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Willingness to work with elderly people scale (WEPS) for medical and nursing students: cross-cultural adaptation and psychometric validation

Burcu Akpınar Söylemez [a], Merve Aliye Akyol[a,b], Ecem Özgül[c], Özlem Küçükgüçlü[a,b], Semen Gökçe Tan[d], and Pınar Soysal [d]

aDepartment of Internal Medicine Nursing, Dokuz Eylul University Faculty of Nursing, Izmir, Turkey; bHome Care Application and Research Center, Dokuz Eylul University, Izmir, Turkey; cDepartment of Nursing, Faculty of Health Sciences, Izmir University of Economics, Izmir, Turkey; dDepartment of Ger'atr'c Med'c'ne, Faculty of Med'c'ne, Bezm'alem Vak'f Un'vers'ty, İstanbul, Turkey

ABSTRACT

The number of older people is increasing globally, particularly in middle-income countries like Turkey. The psychometric properties of the Turkish version of the Willingness to Work with Elderly People Scale (WEPS-T) was evaluated in this study. A descriptive, methodological and cross-sectional design was used. The data were collected using a sociodemographic form and WEPS-T during April to June 2021. The language and content validity, explanatory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to assess the validity of the scale. The scale's reliability was obtained using Cronbach's alpha coefficient, item-total correlations, and test-retest reliability. Content validity index of WEPS-T was excellent (CVI was 1.00). All the factor loadings were found to be > .30 in factors analysis. In CFA, it was inferred that the model had a good fit ($\times 2/df$ = 5.344; GFI = .864; CFI = .868; RMSEA = .079; RMR <.01). A Cronbach's alpha value was obtained 0.881 for the entire scale. The test-retest reliability scores of the first sub-dimension were r = .84 and p < .001, the second r = .97 and p < .001, the third r = .98 and p < .001, the fourth r. = .95 and p < .001 and the total score was r = .96 and p < .001. WEPS-T is a valid and reliable measurement tool that determines the willingness of Turkish nursing and medical students to work with the older people.

Background

Due to the rapidly increasing world population, complications related to older age have become a global phenomenon. The increasing older population places high demands on public services, including transportation, health services, social security, family structure and intergenerational relations. It is suggested that the rate of increase in the older population is higher than in the past; therefore, countries should be prepared for the changing demographic structure within the framework of its own health and social systems (United Nations Department of Economic and Social Affairs, 2020). In this context, owing to the increase in the older population and their needs, health professionals will have to work more and more with older people (Chance et al., 2021).

Interestingly, several studies have suggested that gerontology, as a career, is not popular among medical and nursing students (Alkaya & Okuyan, 2017; Carlson & Idvall, 2015; Kalogirou et al., 2021; McCloskey et al., 2020; Okuyan et al., 2020; Øster et al., 2019). A study conducted in Belgium (Deschodt

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CONTACT Burcu Akpınar Söylemez ✉ burcu.akpinar@deu.edu.tr 🔄 Department of Internal Medicine Nursing, Dokuz Eylul University Faculty of Nursing, Inciralti, Izmir 35340, Turkey

et al., 2010) shows that 8.6% of nurses are willing to work in the field of geriatrics, while another study, conducted in Australia (Neville, 2016), reveals that 8% of nursing students are willing to work with the older people. Still another study, conducted in Israel, reports that 12% of nursing students are willing to work in the field of geriatrics, whereas 61% are not. One of the two studies conducted in Turkey indicates that 67.7% of the students are willing to work in the field of geriatrics (Alkaya & Okuyan, 2017), whereas the other shows that 54.5% are not (Sarı et al., 2019).

