






Psychometric testing of the facilitative student–patient relationship scale within six EUROPEAN countries

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Funding information

The Academy of Finland, Grant/Award Number: Decision 28.4.2017; no. 310145 for the period 9/20

Abstract

Aim: The aim of the study was to test the psychometric properties of the Facilitative Student–Patient Relationship (FSPR) Scale in clinical practicum in hospital settings within six European countries.

Design: A multi-country, cross-sectional survey design was applied.

Methods: A convenience sample of graduating nursing students ($N = 1,796$) completed the FSPR Scale. Psychometric testing was carried out through explorative factor analysis and confirmatory factor analysis. Internal consistency was assessed using Cronbach's alpha.

Results: Both validity and reliability of the scale were confirmed. The explorative factor analysis yielded a two-factor construct explaining 47.7% of the total variance, identifying two sub-scales: caring relationship and learning relationship. Confirmatory factor analysis confirmed the two-factor structure. The Cronbach alpha coefficients (0.8–0.9) indicated acceptable reliability of the scale.

KEYWORDS

clinical, education, nursing, psychometric, student–patient relationship, students, surveys

1 | INTRODUCTION

The interpersonal relationship between nurses and patients has been emphasized internationally in all areas of health care, including the education of future nurses (Biddle et al., 2021; European Patients Forum, 2020; McCarron et al., 2019; Rowland et al., 2019). Moreover, the standards of patient involvement in healthcare services, with minimum requirements for person-centred care (EN 17398: 2020),

challenge both professionals and educators to develop practices fostering current and future nurses to engage in partnerships with individual patients and supporting them in shared decision-making and self-care management. In clinical practicum, transformative learning and relationship-based, collaborative practices are approaches that empower nursing students to work in partnership with patients, with an aim to understand diverse determinants that affect patient health outcomes, promote patients' well-being and reduce health

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inequality (Marcellus et al., 2021; Upvall & Luzincourt, 2019). This has meant shifting the focus from the supervisor–student relationship towards a collaborative student–patient relationship that facilitates student learning and enhances the quality of patient care (Marcellus et al., 2021; Rowland et al., 2019; Suikkala et al., 2018). However, while providing care, nursing students tend to collaborate with patients in a task or professionally oriented manner; thus, patients' potential role in students' clinical learning and assessment is still scarce (Mersin et al., 2019; Suikkala et al., 2018; Suikkala, Koskinen, et al., 2021; Suikkala, Leino-Kilpi, & Katajisto, 2020). Building beneficial conditions for an empathic and supportive relationship and the still unrecognized patient participation in shaping nursing students' clinical learning is important in terms of nurses', nursing students' and patients' satisfaction (Delli Poggi et al., 2021; Håkansson Eklund et al., 2019; Johansson & Mårtensson, 2019). Therefore, an instrument examining nursing students' perceptions of their relationship with patients could provide a more comprehensive understanding of patients' participation in the clinical education of nursing students. For this purpose, the Facilitative Student–Patient Relationship (FSPR) Scale was psychometrically tested.

2 | BACKGROUND

The nurse–patient relationship is considered as the core element for delivering high-quality and effective nursing care, and thus, person orientation, with an aim to promote the autonomy of patients in decision-making, should be emphasized across the continuum of undergraduate nursing education (Molina-Mula & Gallo-Estrada, 2020; Uhrenfeldt et al., 2018). This relationship is defined as a helping relationship based on therapeutic intimacy, open and confidential communication, equality, empathy, reciprocal trust and dignity. Genuine presence and sensitiveness when helping patients to satisfy their unique physical, psychosocial and existential needs are an important part of the nurse–patient relationship, as is providing care in partnership with the patient (Allande-Cussó, Fernández-García, & Porcel-Gálvez, 2022; Feo et al., 2017). The nursing student–patient relationship includes features in common with the nurse–patient relationship. Students, however, relate to patients under supervision of a qualified nurse who supports the student to take care of the patient as well as to achieve learning outcomes. (Directive, 2013/55/EU; Suikkala et al., 2018.)

