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Original article

Turkish Version of the Perceived Future Decent Work Securement Scale: Validity and Reliability for Nursing Students

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ABSTRACT

Background: The aim of the study was to test the validity and reliability of the Perceived Future Decent Work Securement Scale for Turkish nursing students.
Methods: A cross-sectional, methodological study design was used. The study was carried out at three nursing undergraduate programs in Turkey during the academic year of 2020–2021 with 336 senior nursing students. Language validity and content validity analyses were performed for the scale adaptation, followed by confirmatory factor analysis (CFA) for construct validity. The reliability of the scale was determined using the test-retest and Cronbach's alpha internal consistency coefficient.
Results: The scale-content validity index score was 0.988. In CFA, all goodness-of-fit indices verified the acceptable fit of the model; its root mean square error of approximation was 0.076; the normed fit index was 0.909; the standardized mean square residual was 0.097; the relative fit index was 0.881; the goodness-of-fit index was 0.915; the adjusted goodness-of-fit index was 0.872 and $\chi 2/df = 2.932$. The overall reliability was $\alpha = 0.86$. The item-total correlations of the scale were above the acceptable level, and the test-retest analysis had a high correlation. The access to healthcare (14.68, SD 3.53) obtained the highest average score, and the adequate compensation (8.52, SD 3.76) was the lowest rated by the senior nursing students.
Conclusion: The Perceived Future Decent Work Securement Scale is a valid and reliable scale to assess nursing students' future decent work securement.
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1. Introduction

Decent work, which is the 8th goal of Sustainable Development Goals (SDGs) established by the United Nations, is defined as "productive work in which rights are protected, which generates an adequate income, with adequate social protection" [1]. Decent work includes these aspects: "opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men" [2].

According to the SDGs report (2021), 22.3% of the world's youth are Not engaged in Education, Employment, or Training (NEET), and it was stated that young women (31.1%) are twice as likely to have NEET than young men (14.0%), and that this difference would increase throughout the pandemic due to gender inequality [3]. It is stated that the employment of young and especially female employees will increase in the next 10 years in the healthcare and social services sector, and the importance of having a decent work for young people will increase due to reasons, such as gender discrimination and violence [4]. Arrangements to be made for the female-dominated nursing workforce, which constitutes 59% of the healthcare workforce, will contribute to achieving the SDGs for quality education, gender equality, decent work, and economic

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growth [5]. In recent years, considering that the international migration of healthcare professionals has increased rapidly [6], ensuring decent working conditions will be an opportunity to prevent nurse migration flows worldwide.

In the Psychology of Working Theory (PWT), decent work is defined according to International Labour Organization (ILO) standards and conceptualized as a central mediating variable between the predictors (e.g. economic constraints, marginalization, work volition, and career adaptability) and the outcomes (e.g. work fulfillment and well-being) [7]. Decent working conditions and wages are considered as hygiene factors, which are a prerequisite for employee motivation [8]. In addition, increasing employee benefits over the years is an important factor in employment, making it easier to attract and retain employees. Indeed, Roberts et al. [9] divided employee benefits into two categories: traditional benefits and work-life benefits. Traditional benefits (basic health, safety and security benefits, paid time-off, and workday benefits) meet the needs of basic hygiene factors (e.g. retirement, health insurance, maternity leave, paid time-off, and overtime pay). Work-life benefits (e.g. family friendly benefits (subsidized child care), human capital (training leave), convenience (discounts), lifestyle, and employee well-being (retirement planning)) are supposed to meet employees' work, family, and personal needs [9].

While PWT was developed for working adults, the theory is associated with "emerging adults", the period between adolescence and young adulthood, characterized by prolonged exploration of career opportunities, the pursuit of higher education or training, and frequent job changes [10]. As a matter of fact, in previous studies, all the main predictor variables in PWT were extensively examined in a sample of undergraduate students [10–12]. Cross-cultural comparison performed with college students in the Republic of Korea and the USA also revealed that PWT is applicable to emerging adults [11]. The studies conducted with college students show that students' economic resources, work volition, and career adaptability have a significant effect on the perception of future decent work securement [10,11,13]. However, it was found that the perception of future decent work securement has a mediating role in the relationship between economic constrains and career exploration [13].

