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Translation, validation and psychometric properties of the Albanian version of the Nurses Professional Competence Scale Short form

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Abstract. *Background and aim of the work:* The primary aim of this study was the translation and psychometric validation of the Albanian Nurse Professional Competence Scale Short Form for further application in Albanian healthcare settings. This instrument can be utilised to assess professional nursing competencies. *Methods:* A convenience sample (n=342) was recruited, including registered nurses, registered midwives and nursing head nurses. A multiphase design was developed to establish the Albanian Nurse Professional Competence Scale Short Form and comprised (1) cultural and linguistic validation, (2) content and face validity, and (3) construct validity. *Results:* The Albanian Nurse Professional Competence Scale Short Form showed adequate content validity. Confirmatory factor analysis supported the Albanian Nurse Professional Competence Scale Short Form's six-factor structure and explained the data collection. *Conclusions:* The Albanian Nurse Professional Competence Scale Short Form presented evidence of validity and reliability in measuring four professional competencies. Having an appropriate scale in Albanian for professional competence self-assessment by nurses constitutes an essential step in developing nursing education in the country. (www.actabiomedica.it)

Key words: Competence nursing, confirmatory factor analysis, exploratory factor analysis, professional competence, psychometrics

Introduction

The demand for increasingly differentiated and complex nursing care is constantly growing. It is, therefore, necessary from both professional and clinical points of view for every nurse to acquire the appropriate skills necessary to provide sufficient quality and safe care for patients (1, 2). No consensus has yet been reached regarding competence in clinical practice, much less professional practice (3). Nevertheless, providing a standard definition of the concept of 'competence' remains indispensable, especially in encouraging debate within the nursing profession and in better defining nurses' professional identity (4, 5).

In healthcare and nursing, in particular, skills are the subject of discussion and interest among educators and policymakers (6). Nurses must have adequate training to acquire the appropriate skills in the professional and clinical fields (7). Updating professional nursing skills is fundamental to maintaining the appropriate knowledge and skill levels among nurses and building a quality nursing workforce (8). Notwithstanding, the

importance of developing nursing competencies extends far beyond the domains of regulation and licensing and should be seen as exceeding the vision that focuses exclusively on patient care outcomes (9).

Thus, newly graduated nurses must meet the responsibilities associated with skills development in both the clinical and professional fields (10). Accordingly, nursing education plays an essential role in providing vital recognition to newly graduated nurses and adequate training in professional nursing skills so that these can be applied in different clinical settings (11). The assessment of nursing skills has thus become a fundamental aspect of measuring nursing education and determining learning outcomes (12, 13). In fact, university training in the clinical field aims to educate nurses to become competent professionals in nursing care management (14).

As a complex system, nursing care requires complex combinations of knowledge, skills, attitudes and performance (15); Authors). All these characteristics constitute and define nursing competencies, which refer to the abilities and competencies possessed by professional nurses (16, 17).

Defining and evaluating nursing competencies is problematic because it involves multifaceted dimensions, either at the level of the learning process or at a practical level in daily clinical activities in different clinical settings (18, 19). Instruments for measuring nurses' clinical and professional competencies are a relatively new field of study, and researchers have only recently begun to develop them (20, 21). Indeed, only a few instruments are available to assess nursing competencies (22-24).

The Nurse Professional Competence Scale (NPCS), with 88 items, is one of the instruments utilised to assess professional nursing competencies. It was developed by Nilsson et al. (2018), who also developed a short version of the scale with 35 items (25). The Nurse Professional Competence Scale Short Form (NPCS-SF) has been validated in other studies and in several countries (25-29) and has revealed adequate face and content validity (30). To date, the NPCS-SF has been described as a valid and reliable measurement tool for assessing nurses' professional competence (31).

Unfortunately, this valid instrument has not yet been translated and/or validated in the Albanian language, which undermines the possibility of using it in Albanian contexts and performing cross-national research regarding nursing competencies. Accordingly, in this investigation, we aimed to develop an Albanian version of the NPCS-SF (A-NPCS-SF) and establish its content, face, and construct validity for Albanian registered nurses, midwives, and nurse coordinators.

Aim

This study was designed to verify the validity and reliability of the Albanian NPCS-SF (A-NPCS-SF), which has been translated from the original English version. The results confirmed this tool's validity in predicting health workers' capacity to be effective in their daily work and in various professional situations (nurses, midwives and head nurses).

Materials and methods

Design

A multiphase design was used in this study. The first phase constituted the linguistic translation and adaptation of the NPCS-SF to the Albanian cultural context. The second phase concerned both the content and face validity of the A-NPCS-SF, and the third phase involved a collection of cross-sectional data to evaluate the validity and reliability of the A-NPCS-SF.

