



# The Effect of the Home Care Nursing Education Program on Ageism and Attitude Towards the Older Adults in a Developing Country; One Group Pre-Posttest Design Effects of Education on Ageism and Attitude Towards Older Adults

Gelişmekte Olan Bir Ülkede Evde Bakım Hemşireliği Eğitim Programının Yaşlılara Yönelik Ayrımcılık ve Tutum Üzerindeki Etkisi; Tek Grup Ön-Son Test Tasarımlı Eğitimin Yaşlılara Yönelik Ayrımcılık ve Tutum Üzerindeki Etkileri

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## ABSTRACT

**Aim:** The aim of this study is to investigate the impact of Home Care Nursing Education Program on ageism and attitudes towards the older adults.

**Materials and Methods:** This study was conducted with 21 nurses participating in Home Care Nursing Education Program at a tertiary hospital. The Fraboni Scale of Ageism (FSA) and the Kogan's Attitudes toward Old People Scale (KAOPS) were applied before and after the education.

**Results:** The mean age of the nurses was 33 (4.7) years (61.9% female). The mean total KAOPS of the nurses was 104.9±13.5 before the training. After the training, it decreased to 102.1±15.7. It was found that nurses' total score average of the FSA was 68.8±8.3 pre-test and decreased to 67.7±10 post-test. There is no statistically significant difference between their scores ( $p>0.05$ ).

**Conclusion:** In this study, it was determined that the Home Care Nursing Education program had a positive effect on nurses' discrimination and attitudes towards the elderly, although it was not statistically significant. This may indicate that earlier stages of nursing education, such as undergraduate courses, need to provide such courses and training. To promote positive attitudes towards older adults and prevent ageism, innovative and intentional teaching strategies need to be incorporated into all nursing courses.

**Keywords:** Ageism, home care services, education, nursing, attitude

## ÖZ

**Amaç:** Bu çalışmanın amacı, evde bakım hemşireliği eğitim programının yaşlı ayrımcılığı ve yaşlılara yönelik tutumlar üzerindeki etkisini araştırmaktır.

**Gereç ve Yöntem:** Bu çalışma, üçüncü basamak bir hastanede Evde Bakım Hemşireliği Eğitim Programı'na katılan 21 hemşire ile yürütülmüştür. Eğitimden önce ve sonra Fraboni Yaşlı Ayrımcılığı Ölçeği (FSA) ve Kogan Yaşlılara Yönelik Tutumlar Ölçeği (KAOPS) uygulanmıştır.

**Bulgular:** Hemşirelerin yaş ortalaması 33 (4,7) yıl (%61,9'u kadın) idi. Hemşirelerin toplam KAOPS ortalaması eğitimden önce 104,9±13,5 iken eğitimden sonra 102,1±15,7'ye düşmüştür. Hemşirelerin FSA toplam puan ortalamasının ön test 68,8±8,3 iken eğitimden sonra 67,7±10'a düştüğü bulunmuştur. Puanları arasında istatistiksel olarak anlamlı bir fark yoktur ( $p>0,05$ ).

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**Received:** 20.10.2024 **Kabul Accepted:** 11.12.2024 **Publication Date:** 06.03.2025

**Cite this article as:** Kayhan Koçak FÖ, Özçaylak S, Solmaz İ, Kılavuz A. The effect of the home care nursing education program on ageism and attitude towards the older adults in a developing country; one group pre-posttest design effects of education on ageism and attitude towards older adults.. Nam Kem Med J. 2025;13(1):24-29

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**Sonuç:** Bu çalışmada, evde bakım hemşireliği eğitim programının hemşirelerin yaşlılara yönelik ayrımcılığı ve tutumları üzerinde istatistiksel olarak anlamlı olmasa da olumlu bir etkisi olduğu belirlenmiştir. Bu durum, hemşirelik eğitiminin daha erken aşamalarında, örneğin lisans derslerinde, bu tür ders ve eğitimlerin verilmesinin gerekliliğini gösterebilir. Yaşlılara yönelik olumlu tutumları teşvik etmek ve yaşlı ayrımcılığını önlemek için, tüm hemşirelik derslerine yenilikçi ve amaca yönelik öğretim stratejilerinin dahil edilmesi gerekmektedir.