The report of ILO Office for Turkey, Youth and COVID-19: Access to Decent Jobs in the Midst of the Pandemic [14] states that young people work in precarious and informal jobs more than adults, and the risk of losing their jobs in the pandemic is three times higher than adults; however, there is a 14.75% decrease in labor force participation rates. It is mentioned that the longer they are unemployed, the less likely they are to participate in education or employment. Social Security Perception of the Youth in Pandemics [15], another research brief by ILO Office for Turkey, mentions the study conducted to evaluate the perception of individuals aged 15–35 in Turkey toward the social security system, which resulted in a serious perception of insecurity. It is also noteworthy that the negative perception of women is more severe than that of men.

Nursing shortage, which is a global problem including Turkey, and the changing career understanding of individuals regarding the perceptions of meaningful career affect their job expectations [16]. Accordingly, the job preferences of nursing students in China who would graduate in a short time were examined, and it was stated that economic and non-economic factors influenced their job preferences. [17]. The factors that students prioritize when choosing a job are location, monthly income, working as a public servant, career development and training opportunities, work environment (e.g. infrastructure, basic equipment, support of managers, superior-subordinate, and collegial relationships, and facilities such as employee shuttle service, canteen, and break room) and workability (whether there is sufficient time to complete the tasks in the day shift, overtime, and night shift conditions) [17]. Saber et al. [18] stated that the new generation of senior nursing students value a healthy, team-oriented working life and do not tolerate positions or jobs that do not match these values. In a study examining the expectations and perceptions of senior nursing students in Turkey regarding the future of the profession [19], 84.4% of the students stated that they were concerned about their working life after graduation. In the same study, it was determined that more than half of the students had expectations for the future of the profession such as "improvement of working conditions, increase in wages and social rights". Difficulties related to working conditions ranked first among the issues that students were most concerned about when they started the nursing profession [19].

There are a limited number of studies examining nurses' perception of decent work. In the study conducted by Sönmez et al. [20] during the COVID-19 pandemic, it was determined that nurses' perception of decent work was at slightly below average and was affected by characteristics of the nursing work environment. In addition, nurses' perception of decent work had a positive direct effect on physical and mental health. Although there is no study in the literature indicating the relationship between nurses' perception of decent work and patient outcomes, it is known that a positive nursing work environment affects patient outcomes (quality of care, patient satisfaction, patient adverse events, falls, etc.) [21–24].

Therefore, it is important to determine the perception of future decent work securement of university students who will be the workforce of the future. For this purpose, the Decent Work Scale (DWS) developed by Duffy et al. [25] for employees was revised as Perceived Future Decent Work Securement Scale by Kim et al. [10] to evaluate college students' perception of future decent work securement. Students' perceptions of their future decent work securement are evaluated through the subscales of "physically and interpersonally safe working conditions, access to healthcare, adequate compensation, hours that allow for free time and rest, organizational values that complement family and social values". The scale, which was determined to be valid and reliable, was also correlated with work volition, career adaptability, and economic resources [10]. There are also Korean [10] and Chinese [26] adaptations of the scale.

Accordingly, this study aimed to adapt the Perceived Future Decent Work Securement Scale to Turkish and to assess the validity and reliability testing of the scale in a sample of Turkish nursing students about to graduate. It is predicted that the Turkish version of the scale will be used as a measurement tool in further research addressing the nursing shortage based on decent work and PWT [7], as well as enabling cross-cultural studies to be conducted. It is also considered to enable to determine nursing students' perceived future decent work securement, make their career planning through guiding the right direction, and help institutions determine their expectations from the future workforce.

2. Materials and methods

2.1. Study design, sample, and data collection

This psychometric study used a methodological design. The research was carried out during the academic year of 2020–2021 in the nursing department of faculties of three public universities located in three different regions of Turkey (Marmara, Mediterranean, and Central Anatolia), taking into account regional differences. The inclusion criteria were being a graduating senior student nurse (the fourth-year nursing student) and volunteering to participate in the research. On the other hand, the exclusion criteria were determined as being a first, second, and third-year nursing student and not confirming that they were willing to participate in the study. In methodological studies, it is recommended that the sample size should be 10 times the number of scale items and/or