Instruments

We used the short-form version of the NPCS by Nilsson et al. (2018) (25). The NPCS-SF is based on the formal competency requirements issued by the Swedish Council for Health and Welfare (25).

The English version of the NPCS-SF, utilised in this investigation, consists of 35 items, measured using a Likert scale ranging from one (very low degree) to seven (very high degree). The sum of the total scores of the items for the tool ranges from 14 to 100, and the authors have provided the formula; a higher score indicates a higher level of nursing skills. The NPCS-SF is divided into six factors: nursing care, value-based nursing care, medical and technical care, care pedagogics, documentation and administration of nursing care, and development leadership and nursing care organization. It has been demonstrated that the NPCS-SF is a valid instrument when used alone or with other tools (25-29).

Phase one: Linguistic translation and cultural adaptation of the Albanian version of the NPCS-SF

For the Albanian version of the NPCS-SF, we followed the guidelines proposed by Beaton et al. (2000) (32). The authors recommended at least two translations from the original to the final language to reflect any ambiguous formulations, phrases, or cultural inconsistencies inherent in the translation process (32). Authorisation to translate the tool was sought and obtained from the tool's original developers (25).

After obtaining authorisation, the original version of the questionnaire was sent to two different official English/Albanian translators (T1 and T2). T1 was an expert in nursing, and T2 had no prior nursing knowledge. Neither T1 nor T2 had previously known each other.

Their respective translations were subsequently compared by 22 experienced scholars (12 regional presidents and 10 university professors), culminating in drafting version 3 of the A-NPCS-SF.

Version 3 was subsequently sent to an expert Albanian teacher who, after a thorough check, found some things that needed to be corrected in the wording. After making the necessary changes using a formal revision of version 3, the final version in Albanian (version 4) was considered complete.

Version 4 was then subjected to a backward translation into English (version 5) to verify the compatibility between the obtained and original versions. All the work was conducted by a university teacher fluent in English and Albanian, who retranslated the questionnaire into the original language.

The same 22 experts analysed and compared the two versions we sent them, namely, version 4 (Albanian) and version 5 (translated into English). After careful examination, the experts recognised the equivalence of the two forms of the NPCS-SF.

A pretest phase of the final translated version was carried out with 50 nurses to verify its intercultural completeness, which led to a full understanding of the tool (phase five pretest). All the phases of the transcultural adaptation process are shown in Figure 1.

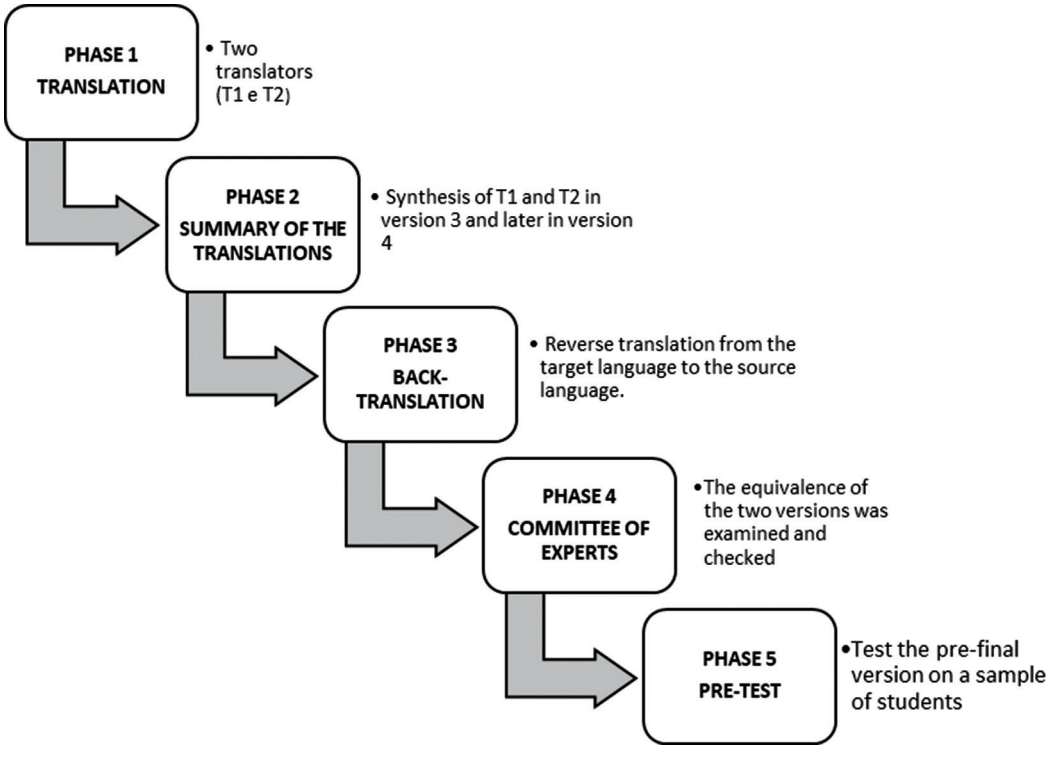

Figure 1. Guidelines for the transcultural adaptation of the Albanian version of the NPCS-SF.