**Anahtar Kelimeler:** Yaşlı ayrımcılığı, evde bakım hizmetleri, eğitim, hemşirelik, tutum

## INTRODUCTION

As in the world, the proportion of the population aged 65 years and older in the total population is growing rapidly in Türkiye. Considering the comorbidity burden of ageing group, we need nurses and healthcare professionals trained in geriatrics to better understand the needs of older adults in the health care system. Since older adults use 80% of home care, 60% of outpatient clinics, and 58% of inpatients clinics, it is almost inevitable that nurses encounter older adults in their daily practices<sup>1</sup>. Studies have shown that 25% of undergraduate nursing programs require additional gerontological education<sup>2</sup>. However, the geriatric nursing education program is still not widely integrated into associate degree and undergraduate degree nursing education in Türkiye. This lack of education is tried to be overcome through in-service training and education in nursing.

The attitude of healthcare professionals towards older adults is very important in providing quality care. In a systematic review<sup>3</sup>, it was determined that there was a slight negative change in the attitudes of nurses and nursing students towards older adults after 2000, and the attitudes of those who previously had positive attitudes became more neutral<sup>4</sup>. In order to spread geriatric nursing, we first need to develop a positive attitude towards older people and to create a supportive learning environment in this direction. It is unclear whether the education program alone can contribute to the development of positive attitude towards older people<sup>5,6</sup>. The working conditions and environment influence the perspective on ageing as well as geriatric nursing education received<sup>7</sup>. It was shown that nursing students with a positive attitude towards the older adults were more willing to make a career plan in the geriatrics medicine, and geriatric nursing education did not affect this relationship<sup>8</sup>. Despite their poor level of knowledge towards elderly care, nurses and nursing students could have positive attitude towards elderly care<sup>9,10</sup>.

Systematic review studies indicated that nurses' attitudes towards older patients were variable and influenced by many factors such as type of nursing, working clinics, and individuals characteristics<sup>3,11</sup>. The aim of this study is to investigate the impact of Home Care Nursing Education Program on ageism and attitudes towards the older adults.

## MATERIALS AND METHODS

A priori power analysis was performed using G\*Power software (version 3.1) to determine the sample size required to detect a significant difference between two dependent means (matched pairs). The analysis was based on a one-tailed test with an effect size of 0.91 derived from the study of Pekçetin et al.<sup>12</sup>. We calculated our sample size to be 15, assuming a type 1 error of 0.05, an effect size of 0.91, and a power of 95%.

Twenty-one nurses working in different clinics in University of Health Sciences Türkiye, Gazi Yaşargil Training and Research Hospital were included in this one-group pre-post test design study. Demographic data of the participants were captured through a structured questionnaire prior to Home Care Nursing Education Program. The Fraboni Scale of Ageism (FSA) and the Kogan's Attitudes Toward Old People Scale (KAOPS) were applied before and after the Home Care Nursing Education Program. Approval for the study was granted by University of Health Sciences Türkiye, Gazi Yaşargil Training and Research Hospital, Clinical Research Ethics Committee (decision no: 241, date: 25.11.2022). All patients were informed about the study protocols in detail and their informed written consents were provided.

### The Home Care Nursing Education Program

The Home Care Nursing Education Program is a standardized certified training program organized by the Ministry of Health. It is a postgraduate education program for nurses. It is implemented with 52 hours of theoretical training and 28 hours of practical training. It consists of 25 main topics (Table 1). The field application is 80 hours in total and includes 16 hours of home care visits and 64 hours of intensive care management in home care.

This training program includes education about geriatric syndromes such as ethics-neglect-abuse, malnutrition, and pressure sores. Also, a geriatrician gave an education about home care and the maintenance of activities from life to old age for 2 hours.

