

Original Article

Determination of Nursing Students' Aging Anxiety and Healthy Lifestyle Behaviors

Guler Duru Asiret, PhD

Associate Professor, Nursing Department, Faculty of Health Sciences, Aksaray University, Aksaray, Turkey

Havva Yigit, RN

Aksaray University Training and Research Hospital, Aksaray, Turkey

Nurse Huseyin Yusufoglu, RN

Ankara City Hospital, Ankara, Turkey

Corresponding author: Assoc. Prof. Guler Duru Asiret, Aksaray University, Faculty of Health Sciences, Nursing Department, Aksaray, Turkey E:mail: gulerduru@gmail.com

Abstract

Aim: The aim of this study was to determine the aging anxiety and healthy lifestyle behaviors of nursing students of the Faculty of Health Sciences of Aksaray University.

Methods: The study sample consisted of students that were present in the class between November 2017 and February 2018. Data were collected by using a personal information form, Healthy Lifestyle Behaviors Scale (HLBS) II and Anxiety about Aging Scale (AAS).

Results: Participants' average age was 20.3 ± 2.3 ; 74% of participants were female Nursing students' views on aging are mostly compassion, weakness and disease. We found that students received a mean score of 64.5 ± 10.0 from the AAS and 145.6 ± 18.9 from the HLBS II. We found a positively strong relation between mean HLBS II score and mean AAS score ($r = 0.815$, $p < 0.001$).

Conclusion: We found that nursing students had a high level of aging anxiety and a good level of healthy lifestyle behaviors. In order to support and sustain the healthy lifestyle behaviors of nursing students, it is necessary to add lectures to the undergraduate nursing education that will improve those behaviors.

Keywords: Aging, anxiety, healthy lifestyle behavior, nursing students

Introduction

Today, older population increase due to the increased life expectancy at birth. Older people experience many problems such as the declines in physical and cognitive functions, health, fertility, income, reputation, roles and statuses, independence, social entourage, spouses and close relations, social life and social support (Bahar, Bahar & Savas 2009). Older people's problems,

chronic diseases and functional and cognitive losses, which are all caused by the changes occurring in old age, lead to the aging anxiety among young people (Lynch 2000; McGuinn & Mosher-Ashley 2002).

Aging anxiety is defined as the combined concern and anticipation of losses centered on the aging process (Lasher & Faulkender 1993). Aging anxiety affects not only people's attitude and behavior toward older

people but also their adaptation to their own aging process (Lasher & Faulkender 1993). As older people use health care facilities frequently, it becomes important to identify the attitude and anxiety of health personnel (particularly nurses) about aging. If health care providers have prejudices, negative attitudes, values, beliefs or perspectives toward older people, this affects the quality of care they provide for older people (Neville & Dickie 2014). One study reported that nurses had higher anxiety about aging than other health professionals (Wells, Foreman, Gething, & Petralia 2004). Another study made in Turkey reported that nursing students had higher aging anxiety compared to other health sciences students while the participants staying with older relatives had significantly higher aging anxiety (Sözdurmaz & Manidiracioglu 2017). The literature reported that aging anxiety could be prevented by promoting a healthy lifestyle and implementing the concept of healthy aging (Samancioglu & Karadakovan 2010).

Healthy aging becomes possible when people adopt healthy lifestyle behaviors, which include health-promoting behaviors. In addition, in order to prevent the lifestyle-related diseases and the mortality due to those diseases, people need to adopt healthy lifestyle behaviors. Adopting such behaviors is essential for preventing chronic diseases, increasing the quality of life for the people with chronic diseases and ensuring healthy aging (Aksoy & Ucar 2014). The literature defined healthy lifestyle behaviors as “the behaviors that are able to improve and sustain people’s well-being” (Pender, Walker, & Sechrist 1987). Healthy lifestyle behaviors include: adequate and balanced diet, stress management, regular exercises, spiritual development, interpersonal relations, and one’s being responsible for protecting and improving one’s own health (Pender, Walker, & Sechrist 1987). It was reported that people, who adopted health lifestyle behaviors such as exercising, diet, non-smoking and stress management, experienced psychological problems such as

