Research

Validity and reliability of the albanian version of the nursing professional values scale (NPVS-3)

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ABSTRACT

Introduction: The Nurses Professional Values Scale-3 (NPVS-3) is a psychometric instrument derived from the American Nurses Association Code. The validation of the scale for Albania will assist in assessing the level of professional values in students and the effectiveness of the national curriculum in integrating those values in nursing education.
Aim: This study aims to test the psychometric properties of the Albanian version of the NPVS-3.
Methods: This is a methodological cross-sectional study. Data was collected in 2020, from March to September, through an electronic survey. The inclusion criteria were: an Albanian national and a student registered in the Bachelor program of the nursing departments from the university.
The questionnaire was translated and back-translated and submitted for evaluation by an experts committee. The validity of the items was determined by the Content Validity Index, the construct validity of the scale was estimated by Confirmatory Factor Analysis and Cronbach's alpha was calculated for each construct to assess the internal consistency reliability.
Results: The convenient sample consisted of 105 nursing students. The results indicates an adequate content validity and internal structure of the scale. The Cronbach's alpha calculated supports the three-factor structure of the scale based on the domains of Caring, Professionalism and Activism.
Discussion: Validation of the Albanian version of the NPVS-3 followed all the required procedures and confirmed the psychometric integrity of the instrument.

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Introduction

Values refer to ideals and beliefs that govern a person's attitude and behaviors (Alabdulaziz, Cruz, Alasmee, & Almazan, 2021; Lin & Wang, 2010) and provide a basis for decision-making and action (Hosseini, Parvan, Bagherian, & Thomson, 2020; Özsoy & Donmez, 2015). Values influence individual attitudes and professional and ethical systems are built on values influenced by experience and culture (Alabdulaziz et al., 2021). Nursing is a profession based on the concept of caring, values, beliefs, and experiences on promoting health and preventing disease and health problems (Hosseini et al., 2020; Özsoy & Donmez, 2015; Poorchangizi, Borhani, Abbaszadeh, Mirzaee, & Farokhzadian, 2019). Values in nursing are those ends sought by

professional and nurse-patient relationships (International Council of Nurses [ICN], 2021).

According to Weis and Schank (2017), professional values are the standards for action accepted by professional group members. They can be used to evaluate the integrity of the individual and the organization. Nursing professional values have been specifically expressed in the nursing code of ethics (American Nurses Association [ANA], 2015; ICN, 2021; Olson & Stokes, 2016), which is used to direct the nursing curriculum in higher education (Schmidt, 2016). According to Costello (2017), the professional values included in the nursing code of ethics are: autonomy, dignity, integrity, altruism, and social justice, and are the basis for professional practice (Costello, 2017).

Autonomy refers to the right to self-determination, meaning that patients have the right to make their own decisions (Beauchamp & Childress, 2019), and nurses may act independently within their scope of practice.

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Human dignity refers to respect for all individuals' inherent worth and unique attributes that nurses have to consider and have to respect in all settings and in every professional relation (ANA, 2015; Bell, 2015; ICN, 2021). Integrity refers to nurses upholding the code of ethics and accepted standards of practice. It is intrinsically linked to the ANA's (2015) Code of Ethics with Interpretive Statements and the means the profession has embraced (ANA, 2015; Costello, 2017).

Altruism refers to the concern for the welfare and well-being of others. Nurses who understand others' cultures and beliefs can give altruistic actions (Costello, 2017). Social justice refers to fairness requiring an equitable distribution of social goods and benefits and an equally fair distribution of social burdens (ICN, 2021).

Nurse professional values provide an ethical code that constitutes the standards for practice and sets professional standards specific to nursing. Professional practice regards the ethical-legal competencies of nursing, while professionalism refers to behaviors in the workplace and is influenced by values based on culture, professional education, and nurses' experience, reflecting values and traditions from the nurses' culture of origin (Moon, Kim, Kim, Kim, & Lee, 2014). Nursing as a specialized job in Albania, is established by law and the deontological code of regulated professions, which is not specific for the nursing profession, and nurses and nursing students lack knowledge of the principle of ethics and its implication in practice (Podgorica, Pjetri, Müller, & Deufert, 2021; Podgorica, Zenelaj, Deufert, Ganner, & Flatscher-Thöni, 2020). This knowledge gap has consequences for nurses, patients, and society (Poorchangizi et al., 2019). Lack of understanding can lead to violations of the code of ethics, which can affect the health of patients, cause the nursing profession to be undervalued, and lead to legal action against the professional (Asare, Ansah, & Sambah, 2022; Silva et al., 2018). Therefore it is crucial to integrate the professional values in nursing education and to determine the nursing professional values of students; a professional tool that can provide an accurate assessment is needed.

