Exploring Psychometric Properties of the Turkish Version of the Academic Nurse Self-Efficacy Scale

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Abstract: Nursing students' academic self-efficacy can be considered a significant factor in reducing their academic failure, which necessitates a valid measurement tool to reveal academic self-efficacy among undergraduate nursing students. In this sense, we carried out this study to adapt the Academic Nurse Self-Efficacy Scale (ANSES) into the Turkish context. The sample of this methodological study consisted of 235 undergraduate nursing students enrolled in a state university in the Marmara Region. We collected the data using a descriptive information form and the Turkish version of the ANSES. Following the translation-back-translation of the scale, we submitted the items to the views of 20 experts and calculated content validity ratios to be 0.80 and above for each item. After analyzing the data descriptively, we attempted to test the construct validity of the scale using confirmatory factor analysis (CFA) and sought test-retest reliability with Peason's correlation analysis and internal consistency by calculating Cronbach's alpha coefficient. According to the findings, the measurement model yielded an acceptable model-data fit. In addition, we found our measurement with the Turkish version of the ANSES showed high internal consistency (0.82). While item-total correlations varied between 0.32 and 0.74, test-retest reliability was found to be 0.81. Overall, we can propose that the Turkish version of the ANSES can validly and reliably be utilized to measure academic self-efficacy among undergraduate nursing students. Thus, we can recommend using the scale, brought in the Turkish literature on nursing, to reveal the self-efficacy of undergraduate nursing students and identify to what extent they have accomplished their learning goals.
Keywords: Academic self-efficacy, Self-efficacy, Nursing students, Validity, Reliability

Hemşirelik Öğrencilerinde Akademik Öz Yeterlilik Ölçeği'nin Türk Kültürüne Uyarlanması

Öz: Hemşirelik öğrencilerinin sahip olduğu akademik öz yeterlilik akademik başarısızlığı azaltmada önemli bir stratejidir. Bu nedenle hemşirelik lisans öğrencilerinin akademik öz yeterliliklerini belirlemek için geçerli bir ölçme aracına ihtiyaç duyulmaktadır. Bu çalışma, lisans düzeyinde eğitim gören hemşirelik öğrencileri için geliştirilen "Hemşirelik Öğrencileri Akademik Öz Yeterlilik Ölçeği"nin Türkçe geçerlilik ve güvenirliğinin incelenmesi amacıyla gerçekleştirildi. Metodolojik nitelikteki bu araştırmanın örneklem grubunu, Marmara Bölgesi'nde yer alan bir devlet üniversitesinin Sağlık Bilimleri Fakültesi Hemşirelik Bölümü'nde eğitim gören 235 hemşirelik öğrencisi oluşturmaktadır. Veri toplama aracı olarak "Öğrenci Tanıtıcı Bilgi Formu" ve "Hemşirelik Öğrencileri Akademik Öz Yeterlilik

* This study was produced from the master's thesis prepared by the first author under the supervision of the second author and was presented as an oral presentation at the Trakya Universities Union 5th Graduate Student Congress held in Balıkesir/Bandırma on November 4-5, 2021. This article is approved by the Bandırma Onyedi Eylül University of Non-Interventional Research Ethics Committee for Health Sciences. The permission date 16/10/2020, no 2020-37