### FSA Scale

FSA was designed to assess stereotypes, avoidance and discrimination against older adults<sup>13</sup>. A four-point Likert scale is used with a rating of one (strongly disagree) to four (strongly agree). The stereotype sub-dimension consists of 17 items (1,

3, 5, 7, 9, 10, 11, 13, 15, 17, 18, 19, 20, 25, 26, 27, 28), the discrimination sub-dimension consists of eight items (2, 4, 8, 12, 14, 16, 22, 29), and the avoidance sub-dimension consists of four items (6, 21, 23, 24). Items 8, 14, 21, 22, 23, 24 are positive statements and are reversed items in Likert scales. The total score ranges from 29 to 116, and a higher score indicates greater age discrimination. Its Turkish validity study was made by Kutlu et al.<sup>14</sup> The Cronbach's alpha was found to be 0.98.

### KAOPS Scale

KAOPS is a 34-point self-assessment scale designed to measure attitudes towards older adults<sup>15</sup>. The scale has 34 items in total, with 17 positive and 17 negative expressions. The odd-numbered questions have negative statements whereas even-numbered questions have positive statements. A six-point Likert scale is used with a rating of 1 (disagree very strongly)

to 6 (agree very strongly). The negative statements are reverse scoring in Likert scales. The score range of the scale is between 34-204 points, and a high score indicates a positive attitude towards older adults. The Turkish validity and reliability study was conducted by Erdemir et al.<sup>16</sup> The content validity index is 0.94. Cronbach's alpha was found to be 0.84.

### Statistical Analysis

SPSS 25.0 statistical program was used for data analysis. The chi-squared ( $\chi^2$ ) test and Fisher's exact test were used for the comparison of categorical variables, while an independent sample t-test and the Mann-Whitney U test were used for the continuous variables. Baseline characteristics of the study population were presented as means  $\pm$  standard deviations for normally distributed continuous variables or medians and interquartile range values for skewed continuous data. The McNemar test and the Wilcoxon matched pairs test were used to compare the scores of scales before and after The Home Care Nursing Education Program. A p-value of <0.05 was considered statistically significant. The FSA and KAOPS were used with the permission and approval of the authors.

### RESULTS

The mean age of the nurses was 33 (4.7) years. Of these nurses, 61.9% were female. 90.5% were nurses with a bachelor's degree. Nine and a half percent of participants had training in geriatric medicine, 23.8% lived with a relative aged 65 years or over. The mean total KAOPS of the nurses was 104.9 $\pm$ 13.5 before the training. After the training, it decreased to 102.1 $\pm$ 15.7. There was no statistically significant difference between their scores according to education (p=0.537). The negative scale showed a median of 52 [interquartile range (IQR): 12.5] pre-test, a median of 50 (IQR: 16) posttest. The positive scale demonstrated a median of 51 (IQR: 11) pretests, a median of 49 (IQR: 12) post-test. Also, evaluating negative and positive sub-scales separately, no statistical difference was found (p>0.05, Z: -451 negative sub-scale, p>0.05, Z: -1.192 positive sub-scale). The comparisons of baseline and post-test performance of nurses are given in Table 2.

Topic	Theoretical hour	Practical hour
Introduction of the Home Care Nursing Education Program	1	-
Basic principles of home care	2	-
Ethics in home care	2	-
Legal aspect of home care	1	-
Asepsis and hygiene	2	-
Artificial hydration in home care	2	1
Maintenance of skin integrity	3	2
Calculation of medication dosages	2	3
Physical examination	3	2
Nutrition	3	3
Creating and maintaining a safe environment	1	-
Pain management	1	-
Home health care for respiratory conditions	2	2
Continence care in home care	4	4
Moving and handling people in home care	2	2
Postoperative care	2	-
Basic life support	2	1
Lifetime home care and maintain physical activity	4	-
Communication	4	-
Palliative care	2	-
Caring for patients at the end of life	2	-
Care of patient with disabilities	1	-
Symptom management in the nursing process	3	-
Case study workshop session	-	8
Patient education and counseling in home care	2	-