The Nurses Professional Values Scale-3 (NPVS-3) is an appropriate instrument for determining the advances in nursing professional values in nursing education and practice (Weis & Schank, 2017). NPVS-3 is the updated version of NPVS and NPVS-revised. NPVS-3 was developed based on the Code of Ethics for Nurses (ANA, 2015). Although NPVS and NPVS-R had been translated and adapted in different languages, excluding Albanian, Weis and Schank (2017) recommended the cultural and linguistic adaptation of the NPVS-3 in various languages and populations. Based on the literature, the NPVS-3 had been translated and psychometrically tested among nursing students and nurses in a few countries (Alabdulaziz et al., 2021; Asiandi, Erlina, Lin, & Huang, 2021; Dellafiore et al., 2020). To our knowledge, the NPVS-3 scale has never been translated and tested in Albania. Therefore, the purpose of the present study was to establish the psychometric properties of the NPVS-3 Albanian version (NPVS-3-Al) among Albanian nursing students.

Methods

Study design and settings

This is a methodological study to test the psychometric properties of the Albanian version of the NPVS-3. This cross-sectional study guided by the STROBE checklist (Cuschieri, 2019) was conducted in one university in Albania between March and September 2021. Convenience sampling included nursing students who were studying in the Nursing Bachelor program. The inclusion criteria were: an Albanian national and a student registered in the Bachelor's program. During the present or online classes, teachers gave information to the students about the study's purpose and asked them if they were interested in participating. After getting the non-verbal consents, 250 students were invited to participate. An online survey forwarded the scale, and 105 students answered the questions.

Table 1
Content Validation of the NPVS-3 Scale.

ITEM	Not Relevant	Somehow relevant	Quite relevant	Relevant	Experts in Agreement	Item CVI (I-CVI)
1	0	1	4	13	17	0.94
2	0	0	1	17	18	1
3	0	0	2	16	18	1
4	0	1	2	15	17	0.94
5	1	3	5	9	14	0.77
6	0	2	3	13	16	0.88
7	0	1	3	14	17	0.94
8	0	0	1	17	18	1
9	0	3	4	11	15	0.83
10	0	0	3	15	18	1
11	0	2	4	12	16	0.88
12	0	0	4	14	18	1
13	0	1	4	13	17	0.94
14	0	1	0	15	15	0.83
15	0	0	1	17	18	1
16	0	3	7	8	15	0.83
17	0	1	1	16	17	0.94
18	0	0	1	17	18	1
19	0	0	1	17	18	1
20	0	2	7	9	16	0.88
21	0	1	5	12	17	0.94
22	0	1	4	13	17	0.94
23	0	0	2	16	18	1
24	0	1	3	14	17	0.94
25	0	1	3	14	17	0.94
26	1	1	1	15	16	0.88
27	0	0	2	16	18	1
28	0	0	0	18	18	1
TOTAL=28 Items	Content Validation of the Scale -Average S-CVI/Ave 26.24/28= 0.93					

Instrument

A survey created by the team was delivered online and used as the data collection tool. The questionnaire consisted of two sections. The first section collected the demographic data; the second was the Nurses Professional Values Scale-3 (NPVS-3), developed by Weis and Schank (Weis & Schank, 2017).

The NPVS-3 is a self-administered Likert scale with points ranging from 1 (not important) to 5 (most important). The total score is obtained by summing all items (Weis & Schank, 2017), ranging from 26 to 140 points. The higher the score, the higher the level of professional values.

The NPVS-3 was developed by Weis and Schank (2017) based on the American Nurses Association (ANA) Code of Ethics, revised in 2015. It was created to measure nurses' professional values and, since its creation, it has been validated across multiple countries (Ling & Wang, 2009; Alabdulaziz et al., 2021; Asiandi et al., 2021; Özsoy & Donmez, 2015). The scale comprises items based on three constructs: Caring, Activism, and Professionalism. Caring refers to the interpersonal relationships between nurses and patients, families, and the community. Professionalism regards authority to give orders and make decisions and obligations, such as promoting good practice and supervising the workplace (Weis & Schank, 2017). Activism is the nurses' role in working as agents to transform health reality, better the profession, and influence public health policies.

Procedure

This study aims to validate the NPVS-3 Albanian version. Permission to use the original English version of the NPVS-3 was obtained from the developers, Professor Darlene Weis and Mary Jane Schank. The translation processes were carried out in several stages following guidelines of the translation process, adaptation, and validation from Sousa and Rojjanasrirat (2011) (Sousa & Rojjanasrirat, 2011).