Culture is reported to be an important indicator in studies evaluating the attitude toward older people and the willingness to work in the field of geriatrics (Chance et al., 2021). This situation reveals the necessity of evaluating students' willingness to work with older people from different cultures by a sufficient number of samples, and valid and reliable measurement tools. Evaluation with a single-item question by researchers creates a limitation in determining students' intention to work with older people (Che et al., 2017). Intention/willingness is a multidimensional concept that requires more than a single question to elicit a meaningful response or enable researchers to draw conclusions. Closed-ended questions limit the amount and breadth of information collected. In order to reduce the measurement error, multi-item scales should be used instead of single-item questions (Bowling, 2014; Che et al., 2017). Therefore, it is not advisable to evaluate and rely on students' willingness/intention to work with the older people by a one-item question (Bowling, 2014; Che et al., 2017). Instead, a valid and reliable measurement instrument is needed to measure students' willingness/intention to work with older people and to produce accurate information (Che et al., 2017; Fadayevatan et al., 2018). In a systematic review conducted by Che et al. (2017) seven different types of instruments were evaluated, and no single instrument was found to be optimal for use. In addition, studies of high methodological quality are needed to properly evaluate the measurement properties of the instruments that are currently available. Developed by Fadayevatan et al. (2018), the 'Willingness to Work with Elderly People Scale (WEPS)' is a scale used to examine the intention/willingness to work with older people. No psychometric analysis of this scale exists in Turkish students. The study was conducted to examine the psychometric properties of the Turkish version of WEPS (WEPS-T) on nursing and medical students. The psychometric properties of the scale are based on the hypothesis, as summarized below.

Hypothesis 1: *The WEPS-T has linguistic validity for Turkish nursing and medical students.*

Hypothesis 2: *The WEPS-T has content and construct validity for Turkish nursing and medical students.*

Hypothesis 3: *There is a statistically significant difference between the groups of willing to work with older people and not willing on scores of the WEPS-T.*

Hypothesis 4: *The WEPS-T has enough cronbach's alpha value.*

Hypothesis 5: *The WEPS-T has enough and significant values of item-total correlation.*

Hypothesis 6: *There is a positive relationship between the test-retest scores of the WEPS-T.*

Hypothesis 7: *The WEPS-T has enough scale homogeneity.*

Hypothesis 8: *There is no any response bias of students on WEPS-T.*

Methods

Design

A descriptive, methodological and cross-sectional design was used to examine the psychometric properties of the WEPS-T. The study is reported according to guidelines for the process of cross-cultural adaptation of self-report measures. The guidelines outline the methodology from Stage I to VI (Stage I: Initial Translation, Stage II: Synthesis of The Translations, Stage III: Back Translation, Stage IV: Expert Committee, Stage V: Test of the Prefinal Version, Stage VI: Submission of Documentation to the Developers or Coordinating Committee for Appraisal of the Adaptation Process) (Beaton et al., 2000).

Participants and setting

The study was carried out at a state university in Izmir and a foundation university in Istanbul, Turkey, during April to June 2021. Both universities offer similar medical and nursing programs for students. Nursing and medical faculty students were preferred because they were among the most important members of the team in the selection of the sample group and the delivery of health services. The population of the study consisted of nursing (n = 1322) and medical (n = 1880) students in the two universities. The students who were aged 18 years and over, and agreed to participate voluntarily were included in the study. Convenience sampling method was used in the study.

The sample of the study consisted of 705 medical and nursing students from the two universities. In scale development, validity and reliability studies, it is reported that a sample size of ≤ 100 people is insufficient, between 101–200 people is moderate, between 201–300 people is good, between 301–500 people is very good, and when it is more than 501 people, it is considered excellent (Kartal & Bardakçı, 2018; Seçer, 2018; Özdamar, 2016).

Instruments

Demographic and characteristic form

The form was developed by the researchers to collect data on the sociodemographic characteristics of the students. It consisted of questions describing the characteristics of the students such as age, gender, income level, choosing the profession voluntarily, the reason for choosing the profession.

Willingness to work with elderly people scale (WEPS)

The WEPS was developed by Fadayevatan et al. (2018) to determine medical students' willingness to work with older people. The WEPS, a 20-item scale, is answered using a 6-point scale (1=strongly disagree, 6= strongly agree). The scale has four sub-dimensions (attitude [1–5 items], subjective norm [6–10 items], perceived behavioral control [11–15 items], intention [16–20 items]) and its Cronbach alpha values are 0.54-0.57-0.73-0.84, respectively. The total score Cronbach alpha value of the scale is 0.81. All the sub-dimensions consist of five items. The minimum score obtained from the scale is 20 and the maximum score is 120 (Fadayevatan et al., 2018). The WEPS scale contains reversed items (2, 3, 4 and 17), which are coded in the opposite direction of their non-reversed counterparts. The total score of the scale is obtained by adding all the item scores. A high average score means a high level of willingness to work with older people. The original language of the scale is English. The validated scale questions in Turkish are provided in Appendix 1.