200–300 observers [27]. In this study, the data were collected in two phases. In the first phase, the data collection form was shared with the senior nursing students of three faculties (N = 594). The response rate was 336 (n = 336, 57% of population). In the first phase, construct validity and internal consistency were tested. In the second phase, in order to evaluate the stability of the scale, a link was sent via email to 44 nursing students who accepted to participate in the test for a second time, and it was reapplied after two to three weeks. The data collected from students in the first and second phases were linked by matching senior nursing students' email addresses. The data were collected between May and June 2021. Due to the ongoing COVID-19 pandemic during the data collection process, the informed consent and the link created by transferring the data collection tools to Google Form were shared with the students via email and WhatsApp groups of the seniors.

2.2. Ethical considerations

This research was carried out in accordance with the principles of the Declaration of Helsinki. Approval from the Social and Humanities Sciences Researches Ethics Committee (Date: 04.05.2021; Decision no: 2021/147) and institutional permission were obtained from the faculties. The students answered the data collection tools via Google Form after clicking the option stating that they were informed about the research and consented to participate. Permission email was obtained from the author who developed the original scale.

2.3. Measures

2.3.1. Student information form

A total of 13 questions about the students' age, gender, high school they graduated from, grade point average, family income, mothers' and fathers' educational level, place of residence, region their family lives in, number of siblings, birth order, whether they chose nursing voluntarily, and whether they plan to work as a nurse once they graduate.

2.3.2. Perceived Future Decent Work Securement Scale

The DWS, developed by Duffy et al. [25], was revised by Kim et al. [10] to evaluate students' perception of future decent work securement. The 15-item scale consists of five subscales (physically and interpersonally safe working conditions: items 1–3; access to healthcare: items 4–6; adequate compensation: items 7–9; hours that allow for free time and rest: items 10–12; and organizational values that complement family and social values: items 13–15). Each item is rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Four items (items 7, 8, 10, and 11) are reverse coded. The Cronbach's alpha value of the original scale is 0.91 for the overall scale, varying between 0.73 and 0.94 for the subscales, indicating that the scale is reliable [10]. Students were particularly asked to think about their future jobs and rate the expressions "At my future work, I will feel safe from emotional or verbal abuse of any kind;" "I will get good healthcare benefits from my future job". Each subscale varies between 3 and 21 points, and the total score ranges between 15 and 105. As the scores of the students obtain from the scale increase, the level of perceived future decent work securement increases positively.

2.4. Cultural adaptation procedure

2.4.1. Language validity

The Turkish language equivalence of the scale was carried out in accordance with the International Society for Pharma Economics and Outcome Research (ISPOR) guideline [28]. First, the scale, which was originally developed in English, was translated into Turkish by three independent native speakers. Later, these three translations were evaluated by the researchers, and they were reconciled into a single text. The scale, which was finalized in Turkish, was back-translated to the original language by a native speaker. Finally, the original version of the scale and the English retranslated version were compared and harmonized by the researchers, and emailed to the author who developed the original scale for language equivalence evaluation. In this process, the differences in healthcare financing systems in the USA, where the original scale was developed, and in Turkey, where the scale was culturally adapted, were taken into consideration for the "access to healthcare" subscale. In order to ensure the applicability of the scale in future cross-cultural studies, the author of the original scale was consulted about the items in the "access to healthcare" subscale. Minor corrections were made in the selection of terms and sentence structures to preserve the meaning of the source language in the translation. After corrections, the author's affirmation of the language equivalence was acquired.

2.4.2. Content validity

In order to evaluate the content validity and Turkish intelligibility of the scale, it was sent to a total of six academicians and experts in nursing and psychology, and expert opinion was obtained. The Davis method was used to evaluate content validity [29]. According to this method, experts evaluated each item as "1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, or 4 = highly relevant." The CVI was calculated by dividing the number of experts who ticked 3 and 4 for each item by the total number of experts. The assessment of the content validity index (CVI) was performed for each item of the scale (I-CVIs) and the total scale (S-CVI).

2.4.3. Pilot study

In order to understand whether the items in the Perceived Future Decent Work Securement-Turkish last version were comprehensible or not, the scale was sent to 10 senior nursing students via WhatsApp, and they were asked to evaluate the items. Feedback was received from the students that the items were clear and understandable. These students were excluded from the research sample.