In the first stage, the original version of NPVS-3 was translated by two bilingual translators; one of them was a nursing professor. The second stage was comparing the translation results by translators one and two. The comparison was made to find which translation was better used for Albanian version synthesis I. The third stage was back-translation from the Albanian language to the English language. Two translators also carried out this translation. Again one was a professional translator from the University of Shkodra, and the other was a nurse expert professor. Interpreters did not know the results of each translation. The fourth stage was the comparison of the back translations one and two from the third stage. Two versions of back translation were produced, and then it was determined which translation was better to use as synthesis II.

The fifth stage was the monolingual trial. This trial was conducted on 18 students, nurses, and nursing teachers willing to fill out the online/or handout questionnaire with clear and unclear choices. Then at the end of the questionnaire, there was a column provided

Table 2
Original scale compared to the Albanian version of the NPVS-3.

NPVS-3	NPVS-3 Albania
1. Engage in on-going self-evaluation.	1. Angazhimi i vazhdueshëm në vetë-vlerësim.
2. Respect the inherent dignity, values, and human rights of all individuals.	2. Respektimi i dinjitetit, vlerave, dhe i të drejtave njerëzore të qenësishme të të gjithë individëve.
3. Protect health and safety of the patient/public.	3. Mbrojtja e shëndetit dhe siguria e të pacientit/publikut.
4. Assume responsibility for personal well-being.	4. Marrja e përgjegjësisë për mirëqenien personale.
5. Participate in peer review.	5. Pjesëmarrja në vlerësimin e kolegëve.
6. Establish standards as a guide for practice.	6. Vendosja e standardeve si një udhëzues për praktikën.
7. Promote and maintain standards where planned learning activities for students take place.	7. Promovimi dhe ruajtja e standardeve ku zhvillohen aktivitete të planifikuara të të mësuarit për studentet.
8. Initiate actions to improve environments of practice.	8. Fillimi i veprimeve për të përmirësuar mjediset e praktikës.
9. Seek additional education to update knowledge and skills to maintain competency.	9. Kerkesa për edukim të mëtejshëm për të përditësuar njohuritë dhe aftësitë në mënyrë që të ruhet kompetenca.
10. Advance the profession through active involvement in health-related activities.	10. Avancimi në profesion nëpërmjet përfshirjes aktive në aktivitete të lidhura me shëndetin.
11. Recognize the role of professional nursing associations in shaping health policy.	11. Njohja e rolit të shoqatave profesionale të infermierise në formësimin e politikës shëndetësore
12. Establish collaborative partnerships to reduce healthcare disparities.	12. Krijimi i partneriteteve bashkëpunues për të zvogëluar pabarazitë e kujdesit shëndetësor.
13. Assume responsibility for meeting health needs of diverse populations.	13. Marrja e përgjegjësisë për përmbushjen e nevojave shëndetësore të popullsive të ndryshme.
14. Accept responsibility and accountability for everyone.	14. Pranimi i përgjegjësisë dhe llogaridhënies për praktikën vetjake.
15. Protect moral and legal rights of patients.	15. Mbrojtja e të drejtat morale dhe ligjore të pacientëve.
16. Act as a patient advocate.	16. Të vepruarit si një avokat i pacientit.
17. Participate in nursing research and/or implement research findings appropriate to practice.	17. Pjesëmarrja në kërkimet infermierore dhe/ose zbatimi i gjetjeve të kërkimeve të përshtatshme për t'u praktikuar.
18. Provide care without bias or prejudice to patients and population.	18. Ofrimi i kujdesit pa paragjykim ndaj pacientëve dhe popullsisë.
19. Safeguard patient's right to confidentiality and privacy.	19. Ruajtja e së drejtës së pacientit për konfidencialitet dhe privatësi.
20. Confront practitioners with questionable or inappropriate practice.	20. Konfrontimi i praktikuesit me praktikë të dyshimtë ose të papërshtatshme.
21. Protect rights of participants in research.	21. Mbrojtja e të drejtave të pjesëmarrësve në hulumtim.
22. Practice guided by principles of fidelity and respect for person.	22. Praktika e udhëhequr nga parimet e besnikërisë dhe respektit për personin.
23. Actively promote health of populations.	23. Promovimi në mënyrë aktive i shëndetit të popullsisë.
24. Participate in professional efforts and collegial interactions to ensure quality care and professional satisfaction.	24. Pjesëmarrja në përpjekjet profesionale dhe ndërveprimet kolegjiale për të siguruar kujdes cilësor dhe kënaqësi profesionale.
25. Promote mutual peer support and collegial interactions to ensure quality care and professional satisfaction.	25. Promovimi i mbështetjes reciproke të kolegëve dhe ndërveprimeve kolegjiale për të siguruar kujdes cilësor dhe kënaqësi profesionale.
26. Take action to influence legislators and other policy makers to improve health care.	26. Marrja e masave për të ndikuar tek ligjvënësit dhe politikëbërësit e tjerë për të përmirësuar kujdesin shëndetësor.
27. Engage in consultation/collaboration to provide optimal care.	27. Angazhimi në konsultim/bashkëpunim për të siguruar një kujdes optimal.
28. Recognize professional boundaries.	28. Njohja e kufinjve profesionalë .

for participants to provide input, criticism, and suggestions. This process was done to determine the level of understanding and clarity of the Albanian version of the NPVS-3 to improve the ambiguity of words on the scale.