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Ölçeği"nin özgün formu kullanıldı. Veriler tanımlayıcı istatistiksel yöntemler, test-tekrar test sonuçlarını değerlendirmek için Pearson korelasyon analizi, güvenilirliğini test etmek amacıyla Cronbach Alpha ve ölçek yapısını test etmek için Doğrulayıcı Faktör Analizi ve parametrik testler ile değerlendirildi. Ölçeğin çeviri-geri çevirisi yapıldıktan sonra ölçek 20 uzman görüşüne sunuldu ve dil ve kapsam geçerliliği için KGO skorları 0.80 ve üzerinde bulundu. Ölçeğin yapı geçerliliğini değerlendirmede doğrulayıcı faktör analizi kullanıldı. Cronbach alfa iç tutarlılık katsayısı 0.82 ile yüksek derecede güvenilir bulundu. Madde-toplam puan korelasyon değeri 0.32 ile 0.74 arasında değiştiği; test tekrar test güvenirliği ise 0.81 olduğu bulundu. Hemşirelik Öğrencileri Akademik Öz Yeterlilik Ölçeğinde elde edilen bulgular geçerli ve güvenilir olduğunu desteklemektedir. Bu ölçme aracılığıyla, lisans düzeyindeki hemşirelik öğrencilerinin akademik öz yeterlilikleri değerlendirilebilir. Bu kapsamda Türkiye'nin hemşirelik alan yazına kazandırılan bu ölçeğin, hemşirelik öğrencilerinin eğitim süreçlerinin her kademesinde öz yeterlilik düzeylerinin belirlenmesinde ve öğrencilerin öğrenme hedeflerine ulaşıp ulaşmadığının saptanmasında kullanılması önerilebilir.

Anahtar Kelimeler: Akademik öz yeterlilik, Öz yeterlilik, Hemşirelik öğrencileri, Geçerlilik, Güvenirlik.

Introduction

Academic self-efficacy is already given a seat in research, analysis, and discussions on the concept of self-efficacy in the educational literature (Hatlevik et al., 2018). Albert Bandura first addressed the concept of self-efficacy as a key component of his Social Cognitive Theory (Bandura, 2001; Maddux et al., 2012). According to Bandura's universally accepted definition, self-efficacy refers to "*one's belief in their ability to succeed in specific situations or accomplish intended outcomes*" (Bandura, 1999). According to another definition, self-efficacy is "*people's perceptions about their ability to organize and execute the courses of action required to produce given attainments*" (Maddux et al., 2012; Talan & Gülseçen, 2018). In fact, self-efficacy embodies an optimistic belief, which is one's belief that they have the necessary skills while performing new and difficult tasks and whether they can cope with difficulties (Kaya & Odacı, 2021). While individuals with low self-efficacy may be more prone to surrender to depression, anxiety, and helplessness (Karakullukçu & Gürsoy, 2019), those with high self-efficacy may be more resilient and experience less adverse emotions (Manna et al., 2020). Similarly, students with high self-efficacy are likely to enjoy more academic achievement and enhanced academic interests, motivation, and intellectual capacity. Such students also have less stress and depression since perceiving feasible difficulty in performing tasks (Athira et al., 2017; Calandri et al., 2021).

Considering the current nursing education in Türkiye, we can propose that nursing students confront many stressors and difficulties during their education, adversely affecting their motivation, academic achievement, and physical and psychological health (Bilgiç et al., 2017; Göger & Çevirme, 2019). Yet, nursing students with high academic self-efficacy are predisposed to exert more effort to overcome difficulties (Okuroğlu, 2021), may be more persistent on tasks and undertake more challenging responsibilities, and may use self-control strategies more in learning (George et al., 2017; Panedero et al., 2017). Nursing students actively engaging in learning are more likely to develop faster and choose challenging activities to contribute to their medical skills (Manna et al., 2020). In this sense, students with high academic self-efficacy have greater retention in the nursing profession (Bulfone et al., 2019; Mclaughlin et al., 20007) and experience a more manageable transition from being a student to a clinician (Al Sebaee et al., 2017; George et al., 2017; Jonson et al., 2017). Thus, it is evident that students' academic self-efficacy should be promoted (Al Sebaee et al., 2017) since it seems to occupy a key place in nursing education (George et al., 2017; Mclaughlin et al., 2007; Yu et al., 2021).