anxiety and depression less often and were protected considerably from chronic diseases such as hypertension, diabetes and heart diseases (Saneei et al. 2016; Shafieyan et al. 2015; Tuygar & Arslan 2015). If people can turn healthy behaviors into their lifestyle, they can sustain their well-being and improve their health status. Therefore, developing and sustaining healthy lifestyle behaviors is the basis for protecting health and preventing diseases (Ayaz, Tezcan, & Akinici 2005). If people adopt healthy lifestyle behaviors when they are young, and develop and sustain a positive attitude lifelong, they will experience fewer problems in their old age.

One of the main tasks of nursing profession is to enable healthy or sick people to adopt healthy lifestyle behaviors. To fulfill this responsibility, first the nurses need to improve their own beliefs, attitudes and perspectives in terms of protecting and promoting health and improving quality of life (Tambag 2011). However, studies made with the nurses working in different facilities in Turkey found that nurses’ healthy lifestyle behaviors were below the expected levels (Altay, Cavusoglu & Gunestas 2015; Uz & Kitis 2017). Since health-promoting behaviors are often shaped during university years, the time nurses spend as students are important (Tambag 2011; Mete, Nacar, Tekin & Pehlivan 2017). Nursing students need to adopt healthy lifestyle behaviors so that they can become future nurses actively enabling people to adopt healthy lifestyle behaviors (Aksoy & Ucar 2014). In addition, they need to adopt healthy lifestyle behaviors to prepare for their own old age and have minimum aging anxiety that affects their attitude toward older people.

Objective: This study aimed to identify the aging anxiety and healthy lifestyle behaviors of nursing students.

Methods

Study design: This descriptive study aimed to identify the aging anxiety and healthy lifestyle behaviors of nursing students.

Participants: This descriptive study was conducted at the nursing students of the Faculty of Health Sciences of Aksaray University. There were 400 full-time undergraduate students at the nursing department. In this study, we tried to reach them all, but we ended up with 300 participants because some students were absent while others some students did not want to participate. Student participation rate was 75%.

Instrumentation: Study data were collected between November 2017 and February 2018. Data collection forms were distributed to participants in classrooms by the researchers without disrupting lectures, and it took 10-15 minutes to fill out the forms. The participants were given a personal information form, Healthy Lifestyle Behaviors Scale (HLBS) II and Anxiety about Aging Scale (AAS) at the same time, and asked to mark the statements that fit them.

There were 15 questions in the personal information form, including 12 close-ended and three open-ended ones. There were nine questions on participants' sociodemographic features (age, gender, place of birth, year in university, family type) and six questions regarding older people (Living with older people at home, wanting to live with older people at home, education on aging, opinions about aging and old age).

Anxiety about Aging Scale (AAS) was developed by Lasher and Faulkender (1993). It aims to assess people's anxiety about aging. It uses a 5-point Likert-type system. It includes 20 items and 4 subscales. When one's score from the scale increases, it indicates an increased anxiety about aging and a negative attitude toward older people.

Healthy Lifestyle Behaviors Scale (HLBS) II was developed by Pender, Walker & Sechrist (1987). Its validity and reliability study for Turkey was made by Bahar et al. (2008). HLBS II has 52 items. It uses a 4-point Likert type system including the options of 'never', 'sometimes', 'often' and 'regularly'.

It has 6 subscales, namely 'health responsibility', 'physical activity', 'diet', 'spiritual development', 'interpersonal relations' and 'stress management'. The lowest score on this scale is 52 while the highest one is 208. When one's score from the scale increases, it indicates an increased level of practicing healthy behaviors (Bahar et al. 2008).

