ve Yöntem: Kesitsel tipteki bu çalışma Mayıs-Eylül 2013 tarihleri arasında Çanakkale il merkezinde yürütüldü. 65 yaş ve üzerindeki bireylere anket uygulandı. Veriler SPSS Paket Program 20.0 sürümü kullanılarak analiz edildi. Tek değişkenli ve çok değişkenli analizler kullanıldı.

Bulgular: Çalışma grubundaki 1001 kişinin %55,0’i kadındı. Katılımcıların %87,0’si aldıkları sağlık hizmetinden memnundu. Regresyon analizine göre EUROHIS toplam puanı ile sağlık hizmeti memnuniyeti arasında istatistiksel olarak anlamlı ilişki saptandı. EUROHIS toplam puanının 23’ün (median değer) altında olması sağlık hizmeti memnuniyetsizliğini 4,5 (%95 GA 3,356-6,018) kat artırmaktaydı.

Sonuç: Sağlık hizmetlerinin kalitesini değerlendirmek ve gereksinimleri belirlemek için sağlık hizmeti memnuniyeti ve memnuniyeti etkileyen faktörleri belirlemek önemlidir. Bu çalışmanın en önemli bulgusu yaşam kalitesi ve sağlık hizmeti memnuniyeti arasındaki ilişkidir.

Anahtar Kelimeler: Yaşlı, sağlık hizmeti memnuniyeti, yaşam kalitesi, Çanakkale

INTRODUCTION

The prevalence of use of health services increases with age. In Turkey, 48.8% of people who are 15 years old and over and received inpatient services at least once are individuals who are aged 65 years and over (1). The dependency rates of elderly individuals also increase by years and this rate is 12.2% according to the data of 2015 (2).

Health service is not only therapeutic, but also a whole of social and environmental interventions to protect the health and quality of life of the individuals and to prevent diseases (3). The satisfaction of the patient with the health service can be defined as the basic criterion informing how much of patient's expectations are met and indicating the quality of the health service where the patient is the basic authority (4). The most important factor in correlation between patient's expectation and quality is the patient's expectation. If the expectations are high, the perception of satisfaction may be low (5). The prolonged life expectancy and accordingly, the increase in technological developments and economic growth in the health sector have increased the importance of the concept of quality in health services (6).

The rate of satisfaction with health services has increased considerably when the last decade is considered. While the general satisfaction rate was 39.5% in 2003, this rate increased to 72.3% in 2015 (7). These rates are aimed to reach to 80% in 2017 and 85% in 2023 (8). Satisfaction rates in Turkey are higher compared to OECD countries. While the OECD's current the health satisfaction rate is 60% in average, the health satisfaction level is almost 70% in Turkey (7). However, comparison of satisfaction levels in terms of age groups is insufficient, so it cannot be determined to what extent the current health system can provide solutions to the problems of age groups with different needs. It should also be examined how the social determinants of health affect health satisfaction in different groups with the studies analyzing not only the age groups but also variables such as the educational status, gender, income status and the place of residence.

When the current studies in the literature are reviewed, there are numerous factors affecting the healthcare satisfaction and the perception of quality like gender, age, educational level,

income level, facility infrastructure etc (9-11). The satisfaction rates of the individuals, aged 65 years and over, from the health service are lower than the young people. As the current health condition of an individual deteriorates, his/her service satisfaction decreases (12). When the ever-increasing rate of elderly population is considered, factors like how much elderly individuals can use the health service, to what extent the current health system can solve the problems of elderly individuals, what their needs are and what can be done to overcome these deficiencies can become important elderly health service problems that need to be solved. Therefore, investigating the status of elderly individuals' satisfaction with the health services they received as well as the factors affecting the satisfaction level is an important subject of public health.

The aim of this study was to examine the satisfaction levels of elderly population living in the province of Çanakkale from health service and the factors affecting their satisfactions.