Afterwards, to determine equality, the scale's content validity was assessed. Eighteen experts from mixed positions (eight nursing lecturers, five nurses, and five master nursing students) were invited (all of them accepted to be part of the panel). Documents were distributed to all experts containing background, cover letter, information about the construct and participants' sample, instructions and a questionnaire soliciting their opinion (Polit & Beck, 2021; Polit & Beck, 2006).

To give the content value index (CVI) value experts first did evaluate each item on the scale (referred to as I-CVI). To calculate an item-level CVI (I-CVI), experts were asked to rate each item's relevance, simplicity and clarity on a 4-point scale. The standard method for computing an item-level content validity index (I-CVI) is the number giving a rating of 3 or 4 on a 4-point relevance scale where 1 (non-relevant), 2 (somehow relevant), 3 (relevant), and 4 (highly relevant), divided by the numbers of experts.

Polit and Beck (2021) recommend I-CVIs of .78 or higher (Polit & Beck, 2021). Table 1 presents fictitious relevance ratings for eighteen experts on the 28-item scale NPVS-3. According to this definition, the I-CVI was calculated for each item. The eighteen experts agreed universally that 11 out of the 28 items (items 2,3,8,10,12, 15,18,19,23,27,28) were content valid with a value of I-CVI of 1.00. Of the other items, nine were also content valid with the value of I-CVI of .94 (items 1,4,7,13,17,21,22,24,25); then the other four items had the I-CVI value of .88 (items 6,11,20,26); three Items (items 9,14,16) had the I-CVI value of .83; and only the item 5 had the I-CVI value of .77. This item was revised and accepted with the agreement of all the experts.

Table 4
Three-factor model internal consistency assessment.

	Cronbach's Alpha
Caring	0.866
Activism	0.894
Professionalism	0.782

After completing the I-CVI, the content validation of the scale S-CVI was computed following the recommendations of Polit and Beck (2021) and averaging across the I-CVIs (Polit & Beck, 2021). They recommend the S-CVI/Ave of .90 or higher (using the averaging approach). In Table 1, averaging across the 28 I-CVIs, the S-CVI/Ave, yields a value of .93 for the NPVS-3 Albanian version.

Table 2 shows how the translation for each item compares to the original scale.

Data analysis

The content validity was submitted to evaluation by an expert committee. The construct validity was assessed by confirmatory factor analysis (CFA) using robust weighted least squares estimators to confirm the three-factor model of the scale. The CFA model evaluation was performed through the following goodness-of-fit indices: Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI). The internal consistency reliability of the scale was evaluated using Cronbach's alpha coefficient for each construct. Measures of central tendency (means and standard deviations) were used to analyze descriptive data.

Table 3
Description of statistical analysis by question.