Procedures

Data collection was carried out between 15th April and June 25, 2021. Due to the COVID-19 pandemic, distance education was provided in both universities and only interns (senior students) were present in the clinics. For this reason, data collection forms were prepared as Google

forms. The e-mail address lists of the students were obtained from the faculties and a Google forms link containing the research-related information was sent by e-mail to them. Additionally, announcements were made by the researchers to the students through social media tools (Facebook, Instagram and twitter accounts), and those who saw the sharing and volunteered to participate first filled out the informed consent form of the study. A total of 1985 e-mails were sent and the response rate was 35.26% (n = 705).

For intern students, the researchers scheduled a data collection time with the clinical instructors. Due to the COVID-19 pandemic, researchers had students fill out questionnaires during recess that were ordered to be put in the boxes of the instructors in the faculty room. Each questionnaire was assigned a unique code to match the intern students. Three weeks after the initial data collection, the researchers redistributed the questionnaire driven by the unique codes.

Data analysis

The Statistical Package for the Social Sciences version 22.0 (SPSS Inc, Chicago, IL, USA) and Analysis of Moment Structures (AMOS) version 25.0 were used for statistical evaluation of the data. Number and percentage distributions of the descriptive data were used. To test the hypothesis stated above, validity and reliability analyses were performed. For validity analyses, linguistic validity (*hypothesis 1*), content and construct validity (*hypothesis 2*), and known group comparisons (*hypothesis 3*) were made. Reliability was determined using Cronbach's alpha (*hypothesis 4*), item-total correlations (*hypothesis 5*), test-retest (*hypothesis 6*), ceiling and floor effects (*hypothesis 7*) and Hotelling's *T*-squared test for response bias (*hypothesis 8*) (Boateng et al., 2018).

Linguistic validity, content validity and construct validity were performed for validity. For linguistic validity, the first step (Stage I) was initial translation of the scale, which was independently translated from English to Turkish by the six investigators of this study (an English language specialist and a subject matter expert whose native language is Turkish). The second step (Stage II) of adaptation was the synthesis of the translation of the scale. The investigators and a recording observer synthesized the results of the translations, and the recording observer wrote a report that carefully documented the synthesis process and each of the issues discussed and how they were resolved. The entire study team held two online meetings about scale translations. The translated English form and the original form were compared by the researchers. The third step (Stage III) of adaptation was back-translation. The back-translation of the scale from Turkish to English was done by a language expert who had not read the English version before and who had a good understanding of both languages and cultures. Developing this scale about scale back translation, Dr. Mohammad Mehdi Parvizi was contacted via e-mail to get his opinion on whether the language translation of the articles was appropriate. For the fourth item, the phrase 'Working with older is a dead-end job' is included in the original scale. In this study, the same item was expressed as 'Working with the older people is an endless job' in the back-translation. Back-translation in this study was verified by the original developers of the scale. Accordingly, no items were changed.

In the fourth step (Stage IV) of adaptation, expert committee opinions were collected. Content validity was confirmed by seven experts (four academician nurses, two physicians experts in geriatric, one nurse expert in geriatric nursing), who were asked to evaluate the scale in terms of language and content. Each of the experts has at least 10 years of experience working with the older people. The scale-level content validity index (S-CVI) and item-level content validity index (I-CVI) were calculated. The opinions of experts were assessed using the Polit-Beck content validity index (Polit et al., 2007). The experts rated the items as 1 ('not appropriate'), 2 ('should be made more appropriate'), 3 ('appropriate but needs minor changes') or 4 ('highly appropriate'). Polit and Beck content validity index is calculated in two ways: I-CVI and S-CVI for each item in the scale.