METHODS

Study Population. This cross-sectional study was conducted in the city center of Çanakkale According to the TSI Address Based Population Registration System (ABPRS), the population of Çanakkale city center was 143.041 people in 2012, the population of 65 years and over (including the related villages) was 12308 people (8.6%). 44.8% of the population (5520) were male and 55.2% (6788) were female. When 77.7% of the population of Çanakkale were living in the city center, 22.3% were living in towns and villages. According to these rates, it was predicted that 9563 people who were 65 years old and over were living in the city center. The sample size was calculated using the formula of sample size used to estimate the population rate. The population rate was 9563 people, the frequency of occurrence of this situation was taken as $p=0.50$ (alpha value as 95% and the deviation as 3%) since more than one subjects were investigated. 961 people were determined with sample calculation and 1001 people were contacted. Sample size was reached in two steps. In the first phase, house visits were made to elderly people those were in the database of the Çanakkale Municipality. In the second phase, social places especially preferred by the elderly population that located

in different parts of the Çanakkale province were visited and the questionnaires were applied with face to face interview technique. A method such as random numbers table was not preferred. For this reason, sample selection is a non-probability sampling method.

Data collection. The study was conducted between May-September 2013 by Golden Years Life Center Project Coordinators, instructors from Public Health Department in the Faculty of Medicine and Department of Sociology in the Faculty of Arts and Science in Çanakkale Onsekiz Mart University. A questionnaire was prepared by the researchers. The questionnaire included the sections of demographic characteristics, meanings attributed to aging, activities of daily living, quality of life and social network in old age, the use of health service and health problems, harmful habits and the Europe Health Impact Scale (EUROHIS). Turkish validity and reliability study of the EUROHIS scale derived from the WHOQOL-Bref scale was conducted by Eser et al., in 2010 (13). This scale has 8 questions. The first two questions are about the general perception quality of life and general health perception. The other six questions are about energy, satisfaction with skills of daily living, satisfaction with relationships with others, socio-economic income status and the conditions of the residence place. The scoring of the scale is 5-point Likert type and as the scale's score increases, the quality of life enhances.

The data of the study were collected by a team of 10 interviewers. The interviewer team was trained by the researchers and a preliminary test was conducted with 30 people. The final form was given to the questionnaire by making necessary corrections as a result of the preliminary test. All subjects gave their informed consent for inclusion before they participated in the study. By means of the information obtained from records of Çanakkale Municipality, houses and social places where individuals aged 65 years and over lived were visited and the questionnaires were applied with face-to-face interview technique. Verbal consents were obtained from the participants and the questionnaire was conducted among those who agreed to participate in the study.

The presence of a chronic disease in the questionnaire was defined as "a disease diagnosed by a doctor and requiring continuous drug use". Income status was directly asked and grouped as below and above the minimum wage (803 Turkish liras) for the second half of 2013 while performing the analysis (14).

Ethics. This article is part of the "Golden Years Life Center Project" which cooperated with Çanakkale Onsekiz Mart University and Çanakkale Municipality. This work was supported by a grant from the South Marmara Development Agency. This research was carried out by academic researchers from Çanakkale Onsekiz Mart University, Faculty of Medicine, Department of Public Health and Faculty of Arts and Science, Division of Sociology. An informed consent form was applied using face-to-face interview technique with the household member before the survey was carried out and only if he/she accepted to participate in the survey.

This project also has no an ethics committee approval. This was a joint project between Golden Years Life Center of Çanakkale Municipality, Çanakkale Onsekiz Mart University and South Marmara Development Agency in Çanakkale. Therefore, the methodology and the questionnaire were approved by Çanakkale Onsekiz Mart University and Çanakkale Municipality.

Statistical analysis. The data were assessed by using SPSS package program version 20.0. Frequency, percentage, mean, standard deviation, median, minimum, and maximum were used in the presentation of demographic data. Chi-square test was performed for the analysis of categorical variables. In the evaluation of the factors affecting the satisfaction from the health service received, Binary Logistic Regression method was used. While "Satisfaction with health service" was taken as the dependent variable, "age, gender, EUROHIS total score (cut off 23 (median value)), chronic illness status, presence of social security, income and education status" were taken as the independent variables. For statistical significance, the value of $p < 0.05$ was accepted.