Patients have always been involved in nursing students' education (Johansson & Mårtensson, 2019; Rowland et al., 2019; Suikkala et al., 2018). This participation can be developed in all learning settings including the classroom, simulation and clinical placement, and in all of them, the importance and valuable role of patients has been outstanding. Patients' participation in students' learning helps students to understand perceptions from the service users' point of view and to develop transversal competences such as communication, empathy and intercultural understanding. (Ferri et al., 2019; McMahon-Parkes et al., 2016; Scammell et al., 2016).

A limited amount of research has demonstrated the key importance of the nursing student–patient relationship, highlighting the beneficial consequences for facilitating caring processes, thus necessitating circumstances that allow knowing the patient as a priority (Delli Poggi et al., 2021; Li et al., 2016; Mersin et al., 2019; Suikkala et al., 2018). Moreover, patients have been found to benefit from their relationship with students in terms of decreased sense of solitude, increased awareness of the care and confidence to manage their self-care, as well as improved health outcomes and satisfaction with the quality of care (Delli Poggi et al., 2021; Suikkala et al., 2018).

In European countries, at least half of the nursing programme studies regulated by European Union directives take place in clinical placements where students learn nursing care in direct relationships with healthcare clients and patients (Directive, 2005/36/EC; Directive, 2013/55/EU). Seen as imperative to person-centred care, relationship and dialogue with patients promote nursing students' personal and professional competence and confidence to provide evidence-based nursing care to diverse patients tailored to their individual needs, values and preferences (Delli Poggi et al., 2021; Håkansson Eklund et al., 2019; Johansson & Mårtensson, 2019; Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020). The student–patient relationship has personal, emotional and professional benefits for students when care and learning become entwined in clinical education through collaboration between students and patients (Delli Poggi et al., 2021; Rowland et al., 2019). Clinical education that involves patients as partners increases students' independence and responsibility for learning (Marcellus et al., 2021) and the attractiveness of the nursing career among nursing students (Delli Poggi et al., 2021; Johansson & Mårtensson, 2019; Suikkala & Leino-Kilpi, 2005; Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020) and improves nurse transition and retention (Marcellus et al., 2021). Therefore, it is crucial to evaluate nursing students' perceptions of their relationship with patients in order to encourage students to adopt a person-centred approach to patient care (de Groot et al., 2020; Delli Poggi et al., 2021).

Nursing students' interaction with patients as well as caring- and relationship-related behaviour and attitudes have been studied using validated instruments such as the Caring Assessment Questionnaire (Care-Q; Gözütok Konuk & Tanyer, 2019), the Caring Behaviours Inventory (CBI; Fenizia et al., 2019; Fenizia et al., 2020), the Caring Ability Inventory, (CAI; Cheng et al., 2017), the Caring Efficacy Scale (CES; Coates, 1997), the Self-Assessment of the Interpersonal Relationship Scale (SAIRS; Dearing & Steadman, 2011) and the Caring Nurse–Patient Interactions Scale (CNPI; Cossette et al., 2005; Cossette et al., 2006; Cossette et al., 2008; Eren & Sonay Turkmen, 2020), and the Nursing Interactions in Caring Competence Assessment Scale based on the CNPI Scale (NIC_CA; Allande-Cussó et al., 2021). These self-assessment instruments provide information of students' relational competence and confidence while interacting with patients. None of these instruments, however, evaluate the nursing student–patient relationship, which includes

two pivotal aspects, caring and learning; thus, it differs intrinsically from the nurse–patient relationship (Suikkala et al., 2018; Suikkala & Leino-Kilpi, 2005).

The original Nursing Student–Patient Relationship Scale (SPR) Scale was developed for examining the relationship between nursing students and patients in clinical education in hospital settings. Within the SPR Scale, the nursing student–patient relationship addresses three types of relationships between nursing students and patients: mechanistic (9 items), authoritative (11 items) and facilitative (13 items) relationships. Of these, the facilitative relationship includes characteristics of caring and learning in student–patient relationship and thus, enhances students' taking responsibility for both patient care, which benefits patients, and for their own learning (Suikkala, Koskinen, et al., 2021; Suikkala, Leino-Kilpi, & Katajisto, 2020; Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020).