Assessing and improving nursing students' academic self-efficacy may be a seminal strategy in eliminating or reducing their academic failure. In other words, assessing nursing students'

academic self-efficacy can provide insights to administrators and instructors in designating several initiatives (e.g., mentorship) to contribute to their self-efficacy and achievement before they are deployed in the field (Bulfone et al., 2019). Bulfone et al. (2019) designed a valid and reliable tool for use in such an assessment: the Academic Nurse Self-Efficacy Scale (ANSES). Considering that the Turkish literature is deprived of a valid and reliable measurement tool for measuring undergraduate nursing students' academic self-efficacy, we aimed to adapt the ANSES to the Turkish context in this study.

Research Questions

In line with the purpose of our study, we sought answers to the following questions:

- Is the Turkish version of the ANSES a valid measurement tool for measuring undergraduate nursing students' academic self-efficacy?
- Is the Turkish version of the ANSES a reliable measurement tool for measuring undergraduate nursing students' academic self-efficacy?

Method

Research Design and Participants

The target population of this methodological research consisted of 406 undergraduate nursing students enrolled in the faculty of health sciences of a state university in the Marmara Region. However, we did not include first-year students as they had to continue their studies through distance education (n = 123). While determining the sample size, we adopted the principle of "selecting participants 5-10 times the number of items in the item pool of the scale to be adapted or a sample size of 200-300 people" (Gürbüz, 2019; Özdamar, 2017; Polit & Beck, 2010). Since the ANSES consists of 14 items, we then aimed to reach the entire target population, excluding the first-year students (n = 283), without selecting a specific sample. Thus, we recruited 235 (83%) students meeting the inclusion criteria and collected the data between January and March 2021. To evaluate the measurement invariance of the scale, we readministered the ANSES to 34 participants randomly selected three weeks later for test-retest analysis.

Data Collection Tools

Descriptive Information Form: We designed this form to include questions to elicit the participants' socio-demographic characteristics (e.g., age, gender, and year of study) and their thoughts about the nursing program (e.g., "Are you satisfied with the current nursing education in your program?").

Academic Nurse Self-Efficacy Scale (ANSES): Designed by Bulfon et al. (2019) to reveal undergraduate nursing students' academic self-efficacy, the ANSES consists of 14 items within four subscales: internal emotion management (items 1, 2, and 3), auto-regulatory behavior (items 4, 5, 6, and 7), external emotion management (items 8, 9, 10, and 11), and collegiality (items 12, 13, and 14). The participants' responses to the question, "How much are you confident with (item)?", are scored on a Likert-type scale ranging from 1 (very little confident) to 5 (completely confident). The higher scores refer to greater academic self-efficacy. No item is reversely scored, and the internal consistency of the scale was calculated to be .84 in the original study.

Data Collection

Since the educational activities in the 2020-2021 spring semester were carried out by distance education methods due to the Coronavirus-19 (COVID-19) pandemic, we collected the data through 'Google Forms.' The link to the questionnaire booklet, covering an informed consent form and the tools above, was sent to the student groups via an instant messaging application through student representatives. Filling out the booklet took about 7 minutes.

Data Analysis

After presenting the descriptives (numbers, percentages, means, standard deviations), we tested whether data demonstrated a normal distribution with Kolmogrov-Smirnov and Shapiro-Wilk and skewness and kurtosis values. We calculated the content validity index (CVI) using the Davis technique and tested the construct validity with CFA. Moreover, we sought measurement invariance of the scale (test-retest reliability) with Pearson's correlation analysis and calculated Cronbach's alpha to determine its internal consistency. All statistical analyses were performed on the SPSS (Statistical Package for Social Sciences) for Windows 25.0 and AMOS 21.0 (Analysis of Moment Structures) programs.

Ethical Considerations

We first sought permission from the corresponding author via e-mail to utilize their instrument in our study. Then, the ethics committee of Bandirma Onyedi Eylul University granted ethical approval to our study (No: 10/16/2020-2020-37), and we obtained relevant permission for data collection from the nursing department of the same university (No: 11333 dated 11/13/2020). In addition, we obtained written informed consent from all participants.

