

ARAŞTIRMA MAKALESİ

## Determining the Attitudes of Surgical Nurses toward Older Patients

 Seher ÜNVER<sup>1</sup>  Zeynep KIZILCIK ÖZKAN<sup>2</sup>,  Özge KARACA<sup>3</sup>

<sup>1</sup>Assoc. Prof. Trakya University, Faculty of Health Sciences, Department of Surgical Nursing, Edirne, Turkey

<sup>2</sup>Assoc. Prof. Trakya University, Faculty of Health Sciences, Department of Surgical Nursing, Edirne, Turkey

<sup>3</sup>Nurse, Acıbadem Taksim Hospital, Istanbul, Turkey

### Abstract

**Background:** Due to chronic diseases and physiological changes with aging, the surgical processes care requirements may change. **Objectives:** This study aimed to determine the attitudes of surgical nurses toward older patients and the factors affecting the attitude. **Methods:** This descriptive and cross-sectional study was conducted with 153 nurses who worked in surgical units of a university hospital located in Thrace region of Turkey from February 21 to March 11, 2020. Data were collected using a nurse identification form and the Kogan's Attitude toward Older People scale. Data were analyzed using Whitney-U test, Kruskal-Wallis test and Spearman's correlation coefficient. **Results:** The mean attitude score was  $126.23 \pm 15.52$ , the scores of nurses who had postgraduate degrees were statistically significantly higher than those who had high school degrees ( $p < .05$ ). Negative attitude scores of nurses who had no experience in providing care for older patients were statistically significantly higher than those who had experience ( $p < .05$ ). There was a positive relationship between the mean age and professional experience of nurses and the mean attitude score ( $r = .18 p = .019$ ;  $r = .17 p = .027$ , respectively). **Conclusion:** The study showed that nurses who worked in surgical units had a positive attitude toward older patients, and their educational status, the experiences they gained in providing care for older patients, and the increase in their age and professional experience were effective in developing their positive attitudes toward older patients. The presence of educated and experienced surgical nurses in nursing care of older patients is important in terms of displaying positive attitudes towards them.

**Key Words:** Surgical Nurse, Older Patient, Surgical Unit, Attitude.

### Öz

#### Cerrahi Hemşirelerinin Yaşlı Hastalara Yönelik Tutumlarının Belirlenmesi

**Giriş:** Yaşlanma ile birlikte oluşan fizyolojik değişimleri ve gelişen kronik hastalıklara bağlı olarak, cerrahi işlemlere ilişkin bakım gereksinimleri farklılık gösterebilmektedir. **Amaç:** Bu çalışmada cerrahi hemşirelerinin yaşlı hastalara yönelik tutumlarının ve tutumu etkileyen faktörlerin belirlenmesi amaçlanmıştır. **Yöntem:** Tanımlayıcı ve kesitsel tipteki bu çalışma, 21 Şubat - 11 Mart 2020 tarihleri arasında Türkiye'nin Trakya bölgesinde bulunan bir üniversite hastanesinin cerrahi birimlerinde çalışan 153 hemşire ile gerçekleştirildi. Veriler hemşire tanıtım formu ve Kogan Yaşlılara Yönelik Tutum Ölçeği kullanılarak toplandı. Veriler, Whitney - U testi, Kruskal - Wallis testi ve Spearman korelasyon katsayısı testleri kullanılarak analiz edildi. **Bulgular:** Toplam tutum ölçeği puanı ortalaması  $126.23 \pm 15.52$  olup, yüksek lisans derecesine sahip hemşirelerin puanları, lise mezunu olanlara göre istatistiksel olarak anlamlı derecede yüksek bulundu ( $p < .05$ ). Yaşlı bakım deneyimi olmayan hemşirelerin olumsuz tutum puanı, deneyimi olanlara göre istatistiksel olarak anlamlı derecede yüksek bulundu ( $p < .05$ ). Hemşirelerin yaş ortalaması ve mesleki deneyim süresi ile ortalama tutum ölçek puanı arasında pozitif bir ilişkinin olduğu belirlendi (sırasıyla  $r = .18 p = .019$ ;  $r = .17 p = .027$ ). **Sonuç:** Çalışma, cerrahi birimlerde çalışan hemşirelerin yaşlı hastalara yönelik olumlu bir tutuma sahip olduklarını, eğitim durumlarının, yaşlı hastalara bakım sağlama konusunda edindikleri deneyimlerin, yaş ve mesleki deneyimlerinin artmasının yaşlılara karşı olumlu tutumlarını geliştirmede etkili olduğunu göstermiştir. Yaşlı hastaların hemşirelik bakımında eğitilmiş ve deneyimli cerrahi hemşirelerinin bulunması, onlara yönelik olumlu tutum sergilemesi açısından önemlidir.