In the fifth step (Stage V) of adaptation, test of the prefinal version was evaluated. To test the clarity and intelligibility of the items, the scale was given to a small representative group of the sample. There are different methods of calculating the sample for the pilot study. In the literature, it has been suggested to evaluate the scale with a small pilot study in which it was applied to a group of 20–30 people who were not included in the sample (Sousa & Rojjanasrirat, 2011). In this study, literature information showing that pre-application can be made with 50 participants, considering the number of scale items below 30, was used (Seçer, 2018). The authors administered the scale to a sample of 46 participants, who were not included in the study sample. Each of the items in the pilot study was found to be comprehensible and the validity/reliability study was continued with the collection of the data. Participants took approximately 4–5 min to complete the scale. The sample of the pre-application was selected with both nursing and medical students. The form that was designed by the researchers, contained the following questions: What are your general comments on the instrument? What are your comments on each of the statements? How long did you take to complete this instrument? Is the number of questions acceptable? Does the order of questions make sense to you? Did you find it difficult to answer or understand any of the items? Overall, how understandable and simple is the instrument? Have you experienced problems with the rating of the statements, and do you have any suggestions on this? Do you have any other suggestions for the instrument? Did you need help completing the instrument? If yes, who helped you and why?

In the final step (Stage VI) of adaptation, 'submission of documentation to the developers or coordinating committee for appraisal of the adaptation process' was made. Adaptation process in this study was verified by the original developers of the scale (Beaton et al., 2000).

Explanatory factor analysis (EFA) and Confirmatory factor analysis (CFA) determined the construct validity. Different samples were used for these two analyses. In the literature, it is noted that dividing the sample (or collecting a second wave of data) is important because it can be argued that the same data are used to construct and validate the factor structure, and the latter is clearly biased because the data is the same (Fokkema & Greiff, 2017). For this reason, 200 participants were used to identify the measurement model with EFA, and the others (n = 505) were used to cross-validate the model using CFA.

Prior to the EFA, the normality test was used to determine whether the data were normally distributed, the Kaiser-Meyer-Olkin (KMO) test to determine whether the data structure was suitable for EFA, and the Bartlett's test to determine whether the measurement tool could be divided into factor structures. In the factor analysis, varimax rotation was performed after the principal components analysis. In the CFA, the authors analyzed Pearson's χ^2, degree of freedom, root mean square error of approximation (RMSEA), goodness-of-fit index (GFI), comparative fit index (CFI) and normal fit index as the GFIs.

Test-retest method was used to determine the reliability of the scale in terms of stability (Souza et al., 2017). Test-retest was applied to 100 students at three-week intervals. The time between the two tests should not be too short for the respondents to remember the answer given in the first test. Therefore, it is recommended to have at least 30 paired samples for test-retest analysis, with an interval of two to three weeks between two tests. It is known that in cases where the sample size is large, it should constitute 10–20% of the sample (Polit et al., 2007). Two authors (second and third authors) were responsible for evaluating the test-retest administration.

In this study, a comparison test was performed on known groups. The students who filled out the scale were asked the question "would you like to work with older people (yes/no)?" Two groups of the students, those who are willing to work with the older people and those who are not, were compared with the t-test in independent groups according to the scores obtained from the scale.

Ethical considerations

Permission was obtained from the author (Yadollah Abolfathi Momtaz) via e-mail to translate WEPS into Turkish and to evaluate its psychometric properties, and from the relevant faculties of both universities to conduct the study. The ethical review committee of the foundation university approved the study (Reference Number: 2021/131). Intern students were informed about the aim and design of the study. Oral and written informed consent were obtained from intern students. Students, other than interns, were informed about the purpose and design of the study at the beginning of the online questionnaire.

Results

Demographics and characteristic of the students

The sample of the study (n = 705) consisted of 476 female students (67.50%) and 229 male students (32.50%) aged between 18 and 31 (20.75 ± 1.76). Three quarters of the students (76.20%) had been studying at the faculty of nursing. More than half of those who completed the scales were freshmen and sophomores. Most of the students (70.90%) had experience of living with older people in the same house. More than half of the students (66.70%) did not take any course for older people and 62.30% stated that they were willing to work with them (Table 1).

Table 1. Descriptive characteristics of the students (n: 705).