Ethical Considerations: Before beginning the study, we received written approvals from the human researches ethics council of the university (no: 2018-12) and from the facility where the study was conducted. Before applying the data collection tools, the researchers informed the participants on the study objectives in their classrooms. Moreover, they stated that study participation was on a voluntary basis. Written informed consents were received from the students who agreed to participate in the study.

Data analysis: Study data were evaluated by using IBM SPSS (Statistical Package for the Social Sciences) for Windows statistics program. The descriptive features of participants were summarized by using number, percentage, mean and standard deviation. Since the data had normal distribution, T-test was used for comparing two groups. One Way Anova test was used for comparing the scale scores of more than two groups. Post Hoc Tukey HSD was used for determining which group was the source of difference. Pearson correlation analysis was used to assess the correlation between the mean scores of scales and subscales. $p < 0.05$ was the level of statistical significance.

Results

Table 1 indicates the participants' demographic features. Participants' average age was 20.3 ± 2.3 ; 74% of participants were female; 90.3% had nuclear families; and 32% were in the 2nd year of university. 56.7% did not live with older people at home; 86% stated that they wanted to live with their parents when they got older; 72% did not

receive any education on aging before undergraduate study. Participants' views about aging included: compassion (76.7%), weakness (69.3%), disease (64.3%), childlikeness (51.7%), dependence (47.7%) and loneliness (46%).

Participants' mean AAS score was 64.5 ± 10.0 . In AAS subscales, fear of old people was 16.8 ± 3.8 ; fear of losses was 16.6 ± 3.3 ; psychological concern was 15.6 ± 3.8 ; and physical appearance was 15.4 ± 3.1 (Table 2). Participants' mean HLBS II score was 145.6 ± 18.9 . In HLBS II subscales, spiritual development had the highest score while physical activity had the lowest. There was no statistically significant difference between the mean HLBS II and AAS scores according to the participants' gender, place of birth, family type, and receive training in geriatrics.

According to the participants' year at university, while there was no statistically significant difference between the mean HLBS II scores, there was a statistically significant difference between the mean AAS scores. The result of multiple comparison (Tukey HSD) indicated that senior year students was higher mean AAS scores than students in other years. When we compared the participants' previous experiences of living with older people in the same house with their scale scores, we found no statistically significant difference in AAS while there was a difference in mean HLBS II score. Table 3 indicates the correlation of study scales. When we examined the relation between students' aging anxiety and healthy lifestyle behaviors, we found a positively strong relation between mean HLBS II score and mean AAS score ($r = 0.815$, $p < 0.001$).

Discussion

This study focused on identifying the aging anxiety and healthy lifestyle behaviors of nursing students. Its findings indicated that participants had a high level of aging anxiety and healthy lifestyle behaviors. In addition, we found that as participants' aging anxiety increased, their healthy lifestyle behaviors

increased as well. The literature included many studies focusing on the participants' aging anxiety. The study by Sözdurmaz and Manidiracioglu (2017) covered the students of midwifery, nursing, and dietetics departments and found that participants had a high level of aging anxiety. One study, which compared the aging anxiety of nursing and social work students, health care professionals and community residents, found that participants had significantly more anxiety compared with other two groups (Koukoulis, Pattakou-Parasyri & Kalaitzak 2003). The study by McConatha et al. (2004) compared attitudes and anxieties toward aging of Turkish and American students, and found that Turkish students had higher psychological concerns of aging compared to American students. It was reported that aging anxiety varied according to age, gender, economic status and cultural aspects (Saxena & Shukla 2016; Sözdurmaz & Manidiracioglu 2017).

This study found that nursing students had a high level of aging anxiety. Age-related physical disabilities and cognitive impairment occur even if there is no disease in older people. Due to these health problems, older people are often admitted to hospitals, have problems of care, and the frequency of their social activity decreases. Students may experience aging anxiety because of such problems of older people. Receiving education about aging also affects aging anxiety. While the literature reported the positive effects of such education on aging anxiety (Harris & Dollinger 2003), it also reported its negative effect (Boswell 2012). This study determined that geriatric education status of participants did not affect their aging anxiety. As the number of university years increases, the number of students experienced in clinics increases. This study found that the 4th year students had higher aging anxiety than the ones in the other years. We think that the information provided on aging at university guides students toward health aging, and this may increase their aging anxiety.