2.5. Statistical analysis

IBM SPSS Statistics 22 (IBM SPSS, Turkey) was used for statistical analysis, and LISREL 8.80 (Lincolnwood, Illinois, USA) was used for factor analysis. The content validity of the scale was evaluated using the CVI. Confirmatory factor analysis (CFA) was used to evaluate the construct validity. In order to evaluate reliability, item-total correlation and Cronbach's alpha reliability coefficient were calculated. The relationship between test-retest measurements was evaluated using intraclass correlation coefficient (ICC). Descriptive statistics were presented as number and percentage, mean, and standard deviation. The results were considered significant at the 95% confidence interval, as set at $p < 0.05$.

3. Results

3.1. The nursing students' sociodemographic characteristics

It was found that 81.8% of the students participating in the study were female, and mean age was 22.8 ± 2.3. In addition, 78% were Anatolian high school graduates, and 50% had a grade point average of 3.00–3.50 (on a 4.00 scale). The families of 61.6% had a middle-income, and 53.6% of mothers and 40.5% of fathers were primary school graduates. Of the students, 63.7% were living with their families, and 31.3% of families were living in Marmara region. A

total of 33% were two siblings, and 38.1% were first-born children. In addition, 85.1% stated that they chose nursing voluntarily, and 97.6% said they want to work as a nurse after graduation (Table 1).

3.2. Validity

3.2.1. Content validity

As a result of the expert evaluation, I-CVIs were found to be between 0.83 and 1.00, and S-CVI was found 0.988. The suggestions of the experts regarding the Turkish intelligibility of the scale items were evaluated, and necessary corrections were made.

3.2.2. Construct validity

3.2.2.1. Factor analysis. First, the Kaiser–Meyer–Olkin (KMO) sampling adequacy test was performed to determine the factorability of the correlation matrix. KMO was found 0.823. The result of Bartlett's sphericity test performed afterward was found to be 2532,697 (df:105, $p < 0.001$). CFA was performed to test the consistency of the scale with the original structure consisting of five subscales. The goodness-of-fit index values were determined as follows: root mean square error of approximation (RMSEA) = 0.076, normed fit index (NFI) = 0.909, relative fit index (RFI) = 0.881, incremental fit index (IFI) = 0.938, standardized root mean square residual (SRMR) = 0.097, goodness-of-fit index (GFI) = 0.915, adjusted goodness-of-fit index (AGFI) = 0.872, and $\chi 2/df = 2.932$ (Table 2).

Table 1
Characteristics of the students (N = 336)

Demographic variables	Categories	Mean (SD)	Frequency	%
Age		22.8 (2.3)		
Gender	Female		275	81.8
	Male		61	18.2
Graduated high school	Anatolian high school		262	78.0
	Normal public high school		29	8.6
	Private high school		19	5.7
	Science high school		14	4.2
	Health vocational high school		12	3.6
Grade point average	2.00–2.50		17	5.1
	2.51–3.00		106	31.5
	3.01–3.50		168	50.0
	3.51–4.00		45	13.4
Family income level	Low income		3	0.9
	Lower middle income		71	21.1
	Middle income		207	61.6
	Upper middle income		54	16.1
	High income		1	0.3
Mother's educational level	Illiterate		37	11.0
	Literate		9	2.7
	Primary school		180	53.6
	Middle school		55	16.4
	High school		49	14.6
	University		6	1.8
Father's educational level	Illiterate		9	2.7
	Literate		4	1.2
	Primary school		136	40.5
	Middle school		57	17.0
	High school		84	25.0
	University		46	13.7
Place of residence	Dormitory		87	25.9
	With family		214	63.7
	With friends		28	8.3
	Alone or with partner		7	2.1
The region where the students' families live	Marmara		105	31.3
	Mediterranean		61	18.2
	Central Anatolia		55	16.4
	Aegean		33	9.8
	Black Sea		31	9.2
	Southeast Anatolia		27	8.0
	Eastern Anatolia		24	7.1
Number of siblings	One child		13	3.9
	Two siblings		111	33.0
	Three siblings		102	30.4
	Four siblings and upper		110	32.7
Birth order	First child		128	38.1
	Second child		113	33.6
	Third child and upper		95	28.3
Voluntarily chose the nursing profession	Yes		286	85.1
	No		50	14.9
Status of working as a nurse when you graduate	Yes		328	97.6
	No		8	2.4