Variables	n	(%)
Gender		
Female	476	67.50
Male	229	32.50
Field of study		
Nursing	537	76.20
Medicine	168	23.80
Financial status		
Low income	190	27.00
Moderate income	398	56.50
High income	117	16.60
Term		
First Year	220	31.20
Second Year	258	36.60
Third Year	146	20.70
Fourth Year	59	8.40
Fifth Year	21	3.00
Sixth Year	1	0.10
Taking any course for elderly people		
Yes	235	33.30
No	470	66.70
Living with elderly people		
Yes	500	70.90
No	205	29.10
Having previous experience caring for an elderly people		
Yes	286	40.60
No	219	59.40
Willingness to work with elderly after graduation		
Yes	439	62.30
No	266	37.70

Validity measurement (Hypothesis 1, 2, 3)

Linguistic validity, content validity and construct validity were performed for validity. Polit and Beck content validity index is calculated in two ways: I-CVI and S-CVI for each item in the scale. A score above 0.80 for I-CVI and S-CVI shows perfect fit (Polit et al., 2007). In this study, I-CVI and S-CVI scores of 1.00 indicate perfect fit.

In order to determine the factor structure of the scale, EFA was performed with 200 randomly selected data from the sample. The data were tested to provide a normal distribution. Since the Kolmogorov-Smirnov test value was p > .05, it was considered that the scores obtained from the scale exhibited a normal distribution. The results of the Kaiser–Meyer–Olkin Measure of Sampling Adequacy
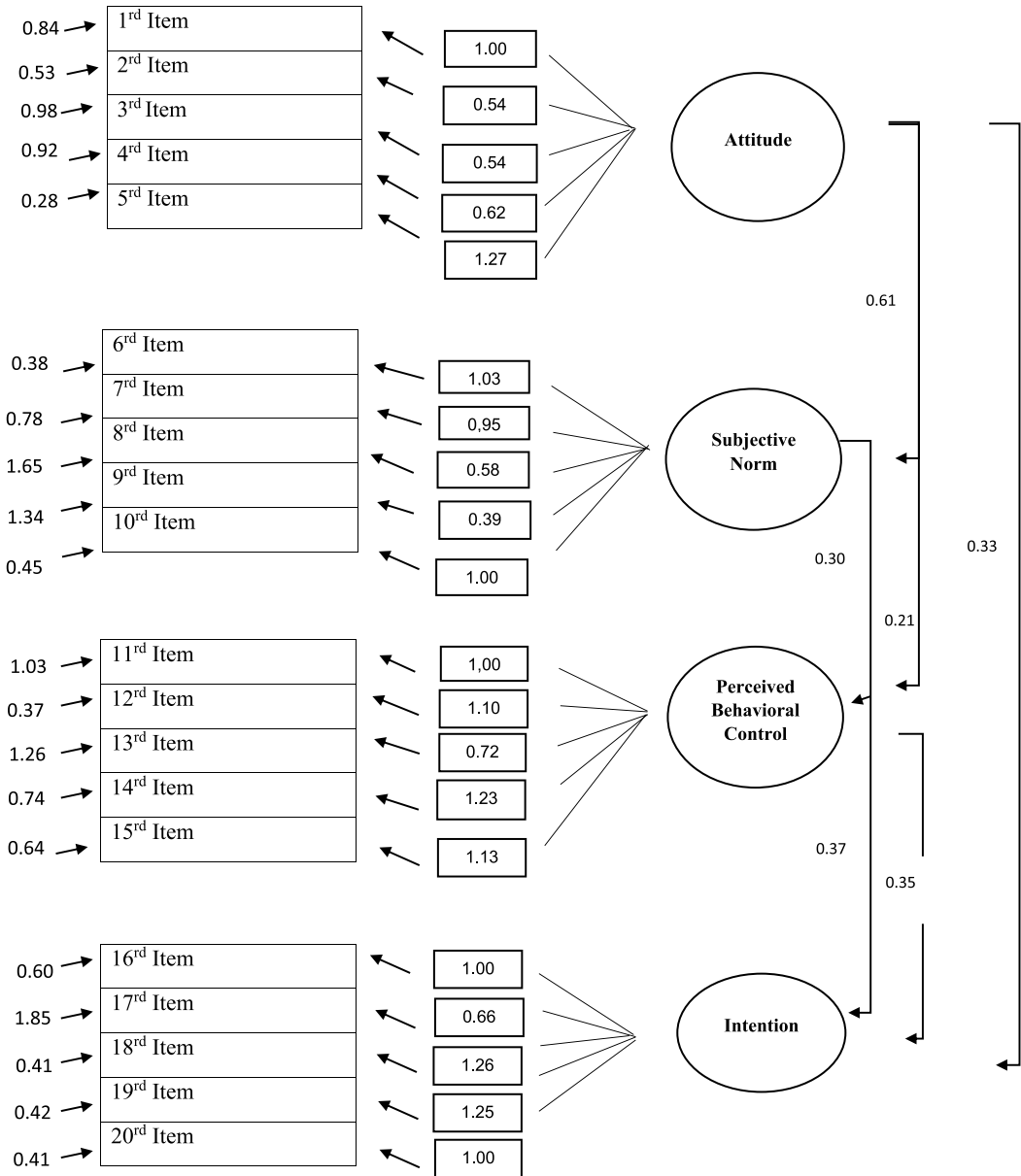