Phase two: Face and content validity

The final version of the A-NPCS-SF from phase one was tested in phase two to ascertain both the face and content validity, as described by Polit and Beck (30), after the translation process. The second phase was conducted with a panel of 22 experienced scholars (12 regional presidents and ten university professors) who had experience with the validation process and were proficient in Albanian and English. They were selected by a group of senior nursing education consultants at one of the most renowned universities in Albania. The panellists were asked to explore their understanding of the newly translated tool's elements and share their views on the general concept (professional competence) it was intended to measure.

The panellists evaluated three aspects: (1) the content validity ratio (CVR), (2) the content validity index for scale (S-CVI), and (3) the item-level content validity index (I-CVI) (29). For the first aspect, the panellists were asked to indicate whether or not an element was essential to define the scale's construct using a specific set of elements (items). Each item was allocated a score from 1 to 3: 'not necessary', 'useful but not essential' and 'essential', respectively. The CVR varied between 1 and –1. A higher score indicated further agreement by the panellists on the need to include an element in the instrument. The CVR formula was (Ne – N/2)/(N/2), where N is the total number of panellists. The Lawshe table (33) indicated the CVR's numerical value. In our study, the CVR was greater than 0.42, so the items reached a significant level of acceptance (33). The S-CVI and I-CVI (30) ranged from –1 to 1, and a value ≥0.70 was considered adequate to keep the item in the translated version (34-35).

The initial stage of a complex validation process often requires a robust inferential analysis to determine the validity of the construct/content. This can be accomplished by modelling the multivariate latent variables (e.g., exploratory factor analysis, confirmatory factor analysis).

Phase three: Construct validity

Once the face and content validity of the A-NPCS-SF were obtained, cross-sectional data were collected from May to August 2021. A convenience sample, including registered nurses, registered midwives, and nurse coordinators, was recruited from different hospitals in Albania and enrolled in the study. Participants were nurses and midwives working in Albania's primary care settings. All the healthcare professionals were invited to participate anonymously. They were contacted via a corporate mail service by the Nursing Regulatory Authority. Specifically, we distributed the invitation using the mailing list of healthcare professionals available for institutional communications. As a criterion for inclusion, the healthcare professionals were required to be employed full-time in clinical practice and provide direct or indirect patient care at the time of the survey. To define an adequate sample size, we considered the Hair element/participant ratio 1:10 rather than the response rate (36).

The healthcare professionals could print the study information sheet, the informed consent form and the A-NPCS-SF form for subsequent completion in paper before returning the documents to the researchers.

Data analysis

We analysed data using SPSS 24 (SPSS Inc., Chicago, IL) software and the R statistical package. Descriptive and multivariate data analyses were performed.

We accomplished a preliminarily exploratory factorial analysis (EFA), which confirmed the original structure of the six-factor scale, followed by a confirmatory factor analysis (CFA). The validity of the A-NPCS-SF construct was assessed via CFA, with the recognition that the psychometric structure of the NPCS-SF had been described previously (26-29, 37). Fit indices, namely, the chi-squared test ($\chi 2$), the comparative fit index (CFI) and the root mean square error analysis (RMSEA), were used to explain the observed covariance matrix taken from the collected data to evaluate the CFA solution. The internal consistency was described using Cronbach's α for the domain levels.

Ethical considerations

Permission to proceed with the validation of the A-NPCS-SF was granted by the authors of the

original instrument, who were contacted via email before we started our study. This study did not involve any patients. The study was designed, conducted, recorded and reported on consistently with the international ethical and scientific quality standards indicated by Good Clinical Practice and standard operating procedures. All the participants were fully informed of the study's purpose and were involved on a voluntary basis. They were further informed of the confidentiality and anonymity of their responses during the data collection and analysis and asked to provide written informed consent. This study was ethically approved by the Ethics Committee of the Order of Albanian Nurses (2021-PROT.069-07).

Results

Phase one: Linguistic translation and cultural adaptation

There were no significant differences between the original NPCS-SF and the Albanian version after the translation and back-translation process. The expert committee reached a consensus following a few rounds of debate during two meetings of 90 minutes each. The final consensus among the experts was deemed satisfactory and exhibited a Fleiss κ of 0.85 (38, 39).