**Anahtar Sözcükler:** Cerrahi Hemşire, Yaşlı Hasta, Cerrahi Birim, Tutum.

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**Correspondence Author:** Assoc. Prof. Trakya University, Faculty of Health Sciences, Department of Surgical Nursing, Edirne, Turkey. Phone: +90(505)50072178 E-mail: seher.unver@hotmail.com

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**G**lobal population is increasing and in parallel to scientific and technological developments in the field of health, possibilities of treating diseases are also increasing and life expectancy is increasing (1). As a result of these developments, global population is becoming older (2, 3). According to the World Health Organization (WHO), approximately 125 million people are currently over 80 years old and the population rate of people over 60 will increase from 12% to 22% between 2015 – 2050 (4). In Turkey, according to Turkish Statistical Institute (TUIK) data published on March 18, 2020, the elderly population increased by 21.9% in the last five years and was determined as 9.1% (5). In addition, according to the results of a projection study, this rate is predicted to increase to 16.3% in 2040, 22.6% in 2060 and 25.6% in 2080 (6).

Studies have reported that health problems and hospital admission rates also increase in areas where the population of older people rises (7, 8). Paul et al. (7) reported that in the New South Wales state of Australia, 342.265 patients aged 65 and over presented to the emergency unit due to the falls; fractures were reported in 134.555 and head trauma in 10.358 of the patients. A retrospective study conducted by Sing et al. (9) in the USA reported a 51% increase in spinal surgery interventions for individuals in the 40-59 age group, whereas this rate increased to 285% in individuals aged 60 and over. Fowler et al. (10) reported that the surgical rate of individuals aged 75 years and over in England increased by 22.9% in the last 16 years. One in five individuals in this age group are estimated to have surgery every year as of 2030. This illustrates the parallel of the increase in the population of older people to the increase in surgical interventions and as a result, surgical nurses are more likely to encounter older patients.

Due to chronic diseases and physiological changes that occur with increasing age, risks in surgical intervention increase and the care provided may change compared to younger age groups (8, 11). The literature emphasizes that problems such as malnutrition, multiple drug use, fear, anxiety, depression and delirium are frequently seen in older people undergoing surgical intervention; therefore, it is necessary to plan specific care interventions in order to maintain mental health and ensure physiological recovery in this age group (8, 12, 13). Values and attitudes toward older people gain importance in terms of providing healthcare for this age group especially with nurses (14, 15). The WHO published the Integrated Care for Older People (ICOPE) handbook in October 2019 to focus attention on the health care of older people. The handbook is aimed at healthcare professionals to better focus on the care of older people and to ensure equality in health care (16). The importance of determining negative attitudes and behaviors toward older people globally and in Turkey is significant. Healthcare professionals should recognize surgical risks associated with physiological changes and chronic diseases in older patients are higher compared to younger patients, and base care accordingly to those differences (17, 18). The care provided during the perioperative process can help older patients recover faster and retain their quality of life (19, 20). So that, maintaining proper perioperative care for older patients, educating and preparing them for surgery, and being in communication with them are all essential issues in surgical units, and these can be influenced by nurse attitudes (17,19). Therefore, it is important to determine the attitudes of health professionals toward older patients involved in their care in surgical units. Studies discussing the attitudes of nurses who work in surgical units toward older patients and focusing attention on this issue are rare.