The abridged version of the 13-item SPR scale entitled Facilitative Student–Patient Relationship scale (FSPR) provides information about the patient-centred care approach in a relationship where students work together with patients in mutual understanding, thus fostering their professional interpersonal caring attributes, and where patients are engaged as active participants in their own care. (Koskinen et al., 2022; Suikkala, 2007). In this relationship, students encounter individual patients on a personal level and in dialogical interaction with an aim of identifying individual health and well-being needs together with each patient. By taking into account patients' individual wishes, preferences, emotions and concerns, students encourage and advocate patients and support them to manage their health and well-being accordingly. In this relationship, learning, in turn, reflects the patient's active role in the student's clinical learning and assessment where the patient shares experiences, knowledge and advice with the student, providing opportunities for mutual learning between students and patients. (Suikkala & Leino-Kilpi, 2005).

In a facilitative relationship, patients, for their part, are seen as equal partners who have expertise of their own situation and present views and information to students on matters concerning their illness and how they want to be cared for. By providing feedback on students' actions patients tell students what they think of the students and what they consider as the paramount professional qualities of future nurses. (Delli Poggi et al., 2021; Suikkala & Leino-Kilpi, 2005, Suikkala et al., 2018; Suikkala, Timonen, et al., 2021.)

Patients' active participation in their own health care is a cornerstone in person-centred health care and should be adopted during education (Rosengren et al., 2021). Whereas mechanistic and authoritative student–patient relationships emphasize more traditional nursing care, facilitative relationships focus on partnership with the patients, thus fostering preconditions for learning and provision of person-centred care. (Suikkala & Leino-Kilpi, 2005, Suikkala et al., 2018.) Therefore, the aim of this study was to test the psychometric properties of the thirteen-item FSPR scale in clinical placements in hospital settings in Finland, Germany, Iceland, Ireland, Lithuania and Spain.

3 | METHODS

3.1 | Design

The study applied a multi-country cross-sectional survey design, and the data for this study came from the European research project Professional Competence in Nursing (ProCompNurse) funded by the Academy of Finland (Decision 28.4.2017; no. 310145 for the period 9/2017–12/2021). The thirteen-item FSPR scale was tested using explorative (EFA) and confirmatory factor analysis (CFA). The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist was used as a reporting guideline for the study (Appendix S1).

3.2 | Participants

A convenience sample of graduating nursing students ($N = 3,675$) from a total of 45 educational institutions in six European countries was invited to participate in the study. The choice of educational institutions providing general nursing degree programmes reflected the European educational institutions in terms of education providers (universities, universities of applied sciences, colleges, nursing schools of hospitals) and geographical coverage (northern, central, western and southern Europe). The sample size determined for the entire research project and based on the Nurse Competence Scale (NCS, Meretoja et al., 2004) indicated that the minimum requirement from each country was 156 participants (Koskinen et al., 2022).

At national level, each educational institution had a contact person who cooperated with national members of the research team and organized student recruitment and data collection. A total of 1,796 (response rate 49%) students completed the self-administered web- or paper-based questionnaire.

3.3 | Instrument

The original Nursing Student–Patient Relationship Scale (SPR) Scale was based on a literature review (Suikkala & Leino-Kilpi, 2001) and a qualitative study of nursing students' and patients' experiences of the nursing student–patient relationship (Suikkala & Leino-Kilpi, 2005) and was analysed by an expert panel of eight nurse educators. The SPR Scale has been tested with nursing students ($n = 290$) during students' clinical placement in internal medicine wards and validated in terms of construct validity and internal consistency (Suikkala, 2007). More recently, the SPR Scale has been used among nursing students in diverse clinical placements in Finland (Suikkala, Leino-Kilpi, & Katajisto, 2020; Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020).