Phase two: Face and content validity

Of the 22 panellists who participated in this phase, 40.9% (n = 9) were female, and their mean age was 37.66 years (range 31–60 years). Table 1 shows the content validity indices obtained from the panellists' evaluation. The validity indices of the measurements achieved from the panellist's evaluation ranged from 0.73 to 1 for the I-CVI and 0.96 for the S-CVI. The interpretation of the I-CVI and S-CVI indicated scores higher than 0.70.

Phase three: Construct validity

Phase three was accomplished using an overall sample of 342 participants. Among them, 209 (61.1%) were registered nurses, 79 (23.1%) were head nurses,

Table 1. Content Validity of the Albanian version of the NPCS-SF (I-CVIs and S-CVI).

	I-CVIs	**Interpretation**	**S-CVI**
A-NPCS-SF 1	0.73	Pertinent	
A-NPCS-SF 2	0.73	Pertinent	
A-NPCS-SF 3	0.78	Pertinent	
A-NPCS-SF 4	0.94	Pertinent	
A-NPCS-SF 5	0.68	Pertinent	
A-NPCS-SF 6	0.68	Pertinent	
A-NPCS-SF 7	0.94	Pertinent	
A-NPCS-SF 8	0.84	Pertinent	
A-NPCS-SF 9	0.89	Pertinent	
A-NPCS-SF 10	0.68	Pertinent	
A-NPCS-SF 11	0.73	Pertinent	
A-NPCS-SF 12	1	Pertinent	
A-NPCS-SF 13	0.73	Pertinent	
A-NPCS-SF 14	1	Pertinent	
A-NPCS-SF 15	0.94	Pertinent	
A-NPCS-SF 16	0.84	Pertinent	0.85
A-NPCS-SF 17	0.89	Pertinent	
A-NPCS-SF 18	0.89	Pertinent	
A-NPCS-SF 19	0.84	Pertinent	
A-NPCS-SF 20	0.94	Pertinent	
A-NPCS-SF 21	0.94	Pertinent	
A-NPCS-SF 22	0.89	Pertinent	
A-NPCS-SF 23	0.63	Pertinent	
A-NPCS-SF 24	0.84	Pertinent	
A-NPCS-SF 25	0.94	Pertinent	
A-NPCS-SF 26	0.89	Pertinent	
A-NPCS-SF 27	0.89	Pertinent	
A-NPCS-SF 28	0.94	Pertinent	
A-NPCS-SF 29	0.73	Pertinent	
A-NPCS-SF 30	0.84	Pertinent	
A-NPCS-SF 31	0.89	Pertinent	
A-NPCS-SF 32	0.89	Pertinent	
A-NPCS-SF 33	0.89	Pertinent	
A-NPCS-SF 34	0.89	Pertinent	
A-NPCS-SF 35	0.89	Pertinent	

and 54 (15.8%) were midwives. The sample was 82.7% female (n = 283) with a median age of 38.00 years (min 20 ± max 61; SD = 10.477). The participants' sociodemographic characteristics were summarised using descriptive statistics and are described in Table 2.

Using EFA, the model explained 66.26% of the total variance, and factors 1, 2, 3, 4, 5 and 6 explained 46.06%, 5.65%, 4.18%, 4.02%, 3.44% and 2.88% of the variance, respectively, after varimax rotation. The factor loadings are described in Table 3.

The pattern matrix produced a six-dimensional model. Elements 2, 3, 4, 1, 5, 6, 10, and 11 were inserted into Factor 1 and labelled 'Nursing Care', while elements 23, 28, 25, 22, 26, 27, 24, and 21 were included in Factor 2 and labelled 'Value Based'. Elements 34, 35, 33, 31, 32, and 29 were incorporated into Factor 3 and labelled 'Medical Technical Care', while elements 17, 18, 19, 7, 20, 8, and 9 were incorporated into Factor 4 and labelled 'Care Pedagogics'. Elements 15, 16, 14, and 30 were incorporated into Factor 5 and labelled 'Documentation Administration', and finally, elements 13 and 12 were included in Factor 6 and labelled 'Leadership'.

The average scores obtained for the sociodemographic characteristics of the analysed sample did not show significant differences in either the Work Role or Gender elements. However, a higher average score was noted for the element Work Unit across almost all the factors. The age groups showed significance only in Factor 6 Leadership, as shown in Table 4.

Reliability of the A-NPCS-SF

The overall scale produced a Cronbach's α of 0.964. Furthermore, the A-NPCS-SF showed adequate internal consistency for each domain: Nursing Care α = 0.907, Value-Based α = 0.909, Medical Technical Care α = 0.909, Care Pedagogics α = 0.900, Documentation Administration α = 0.898 and Leadership α = 0.915. All the values were above 0.70, indicating the instrument's medium robustness. Include Table 5.