|	N	Missing	Mean	SD	Min	1stQ	Median	3rdQ	Max	95%CI.lo	95%CI.hi
Q2	160	0	4.51	0.67	1	4	5	5	5	4.39	4.60
Q3	160	0	4.48	0.73	1	4	5	5	5	4.35	4.58
Q14	160	0	3.78	0.84	2	3	4	4	5	3.65	3.91
Q15	160	0	4.31	0.83	2	4	5	5	5	4.17	4.43
Q16	160	0	3.41	1.00	1	3	3	4	5	3.26	3.57
Q18	160	0	4.36	0.80	1	4	5	5	5	4.23	4.48
Q19	160	0	4.44	0.76	1	4	5	5	5	4.31	4.55
Q20	160	0	3.66	0.94	1	3	4	4	5	3.51	3.80
Q21	160	0	3.79	0.88	2	3	4	4.25	5	3.66	3.93
Q22	160	0	4.08	0.81	2	3	4	5	5	3.95	4.20
Caring	160	0	40.81	5.60	18	37	41	45	50	39.91	41.64
Q10	160	0	4.11	0.81	2	4	4	5	5	3.98	4.23
Q11	160	0	3.89	0.98	1	3	4	5	5	3.73	4.04
Q12	160	0	4.04	0.90	1	3	4	5	5	3.89	4.17
Q13	160	0	3.78	0.92	1	3	4	5	5	3.64	3.92
Q17	160	0	3.66	0.90	2	3	4	4	5	3.52	3.79
Q23	160	0	4.06	0.85	1	3	4	5	5	3.93	4.19
Q24	160	0	3.83	0.94	2	3	4	5	5	3.69	3.98
Q25	160	0	4.01	0.81	2	3	4	5	5	3.88	4.13
Q27	160	0	4.07	0.81	2	3	4	5	5	3.94	4.19
Q26	160	0	3.88	0.93	1	3	4	5	5	3.73	4.02
Activism	160	0	39.32	6.35	22	34	39	45	50	38.34	40.30
Q1	160	0	3.88	0.81	1	3	4	4	5	3.75	4.00
Q4	160	0	4.11	0.80	1	4	4	5	5	3.98	4.23
Q5	160	0	3.35	0.85	1	3	3	4	5	3.22	3.48
Q6	160	0	3.83	0.81	2	3	4	4	5	3.70	3.95
Q7	160	0	3.91	0.77	2	3	4	4	5	3.79	4.02
Q8	160	0	4.19	0.79	2	4	4	5	5	4.06	4.31
Q9	160	0	4.03	0.82	2	3	4	5	5	3.90	4.15
Q28	160	0	4.17	0.82	2	4	4	5	5	4.04	4.29
Professionalism	160	0	31.45	4.07	17	29	32	34	40	30.82	32.09
Total	160	0	111.58	14.87	57	99	112	122.25	140	109.25	113.90
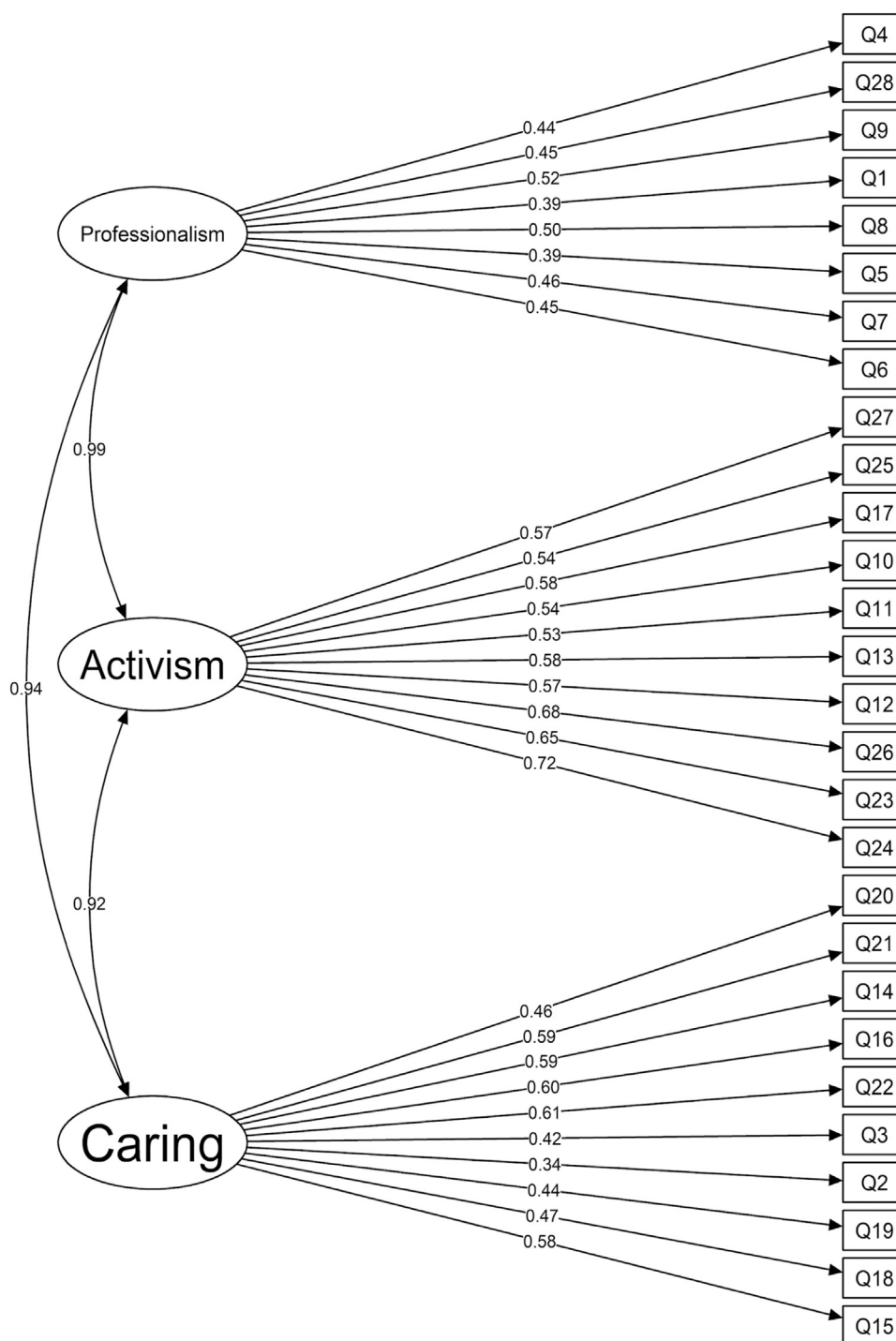
Fig. 1. Factor loading and shared variance between constructs obtained from confirmatory factor analysis.