KAOPS	Medyan	IQR (25-75)
Baseline (n=21)	102	92-115.5
Post-test (n=21)	99	89.5-118
<b>p-value: &gt;0.05 Z: -0.617</b>		
FSA	Medyan	IQR (25-75)
Baseline (n=21)	71	62-74
Post-test (n=21)	71	60.5-75
<b>p-value: &gt;0.05 Z: -0.927</b>		
KAOPS: Kogan's Attitudes toward Old People Scale, FSA: Fraboni Scale of Ageism, IQR: Interquartile range		

It was found that nurses' total score average of the FSA was  $68.8 \pm 8.3$  pre-test and decreased to  $67.7 \pm 10$  post-test. There was no statistically significant difference between their scores according to education ( $p=0.354$ ). The median score of "stereotype", "discrimination" and "avoidance" subscales of the FSA were 38 [interquartile range (IQR: 9), 22 (IQR: 5), 8 (IQR: 3) pre-test, 40 (IQR: 9.5), 21 (IQR: 4.5), 9 (IQR: 2)] post-test, respectively (in the Wilcoxon matched pairs test  $p$  value: 0.711,  $Z$ : -0.371;  $p$  value: 0.04,  $Z$ : -2.054;  $p$  value: 0.111,  $Z$ : -1.592, respectively). There was statistically significant difference between only "discrimination" scores ( $p<0.05$ ,  $Z$ : -2.054) pre-test and posttest.

The relationship between the KAOPS and the FSA score before and after education was examined separately. There was significant negative correlation between KAOPS and FSA score before and after education ( $p=0.02$ ,  $r=-0.624$ ;  $p>0.02$ ,  $r=-0.524$ , respectively). Assessing the correlation between KAOPS and subscales of the FSA, there was no correlation between KAOPS and avoidance subscales either before or after training ( $p>0.05$ ,  $r=-0.285$ ;  $p>0.05$ ,  $r=-0.265$ , respectively), whereas the stereotype subscales had a negative correlation with KAOPS in both cases, which weakened after training ( $p=0.008$ ,  $r=-0.563$ ;  $p>0.04$ ,  $r=-0.447$ , respectively).

## DISCUSSION

This intervention study, designed as a single group pre-test/post-test model, is the first study to demonstrate the impact of the Home Care Nursing Education Program on ageism and attitude towards the older adults among nurses in Türkiye. In this context, the present study ensures valuable evidence for establishing nurse specialty education programs and policies based on the in-house training model.

In our study, there is no statistically significant difference between KAOPS scores pre-test and post-test in nurses attending the Home Care Nursing Education Program. Contrary to our study, Akpınar et al.<sup>17</sup> examined the experience of scenario-based aging simulation and they showed that nurses had statistically better KAOPS after the intervention. Although an aged simulation suit increased empathy and positive attitudes towards older patients<sup>18</sup>, training with theoretical information about ageing and including wearing the aged simulation suit was no found to have more positive effect on attitudes towards older patients than training without wearing the aged simulation suit<sup>19</sup>. However, the full multimodal simulation, a seminar in an age simulation suit, storytelling and volunteer interaction with an older adult, has been shown to produce better empathy scores in nurses than a seminar with only theoretical content<sup>20</sup>. For physiotherapy interns, simulation-based holistic healthcare education has shown similar results<sup>21</sup>. In particular, there is evidence that

short-term gerontology courses are effective in promoting positive attitudes towards older adults in nursing students<sup>22</sup>, but not in influencing ageist attitudes<sup>23</sup>. In another study, extended contact with community-dwelling older adults was shown to have an impact on positive ageism but not on helping attitudes among home care students<sup>12</sup>.