RESULTS

It was found that 55.0% of 1001 people who constituted the sample group were female. The mean age of the participants was 74.1±6.8 years (Median:73.0, Min-Max: 65-100). The percentage of sixty-three point five of the participants were primary school graduates, 55.5% were married, 43.4% of the participants had an income level below the minimum wage and 96.8% did not receive any social assistance. Half of the participants stated that they were satisfied with getting older, while 27.7% stated that they were not satisfied and not satisfied at all. 93.3% of the individuals had at least one child. 29.8% of the participants were living alone (Table 1).

85.8% of the participants had at least one chronic disease diagnosed by a physician and requiring continuous drug use. The most frequently reported chronic diseases were hypertension, diabetes mellitus and heart diseases, respectively (Figure 1).

Table 1. Socio-demographic characteristics of the participants

Variables	n	%
Sex		
Female	551	55.0
Male	450	45.0
Education level		
Illiterate	130	13.0
Primary school	636	63.5
High school and higher	235	23.5
Marital status		
Not Married	13	1.3
Married	556	55.5
Single (divorced, widowed, live separately own partner)	432	43.2
Monthly income (TL)		
803 TL less	415	43.4
803 TL and higher	541	56.6
Benefit from social help		
Yes	32	3.2
No	969	96.8
Having at least child		
Yes	939	93.8
No	62	6.2
Living place		
In own home	734	73.3
In a rent place	155	15.5
In a nursing home	21	2.1
In children's or relatives' home	91	9.1
Who do you live with now?		
With mother and father/partner/children	516	51.8
With relatives	23	2.3
Alone	297	29.8
Other	160	16.1

N: Frequency, %: Column percentage

It was determined that 95.1% of the participants had social security. When the health service providers in the last application were examined,

31.4% of the beneficiaries of health services were received service from family health centers, 47.0% from state hospitals, 9.8% from university hospital, and 11.8% from private and other health institutions. When the reasons for their applications were examined, 42.7% of them received service for examination, 30.0% for prescription, 20.9% for control, and 5.1% for emergency treatment. 5.5% of the participants stated that they were not satisfied with the medical institution, 7.5% had moderate level of satisfaction, and 87.0% were satisfied with the health institution.

It was found that 33.6% of the sample group preferred the primary care, 56.4% preferred the secondary care, and 10.0% preferred the tertiary care in their last application. When the correlation between the health institution and the satisfactions levels in the last application was examined, no statistically significant difference was determined among the institutions (p=243) (Table 2).

In the Binary Logistic Regression analysis examining the factors affecting the satisfaction with the health service, healthcare satisfaction was included as the dependent variable and the age, gender, EUROHIS total score, chronic illness status, presence of social security, income status and education status were included as the independent variables. As a result of the analysis, the contributions made by EUROHIS total score was found to be statistically significant. When the EUROHIS total score was below 23, healthcare dissatisfaction increased 4,5 (95% CI 3,356-6,018) times. No statistically significant effect was determined for gender, age, education status, chronic illness status, presence of social security, and income status on healthcare satisfaction (Table 3).

Table 2. The relationship between the last application place and satisfaction

The last application place for healthcare	Not satisfied	Neither satisfied nor dissatisfied	Satisfied	Total	p
	n (%)	n (%)	n (%)	n (%)	
Primary care	10 (3.1)	27 (8.4)	284 (88.5)	321 (100)	0.243
Secondary care	35 (6.5)	39 (7.2)	464 (86.2)	538 (100.0)	
Tertiary care	7 (7.4)	7 (7.4)	81 (85.2)	95 (100.0)	
Total	52 (5.5)	73 (7.7)	829 (86.8)	954 (100.0)	