This descriptive study was carried out to determine the attitudes of nurses working in surgical units toward older patients based on the aforementioned information and the factors affecting the attitude. The research findings are thought to contribute to determining the views and attitudes of the nurses working in surgical units toward older patients and raise awareness of the care of older patients in the perioperative process.

#### **Research Questions**

- What is the attitude level of surgical nurses toward older patients?
- What are the factors affecting the attitude of surgical nurses toward older patients?

### **Method**

#### **Research Type**

This research was designed as a descriptive and cross-sectional study.

#### **Research Place**

This research was conducted at a university hospital located in Thrace region of Turkey from February 21 to March 11, 2020.

#### **Research Universe/Sample**

The population of the study consisted of 178 nurses, working in eleven different surgical wards (emergency, neurosurgery, general surgery, thoracic surgery, eye surgery, cardiovascular surgery, otolaryngology, transplantation, orthopedics, plastic surgery, urology) and four surgical critical care units (surgical intensive care, reanimation intensive care, postoperative intensive care and cardiovascular surgery intensive care); all the nurses in the population were targeted to be included in the study. Data was collected through appropriate sampling method and based on a voluntary basis. The inclusion criteria were actively working in a surgical unit and agreeing to participate in the study. The study managed to reach 86% of the population and 153 nurses formed the sample of the study.

#### **Data Collection Tools**

Data were collected using a nurse identification form to determine the sociodemographic characteristics and Kogan's Attitude toward Older People scale (KAOP) to determine their attitudes toward older patients. The nurses were visited by the researcher in the surgical units where they worked according to their weekly work schedules. The nurses were informed about the study purpose and data collection forms were given to those who agreed to participate in the study. Nurses were asked to complete the forms in separate rooms to prevent influencing each other's responses. The forms were collected by the researcher after completion, which took about 15 minutes.

Nurse identification form was prepared by the researchers in line with relevant literature (19, 21-23) and included seven questions. The questions determined the descriptive characteristics of the nurses (age, gender, educational status, units they are currently working and the duration of professional experience in the unit), experiences of providing care for older patients and

their history of receiving education on the care of older patients.

Kogan's Attitude toward Older People Scale (KAOP) was developed by Kogan (24) to evaluate attitudes toward older patients. Erdemir et al. (25), conducted the validity and reliability study of the Turkish version of the scale. The Cronbach's alpha value of the original version was found to be .84. It is a single-dimension scale and includes 34 items. In the scale, one set of 17 items with odd numbers expresses statements about negative attitudes (KAOP-) and the other set of 17 items with even numbers expresses statements about positive attitudes (KAOP+) regarding older patients. Items in this six-point Likert-type scale are scored as "6-strongly agree", "5-agree", "4- partly agree", "3- partly disagree", "2- disagree", and "1-strongly disagree". The items about negative attitudes (1, 3, 5, 7, 9, 11, 13, 15, 17), are reverse scored. A score of 102 in the scale indicates a neutral attitude toward older patients. The minimum and maximum scores that can be obtained from the scale are 34 and 204, respectively; a high score on the scale indicates a positive and a low score indicates a negative attitude toward older patients (24, 25). In this study, the Cronbach's alpha value of the scale was calculated as .819.

#### **Data Analysis**

Araştırma kapsamında veriler, araştırmacılar tarafından, araştırmaya katılmaya gönüllü olan bireylere gerekli Data were analyzed using IBM SPSS Statistics software V22.0 (IBM, Armonk, NY, USA). Descriptive data of the study were evaluated using number, percentage, mean and standard deviation calculations. Shapiro-Wilks test was used to investigate the compatibility of the data to normal distribution, and Mann-Whitney U and Kruskal-Wallis tests were used to evaluate the data that were not normally distributed. The relationship between the scale total score and the age and duration of professional experience was examined using Spearman's correlation test. A value of  $p < .05$  was accepted as statistically significant.