Table 2
Confirmatory factor analysis fit indices for the Perceived Future Decent Work Securement Scale (N = 336)

Fit indices	Model results
Root mean square error of approximation (RMSEA)	0.076
Normed fit index (NFI)	0.909
Relative fit index (RFI)	0.881
Incremental fit index (IFI)	0.938
Standardized root mean square residual (SRMR)	0.097
Goodness-of-fit index (GFI)	0.915
Adjusted goodness-of-fit index (AGFI)	0.872
χ^2/df	2.932

3.3. Reliability

3.3.1. Internal consistency analysis

The internal consistency of the overall scale and subscales was evaluated with Cronbach's alpha coefficient. The Cronbach's alpha of the overall scale was found to be 0.86. It was 0.77 for physically and interpersonally safe working conditions subscale, 0.85 for access to healthcare subscale, 0.76 for adequate compensation, 0.71 for hours that allow for free time and rest, and 0.89 for organizational values that complement family and social values.

3.3.2. Item-total correlation analysis

The corrected item-total correlation values of the items were found to be between r = 0.366 and r = 0.632 (Table 3).

3.3.3. Stability

The stability of the scale was evaluated using test-retest. A total of 44 students applied the scale for the second time two to three weeks after the first application. The ICC values between the first and second applications were found to be 0.85 and above for the subscales, and 0.92 for the overall scale (Table 4).

3.4. Descriptive results

The overall score for Perceived Future Decent Work Securement Scale was 60.65 (SD 12.37). It was determined that adequate compensation (8.52, SD 3.76) obtained the lowest score, while the highest score was in the access to healthcare (14.68, SD 3.53) (Table 3).

4. Discussion

In this study, the Turkish version of the Perceived Future Decent Work Securement Scale, which was originally developed in English, was analyzed in Turkish in a sample of nursing students, and the language equivalence and content validity of the Turkish version were achieved. The I-CVIs and S-CVI were calculated for content validity analysis. Polit et al. [30] stated that a CVI score above 0.83 in content validity analysis (I-CVIs) conducted with six experts is

Table 3
Mean, standard deviation, and item-total correlation coefficients of the Perceived Future Decent Work Securement Scale (N = 336)

Subdimensions and items	M	SD	Item-total correlation
Physically and interpersonally safe working conditions	13.19	3.77	
I will feel emotionally safe interacting with people at my future work.	5.26	1.29	0.463
At my future work, I will feel safe from emotional or verbal abuse of any kind.	3.75	1.63	0.578
I will feel physically safe interacting with people at my future work.	4.19	1.61	0.623
Access to healthcare	14.68	3.53	
I will get good healthcare benefits from my future job.	4.97	1.42	0.632
I will have a good healthcare plan at future work.	5.07	1.32	0.604
My future employer will provide acceptable options for healthcare.	4.64	1.27	0.578
Adequate compensation	8.52	3.76	
I will not be properly paid for my work. (r)	2.69	1.62	0.448
I will feel I am not paid enough based on my qualifications and experience. (r)	2.50	1.48	0.406
I will be rewarded adequately for my work.	3.32	1.49	0.573
Hours that allow for free time and rest	9.89	3.71	
I will not have enough time for non-work activities. (r)	2.92	1.57	0.380
I will have no time to rest during the work week. (r)	3.14	1.55	0.394
I will have free time during the work week.	3.83	1.55	0.442
Organizational values complement family and social values	14.37	3.16	
The values of my future organization will match my family values.	4.74	1.17	0.511
My future organization's values will align with my family values.	4.68	1.20	0.447
The values of my future organization will match the values within my community.	4.95	1.13	0.366
Total	60.65	12.37	

Note. M: mean; SD: standard deviation.

considered "excellent." Additionally, in this study, inter-rater agreement (S-CVI = 0.988) was found to indicate a high level of content validity.