Results

Descriptive Statistics

Regarding the participants' descriptives, 36.2% were second-year students, 31.1% were third-year students, and 32.8% were fourth-year students. While 81.7% were females, 60.9% were aged 21-24 years, and 40.9% lived in the Marmara Region. Of them, 52.8% had a grade point average (GPA) between 2.99-4.00. Finally, the majority of the participants were satisfied with the nursing program and education (75.3% and 68.9%, respectively) (Table 1).

Table 1
Descriptive Characteristics of the Participants

Variables		n	%
Year of study	I year	85	36.2
	II year	73	31.1
	III year	77	32.8
Age (years)	17-20	88	37.4
	21-24	143	60.9
	25-28	4	1.7
Gender	Male	43	18.3
	Female	192	81.7
Region	Marmara	96	40.9
	Aegean	22	9.4
	Other	117	49.8
GPA	1.00-1.85	4	1.7
	1,86-2.28	31	13.2
	2.29-2.98	76	32.3
	2.99-4.00	124	52.8

Are you satisfied with the nursing program?	Yes	177	75.3
	No	19	8.2
	Neutral	39	16.5
Are you satisfied with your current nursing education?	Yes	162	68.9
	No	73	31.1

Language and Content Validity of the Scale

Within the translation-back-translation method, two independent linguists with excellent command of Turkish and English translated the items into Turkish. We evaluated the consistency between the translations and generated the Turkish form of the scale with the translated items corresponding to the original items the best. This form was then translated back into English by two different linguists. Overall, we ensured the language validity of the scale after performing relevant linguistic corrections to the statements.

We then resorted to expert opinions to seek the content validity of the draft form. An expert evaluation form, covering the ANSES and its Turkish version, was sent to 20 academics with Ph.D. in nursing management. The experts were asked to rate the relevancy and clarity of the scale items between 1 and 4 [1 = not relevant/clear, 2 = needing some revision, 3 = relevant/clear but needing minor revision, and 4 = very relevant/clear] and to make suggestions to the items that they rated as 1, 2, or 3. To be able to calculate a content validity ratio (CVR), 1 is deduced from the ratio of the number of experts thinking that the item is relevant/clear to half of all experts. In this calculation, .80 is accepted as a cut-off point for CVR (Yeşilyurt & Cross, 2018). Accordingly, we discovered the CVR of the items in the draft form varied between .90-1.0, suggesting that no item needed to be removed since the content validity of the form was ensured.

Pilot Study

Then, we administered the draft form to 52 first-year nursing students to test its readability and intelligibility. Upon the feedback from the students, we added the expression, "Any problem encountered during nursing education," to the first item ("Controlling anxiety in front of a problem"). Moreover, we defined the terms "shame" and "gaffe" under the statements of items 9 and 10, respectively, to improve the clarity of the items. Then, we took measurements from the main sample with the finalized form of the scale. It should be noted that the data collected in the pilot study were not included in the statistical analyses.