%:Rowpercent, p: Chi-Square Test

Table 3. Factors affecting healthcare satisfaction

	B value	p	OR	%95 CI	
Constant	- 0.869	0.0001	0.419	-	
Age					
65-74 (0)					
≥ 75 (1)	- 0.127	0.383	0.881	0.662	1.172
Sex					
Male (0)					
Female (1)	- 0.075	0.647	1.078	0.782	1.485
EUROHIS total score					
≥23 (0)					
0-22 score (1)	1.503	0.0001	4.494	3.356	6.018
Having to Chronic disease					
No (0)					
Yes (1)	- 0.198	0.346	0.821	0.544	1.238
Having to health insurance					
No (0)					
Yes (1)	- 0.320	0.364	0.726	0.364	1.450
Income					
803 TL and higher (0)					
Lesser 803 TL (1)	- 0.064	0.718	0.938	0.664	1.326
Educational status					
Primary education (0)					
High school and above (1)	0.216	0.235	1.241	0.869	1.771

p: Enter logistic regression analysis; OR: Odds ratio; CI: Confidence interval, Dependent variable: satisfied (0), dissatisfied (1).

DISCUSSION

When the health service use rates of the elderly individuals were examined in the present study, the satisfaction rate was determined as 87%. According to TSI 2016 data, the rate of people who were satisfied with the health service was 39.5% in 2003; whereas, this rate increased up to 75.4% in 2016 (15). In a study conducted with individuals aged 65 years and over in 2007 in Istanbul, the satisfaction with the health service was determined as approximately 40% (16). There are studies in the literature showing that the satisfaction with health service is 76.4% in Qatar, 66.8% in Nigeria, and 81.7% in the United States of America (17-19). The healthcare satisfaction rates of the sample group in the present study were higher compared to similar studies in the literature. Turkey's

healthcare satisfaction rates were higher than the average satisfaction rates of OECD countries (7).

Although total health expenditure per capita is much lower than the average of OECD countries, satisfaction with health service is higher. It may be considered that there may not be a positive correlation between health expenditures and expectation fulfillment. Another reason for the higher satisfaction level in this study may be the age of the research population. In the present study, people aged 65 years and over were interviewed. The fact that this study was conducted in an older group compared to the general population may have an effect on expectations. Another reason for the difference may be the application techniques of satisfaction evaluation methods between researches. However, to what extent the healthcare satisfaction can be properly evaluated, that is, how much it is valid to show the satisfaction level and expectation fulfillment are also a condition required to be discussed. In addition to questioning the satisfaction over the healthcare satisfaction directly, more detailed examinations can be made and more sensitive scales can be developed.

In the present study it was not found association between age and healthcare satisfaction. In a study reported that healthcare satisfaction rates was increasing in the age range of 18-65 years but the satisfaction rate for 65 years and over tended to decrease (12). Although we can not find a relationship between healthcare satisfaction and age, the frequency of chronic illnesses and the use of health service increase with age, as a result, the patient's satisfaction can be expected to decrease with increasing age. Unlike there are also studies in the literature which indicate that satisfaction increases with increasing age (11,20). Among young people, it is a well-accepted theory that expectations for health services are higher in those with high educational level. When we considered that the satisfaction perception is related with how much these expectations are met, high healthcare satisfaction can be expected among elderly individuals. However, the variable of age should not be thought as the only factor and it should not be forgotten that it is a confounding factor. The frequency of chronic diseases increases with age and there are studies in literature showing that the quality of life

decreases with the increasing age (13,21). Conducting multi-factor analysis by thinking that the health status and the quality of life can affect satisfaction with the health service can provide stronger evidences for showing its effect on the healthcare satisfaction.

We did not find a significant correlation between gender and healthcare satisfaction. Similarly, while no correlation was determined between the gender and satisfaction in the study by Çelikkalp et al., Quentino et al. found higher healthcare satisfaction in men different from the results of the present study (11,22). When it is considered that the expectations can also increase with increasing educational level and the expectations are associated with satisfaction, it is an expected situation that healthcare satisfaction decreases with increasing educational level. In the present study, it was not found between educational level and healthcare satisfaction. It was also shown in a study that there was an inverse relationship between the educational level and satisfaction (23). Bakar et al. also reported that the expectations of those who had university educational level were higher than those with high school and lower educational levels (5).