Confirmatory factor analysis (CFA)

The CFA showed that the six-factor structure of the A-NPCS-SF had an acceptable model fit of

Table 2. Demographics statistics (n = 342).

Work Role		
	N	**%**
Head Nurses	79	23.1
Midwives	54	15.8
Registered Nurses	209	61.1
Gender		
F	283	82.7
M	59	17.3
Work Unit		
Critical Area	43	12.6
Medical Area	53	15.5
Health Center	126	36.8
Surgical Area	26	7.6
Obstetrics and Gynecology	54	15.8
Pediatric	40	11.7
Educational institutions		
Private University	59	17.3
Public University	283	82.7
Age classes		
20 – 35	158	46.2
36 – 51	127	37.1
52 – 67	57	16.7
Years Profession		
0 – 10	156	45.6
11 – 21	98	28.7
22 – 32	53	15.5
33 – 43	35	10.2
Years Ward Unit		
0 – 10	231	67.5
11 – 21	73	21.3
22 – 32	28	8.2
33 – 43	10	2.9

χ^2 = 1797.254, with 545 degrees of freedom (df), a χ^2/df ratio of 3.298, and $p < 0.001$. The CFI was .846, and the Tucker–Lewis index (TLI) was .831. The RMSEA value of .082 showed an acceptable fit for the six-factor model. For RMSEA, measures less than .08 indicate an acceptable fit. For χ^2/df, the acceptability criteria varied from less than two to less than five and were satisfactory. The CFI and TLI values were higher than .90 and demonstrated an acceptable fit. The factor loads

Table 3. Exploratory Factor Analysis of the A-NPCS-SF.

	New Item Scale A-NPCS-SF	Old Item Scale NPCS-SF	F1	F2	F3	F4	F5	F6	Communalities
Factor 1 Nursing Care	ANPCS1	NPCS 2	**0.739**	0.152	0.252	0.239	0.132	0.222	0.711
	ANPCS2	NPCS 3	**0.737**	0.194	0.203	0.250	0.132	0.138	0.756
	ANPCS3	NPCS 4	**0.729**	0.185	0.226	0.216	0.221	0.069	0.720
	ANPCS4	NPCS 1	**0.678**	0.137	0.258	0.122	0.152	0.359	0.717
	ANPCS5	NPCS 5	**0.644**	0.264	0.194	0.305	0.095	-0.015	0.624
	ANPCS6	NPCS 6	**0.522**	0.293	0.035	0.517	0.077	0.048	0.636
	ANPCS7	NPCS 10	**0.517**	0.430	0.005	0.208	0.258	0.223	0.587
	ANPCS8	NPCS 11	**0.449**	0.226	0.284	0.063	0.294	0.325	0.544
Factor 2 Value-Based	ANPCS9	NPCS 23	0.246	**0.692**	0.184	0.132	0.017	0.251	0.539
	ANPCS10	NPCS 28	0.271	**0.641**	0.222	0.064	0.247	-0.017	0.612
	ANPCS11	NPCS 25	0.155	**0.602**	0.313	0.291	0.133	0.285	0.529
	ANPCS12	NPCS 22	0.207	**0.576**	0.353	0.248	0.056	0.146	0.753
	ANPCS13	NPCS 26	0.077	**0.564**	0.274	0.436	0.282	0.038	0.792
	ANPCS14	NPCS 27	0.196	**0.551**	0.326	0.147	0.377	0.110	0.715
	ANPCS15	NPCS 24	0.155	**0.521**	0.236	0.374	0.139	0.291	0.714
	ANPCS16	NPCS 21	0.362	**0.481**	0.358	0.243	0.166	0.120	0.771
Factor 3 Medical Technical Care	ANPCS17	NPCS 34	0.030	0.162	**0.809**	0.237	0.033	0.161	0.667
	ANPCS18	NPCS 35	0.246	0.217	**0.737**	0.052	-0.002	0.174	0.757
	ANPCS19	NPCS 33	0.171	0.202	**0.700**	0.270	0.196	0.067	0.712
	ANPCS20	NPCS 31	0.347	0.270	**0.592**	0.080	0.346	-0.072	0.617
	ANPCS21	NPCS 32	0.300	0.367	**0.581**	0.105	0.353	-0.037	0.592
	ANPCS22	NPCS 29	0.259	0.439	**0.451**	0.273	0.154	0.099	0.585
Factor 4 Care Pedagogics	ANPCS23	NPCS 17	0.187	0.071	0.206	**0.701**	0.288	0.101	0.653
	ANPCS24	NPCS 18	0.199	0.116	0.413	**0.687**	0.156	0.190	0.595
	ANPCS25	NPCS 19	0.140	0.177	0.408	**0.670**	0.069	0.202	0.668
	ANPCS26	NPCS 7	0.372	0.268	0.081	**0.566**	0.218	0.052	0.670
	ANPCS27	NPCS 20	0.265	0.254	0.319	**0.528**	0.299	0.113	0.624
	ANPCS28	NPCS 8	0.345	0.367	-0.046	**0.515**	-0.006	0.149	0.599
	ANPCS29	NPCS 9	0.340	0.356	-0.004	**0.502**	0.205	0.055	0.571
Factor 5 Documentation Administration	ANPCS30	NPCS 15	0.241	0.230	0.201	0.291	**0.675**	0.152	0.662
	ANPCS31	NPCS 16	0.202	0.114	0.190	0.428	**0.627**	0.324	0.675
	ANPCS32	NPCS 14	0.272	0.238	0.070	0.276	**0.590**	0.394	0.699
	ANPCS33	NPCS 30	0.259	0.373	0.461	0.169	**0.464**	0.022	0.676
Factor 6 Leadership	ANPCS34	NPCS 13	0.177	0.127	0.076	0.236	0.102	**0.820**	0.765
	ANPCS35	NPCS 12	0.173	0.209	0.136	0.071	0.182	**0.789**	0.684