Construct Validity

Since Bulfone et al. (2019) previously revealed the factorial structure of the ANSES, we only considered the model-data fit of the Turkish version of the scale using first-order CFA. Accordingly, we found that structural equation modeling of the measurement was significant ($p < .001$) and that 14 items were all related to their original factors. Yet, we had to make some modifications between the error terms of some items. Overall, fit the findings of CFA showed the following fit indices of the measurement: $\chi2/df = 2.37$, RMSEA = .07, GFI = .91, and CFI = .89. Accordingly, we can propose that the measurement with the Turkish version of the ANSES yielded an acceptable model-data fit (Simon et al., 2010; Wong et al., 2018). Figure 1 presents the confirmed model, and Table 2 shows criterion references for fit indices and fit indices of our measurement.
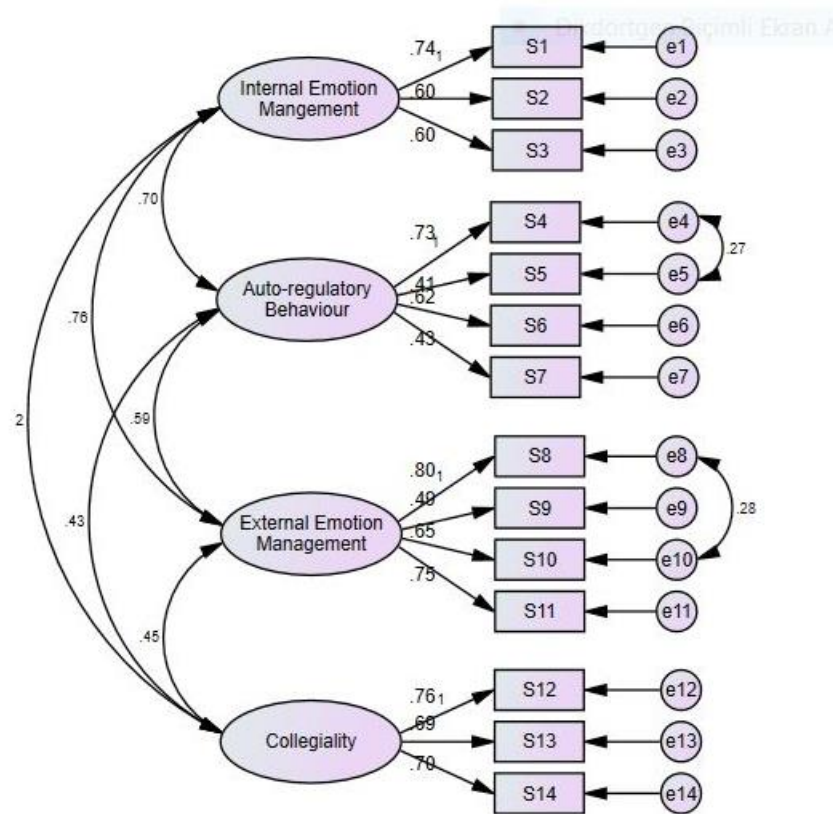
Figure 1. The structural model of the Turkish version of the ANSES

Table 2.
Criterion References for Fit Indices and Fit Indices of the Measurement with the Turkish Version of the ANSES

Fit Indices	Excellent Fit	Acceptable Fit	Pre-modification	Post-modification
CMIN/Df	$.00 \leq \chi^2/df \leq 3.00$	$3.00 \leq \chi^2/df \leq 5.00$	.50	2.37
GFI	$.90 \leq GFI$	$.80 \leq GFI$	.90	.91
AGFI	$.90 \leq AGFI$	$.80 \leq AGFI$	.85	.86
CFI	$.95 \leq CFI$	$.85 \leq CFI$	.88	.89
RMSEA	$.00 \leq RMSEA \leq .05$	$.06 \leq RMSEA \leq 1.00$	.08	.07
NFI	$.95 \leq NFI$	$.80 \leq NFI$	.82	.83
TLI	$.90 \leq TLI$	$.80 \leq TLI$	.88	.86
IFI	$.95 \leq IFI$	$.85 \leq IFI$	.84	.89

The measurement model in Figure 1 shows that the regression weights of the items did not fall below .30, implying the items had at least an acceptable factor loading (Secer, 2015). Besides, Table 3 presents the item statistics of the scale. Accordingly, we found the t-values of the items to be all significant, suggesting greater item discrimination.