Table 1. Descriptive features of the participants (n = 300)

Feature	Frequency	Percent
Age (Mean \pm standard deviation) (22.4 \pm 2.2) (min:18; max:25)		
Gender		
Female	222	74.0
Male	78	26.0
Place of birth		
Province	180	60.0
District	93	31.0
Village	27	9.0
Year at university		
1 st year	53	17.7
2 nd year	96	32.0
3 rd year	70	23.3
4 th year	81	27.0
Family type		
Nuclear family	271	90.3
Extended family	29	9.7
Living with older people at home		
Yes	130	43.3
No	170	56.7
Wants to live with older people at home		
Yes	258	86.0
No	42	14.0
Received training in geriatrics		
Yes	84	28.0
No	216	72.0
Opinions about aging and old age		
Compassion	230	76.7
Weakness	208	69.3
Disease	193	64.3

Childlikeness	155	51.7
Dependence	143	47.7
Loneliness	138	46.0
Wisdom	136	45.3
Forgetfulness	117	39.0
Dependency	108	36.0
Social isolation	20	6.7
Poverty	35	11.7
Ugliness	21	7.0
Depression	39	13.0
Political power	7	2.3
Independence	9	3.0
Happiness	61	20.3
Uselessness	33	11.0
Do not lose your hope	60	20.0
The end of everything	66	22.0

Table 2. Participants' mean HLBS II and AAS scores and mean subscale scores

HLBS II subscale	Mean ± Standard Deviation
Spiritual development	27.4 ± 4.2
Interpersonal relations	26.1 ± 4.5
Health responsibility	21.1 ± 4.6
Stress management	20.2 ± 3.9
Diet	20.1 ± 4.2
Physical activity	17.4 ± 5.2
HLBS II score	145.6 ± 18.6
AAS subscale	
Fear of old people	16.8 ± 3.8
Fear of losses	16.6 ± 3.3
Psychological concerns	15.6 ± 3.8
Physical appearance	15.4 ± 3.1

AAS score 64.5 ± 10.0

Table 3. Pearson's correlation coefficients (r) for the scales

	HLBS score	II	AAS score
	r		p
	p		
HLBS II score	1		
r		0.815	
p		0.000	
AAS score			
r	0.815	1	
p	0.000		

Significant findings are shown in bold.

Discussion continuous

This is related to the fact that senior year students had a higher level of aging anxiety than the ones in other years. In line with the undergraduate nursing education curriculum, students gain the most information on aging in their senior year. This information makes them ponder how they can be healthier in old age.

We think that the pondering process may have increased students' anxiety level. Behaviors that protect and promote health are specific behaviors that help a person to become healthy. The 4-year undergraduate nursing education emphasizes that nurses have important responsibilities in enabling people to adopt those behaviors, and protect and promote their health (Ozyazicioglu et al.2011). Nursing students need to display healthy behaviors and act as role models so that they can inform and guide people toward healthy behaviors throughout their careers (Tambag 2011). In

the literature, the studies assessing the healthy lifestyle behaviors of nursing students had similar results (Aksoy & Ucar 2014; Tambag 2011; Al-Kandari & Vidal 2007). Similar to other studies, our study found that the students' physical activity score was the lowest (Aksoy & Ucar 2014; Tambag 2011). Participants had a good level of healthy lifestyle behaviors, and we think that this was related to the content of nursing education.