#### **Ethical Considerations**

To conduct the study, research and publication ethics were followed, the Ethical Committee of the Medical Faculty gave approval (number: 2020/99-04/25 date: 17.02.2020), and institutional permission (number: 79056779-600/414113 date: 21.02.2020) was obtained from the management of the hospital where the study was carried out. The researcher who conducted the validity and reliability of the Turkish version of the scale gave necessary permission for use by e-mail. In this study Declaration of Helsinki Principles are followed, the nurses were informed about the study and they gave verbal consent. The participants were asked not to write their name on the forms and were told that the information they provided would be kept confidential and used only within the scope of the study.

### **Results**

Of the participating nurses, 78.4% ( $n = 120$ ) were female, 70.6% ( $n = 108$ ) had undergraduate degrees, 69.9% ( $n = 107$ ) were working in the surgical wards, 78.4% ( $n = 120$ ) had experience in providing care for older patients and 36.6% ( $n = 56$ ) received training (through in-service training or congresses/courses) on providing care for older patients. The mean age of the nurses was  $31.09 \pm 6.52$  years and their professional experience in the surgical field was  $9.47 \pm 6.47$  years (Table 1). The total mean KAOP score of the nurses was  $126.23 \pm 15.52$ , positive attitude KAOP+ score was  $63.60 \pm 8.60$  and negative attitude KAOP- score was  $62.62 \pm 8.84$ .

The comparison between the total scale score and the demographic characteristics of the nurses showed that the scores of the nurses having postgraduate degrees were statistically significantly higher than those having undergraduate and high school degrees ( $KW = 7.480$ ;  $p = .024$ ). The scores of the nurses who worked in the surgical critical care units were statistically significantly higher than those who worked in the surgical wards ( $U = 1780.000$ ;  $p = .007$ ) and the scores of the nurses who had no experience in providing care for older patients were statistically significantly higher than those who had experience in providing care for older patients ( $U = 1534.000$ ;  $p = .048$ ) (Table 1).

The positive attitude KAOP+ scores of the nurses having postgraduate degrees were statistically significantly higher than those having undergraduate and high school degrees ( $KW = 10.912$ ;  $p = .004$ ) and who worked in the surgical critical care units were statistically significantly higher than those who worked in the surgical wards ( $U = 1704.500$ ;  $p = .003$ ). The negative attitude KAOP- scores of the nurses who did not experience in providing care for older patients were statistically significantly higher than those who had experience in providing care for older patients ( $U = 1499.000$ ;  $p = .033$ ) (Table 1).

It was also found that there was a weak positive correlation between the nurses' mean age and professional experience duration and the total mean KAOP score ( $r = .18$ ,  $p = .019$ ;  $r = .17$ ,  $p = .027$ , respectively) (Table 2).