In this validation study, the FSPR scale with 13 items measuring facilitative relationship and a five-point Likert scale (1 = fully disagree; 2 = disagree to some extent; 3 = neither agree nor disagree; 4 = agree to some extent; and 5 = fully agree) was tested. The FSPR Scale illustrates the most favourable nursing student–patient

relationship benefiting both parties, that is patient care and student learning. In previous studies, the internal consistency for the total scale was 0.8 (Suikkala, 2007; Suikkala, Leino-Kilpi, & Katajisto, 2020; Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020), indicating good reliability (Tavakol & Dennick, 2011).

The Finnish version of the FSPR scale was first translated into English by using double-blind translation (Sousa & Rojjanasrirat, 2011). The English version was then translated into German, Spanish, Icelandic and Lithuanian and back-translated into English. National research teams collaborated with qualified bilingual translators to achieve culturally applicable and equivalent language versions. In each country, a pilot survey ($n = 15\text{--}50$, depending on the country) was performed to test the clarity and comprehensibility of the items and the response time. Following the process, no revisions to the items were required. Instead, students commented that the questionnaire was good because it made them reflect on their performance. The pilot data were not included in the final data set.

3.4 | Data analysis

Data were analysed statistically using the SPSS 26.0 version and MPlus version 7.1. Descriptive statistics were performed to describe the sample. A minimum sample size for the psychometric testing was estimated by requiring at least five participants per item in order to test the construct validity of the FSPR Scale (DeVon et al., 2007). All 13 variables were left-skewed and not normally distributed. Shapiro–Wilk test p -values were below .001 for each variable. For reliability testing, Cronbach's alpha values were calculated to measure the internal consistency of the scale, with acceptable level of reliability set at ≥ 0.70 (Tavakol & Dennick, 2011).

For validity analysis, EFA was performed for the sample of 1,796 respondents to find out if there were possible multidimensional alternatives instead of a uniform dimension. Kaiser-Meyer-Olkin Measure of Sampling Adequacy above 0.6 and significant Bartlett's Test of Sphericity ($p < .05$) were used to evaluate whether the correlation matrix was appropriate for factor analysis (Williams et al., 2010).

CFA was used to confirm the construct of facilitative relationship derived from the results of EFA. The fit of the model was determined by testing the hypothesized model using structural equation modelling (SEM) and constructed with maximum likelihood estimations. After that, models with error covariances among certain items were modified. The following criteria were used to determine the goodness-of-fit of the model: non-significant chi-square statistics (χ^2 , p , degree of freedom) with criterion level higher than 0.05, comparative fit index (CFI) value 0.95 or higher, Tucker–Lewis index (TLI) close to 1.0, root mean square error of approximation (RMSEA) 0.05 or less. Moreover, the criterion for standardized root mean square residual (SRMR) as the most sensitive to mis-specified factor covariances was set at 0.08 or lower (Hu & Bentler, 1999.)

3.5 | Ethical considerations

The researchers followed good scientific practice and procedure throughout the study (All European Academies, 2017; Regulation EU 2016/679). The Ethics Committee of the University of Turku approved the study (Statement 62/2017, 11.12.2017). In each country, ethical approval was granted nationally by the relevant authorities and organizations.

Permission to translate and use the FSPR scale was received from the copyright holder. Voluntary written informed consent was assured, and the participants had the opportunity to withdraw from the study at any time. Data confidentiality was assured throughout the study process.

4 | RESULTS

4.1 | Descriptive statistics on the data

About a quarter of the participants were from Finland (27%, $N = 514$), 22.0% from Ireland ($N = 399$), 17.0% from Germany ($N = 304$), 15.0% from Lithuania ($N = 272$), 14.0% from Spain ($N = 243$) and 4.0% from Iceland ($N = 64$). The mean age of the students was 25.5 years ($SD = 6.7$) with the highest mean age of 28.5 ($SD = 7.69$) years among Finnish students and the lowest mean age of 23.4 ($SD = 4.4$) years among German students. Most were female (80.0%) with no previous degree in social and health care (80.4%). More than half of the students (60.7%) had worked in health care in an employment relationship; most often in Finland (82.7%) and least often in Spain (26.4%). Approximately two-thirds of the students had a plan for a nursing career (63.2%); most often among German students (77.5%) and least often among Lithuanian students (40.5%). About a quarter (25.7%) had planned to change to another education outside the health sector often or very often; most often in Germany (56.9%) and least often in Spain 5.6%.