Figure 1. Confirmatory factor analysis of WEPS-T.

and the Bartlett's test, which was used to determine the suitability of the measurement tool for factor analysis, were found as 0.84 and 0.001, respectively. Four factors with eigenvalues greater than 1 were determined by using EFA. The four factors explain 62.254% of the total variance. As a result of the analyzes made, it was determined that the scale consisted of four factors in the Turkish society. As a result of examining the scree graph by EFA, it was seen that a total of four factors contributed to the variance explained up to the point where the graph flattened. Of the total variance of 62.254%, 31.126% was explained by the first factor, 14.259% by the second factor, 10.026% by the third factor, and 6.842% by the fourth factor. The distribution of the items to the factors was examined with varimax rotation.

The factor loads in the attitude sub-dimension ranged from 0.54 to 1.27, those in the subjective norm sub-dimension from 0.39 to 1.03, those in the perceived behavioral control sub-dimension from 0.72 to 1.23, and those in the intention sub-dimension from .66 to 1.26. In the evaluation of factor loadings, 0.32–0.50 low correlation, 0.50–0.60 good correlation, 0.60–0.70 high correlation, 0.70 and above perfect correlation reference values were taken into consideration. Due to the information in the literature that a factor load of 0.30 is sufficient, all the items except the 9th showed a good correlation and no change was made in that one (Burns & Grove, 2009; Çam & Baysan-Arabacı, 2010). For CFA (n = 505), the model fit indicators were determined as: CFI = 0.868, incremental fit index (IFI) = 0.869, GFI = 0.864, root mean square residual (RMR) <.01, chi-square/degree of freedom (x^2/df) = 5.344 (p <.001) and 90% confidence interval of RMSEA = 0.079 (Figure 1).

In this study, a comparison test was conducted on groups known for their intention to work with the older people. A statistically significant difference was found between the two groups (p < .001). It was determined that the scale score of the students who were willing to work with the older people (82.756 ± 11.864) was higher than the scale score of those who were unwilling to (68.646 ± 10.751).

Table 2. Item–total score and item–subdimension total score correlations of willingness to work with the elderly scale (n = 505).

Subdimensions	Items**		Item–Total Score Correlations r*	Item – Subdimension Total Score Correlations r*
Attitude	1	Working with the elderly is satisfying.	0.612	0.647
	2	Care of elderly patients is a waste of financial resources.	0.323	0.693
	3	Working with elderly patients is disappointing.	0.355	0.697
	4	Working with the elderly is not a career.	0.357	0.729
	5	Working with the elderly is a highly useful experience.	0.686	0.741
Subjective Norm	6	Caring for the elderly is a human duty.	0.624	0.776
	7	My culture encourages me to work with the elderly.	0.642	0.804
	8	There is enough encouragement to work with the elderly.	0.581	0.682
	9	My professors advise me to consider a career on elderly care.	0.529	0.543
	10	Working with the elderly is socially valuable.	0.637	0.757
Perceived Behavioral Control	11	I achieve competences on elderly care.	0.682	0.725
	12	I have professional competences on elderly care.	0.547	0.815
	13	In the curriculum there is enough elderly care training.	0.412	0.646
	14	I have the skill of working with the elderly.	0.603	0.799
	15	I have necessary capabilities to provide end-of-life care.	0.480	0.794
Intention	16	One of my career priorities after graduation is elderly care.	0.628	0.784
	17	I will never consider elderly care a job.	0.350	0.581
	18	I would like to work in community elderly care after graduation.	0.702	0.859
	19	I prefer to work with the elderly after graduation.	0.689	0.858
	20	I will certainly choose to work with the elderly after graduation.	0.641	0.809

* p < .001 **Turkish version was administered to the participants.