In scale adaptation studies, which are based on a strong theoretical basis and because the factor structure of the measured variable is known beforehand, it is recommended to verify the factor structure of the measurement tool by testing with CFA [31]. Therefore, only CFA was conducted in this study. According to the results of the goodness-of-fit indices assessed for CFA, RMSEA showed an acceptable fit (0.076). RMSEA $\leq$0.05 [27,32] or $\leq$0.06 is considered an excellent fit [33], while 0.05 to 0.08 is considered an acceptable fit [27,32,34]. SRMR (0.097) was also found to be acceptable. The SRMR value, which has a range of 0–1, is required to be $\leq$0.08 [33,35]; however, those between 0.05 and 0.10 are considered acceptable fit [34]. In this study, apart from RFI and AGFI, other incremental and absolute fit values, such as NFI, IFI, and GFI, were found to be $\geq$0.90. Models with 0.90 and above are considered to provide acceptable fit [34]. Finally, the $\chi 2$/df value was 2.932. Although there is no consensus on the $\chi 2$/df value in the literature, it indicates an acceptable fit between 1 and 3 [33]. Accordingly, all goodness-of-fit indices of the scale indicated an acceptable level of fit.

When the "factor loading" values, which are the correlation between the variable and the factor and thus indicate the total variance of the variable explained by the factor, were examined, it was determined that the factor loading of only the twelfth item was below 0.50 (Fig. 1). Hair et al. [36] stated that "factor loadings in the range of ±.30 to ±.40 are considered to meet the minimum level for the interpretation of structure, loadings of ±.50 or greater are practically significant, and loadings exceeding ±.70 are considered indicative of a well-defined structure". Tavakol and Wetzel [31] state that a factor load higher than 0.30 indicates a moderate correlation between the item and the factor. Accordingly, the twelfth item was not removed from the scale since it was above the minimum value, and the scale factor structure would be disrupted in case of removal. Therefore, the original structure of the scale was also preserved.

Test-retest and Cronbach's alpha internal consistency coefficient were used in the reliability analysis of the scale. The ICC values between the first and second applications were found to be 0.85 and above for the subscales, and 0.92 for the overall scale. In overall scale and subscale scores, an ICC value ranging between 0.75–0.90 between the two measurements indicates good reliability, while >0.90 indicates excellent reliability [37]. The Cronbach's alpha internal consistency coefficient of the scale was found to be between 0.71 and 0.89 for the subscales and 0.86 for the overall scale. In the original scale, the Cronbach's alpha value ranged between 0.73 and 0.94 in the subscales, while it was 0.91 for the overall scale [10]. Kline [38], on the other hand, states that, although there is no standard for how high the coefficients should be in order to evaluate the reliability as "good", the reliability coefficients around 0.90 are "excellent" values around 0.80 are "very good" and values around 0.70 indicate "adequate". Accordingly, it can be said that the Cronbach's alpha values of the overall scale and subscales are adequate/very good. In addition, all items of a reliable scale should correlate with the total. Field [39] suggests that an item-total correlation cut-off point above 0.30 is acceptable. It is stated that items with low item-total correlation (<0.30) indicate that they should be

Table 4
Test-retest results (n = 44)

Subdimensions	Test	Retest	ICC	95% CI	
	M ± SD	M ± SD		Lower-upper bound	*p*
Physically and interpersonally safe working conditions	13.57 ± 3.20	13.32 ± 3.58	0.89	0.63–0.80	<0.001
Access to healthcare	15.00 ± 3.30	15.02 ± 3.10	0.90	0.68–0.82	<0.001
Adequate compensation	8.64 ± 4.06	8.61 ± 3.84	0.86	0.52–0.74	<0.001
Hours that allow for free time and rest	9.77 ± 3.69	10.20 ± 3.64	0.89	0.62–0.79	<0.001
Organizational values complement family and social values	14.43 ± 2.97	15.18 ± 2.72	0.85	0.50–0.73	<0.001
Total	61.41 ± 11.50	62.34 ± 10.82	0.92	0.74–0.86	<0.001

Note. ICC: intraclass correlation coefficient; CI: confidence interval, M: mean; SD: standard deviation.