Results

Demographic Data

Research participants were 105 nursing students, of which this total the majority (59.05%, n = 62) were enrolled in the 2nd course semester, followed by students enrolled in the 6th (16.19%, n = 17), 3rd (11.43%, n = 12), 1st (6.67%, n = 7) and 4th (6.67%, n = 7) course semesters. Most of the respondents (89.52%, n = 94) were female. This study did not include race and ethnicity since disclosing this information in Albania is not legal.

Construct validity assessment

The scale's construct validity was assessed using confirmatory factor analysis (CFA). The results indicate a good fit for the model and an adequate internal structure of the instrument. The model fit indices obtained were as follows: Root Mean Square Error of Approximation (RMSEA) = 0.04, <0.05 is a good model fit according to the cutoff values suggested by Hu & Bentler (1999); Standardized Root Mean Square Residual (SRMR) = 0.065, values in the range of 0.05 and 0.08 indicates a "fair fit" (Cudeck & Browne, 1983); Comparative Fit Index (CFI) = 0.930, >0.9 represents a good fit (Hu & Bentler, 1999); Tucker-

Lewis Index (TLI) = 0.924, >0.90 indicates a good fit (Schumacher & Lomax, 2010).

Reliability

The NPVS-3-Al mean score of students was 111.58±14.87, ranging from 57-140 points. The students' mean score for each construct was 40.81±5.60 for Caring, 39.32±6.35 for Activism, and 31.45±4.07 for Professionalism. The means and standard deviation for each item are presented in Table 3.

The internal consistency for the NPVS-3-Al was good, and the results support the three-factor structure of the model. The Cronbach's alpha for each construct is presented in Table 4. The alpha coefficients obtained were similar to those of the original NPVS-3 scale by Weis and Schank (2017): 0.885 for Caring, 0.912 for Activism, and 0.779 for Professionalism.

Fig. 1 represents the confirmatory factor analysis. The factor loadings represented in Fig. 1 are detailed in Table 5. The latent variables represented in Fig. 1 are detailed in Table 6; the latent variables shows the shared variance between constructs, which were $(0.937)^2 = 0.88$ between Professionalism and Caring, $(0.993)^2 = 0.99$ between Professionalism and Activism and $(0.916)^2 = 0.84$ between Activism and Caring.

Discussion

The validation process of the Albanian version of the NPVS-3-Al followed the methods employed in Weis & Schank's (2017) revision of the original scale. The confirmatory factor analysis indicated a good internal structure for the model. The internal consistency

Table 5
Analysis of latent variables by factor.

	Estimate	Std.Err	z-value	P(>|z|)	ci.lower	ci.upper
Caring =~						
Q15	0.576	0.063	9.078	< 0.001	0.452	0.701
Q18	0.474	0.078	6.081	< 0.001	0.321	0.627
Q19	0.443	0.069	6.391	< 0.001	0.307	0.579
Q2	0.343	0.071	4.838	< 0.001	0.204	0.482
Q3	0.419	0.072	5.846	< 0.001	0.278	0.559
Q22	0.609	0.049	12.395	< 0.001	0.513	0.706
Q16	0.595	0.067	8.918	< 0.001	0.464	0.726
Q14	0.586	0.057	10.351	< 0.001	0.475	0.697
Q21	0.593	0.055	10.708	< 0.001	0.485	0.702
Q20	0.461	0.062	7.459	< 0.001	0.340	0.582
Activism =~						
Q24	0.719	0.048	15.095	< 0.001	0.626	0.812
Q23	0.652	0.050	13.098	< 0.001	0.554	0.749
Q26	0.677	0.051	13.231	< 0.001	0.577	0.778
Q12	0.571	0.046	12.502	< 0.001	0.481	0.660
Q13	0.577	0.057	10.082	< 0.001	0.464	0.689
Q11	0.533	0.067	7.908	< 0.001	0.401	0.665
Q10	0.537	0.055	9.704	< 0.001	0.429	0.646
Q17	0.584	0.053	11.049	< 0.001	0.481	0.688
Q25	0.542	0.050	10.805	< 0.001	0.444	0.640
Q27	0.573	0.051	11.292	< 0.001	0.473	0.672
Professionalism =~						
Q6	0.446	0.054	8.193	< 0.001	0.339	0.553
Q7	0.459	0.057	8.075	< 0.001	0.348	0.571
Q5	0.387	0.064	6.020	< 0.001	0.261	0.513
Q8	0.497	0.052	9.490	< 0.001	0.395	0.600
Q1	0.393	0.068	5.820	< 0.001	0.261	0.526
Q9	0.521	0.055	9.478	< 0.001	0.414	0.629
Q28	0.449	0.052	8.668	< 0.001	0.348	0.551
Q4	0.443	0.072	6.124	< 0.001	0.301	0.585