It was found that 85% of our sample group had at least one chronic disease diagnosed by a physician and requiring continuous drug use, however was found no correlation between chronic illness status and healthcare satisfaction. Even though there are studies in the literature that do not find any correlation between the health status and patient's satisfaction, which was similar to the present study, there are studies in the literature showing that the perceiving the health status low decreases the healthcare satisfaction (12). According to MacLeod et al.'s study, while the healthcare satisfaction was 84.8% in healthy individuals, this rate was 81.7% among sick individuals (19). In a study, the presence of a chronic disease increased the dissatisfaction 1.4 times (24). When the effect of chronic disease condition status on the healthcare satisfaction is evaluated, it should be remembered that the variables like age and quality of life can have confounding effect. In addition, factors like the type of chronic illness, the frequency of the drug use and complications can also affect the healthcare satisfaction of chronic illness status. Therefore, detailed examination of these variables as well as chronic disease status may provide more precise results.

In this study, while the highest satisfaction rate was found in the primary care, no significant difference was determined between the primary care, secondary care and tertiary care health institutions in terms of satisfaction. In a study conducted in Macedonia, general satisfaction mean score of the secondary care health institutions was determined to be significantly higher than the tertiary care health institutions (25). In a study comparing the satisfaction with the health service received from public, university, and private hospitals, the score of satisfaction with health service received from the university hospital was determined to be significantly higher than the public hospital (6). In our opinion, although there was no statistical significance in this study higher satisfaction with primary health care services is an issue to be emphasized. Primary health care services are provided by Family Physicians in our country. Primary health care services are different from hospital services. Mostly at home and outpatient services are offered. Therefore, the level of expectation for satisfaction in the primary health care services may be different compared to the second and tertiary health care services.

In this study, variables that affected health care satisfaction were examined by logical regression analyze. This analyze was showed that those with low EUROHIS score have a higher dissatisfied risks. Risk factors that could affect health care satisfaction such as age, educational status, were not found in this study. This is thought to be related to a similar and homogenous distribution of the research population over the age of 65, in terms of educational status and social security. However in the participants of low quality of life according to EUROHIS score, the risk of dissatisfied were higher. There were no studies investigating the quality of life (especially the EUROHIS score) that questioned satisfaction with health care. The lack of a study related to the quality of life of EUROHIS limits our discussion. With this regard, In Turkey, there is a study comparing home health services and quality of life in Istanbul performed by Us in 2014. No statistically significant correlation was found in this study. However, home health services were evaluated in this study and a different scale was used. The patient population of the two groups is quite different from each other (26). In our study, the relationship between quality of life scale and satisfaction

may be related to expectations of people with different quality of life. New studies are needed to assess this situation and to assess the causality of the relationship between quality of life and satisfaction with health services in the case of the same outcome.

Study limitations. Limitation of our study is that it was conducted in the city center. If we were intending to determine the factors affecting the overall satisfaction with health services for elderly people or to increase the satisfaction level, we should plan to conduct studies including the elderly people living in rural areas.

CONCLUSION

Determining the healthcare satisfaction and the factors affecting the satisfaction is important in order to evaluate the quality of health service delivery and to determine the needs. We can divide the factors affecting healthcare satisfaction into two as infrastructure and individual factors. When we group individual factors as unchangeable (age, sex, etc.) and changeable factors (educational status, chronic illness status, quality of life, etc.), we need to take the necessary measures for individual changeable factors and infrastructure factors. Satisfaction studies can provide important benefits for follow-up of chronic diseases, determination of health service policies to be prepared for protection and promotion of elderly health and elimination of health service needs of these elderly individuals. Pilot studies can be conducted in provinces where elderly population is dense such as Çanakkale by creating “elderly health” service model similar to “maternal and infant health” service delivery model in family practices in order to evaluate correctly satisfaction with current health service and increase satisfaction.

The relationship between quality of life and health care satisfaction is among the most important results of this research. However, there is a need to confirm with new studies to be done in different groups, and then to investigate the causality of the relationship between quality of life and health care satisfaction.

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