We found that there was a statistically significant difference between the "discrimination" scores alone before and after the Home Care Nursing Education Program. In contrast, Yamashita et al.<sup>24</sup> showed that the FSA scores of college students who watched three life story videos (documentaries) of older adults in the course decreased on the "stereotype" and "avoidance" subscale scores, while there was no significant change on the "discrimination" subscale score. Similarly, a recent study of Generation Z undergraduate social work students showed that 'having taken a course in gerontology' had no impact on FSA scores<sup>25</sup>.

In our study, there is a significant negative correlation between KAOPS and FSA scores before and after education. This means that ageism decreased as positive attitudes towards older patients increased. By bridging the intergenerational gap, interactive educational programmes such as home visit programme, daily life activities simulation and weekly engagement with older adults are effective in promoting positive attitudes towards older adults and ageism in nursing students and college students<sup>26-28</sup>. Empathy skills training has also been shown to have an impact on attitudes towards older patients and on empathy in nursing students<sup>29</sup>. Intergenerational service-learning, even in small doses, helps to combat ageism by bridging the generation gap<sup>28</sup>. There is evidence that the development and application of intergenerational nursing education is necessary to achieve high quality gerontological care with a reduction in ageism<sup>30</sup>.

Positive attitudes of health professionals are also associated with interest in topics related to older people<sup>31-33</sup>. Recent studies have shown that knowledge about ageing, age stereotypes, geriatric education and attitudes towards geriatric care influence career decisions and relationships with older patients<sup>32-37</sup>. 18.9% of the total variance in willingness to care for older adults was accounted for by the indirect effect of attitudes towards older adults<sup>36</sup>. Nursing students' willingness to care for the elderly can be improved by improving their knowledge and attitudes towards ageing.

Recent studies have shown that spirituality is positive and significantly predicted attitudes toward older adults in nursing students<sup>38-40</sup>. Also, having high degree course, whether they work in hospitals or nursing homes, previous experience with community older adults, being female, which faculty, the students are in, whether they are in their final year and whether

they have had training with older people all have an impact on attitudes towards older people<sup>41,42</sup>. It is known that ageism is associated with an increased risk for all-cause hospitalization or mortality towards older patients<sup>43</sup>. Given the role of ageism in burnout, training programmes that address ageism may reduce burnout in nurses<sup>44</sup>. In all respects, it is important to have approaches that prevent and raise awareness of ageism.

### Study Limitations

The main limitation of the study is that it was designed as a single group pre-test post-test study. Without a control group, it is harder to be sure about the impact of education on ageism and attitude towards the older adults. Another limitation is that the research was carried out in only one hospital rather than including nurses of other hospitals in Türkiye. Also, to adjust for confounding factors such as age and living conditions, the number of participants was small.

### CONCLUSION

Developing a positive attitude towards older adults is very important, especially for healthcare professionals. Türkiye is a developing country where geriatric medicine is still emerging. In this study, it was determined that the Home Care Nursing Education Program had a positive effect on nurses' discrimination and attitudes towards the elderly, although it was not statistically significant. To promote positive attitudes towards older adults, innovative and intentional teaching strategies need to be incorporated into all nursing courses. So, nurses should be further educated in geriatric care to raise awareness of age-related physiological changes and their clinical significance.

### Ethics

**Ethics Committee Approval:** Approval for the study was granted by University of Health Sciences Türkiye, Gazi Yaşargil Training and Research Hospital, Clinical Research Ethics Committee (decision no: 241, date: 25.11.2022).

**Informed Consent:** All patients were informed about the study protocols in detail and their informed written consents were provided.

### Footnotes

#### Authorship Contributions

Surgical and Medical Practices: F.Ö.K.K., S.Ö., İ.S., Concept: F.Ö.K.K., A.K., Design: F.Ö.K.K., S.Ö., İ.S., Data Collection or Processing: F.Ö.K.K., Analysis or Interpretation: F.Ö.K.K., A.K., Literature Search: F.Ö.K.K., S.Ö., İ.S., A.K., Writing: F.Ö.K.K., S.Ö., İ.S., A.K.

**Conflict of Interest:** No conflict of interest was declared by

the authors.

**Financial Disclosure:** The authors declared that this study received no financial support.

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