of each element with the respective domains were all adequate, with the goodness-of-fit index at 0.85, as reported in Figure 2.

The results of our study were judged to be reasonable, and a balanced six-dimensional scale was adopted since the results of the goodness-of-fit test of

Table 4. Difference between the averages in the factors of the A-NPCS-SF.

		Nursing Care	Value Based	Medical and Technical Care	Care Pedagogics	Documentation Administration	Leadership
WORK ROLE							
Coordinator	Mean	84.94	85.03	85.65	84.22	84.57	84.90
	N	79	79	79	79	79	79
	SD	8.753	10.000	9.364	11.470	9.535	11.387
Midwife	Mean	84.02	85.48	85.52	85.42	85.02	83.34
	N	54	54	54	54	54	54
	SD	8.717	8.482	8.791	9.523	8.325	11.080
Nurse	Mean	83.42	84.18	82.95	84.12	83.70	82.01
	N	209	209	209	209	209	209
	SD	11.283	11.062	11.794	11.618	11.291	12.821
p		0.536	0.652	0.090	0.748	0.647	0.196
AGE CLASSES							
20 – 35	Mean	83.76	84.84	83.27	84.33	83.95	82.00
	N	158	158	158	158	158	158
	SD	10.852	10.271	11.964	11.606	11.387	13.709
36 – 51	Mean	84.32	85.39	85.59	85.17	85.11	85.42
	N	127	127	127	127	127	127
	SD	9.764	9.884	8.982	10.454	9.295	9.695
52 – 67	Mean	83.14	82.08	82.36	82.55	82.31	79.68
	N	57	57	57	57	57	57
	SD	10.401	11.833	11.370	11.972	10.192	12.267
p		0.764	0.128	0.095	0.346	0.239	**0.006**
WORK UNIT							
Critical Area	Mean	86.55	86.35	85.36	87.90	87.60	87.74
	N	43	43	43	43	43	43
	SD	11.548	10.977	13.992	10.903	10.582	11.986
Medical Area	Mean	84.82	86.13	85.86	84.50	85.58	85.39
	N	53	53	53	53	53	53
	SD	12.676	11.311	10.801	13.039	11.862	10.871
Health Center	Mean	81.23	81.52	81.68	82.18	81.04	79.71
	N	126	126	126	126	126	126
	SD	9.605	10.742	10.865	10.944	10.049	11.218
Surgical Area	Mean	87.45	87.68	83.19	87.67	87.33	87.51
	N	26	26	26	26	26	26
	SD	10.978	10.054	10.023	11.292	13.270	16.493
Obstetrics and Gynecology	Mean	84.23	84.53	85.47	85.06	83.76	82.40
	N	54	54	54	54	54	54
	SD	8.979	8.842	9.214	10.85397	9.187	12.915

		Nursing Care	Value Based	Medical and Technical Care	Care Pedagogics	Documentation Administration	Leadership
Pediatric	Mean	85.21	88.34	85.80	84.05	86.43	82.01
	N	40	40	40	40	40	40
	SD	7.507	7.323	9.023	9.511	6.292	10.783
p		**0.008**	**0.001**	**0.069**	**0.042**	**0.001**	**0.001**
GENDER							
F	Mean	83.58	84.25	84.26	84.15	83.95	82.57
	N	283	283	283	283	283	283
	SD	10.200	10.363	10.310	11.250	10.242	12.695
M	Mean	85.27	86.16	82.65	85.31	84.86	84.41
	N	59	59	59	59	59	59
	SD	11.092	10.749	13.350	11.339	11.563	9.902
p		0.255	0.202	0.301	0.469	0.547	0.296
Total	Mean	83.87	84.58	83.98	84.35	84.11	82.89
	N	342	342	342	342	342	342
	SD	10.363	10.439	10.890	11.258	10.469	12.265

the model did not reveal a significant divergence from the overall standards of model fit indices.