**Table 1. Comparison of the Nurses' Individual Variables and KAOP Scale Scores (n = 153)**

Variables	n (%)	Total Score (mean ± SD)	KAOP+ Score (mean ± SD)	KAOP Score (mean ± SD)
<b>Gender</b>				
Female	120 (78.4)	126.25 ± 16.34	63.41 ± 8.33	62.83 ± 9.31
Male	33 (21.6)	126.18 ± 12.29	64.30 ± 7.06	61.87 ± 6.90
<b>p -test</b>		p = .667 Z = -.430 U = 1883.000	p = .835 Z = -.209 U = 1933.000	p = .388 Z = -.864 U = 1785.500
<b>Educational Status</b>				
High school	30 (19.6)	125.26 ± 15.17	62.50 ± 7.91	62.76 ± 8.40
Undergraduate	108 (70.6)	125.06 ± 15.36	63.00 ± 7.74	62.05 ± 8.98
Postgraduate	15 (9.8)	136.60 ± 14.40	70.13 ± 8.17	66.46 ± 8.22
<b>p -test</b>		p = .024* KW = 7.480 df = 2	p = .004* KW = 10.912 df = 2	p = .295 KW = 2.443 df = 2
<b>Nursing Unit</b>				
Surgical ward	107 (69.9)	124.08 ± 15.06	62.42 ± 7.80	61.65 ± 8.66
Surgical critical care unit	46 (30.1)	131.23 ± 15.70	66.34 ± 8.09	64.89 ± 8.92
<b>p -test</b>		p = .007* Z = -2.711 U = 1780.000	p = .003* Z = -3.013 U = 1704.500	p = .051 Z = -1.955 U = 1970.000
<b>Provides care to older patients</b>				
Yes	120 (78.4)	125.03 ± 15.67	63.20 ± 7.98	61.82 ± 9.05
No	33 (21.6)	130.60 ± 14.35	65.06 ± 8.32	65.54 ± 7.44
<b>p -test</b>		p = .048* Z = -1.979 U = 1534.000	p = .150 Z = -1.441 U = 1665.500	p = .033* Z = -2.136 U = 1499.000
<b>Received training on giving care to older patients</b>				
Yes	56 (36.6)	128.50 ± 14.36	64.83 ± 7.70	63.66 ± 8.24
No	97 (63.4)	124.92 ± 16.07	62.89 ± 8.22	62.03 ± 9.15
<b>p -test</b>		p = .500 Z = -.674 U = 2538.000	p = .464 Z = -.732 U = 2523.000	p = .661 Z = -.438 U = 2600.500

U: Mann-Whitney U test, KW: Kruskal-Wallis H test, \*p: < .05

**Table 2. Correlation of Total KAOP Score between Nurses' Age and Professional Experience Duration**

	KAOP score Mean ± SD (min-max)	test	p value
<b>Age</b>	31.09 ± 6.52 years (20-52)	r = .18	p = .019*
<b>Professional experience</b>	9.47 ± 6.47 years (1-28)	r = .17	p = .027*

SD: Standard deviation; r: Spearman's correlation, \*p: < .05

**Discussion**

Due to prolonged life span and accompanying comorbidities, older people will occupy a significant place in the patient population that surgical nurses, a leading workforce in the healthcare team, provide care for (10, 19). Healthcare services provided to older people are increasing and determining nurses' attitudes toward older people as a quality indicator of the care given is significant, as well as revealing the factors that adversely affect their attitudes (26). This study found that the nurses working in surgical units had positive attitudes toward older patients. Similarly, other studies examining nurses' attitudes toward older people in Turkey reported that nurses had a positive attitude toward older people (23, 27). Pehlivan and Vatansever (23) investigated the attitudes of nurses who worked in surgical units of hospitals in the Bursa province of Turkey toward older people and found that the nurses had positive attitudes. Another study conducted with 351 health professionals working in a university hospital founded that nurses' attitudes toward older people were positive (27). In the literature, descriptive and cross-sectional studies examining the attitudes of nurses working in Nigeria (28), and in Sweden (29) found that the nurses exhibited positive attitudes toward older people. These results show that nurses have positive attitudes toward older people.

In this study, the total KAOP and positive attitude KAOP+ scores of nurses who had postgraduate degrees was higher than those who had education at undergraduate and high school levels. Similar to the results of this study, Bulut and Çilingir (19) reported that attitudes of nurses who had postgraduate degrees were more positive than those who had undergraduate and high school graduate degrees. Another descriptive study which included 628 nurses from five provinces of Turkey found that nurses who had postgraduate and undergraduate degrees made less age discrimination against older people than those who had associate degree or were graduates of nursing vocational high schools (26). A cross-sectional descriptive study conducted by Sharafi et al. (30) with 82 nurses in Iran found a positive correlation between nurses' educational level and positive attitude. Based on these

studies, it can be argued that progress in nursing education contributes to the positive development of attitude toward older patients.