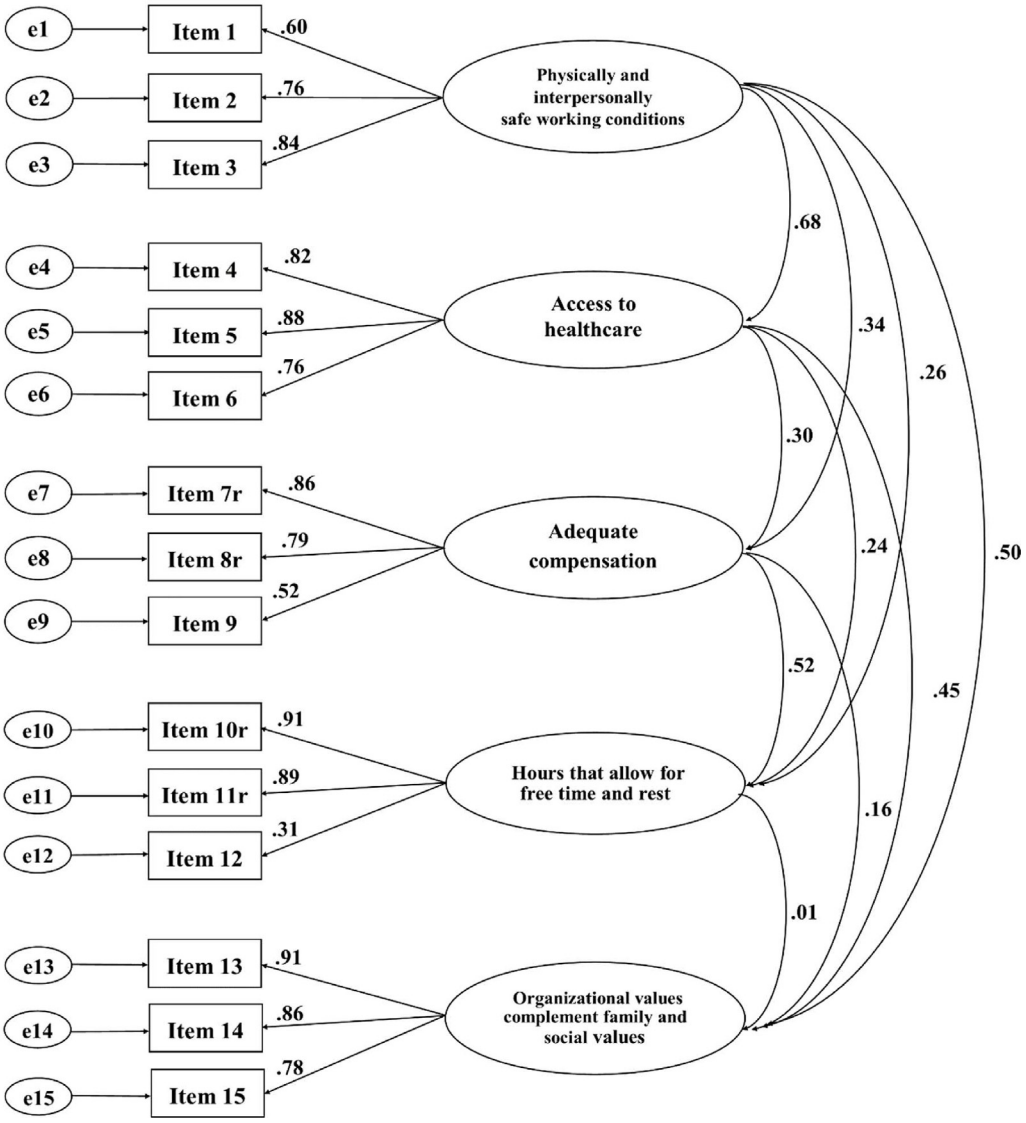

Fig. 1. Confirmatory factor analysis results of Perceived Future Decent Work Securement Scale-Tr.

removed from the scale [27]. In line with all these findings, it can be said that the scale is reliable.