Discussion

In this paper, we have delineated the linguistic and cultural adaptation process of the A-NPCS-SF as well as its psychometric validity and reliability. The criteria adopted in our study followed the well-renowned recommendations for cultural translation in intercultural research (32, 40). It is relevant for the nursing and midwifery discipline to understand how professional competencies can influence clinical practice, professional behaviours and identity, and above all, culture (4, 41).

Understanding all of the above lies in the fact that in 2001 the World Health Organization (WHO) and the ICN (International Council of Nursing) defined that to improve educational programs for nurses and midwives, it was necessary to maintain a high level of competence among these health professionals (42, 43). The WHO 2001 strategy was strengthened in 2009 to set global standards for nurse education and emphasized the importance of evidence- and competency-based nursing and midwifery curriculums (44).

These aspects determine that the A-NPCS-SF has been carefully evaluated before collecting the cross-sectional data necessary to evaluate its psychometrics.

The A-NPCS-SF presented evidence of validity and reliability in measuring professional skills across all six dimensions. In fact, in agreement with the six-factor factoriality of the original NPCS-SF instrument (25), the CFA models showed that a six-factor structure (Nursing Care, Value-Based, Medical/Technical Care, Care Pedagogics, Documentation/Administration, Leadership) was appropriate to explain the data. Furthermore, the dimensional aspects of each factor of the A-NPCS-SF were supported by high internal consistency. In this study, the Nursing Care factor was the latent factor with the highest percentage of variance explained, followed by the factors Value-Based, Medical/Technical Care, Care Pedagogics, Documentation/Administration, and Leadership.

For this reason, the A-NPCS-SF can be considered a useful instrument for assessing professional skills in Albanian clinical settings. Since professional competencies can directly influence the behaviour of healthcare professionals in clinical practice (45, 46),

Table 5. Reliability of the A-NPCS-SF.

		Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha Factor	Total Cronbach's Alpha
Nursing Care	ANPCS 1	0.667	0.963	0.907	**0.964**
	ANPCS 2	0.709	0.962		
	ANPCS 3	0.687	0.962		
	ANPCS 4	0.686	0.962		
	ANPCS 5	0.645	0.963		
	ANPCS 6	0.637	0.963		
	ANPCS 7	0.645	0.963		
	ANPCS 8	0.551	0.963		
Value-Based	ANPCS 9	0.604	0.963	0.909	
	ANPCS 10	0.656	0.963		
	ANPCS 11	0.626	0.963		
	ANPCS 12	0.513	0.964		
	ANPCS 13	0.507	0.964		
	ANPCS 14	0.665	0.963		
	ANPCS 15	0.672	0.962		
	ANPCS 16	0.688	0.962		
Medical and Technical Care	ANPCS 17	0.614	0.963	0.909	
	ANPCS 18	0.712	0.962		
	ANPCS 19	0.676	0.962		
	ANPCS 20	0.719	0.962		
	ANPCS 21	0.720	0.962		
	ANPCS 22	0.662	0.963		
Care Pedagogics	ANPCS 23	0.625	0.963	0.900	
	ANPCS 24	0.683	0.962		
	ANPCS 25	0.715	0.962		
	ANPCS 26	0.690	0.962		
	ANPCS 27	0.685	0.962		
	ANPCS 28	0.603	0.963		
	ANPCS 29	0.700	0.962		
Documentation and Administration	ANPCS 30	0.704	0.962	0.898	
	ANPCS 31	0.650	0.963		
	ANPCS 32	0.694	0.962		
	ANPCS 33	0.658	0.963		
Leadership	ANPCS 34	0.575	0.963	0.915	
	ANPCS 35	0.582	0.963		

the A-NPCS-SF constitutes a critical clinical scale to measure competencies and ameliorate Albania's educational contexts while enabling further research nationwide.

Additionally, the A-NPCS-SF could help improve the understanding that professional skills in current clinical practice can sustain different healthcare roles. This could encourage healthcare professionals to