Reliability and measurement invariance (Hypothesis 4, 5, 6, 7, 8)

The Cronbach's α value calculated for WEPS-T (20 items) was 0.881, and the values calculated for the sub-dimensions were as follows: 0.728 for attitude, 0.751 for subjective norm, 0.812 for perceived behavioral control, and 0.824 for intention.

In order to determine whether the items were distinctive or not, item-total score and item-subdimension total score analysis was performed, which was given in Table 2. As seen in Table 2, the item-total score correlation coefficients of the scale vary between 0.323 and 0.689 and item-subdimension total score correlations were determined as follows: 0.647–741 for attitude, 0.543–0.804 for subjective norm, 0.646–0.799 for perceived behavioral control and 0.581–0.859 for intention. All the correlation values were found to be significant at the <0.001 level.

Test-retest was applied to 100 students at three-week intervals. A statistically significant positive relationship was observed between the test-retest scores of the scale's four sub-dimensions. The first sub-dimension had an $r = .84$ and $p < .001$, the second had an $r = .97$ and $p < .001$, the third had an $r = .98$ and $p < .001$, fourth had an $r = .95$ and $p < .001$ and the total score had an $r = .96$ and $p < .001$. It was observed that there was no significant difference at the 0.05 level as a result of the t test between the factors and the total score in the dependent groups.

The assessment of scale homogeneity was performed by floor and ceiling effect analysis (Nunnally & Bernstein, 2010; Rattray & Jones, 2007). When the data were evaluated, the floor and ceiling effect analysis of the scale was found below %15.

Response bias was evaluated in order to test whether the students answered the scale in line with their own views or in line with the expectations of the society or the researcher while filling out the scale. At the end of the test, Hotelling's T-squared $= 948.153$ of the scale was considered to be significant (p < .001). Each hypothesis was confirmed as a result of the validity and reliability analyses.

Discussion

It is well known that the older population benefits from health services. Due to the changing population projections, it is considered that future health professionals will care for even more older people than ever before. Attitudes toward the older people and willingness to work with them are important variables for providing quality care. The variable of attitude toward the older people has been evaluated by a valid and reliable measurement tool for about 60 years in the literature. However, studies on willingness to work with the older people are scarce. In Turkey, there is no study assessing the validity and reliability of this scale. The lack of a measurement instrument is a barrier to determining willingness to work with the older people. The study, which translated WEPS from English to Turkish, tested the psychometric properties of the translated version in a cohort of Turkish nursing and medical students.

Two hypotheses of the study were accepted. The results showed that the WEPS-T is a successful scale for detecting willingness to work with older people. In this study, CVI scores showed excellent fit with respect to linguistic validity. These assessed CVI scores indicate that there is acceptable agreement among experts and WEPS-T measures the concept it intends to. Thus, the items in the WEPS-T are deemed appropriate for Turkish culture. As far as we are concerned, this is the first study to translate and validate the WEPS into another language and context; therefore, we do not have any elements for comparison.

The four-factor structure of WEPS-T was in the strong factor structure, similar to the original study (Fadayevatan et al., 2018). The items had a high correlation with their own factors, indicating that all four factors adequately measure the construct they intended to. EFA and CFA results showed that all factor loadings and fit indexes were within the limits specified in the literature, and confirmed that the factor structure of the instrument was the best possible fit (Burns & Grove, 2009; DeVellis, 2016; Gürbüz & Şahin, 2016; Jonhson & Christensen, 2014; Tavsancil, 2010; Çam & Baysan-Arabacı, 2010; Çokluk et al., 2012). The original version of

WEPS had similar fit indexes (CFI = .916, GFI = .93, RMSEA = .053, x^2/df = 2.646, p < .001). The results show that the scale is able to provide valid outcomes of Turkish nursing and medical students to determine willingness to work with the older people.