In this study, nursing students' perception of future decent work securement was found to be moderate. In some studies, conducted with samples other than nursing students, students' perception of future decent work securement was above medium [12,26], high [11], and very high levels [10]. In a research carried on by Ma et al. [13], in China, which is the only study that was able to be accessed and conducted with nursing students, it was determined that the students' perceived future decent work securement was above medium level. In studies conducted with people working in different sectors other than nursing [40] and low-income employees [41] in Turkey, the perception of DWS was found to be slightly above the average. In the study conducted with a nursing sample [20], the nurses' perception of DWS was found to be moderate, similar to the student sample. The data of this study were collected during the COVID-19 pandemic, and approximately half of the senior nursing students in the sample continued their internship practice in hospitals throughout this period. Since it is known that the COVID-19 pandemic adversely affects working conditions [42] and that the nursing work environment affects the perception of decent work [20], perceived future decent work of the students may have been affected. As a matter of fact, Hernández-Martínez et al. [43] examined the experiences of senior nursing students during the pandemic and found that half of the students were not satisfied with their working conditions (safety and financial aspects).

When the subscales were evaluated in terms of the lowest and highest scores, the "adequate compensation" subscale indicated the lowest average score. This result is alike the findings of the researches carried on Turkey with nurses [20] and in a mixed sample [40] apart from nursing. In the ILO's R157 Nursing Personnel Recommendation [44], it is recommended that nurses' levels of wages be equivalent to those of other professions that require similar qualifications and responsibilities. World Health Organization [5] states that 89% of 191 countries have minimum wage adjustments; however, they should be made taking into account local, national, and international labor market conditions. The highest score was obtained from the "access to healthcare" subscale. Access to healthcare includes good healthcare benefits and a good healthcare plan. According to the Republic of Turkey Social Security Institute Monthly Bulletin, Insured Statistics [45] Data in Turkey, it can be said that the majority of the population (88%) is covered by General Health Insurance. The fact that nurses employed in the

public and private sectors are covered by the Social Security Institute shows that nursing students have a higher expectation of access to healthcare services compared to others. Considering the reasons mentioned above, it can be said that nursing students' low perceptions of future decent work and different perceptions on this issue also affected the scale validity and reliability analyses.

4.1. Limitations and future research directions

The first of the limitations of this study is that the sample consists of senior nursing students studying at public universities. Secondly, the fact that the majority of the students participating in the study was female may have affected the results. Since the research data were collected during the COVID-19 pandemic, students' perceived future decent work may have been affected by clinical experiences and observations and/or visual and written press/media. In addition, this study is limited to the data (self-selection bias) obtained only from students who decided to participate; since the scale used includes self-reports of nursing students, there may be individual bias. Accordingly, the scale may be suggested to be used in comparisons with students studying at private universities, nursing schools in rural areas, or junior and sophomore nursing students in future studies. The Turkish version of the scale can be used as a tool in studies examining the relationship between nursing students' perception of future decent work securement and their career choices. The scale can also be tested and used in newly graduated nurses.

5. Conclusions

The findings of this study show that the Turkish version of the Perceived Future Decent Work Securement Scale, which consists of five subscales and 15 items, is a valid and reliable scale for a sample of nursing students. Since the scale was not developed specifically for health science students, the Turkish version can be applied to nursing students as well as other university students.

5.1. Implication for nursing practice

Evaluating perceived future decent work securement will be beneficial for students, educators, and institutions that will employ postgraduate students. In line with the results, it can guide decision-makers at all levels in order to make arrangements to improve decent work conditions in the professional field. In this study, indicating this need, the perception of future decent work securement of graduating nursing students was found to be moderate. Adequate compensation was the lowest-rated item, while access to healthcare obtained the highest score among the subscales of the Future Decent Work Securement Scale. Taking actions to improve working conditions in order to positively influence nursing students' and other college students' perception of future decent work securement will contribute to achieving SDGs.

Authors' contributions

Study conception and design: ÖİD, BS, DG, SD.
Data collection: ÖİD, BS, DG, SD.
Data analysis and interpretation: ÖİD, BS, DG, SD.
Draft of the article: ÖİD, BS, DG, SD.
Critical revision of the article: ÖİD, BS, DG, SD.
All of the authors are in agreement with the content of the manuscript and meet the authorship criteria.

Conflicts of interest

No conflict of interest has been declared by the authors.

Data available statement

Data can be obtained from the corresponding author.

Ethical approval statement

IU-C Social and Humanities Sciences Researches Ethics Committee (Date: 04.05.2021, Board Decision Number: 2021/147).

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Participant consent statement

The students answered the data collection tools via Google Form after clicking the option stating that they were informed about the research and consented to participate.

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