This study found that the KAOP score of the nurses working in the surgical critical care units were significantly higher than that of those working in the surgical wards. A cross-sectional study conducted by Arani et al. (21) with 30 nurses in the Ilam province of Iran found that the mean KAOP score ( $183.44 \pm 34.99$ ) of nurses working in the critical care units was higher than that of the nurses working in the surgical wards ( $120.37 \pm 41.16$ ). Similarly, a study whose sample consisted of 178 nurses in Korea showed that nurses who worked in acute care units including surgical wards and emergency rooms had negative attitudes toward age discrimination (31). Additionally, in the present study, the positive attitude KAOP+ scores showed that nurses who work in the surgical critical care units had significantly higher positive attitude scores than those who worked in the surgical wards. Studies in international and national literature indicate that the number of older patients treated in intensive care units is increasing and that the majority of patients needing care and treatment in intensive care units will be older patients (32, 33). However, the hospitalization rate of patients aged 65 and over in chronic care units is higher compared to that of patients in surgical wards (34). Likewise, the current research was carried out in a university hospital where patients from the Balkans and Turkey's Thrace area were hospitalized and treated, as a result, the number of older patients increases. As the number of older patients in critical care units is getting higher and nurses who work in critical care units encounter them more; this may be influenced their attitudes toward older patients positively.

This study found that, although the mean KAOP score of the nurses who had no experience in giving care to older patients was higher than those who had, results of the negative attitude scores showed that nurses who did not experience in providing care for older patients had higher negative attitude scores than those who had experience. A cross-sectional study conducted with 230 nurses in Iran showed that attitudes of nurses who had experience in providing care for older patients were more positive ( $146.2 \pm 20.43$ ) than those of who did not ( $144.12 \pm 49.18$ ) (21). It was found in a descriptive and cross-sectional study (22), which consisted of 1.367 nurses from five hospitals in China, that nurses having experience in providing care for older people displayed a more positive attitude toward them. Rush et al. (35) stated in the integrative review in which they discussed nurses' attitudes toward older people, that attitudes toward older people were positively affected by experience. In a quantitative correlational study by Heyman, Osman & Ben Natan (36), they reported that health professionals who are specialized in working with older people exhibited a more positive attitude. It can be argued, based on the results obtained from this current study that being experienced in giving care for older people is effective in increasing awareness of nurses toward older people and developing positive attitudes.

In this study, as the nurses' mean age and their professional experience period increased, their attitudes toward older patients increased positively as well. Similarly, a descriptive study by Pehlivan & Vatansever (23) conducted with 217 nurses working in university hospital in the Bursa province of Turkey showed that as the nurses' age or experience increased, their mean KAOP scores increased. A study carried out with 188 nurses working in 12 geriatric units in Korea showed that nurses aged 40 and over had higher KAOP scores than those who were aged 21-29, and that the duration of work in gerontology units contributed to positive attitudes (37). Engström & Fagerberg (38) stated that older nurses in the sample group had a more positive attitude toward older people due to the effect of their professional experience. According to these results, nurses' education and experience in providing care for older patients improves as they get older, and these characteristics eventually contribute to nurses developing positive attitudes about older patients.

The strength of the study was that it was carried out with nurses working in many surgical specialty units. The results obtained from the study are thought to contribute to keeping nurses' attitudes toward older patients in surgical units up-to-date and maintaining positive attitudes.

### Conclusion and Use of Results in Practice

The study showed that nurses who worked in surgical units had a positive attitude toward older patients, and their educational status, the experiences they gained in providing care for older patients, and the increase in their age and professional experience were effective in developing their positive attitudes toward older patients. Results indicate that the presence of educated and experienced surgical nurses in nursing care of older patients is important in terms of displaying positive attitudes towards them. The attitudes of nurses who worked in surgical wards were more negative than those who worked in surgical critical care units; therefore, the reasons that negatively affect the attitudes of nurses working in the surgical wards toward older patients should be investigated.

### Limitations

One limitation of this study is data were limited to the surgical units of a university hospital in a province of Turkey. Therefore, the generalization of the results from the study for all nurses working in surgical units was restricted. The other limitation was the possibility of being affected by social and institutional factors during the evaluation of nurses' attitudes toward older patients. Accordingly, nurses may have provided desired responses to the statements on the scale.

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