Nursing education emphasize that increasing health awareness ensures one's control over one's own health. This can increase one's quality of life, change the lifestyle habits that can cause diseases, and encourage healthy lifestyle behaviors. Aging anxiety leads students to adopt healthy lifestyle behaviors and turn these behaviors into habits. The literature reported that a high level of aging anxiety affected students' lifestyle choices (Saxena & Shukla 2016). In the present study found that as students' aging anxiety

increased, their healthy lifestyle behaviors increased as well. This is a desirable situation for the prospective nurses, who will be future role models for society and provide them with health care, training and consultancy. In addition, students adopt positive health behaviors and become healthy and active older people in the future. However, students' high AAS scores also indicated that they had a negative attitude toward old age. The literature included studies reporting the students' negative attitude toward old age (Bleijenberg, Jansen & Schuurmans 2011) while there were also studies reporting their positive attitudes (Ayaz Alkaya & Birimoglu Okuyan 2017; Rathnayake, Athukorala & Siop 2016). Planning interventions to identify nursing students' attitude toward older people and replace their negative attitude with a positive one will help older people receive better health care. Therefore, it is necessary to increase the subjects related to old age and geriatric care in nursing education. In addition, nursing practices should not be limited to inpatient care centers; they should include nursing homes, geriatric care centers and geriatric day care centers so that the student can spend more time with older people.

Conclusion and Recommendations: The results of this study indicated that nursing students had a high level of aging anxiety and a good level of healthy lifestyle behaviors. We found that as students' aging anxiety increased, their healthy lifestyle behaviors increased as well. In order to decrease the students' aging anxiety, it is necessary to determine the factors causing anxiety and provide the necessary trainings and initiatives to reduce anxiety. In addition, the continuity of healthy lifestyle behaviors in nursing education programs is recommended in order to protect and improve the health of nursing students and ensure that they are appropriate role models for the society.

Limitations of the Study: Limitations of the study design are potential biases associated with self-report design. Results obtained from this study include only the sample group in which the study was conducted, so they cannot be generalized.

Acknowledgements: The authors would like to thank all participants who took part in the study.

References

- Aksoy, T., & Ucar, H. (2014). Healthy lifestyle behaviors of nursing students. *Journal of Hacettepe University Faculty of Nursing*. 1: 53-67.
- Al-Kandari, F., & Vidal, V.L. (2007). Correlation of the health-promoting lifestyle, enrollment level and academic performance of college of nursing students in Kuwait. *Nursing & Health Sciences*. 9: 112-9.
- Altay, B, Cavusoglu, F., & Gunestas, I. (2015). Healthy life style behaviours and influencing factors of nurses who work at the university hospital. *Journal of Dokuz Eylul University Faculty of Nursing*. 8: 12-8.
- Ayaz Alkaya, S., & Birimoglu Okuyan, C. (2017). Nursing students' attitudes towards the elderly. *Journal of Hacettepe University Faculty of Nursing*. 14: 43-52.
- Ayaz, S., Tezcan, S., & Akinci, F. (2005). Health promotion behavior of nursing school students. *Journal of Cumhuriyet University Faculty of Nursing*. 9: 26-34.
- Bahar, G, Bahar, A., & Savas, H.A. (2009). Elderly and social services for the elderly. *Journal of Firat Health Services*. 4: 86-98.
- Bahar, Z., Beser, A., Gordes, N., Ersin, F., & Kissal, E. (2008). Healthy life style behavior scale ii: a reliability and validity Study. *Journal of Cumhuriyet University Faculty of Nursing*. 12: 1-13.
- Bleijenberg, N., Jansen, M.J.M., & Schuurmans, M.J. (2012). Dutch nursing students' knowledge and attitudes towards older people-a longitudinal cohort Study. *Journal of Nursing Education and Practice*. 2: 1-5.
- Boswell, S.S. (2012). "Old people are cranky": Helping professional trainees' knowledge, attitudes, aging anxiety, and interest in working with older adults. *Educational Gerontology*. 38: 465-72.
- Engström, G., & Fagerberg, I. (2011). Attitudes towards older people among Swedish health care students and health care professionals working in elder care. *Nursing Reports*. 1: 2-6.