Table 3.
Item Statistics

No.	Subscales	Items	Standard error	t	p	Regression Weight
S1	**Internal Emotion Management**	Controlling anxiety in front of a problem			.00	.73
S2		Keeping calm during an exam	.11	7.77	.00	.60
S3		Avoiding discouraging myself in adversity	.10	7.76	.00	.60
S4	**Auto-regulatory behavior Score**	Resisting the pressure of friends for doing something that risk getting you into a trouble			.00	.72
S5		Resisting the temptation not to go to the lesson if you feel bored	.14	4.51	.00	.40
S6		Avoiding the insistence of friends who ask you to do something that you think would be better to avoid	.11	6.97	.00	.62
S7		Avoiding committing transgressions even when the risk of sanction is minimal	.11	5.29	.00	.42
S8	**External Emotion Management**	Do not spiritless when you are criticized			.00	.80
S9		Containing shame after making a bad impression in front of the class	.09	6.92	.00	.49
S10		Overcoming the embarrassment of having made a 'gaffe' with a person to the judgment of which you care a lot	.08	8.33	.00	.64
S11		Dominating shame when your frailties have been highlighted in front of the class.	.09	10.20	.00	.75
S12	**Collegiality**	Ensuring me the help of other students when necessary			.00	.75
S13		Helping a colleague in difficulty in the study	.08	8.44	.00	.69
S14		Helping in creating a good atmosphere among students	.10	8.45	.00	.69

Reliability

Internal consistency reliability was found to be .82 for the total scale score, .68 for internal emotion management, .60 for auto-regulatory behavior, .75 for external emotion management, and .75 for collegiality. Table 4 shows item-total correlations and Cronbach's alpha coefficients.

Table 4.
Item-Total Correlations and Internal Consistency of the Scale

Subscale	Item No.	Item-Total Correlation	t	p	α
Internal Emotion Management	S1	.55	13.96	< .001	.68
	S2	.50	114.61		
	S3	.42	14.25		

Auto-regulatory Behavior	S4	.33	12.03	< .001	.60
	S5	.32	8.91		
	S6	.50	11.68		
	S7	.35	10.20		
External Emotion Management	S8	.57	15.62	< .001	.75
	S9	.74	12.93		
	S10	.51	10.48		
	S11	.67	18.39		
Collegiality	S12	.61	17.61	< .001	.75
	S13	.59	14.66		
	S14	.56	16.55		
Total Score					.82

Test-Retest Reliability

We readministered the scale to 34 students randomly selected from the sample with a 3-week interval to determine the test-retest reliability of the scale. Then, we calculated the test-retest correlation to be .62 for the first factor, .45 for the second factor, .65 for the third factor, .59 for the fourth factor, and .81 for the total score. Therefore, we can propose that the scale has the property of measurement invariance. In addition, the *t*-test results showed no significant changes between the measurements over time ($p = .85$ for intrinsic emotion management, .12 for auto-regulatory behavior, .24 for external emotion management, 1.00 for collegiality, and .10 for the total score).

Table 5.
Test-Retest Reliability of the Scale and Comparison of the Participants' Test-Retest Scores (n = 34)

Subscales		$M \pm SD$	t^*	p	r^{**}	p
Internal Emotion Management	Test	10.48 ± 2.02	- .186	.85	.62	.00
	Retest	10.42 ± 2.25				
Auto-regulatory Behavior	Test	15.73 ± 2.05	1.567	.12	.45	.00
	Retest	16.33 ± 2.19				
External Emotion Management	Test	14.09 ± 2.81	- 1.183	.24	.65	.00
	Retest	13.58 ± 3.17				
Collegiality	Test	12.94 ± 2.14	.000	1.00	.59	.00
	Retest	12.94 ± 2.30				
Total score	Test	51.61 ± 7.14	1.691	.10	.81	.00
	Retest	52.84 ± 6.76				

t^* = paired samples *t*-test; r^{**} = correlation coefficient

Discussion and Conclusion

Language and Content Validity

We first obtained permission from the corresponding author via e-mail to utilize the ANSES in our study. Next, we adopted the translation-back-translation method, a widely used method to investigate the semantic and conceptual coherence of the adapted scale (Seçer, 2018). Exploring content validity is a process that helps to test the validity of a scale and to what extent each item measures the concept intended to be measured (Yeşilyurt & Çapraz, 2018). In this respect, we resorted to 20 experts in nursing management to examine the content validity of the Turkish version of the ANSES. Accordingly, we performed the relevant analyses based on the

Davis technique and calculated content validity ratios to be 0.80 and above for each item on the ANSES (Yeşilyurt & Çapraz, 2018). Considering the experts' feedback, we performed minor linguistic adjustments to the items, concluded no need to remove any item from the scale, and kept the original factorial structure.