Estimate = factor load's estimation; Std.Err = Standard Error (SD) for a factor load; z-value = statistics test defined as Estimate/EP; P(>|z|) = p-value assuming factor load equal to 0, the value must be low for all loadings; ci.lower = lower confidence interval; ci.upper = upper confidence interval 95% of factor loading.

Table 6
Covariance between constructs.

	Estimate	Std.Err	z-value	P(>|z|)	ci.lower	ci.upper
Caring ~~						
Activism	0.916	0.025	36.918	< 0.001	0.868	0.965
Professionalism	0.937	0.033	28.589	< 0.001	0.873	1.001
Activism ~~						
Professionalism	0.993	0.022	45.591	< 0.001	0.950	1.036

assessment by Cronbach's Alpha confirmed the three-factor model of the scale organized in the domains of Caring, Activism, and Professionalism.

The absolute fit indices obtained through CFA, RMSEA, and SRMS, are the best indicators of the adequacy of the model to the data sample (Hair, Black, Babin, Anderson, & Tatham, 2006). The absolute fit indices are measures of model error, and the lower the values, the better the fit. RMSEA can be calculated within a 95% confidence interval, better estimating the model fit within this range (Lewis, 2017). The upper bound of the confidence interval must not be high. Supplement fit indices employed, CFI and TLI, further corroborate the goodness of fit for the model, and CFI is a good indicator of model fit since it considers the sample size (Lewis, 2017). The higher the value, the better, and a consensus states that values above 0.9 are preferable for both indices.

The content validity analysis indicates that the instrument's psychometric properties are adequate and that the scale can be used to measure nurses' professional values taking into account the socio-cultural context of nursing practice in Albania. The validation of the Albanian version of the NPVS-3-Al followed all the required procedures to ensure cultural, linguistic, and conceptual equivalence through Translation and Back translation, a qualitative methodological approach suitable for cross-cultural adaptation of psychometric scales, followed by evaluation of the final results by an experts committee.

Limitations of the study

Several factors may be considered as limitations in this study. First, for easily recruited participants, the use of a convenient sample, and a relatively small limit the ability to generalize the study. Second, data were collected in only one Albanian university, thus limiting the study's generalizability. Continued research is needed to accrue evidence of NPVS-3 Albanian version reliability and validity.

Conclusion

This study concluded that the NPVS-3-Al is a valid and reliable instrument, able to estimate nurses' professional values in the context of nursing practice in Albania. The scale can prove to be useful in assessing the effectiveness of the integration of professional values in the educational curriculum in the country's nursing programs.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Alabdulaziz, H., Cruz, J. P., Alasmee, N. A., & Almazan, J. U. (2021). Psychometric analysis of the Nurses' professional values scale-3 Arabic version among student nurses. *International Nursing Review*. doi:10.1111/inr.12677.

American Nurses Association (2015). *Code of ethics with interpretive statements*. https://www.wolterskluwer.com/en/solutions/ovid/code-of-ethics-for-nurses-with-interpretive-statements-8271

Asare, P., Ansah, E. W., & Sambah, F. (2022). Ethics in healthcare: Knowledge, attitude and practices of nurses in the Cape Coast Metropolis of Ghana. *PLOS ONE*, *17*,(2) e0263557. doi:10.1371/journal.pone.0263557 Article.

Asiandi, A., Erlina, M., Lin, Y. H., & Huang, M. C. (2021). Psychometric evaluation of the nurses professional values scale-3: Indonesian version. *International Journal of Environmental Research and Public Health*, *18*(16), 8810. doi:10.3390/ijerph18168810.

Beauchamp, T. L., & Childress, J. F. (2019). *Principles of biomedical ethics* (8th ed.). Oxford University Press.

Bell, L. (2015). *Code of ethics for nurses with interpretive statements*. AACN.