- Harris, L., & Dollinger, S. (2003). Individual differences in personality traits and anxiety about aging. *Personality and Individual Differences*. 34: 187-94.
- Koukouli, S., Pattakou-Parasyri, V., & Kalaitzak, A.E. (2003). Self-reported aging anxiety in Greek students, health care professionals, and community residents: a comparative stud. *The Gerontologist*. 54: 201-10.
- Lasher, K.P. & Faulkender, P.J. (1993). Measurement of aging anxiety: development of the Anxiety about Aging Scale. *The International Journal of Aging and Human Development*. 37: 247-59.
- Lynch, S.M. (2000). Measurement and prediction of aging anxiety. *Research on Aging*. 22: 533-58.
- McConatha, J.T., Hayta, V., Rieser-Danner, L., McConatha, D., & Polat, T.S. (2004). Turkish and US attitudes toward aging. *Educational Gerontology*. 30: 169-83.
- McGuinn, K.K. & Mosher-Ashley, P.M. (2002). Children's fears about personal aging. *Educational Gerontology*. 28: 561-75.
- Mete, B., Nacar, E., Tekin, Ç., & Pehlivan, E. (2017). Feeding and healthy life behaviors in medicine faculty students. *International Peer-Reviewed Journal of Nutrition Research*. 9: 16-30.
- Neville, C., & Dickie, R. (2014). The evaluation of undergraduate nurses' attitudes, perspectives and perceptions toward older people. *Nurse Education Today*. 34: 1074-9.
- Ozyazicioglu, N., Kılıç, M., Erdem, N., Yavuz, C., & Afacan, S. (2011). Determinants of nursing students' healthy life style. *International Journal of Human Sciences*. 8: 277-332.
- Pender, N.J., Walker, S.N., & Sechrist, K.R. (1987). The Health-promoting lifestyle profile: development and psychometric characteristics. *Journal of Nursing Research*. 36: 76-81.
- Rathnayake, S., Athukorala, Y., & Siop, S. (2016). Attitudes toward and willingness to work with older people among undergraduate nursing students in a public university in Sri Lanka: A cross sectional study. *Nurse Education Today*. 36: 439-44.
- Samancıoglu, S., & Karadakovan, A. (2010). Protection and development of elderly health. *Journal of Firat Health Services*. 5: 126-41.
- Saneei, P., Esmailzadeh, A., Keshteli, A.H., Roohafza, H.R., Afshar, H., Feizi, A., & Adibi, P. (2016). Combined healthy lifestyle is inversely associated with psychological disorders among adults. *PloSOne*. 11: 1-14.
- Saxena, R. & Shukla, A. (2016). Gender and age related differences in anxiety about aging. *International Journal of Indian Psychology*. 3: 12-26.
- Shafieyan, Z., Qorbani, M., Rastegari Mehr, B., Mahboubi, M., Rezapour, A., Safari, O., Mansourian, M. (2015). Association between lifestyle and hypertension in patients referred to health care centers of Ilam city in 2014. *Global Journal of Health Science*. 8: 161-7.
- Sözürmaz, S. & Manidiracioglu, A. (2017). Health sciences students' aging anxiety and attitudes towards older people. *Turkish Journal of Geriatrics*. 20: 54-60.
- Tambag, H. (2011). Hatay health school students' healthy lifestyle behaviors and influencing. *Journal of Hacettepe University Faculty of Nursing*. 18: 47-58.
- Tuygar, S.F. & Arslan, M. (2015). An investigation about the healthy life style behaviours of vocational school of health services students. *SDU Journal of Graduate School of Social Sciences*. 6: 59-66.
- Uz, D. & Kitis, Y. (2017). Determination of healthy life style behaviors and self-efficacy of nurses working in a hospital. *Gazi University Journal of Health Sciences*. 4: 27-39.
- Wells, Y., Foreman, P., Gething, L., & Petralia, W. (2004). Nurses' attitudes toward aging and older adults-Examining attitudes and practices among health services providers in Australia. *Journal of Gerontological Nursing*. 30: 5-13.