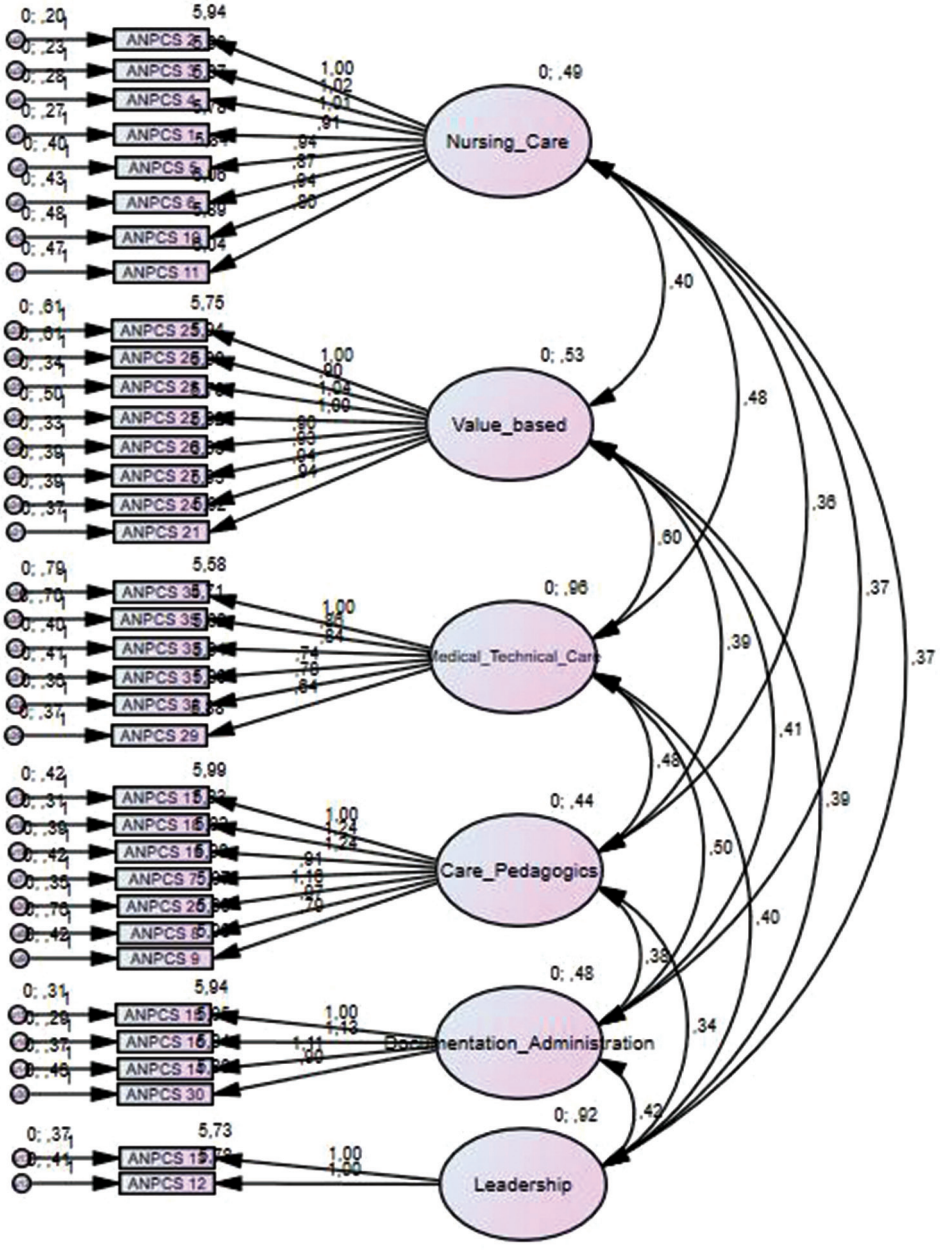

Figure 2. Structure of the Albanian version of the NPCS-SF based on Confirmatory Factor Analysis.

work together towards a greater everyday awareness of their skills within the healthcare system. For the nursing discipline, it is of the utmost value to research the existing relationship between professional skills and professional behaviours so that there can be adherence to national and international standards of practice (47).

Although this investigation focused on the cultural, linguistic, and psychometric validation of the A-NPCS-SF rather than descriptions of various professional competencies, we observed that all the factors of the A-NPCS-SF were higher among the head nurses. This highlights the vital role that experience plays in the development of nursing skills (48). Our findings highlight how university education can strongly mould the competencies of future healthcare professionals. Finally, Factor 6 (Leadership), for which the lowest value was obtained, revealed the inability of healthcare professionals to demonstrate leadership

within clinical contexts. It would be interesting to interrogate this aspect deeper in future research.

Conclusion

The A-NPCS-SF could be helpful in future research to study the relationships between professional skills, clinical reasoning, decision-making, and critical thinking. Future researchers should seek to identify other specific patterns in occupational skills and their determinants to improve interventions on nursing competencies, especially in education.

Our study had several limitations. First, we used convenience sampling to select the sample, and the data was collected using a cross-cutting approach. All this may have affected the results and their generalisability. Furthermore, we have yet to provide any information regarding stability as we only assessed the internal consistency of the factors through reliability; the performance of the A-NPCS-SF scale should therefore be evaluated over time.

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Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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