In total, the facilitative student–patient relationship was assessed at good level (Mean 4.1, $SD 0.6$). At the factor level, both were assessed at good level (Mean 3.8–4.3, $SD 0.7\text{--}0.7$) (Table 1). The detailed results of students' self-assessed relationship with their patients have been reported elsewhere (Koskinen et al., 2022).

4.2 | Construct validity

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was above 0.80, indicating the adequacy of sampling. Moreover, Bartlett's Test of Sphericity was $\chi^2 = 8,799.9$ ($p < .0001$), indicating the usefulness of the EFA. The EFA yielded a clear two-factor construct explaining 47.7% of the total variance. The first factor with variance explained 41.2% and factor loadings ranging from 0.316 to 0.937 on the first eight items seemed to indicate caring relationship. The second factor with a 6.5% variance explained and factor loadings ranging from 0.489 to 0.686 on the last five items seemed to index learning

TABLE 1 Descriptive statistics, exploratory factor analysis (EFA) pattern matrix and Cronbach's alpha coefficients of the FSPR scale (N = 1,796)

Items	N of items	Mean (SD)	Communality	Factor 1	Factor 2	Cronbach's alpha	Cronbach's alpha if item deleted
Caring relationship	8	4.3 (0.6)				0.9	
1. Common good of both student and patient			0.370	0.538	0.009		0.9
2. Directed by the patient's wishes			0.327	0.316	0.309		0.9
3. Knowing the patient personally			0.426	0.637	0.024		0.9
4. Conversation on confidential matters			0.472	0.586	0.138		0.9
5. Conversation on patient's emotions			0.603	0.738	0.055		0.8
6. Listening to the patient's concerns			0.742	0.937	-0.119		0.8
7. Acting as an advocate for the patient			0.415	0.685	-0.064		0.9
8. Encouraging the patient			0.609	0.792	-0.018		0.9
Learning relationship	5	3.8 (0.7)				0.8	
9. Patient expertise of one's own situation			0.428	-0.035	0.677		0.7
10. Opinions in care-related matters expressed by the patient			0.587	0.138	0.666		0.7
11. Information in matters related to the disease provided by the patient			0.562	0.091	0.686		0.7
12. Advice given by the patient			0.321	-0.154	0.659		0.8
13. Feedback given by the patient			0.339	0.127	0.489		0.8
Eigenvalue				5.868	1.353		
% of explanation				41.2	6.5		
Cumulative % of explanation				41.2	47.71		
Cronbach alpha value for the total scale						0.9	

Note: Extraction Method: principal axis factoring; Rotation method: Promax with Kaiser normalization. The bold values show the highest factor loadings. Factor structure based on eigenvalues >1. Communality cut-off value <0.3. Cronbach's alpha coefficient >0.7. Item to total correlation $r > 0.3$. Inter-item correlation $0.3 < r < 0.7$.

relationship. All variables except one (Item 2) had a loading value above the criterion 0.4. (Table 1.)

CFA was performed to validate the SPR scale in the total sample and was based on the EFA performed. The goodness-of-fit indices for the hypothesized model are presented in Figure 1. SRMR for the hypothesized model confirmed the goodness-of-fit of the model (Table 2). The goodness-of-fit indices for the modified model are presented in Figure 2. For the modified model, SRMR and CFI confirmed the goodness-of-fit of the model (Table 3).

4.3 | Internal consistency reliability

The internal consistency for the overall scale was 0.9, being 0.9 for caring relationship (Factor 1) and 0.8 for learning relationship (Factor 2) (Table 1). Cronbach's alpha values were above the threshold for acceptable internal consistency ($\alpha > .70$). In item analysis, the item-to-total correlations, all above 0.30, showed that the items were tied to the construct. Moreover, the corrected item-total correlations ranging from 0.309 to 0.688 were appropriate. (Rattray & Jones, 2007.)