Pilot Study

It is a rule of thumb that the scale whose psychometric properties are explored is administered to a small group of participants after its language and content validity is ensured and then applied to the main sample of the research (Çapık et al., 2018). Accordingly, we administered the scale to 52 students sharing similar characteristics with the sample and asked them to evaluate the intelligibility of the items. The draft form was then finalized with minor arrangements on the items in line with the feedback from the participants.

Construct Validity

Validity and reliability studies often utilize factor analysis to evaluate construct validity. The high construct validity of the measurement tool indicates that the items on the scale are homogeneous (Köroğlu et al., 2023). In general, CFA should be used to validate the model if the model structure is explicitly predicted (Çapık et al., 2018; Seçer, 2018; Elderyoğlu, 2017). In this study, we concluded that the fit indices (RMSEA, GFI, and CFI) yielded by CFA for the Turkish version of the ANSES indicated an acceptable model-data fit. Overall, it can be asserted that the model with 14 items within four subscales was acceptable to ensure the construct validity of the ANSES.

Reliability

Internal Consistency: Reliability analysis tests whether all given statements are consistent across the scale and measure the same construct (Tavşancıl, 2005). Therefore, adapting a scale into a context requires testing the internal consistency of the items, which is often sought through calculating Cronbach's α value in Likert-type scales. Taber (2018) finds a Cronbach α value above .60 is sufficient for a scale to be reliable. Similarly, Seçer (2018) reported a Cronbach's α value below .40 to be "poor reliability," between .40-.59 to be "low reliability," between .60-.79 to be "high reliability," and between .80-1.00 to be "perfect reliability." (Behling & Law, 2019). Accordingly, we calculated Cronbach's α coefficient to be .82 for the total score and between .60 - .75 for the subscales of the Turkish version of the ANSES. Then, we discovered the items to be consistent with each other and represent the construct intended to be measured (Table 4). Moreover, we considered item-total correlations to explore the internal consistency of the ANSES. The higher item-total correlation of an item is then expected to indicate that the item has a high consistency with the theoretical construct to be measured. In the literature, some authors proposed the cut-off value for an acceptable item-total correlation to be .30 (Çapık et al., 2018; Elderyoğlu, 2017). In this study, we determined the item-total correlation coefficients to vary between .32 and .74, indicating that there was no need to remove any item from the Turkish version of the ANSES.

Measurement Invariance: Test-retest reliability is a measure of reliability to demonstrate measurement invariance of a scale and is obtained by administering the same test twice over a period of time (2-4 weeks) to a group of individuals. The relationship between the participants' scores is assessed with the *t*-test and/or Pearson's correlation coefficient (Çapık et al., 2018; Seçer, 2018). Test-retest reliability can be mentioned when the measurements do not differ significantly and when the correlation between the measurements should be at least above .70 (Wong & Carlback, 2018). Accordingly, we did not find a significant difference between the measurements and calculated the test-retest reliability coefficient to be .81, indicating that the two different measurements with the ANSES were related and consistent.

Limitations

Online data collection and gathering the data from students enrolled in a single institution can be considered the limitation and strength of this study, respectively.

Practical Implications of the Study

In a nutshell, academic self-efficacy is considered significant in reducing the academic failure of undergraduate nursing students and assessing their ability to attain educational outcomes. Our findings demonstrated that the Turkish version of the ANSES can be used as a valid and reliable measurement tool for measuring undergraduate nursing students' academic self-efficacy (see **Ek-1**). Thus, the scale, brought to the Turkish literature on nursing, should be utilized to identify the self-efficacy levels of undergraduate nursing students and whether they are able to attain their learning goals. In addition, academics in nursing may utilize this measurement tool to plan and develop strategies to facilitate students' learning and contribute to their academic achievement or evaluate the effects of mentoring practices on students over time. In this respect, the Turkish version of the ANSES can be considered a unique data collection tool to indirectly increase the quality of education in undergraduate nursing programs.