Costello, A. N. (2017). Professional nursing values: Accounts of the witnessed. *Honors Theses*, *488*. https://aquila.usm.edu/honors_theses/488.

Cudeck, R., & Browne, M. W. (1983). Cross-validation of covariance structures. *Multivariate Behavioral Research*, *18*(2), 147–167. doi:10.1207/s15327906mbr1802_2.

Cuschieri, S. (2019). The STROBE guidelines. *Saudi Journal of Anaesthesia*, *13*(1), 31–S34. doi:10.4103/sja.SJA_543_18.

Dellafiore, F., Grugnetti, A. M., Caruso, R., Prinzivalli, G., Luca, M., Grugnetti, G., Belloni, S., Magon, A., & Arrigoni, C. (2020). Nurses professional values scale-three": A validation study among italian nurses and nursing students. *Journal of Nursing Measurement*. doi:10.1891/jnm-d-20-00030.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Pearson.

Hosseini, F. A., Parvan, K., Bagherian, S., & Thomson, B. (2020). *Psychometric properties of nurses professional values scale-revised: An Iranian version*. http://doi.org/10.21203/rs.3.rs-38280/v1

ICN. (2021). *The ICN Code of ethics for nurses*. https://www.icn.ch/system/files/2021-10/ICN_Code-of-Ethics_EN_Web_0.pdf

Lewis, T. F. (2017). Evidence regarding the internal structure: Confirmatory factor analysis. *Measurement and Evaluation in Counseling and Development*, *50*(4), 239–247. doi:10.1080/07481756.2017.1336929.

Lin, Y.-H., & Wang, L. S. (2010). A Chinese version of the revised nurses professional values scale: Reliability and validity assessment. *Nurse Education Today*, *30*(6), 492–498. doi:10.1016/j.nedt.2009.10.016.

Li-tze Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. doi:10.1080/10705519909540118.

Moon, S., Kim, D. H., Kim, E. J., Kim, Y.-J., & Lee, S. (2014). Evaluation of the validity and reliability of the Korean version of the nursing professional values scale—revised. *Nurse Education Today*, *34*(3), 325–330. doi:10.1016/j.nedt.2013.06.014.

Olson, L. L., & Stokes, F. (2016). The ANA code of ethics for nurses with interpretive statements: Resource for nursing regulation. *Journal of Nursing Regulation*, *7*(2), 9–20. doi:10.1016/S2155-8256(16)31073-0.

Özsoy, S., & Donmez, R.Ö. (2015). Nurses professional values scale-revised: Psychometric properties of the Turkish version. *Nursing Practice Today*, *2*(1), 16–24.

Podgorica, N., Pjetri, E., Müller, A. W., & Deufert, D. (2021). Identifying ethical and legal issues in elder care. *Nursing Ethics*, *28*(7-8), 1194–1209. doi:10.1177/0969733020981761.

Podgorica, N., Zenelaj, B., Deufert, D., Ganner, M., & Flatscher-Thöni, M. (2020). A narrative review on legal aspects of older people in Albania. *Journal of Educational and Social Research*, *10*(5), 88. doi:10.36941/jesr-2020-0090.

Polit, D. F., & Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, *29*(5), 489–497. doi:10.1002/nur.20147.

Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice*. Lippincott Williams & Wilkins.

Poorchangizi, B., Borhani, F., Abbaszadeh, A., Mirzaee, M., & Farokhzadian, J. (2019). Professional values of nurses and nursing students: A comparative study. *BMC Medical Education*, *19*(1), 1–7. doi:10.1186/s12909-019-1878-2.

Schmidt, B. J. (2016). Core professional nursing values of baccalaureate nursing students who are men. *Nursing Ethics*, *23*(6), 674–684. doi:10.1177/0969733015579310.

Silva, T. N.da, Freire, M. E. M., Vasconcelos, M. F.de, Junior, Silva, da, S. V., Silva, W. J.de C., Araújo, P.da S., Eloy, A. V. A., Silva, T. N.da, Freire, M. E. M., Vasconcelos, M. F.de, Junior, Silva, da, S. V., Silva, W. J.de C., Araújo, P.da S., & Eloy, A. V. A. (2018). Deontological aspects of the nursing profession: Understanding the code of ethics. *Revista Brasileira de Enfermagem*, *71*(1), 3–10. doi:10.1590/0034-7167-2016-0565.

Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: A clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice*, *17*(2), 268–274. doi:10.1111/j.1365-2753.2010.01434.x.

Weis, D., & Schank, M. J. (2017). Development and psychometric evaluation of the nurses professional values scale-3. *Journal of Nursing Measurement*, *25*(3), 400–410. doi:10.1891/1061-3749.25.3.400.