In order to determine whether the factors are distinctive or not, a comparison test was performed on known groups. The two groups were compared according to the answer to the question 'Would you like to work with the older people?' There was a significant difference in favor of those who are willing to work between the scale scores of the two groups who are willing to work with the older people and those who are not. According to the results of the study, it may be suggested that the score of the scale is distinctive and the raters of the scale are distinguished in terms of the characteristics to be measured.

It has been found that WEPS-T provides highly reliable scores through both item-total score correlation coefficients and test-retest; This means that WEPS-T can provide reliable results when measuring the willingness of Turkish nursing and medical students to work with older people. The Cronbach's α was similar to what was found in the original study. It compared to 0.81 for the summative mean score and 0.54–0.84 sub-dimensions of the original scale for WEPS (Fadayevatan et al., 2018). The Hotelling T-square test was used to evaluate the response bias and determine whether the mean of the sample was normally distributed. It indicated no significant response bias (Nunnally & Bernstein, 2010; Rattray & Jones, 2007). We determined a floor and ceiling effect of less than 15%, indicating that there is no such bias (Nunnally & Bernstein, 2010; Rattray & Jones, 2007).

Conclusion

The results obtained from this study showed that the WEPS-T is a valid and reliable measurement tool in determining the willingness of Turkish nursing and medical students to work with older people. This scale will also be useful in studies to be carried out to serve the older population in many occupational groups that will work in the field of health. It is considered that by determining the students' willingness to work with the older people, this group will enable projects that will increase the willingness to work with the older people interventionally.

Limitations

Since this study involved a non-probabilistic sample and was conducted online, only people without internet access could not participate in the study, which may limit the wide generalization of the study results.

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Disclosure statement

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ORCID

Burcu Akpınar Söylemez 🔟 http://orcid.org/0000-0002-9643-0325
Pınar Soysal 🔟 http://orcid.org/0000-0002-6042-1718

Data availability statement

All data generated or analyzed during this study are included in this article and its supplementary material files. Further enquiries can be directed to the corresponding author.

Author contributions

All authors were involved in the conception and design of the study and collecting data. B.A.S., M. A. A. and E.Ö. performed the statistical analyses. B.A.S., M.A.A. and E.Ö. wrote the first draft of the manuscript. All authors critically revised the manuscript for important intellectual content and approved the final version submitted.

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Appendix. Turkish version of the willingness to work with elderly people scale

Yaşlı Bireylerle Çalışma İstekliliği Ölçeği	Kesinlikle Katılmıyorum	Katılmıyorum	Pek Katılmıyorum	Kısmen Katılıyorum	Katılıyorum	Kesinlikle katılıyorum
1. Yaşlılarla çalışmak doyum verir.						
2. Yaşlı hastaların bakımı ekonomik kaynakların boşa harcanmasıdır.						
3. Yaşlı hastalarla çalışmak, hayal kırıklığına uğratır.						
4. Yaşlı bireylerle çalışmak kariyeri olmayan bir iştir						
6. Yaşlılara bakım vermek insani bir görevdir.						
7. Yaşadığım kültür, beni yaşlılarla çalışmaya teşvik eder.						
8. Yaşlılarla çalışmak için yeterli teşvik var.						
9. Hocalarım yaşlı bakımı konusunda bir kariyer yapmayı düşünmemi öneriyor.						
10. Yaşlı bireylerle çalışmak sosyal açıdan değerlidir.						
11. Yaşlı hastaların bakımı konusunda yeterlilikler elde ediyorum.						
12. Yaşlı bakımı konusunda mesleki yeterliliklere sahibim.						
13. Müfredatta yeterince yaşlı bakım eğitimi vardır.						
14. Yaşlılarla çalışma becerisine sahibim.						
15. Yaşam sonu bakımı sağlamak için gerekli yeterliliklere sahibim.						
16. Mezun olduktan sonraki kariyer önceliklerimden biri yaşlı bakımıdır.						
17. Mesleğimde yaşlı bakım alanını asla düşünmeyeceğim.						
18. Mezun olduktan sonra toplumdaki yaşlı bireylerin bakımında çalışmak istiyorum.						
19. Mezun olduktan sonra yaşlılarla çalışmayı tercih ederim.						
20. Mezun olduktan sonra kesinlikle yaşlılarla çalışmayı seçerim.						