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Appendix-1

Turkish Version of the Academic Nurse Self-Efficacy Scale

Kendinize Ne Kadar Güveniyorsunuz? (**Yönerge:** Lütfen her maddeyi dikkatle okuyarak o maddede yer alan ifadenin size ne derece uygun olduğuna karar veriniz. Verdiğiniz karara göre aşağıdaki ölçeğin maddelerini dikkate alarak yandaki rakamlardan uygun olanı işaretleyiniz.)		Kendime Hiç Güvenmiyorum	Kendime Güvenmiyorum	Kendime Ne Güveniyorum Ne Güvenmiyorum	Kendime Güveniyorum	Kendime Çok Güveniyorum
İçsel Duygu Yönetimi	**1.**Bir sorun karşısında kaygımı kontrol edebilme	1	2	3	4	5
	2.Sınav sürecinde sakin kalma	1	2	3	4	5
	3.Zorluk anında cesaretimi kırmaktan kaçınma	1	2	3	4	5
Otokontrol Davranış	**4.**Sorun oluşturan riskli şeyleri yapma konusunda arkadaş baskısına direnme	1	2	3	4	5
	5.Sıkıldığımda derse gitmeme isteğime direnme	1	2	3	4	5
	6.Kaçınmanın daha iyi olacağını düşündüğüm bir şeyi yapmamı isteyen arkadaşlarımın ısrarından kaçınma	1	2	3	4	5
	7.Yaptırım riski az da olsa suç işlemekten (kural ihlalinden) kaçınma	1	2	3	4	5
Dışsal Duygu Yönetimi	**8.**Eleştirildiğimde cesaretimi kaybetme	1	2	3	4	5
	9.Sınıfın önünde kötü bir izlenim bıraktıktan sonra utanma	1	2	3	4	5
	10.Düşüncesini önemsediğim birine karşı "gaf" yapmaktan dolayı duyduğum utancın üstesinden gelebilme	1	2	3	4	5
	11.Sınıfın önünde zayıf yönlerim vurgulandığında utanç duymanın üstesinden gelebilme	1	2	3	4	5
Sosyallik	**12.**Gerektiğinde arkadaşlarımdan yardım isteme	1	2	3	4	5
	13.Çalışmasında zorlanan bir arkadaşıma yardım etme	1	2	3	4	5
	14. Arkadaşlarım arasında iyi bir atmosfer yaratmaya yardımcı olma	1	2	3	4	5

Hemşirelik Öğrencileri Akademik Öz Yeterlilik Ölçeği (HÖAÖYÖ): (Academic Nurse Self-Efficacy scale [ANSEs]): Bulfone ve ark. (2019) tarafından lisans düzeyinde eğitim gören hemşirelik öğrencilerinin akademik öz yeterliliklerini belirlemek için geliştirilen ölçek, 14 madde ve dört alt boyuttan oluşmaktadır. Ölçek içsel duygu yönetimi (1., 2., 3. maddeler), otokontrol davranış (4., 5., 6., 7. maddeler), dışsal duygu yönetimi (8., 9., 10., 11. maddeler) ve sosyallik (12., 13., 14. maddeler) alt boyutlarından oluşmaktadır. Bu ölçeğin maddelerin puanı 1-5 arasında değişmektedir ve "Kendinize ne kadar güveniyorsunuz" sorusu 5'li Likert tipi (1 = Kendime hiç güvenmiyorum, 5 = Kendime çok güveniyorum) ile puanlanmaktadır. Ölçekten alınan puanlar arttıkça hemşirelik öğrencilerin akademik öz yeterlilikleri artmaktadır. Ölçeğin ters puanlanan maddesi bulunmamaktadır. Orijinal ölçeğin Cronbach alpha değeri 0.84, bu araştırmada 0.82'dir.