5 | DISCUSSION

The psychometric testing with a sample of 1,796 nursing students from six European countries indicated that the thirteen-item FSPR scale developed, tested and used in Finland (Suikkala, 2007; Suikkala, Leino-Kilpi, & Katajisto, 2020; Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020) can be used with confidence for measuring the nursing student-patient relationship in clinical placements in hospital settings within these countries in terms of acceptable construct validity (Hu & Bentler, 1999; Williams et al., 2010) and acceptable internal consistency reliability (Tavakol & Dennick, 2011). Based on EFA, the clear two-factor construct identified two subscales - caring relationship and learning relationship - instead of one uniform construct, which reflects the theoretical basis of the facilitative student-patient relationship (Suikkala et al., 2018; Suikkala & Leino-Kilpi, 2005) and was confirmed by CFA. In CFA, the chi-square test criterion p -value below .05 indicated that a model fit was not met. The chi-square statistics is, however, too powerful to reject the model as the sample size of the study was large. Moreover, RMSEA value >0.05 did not support the model fitting. The other

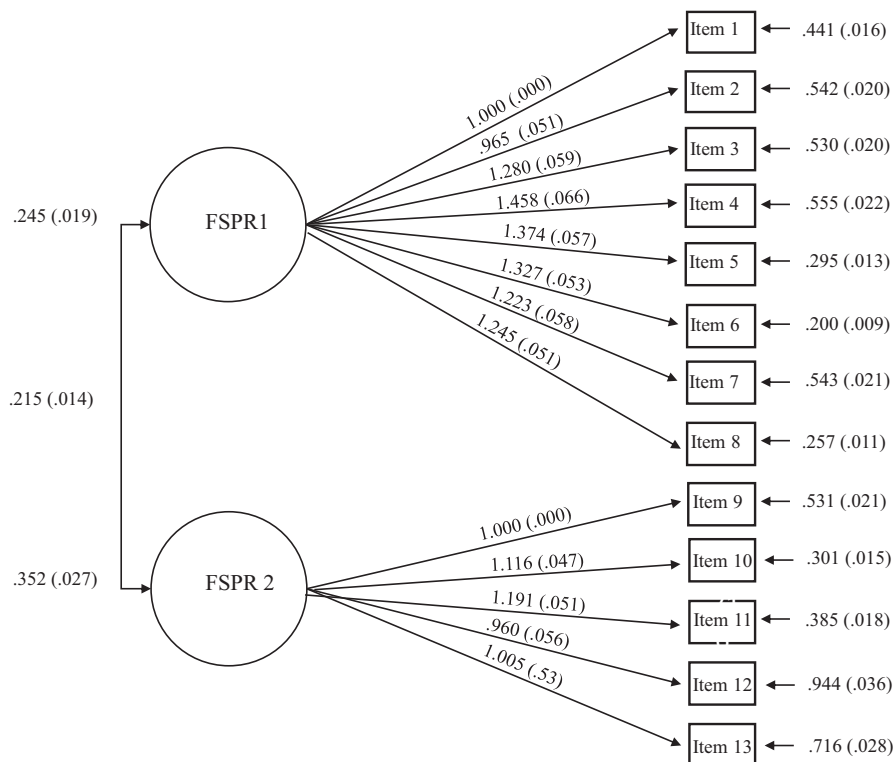


FIGURE 1 Hypothesized model. FSPR, Facilitative Student–Patient Relationship Scale

TABLE 2 Goodness-of-fit indices for the hypothesized model

Data	χ^2	<i>p</i>	Df	CFI	TLI	AIC	BIC	SRMR	RMSEA	<i>p</i> ≤ 0.05
All countries	.890	<.001	64	0.909	0.889	48,551	48,767	0.046	0.089	<.001

Abbreviations: AIC, Akaike information criterion; BIC, Bayesian information criterion; CFI, comparative fit index; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual; TLI, Tucker–Lewis index.

goodness-of-fit indices, that is both CFI and TLI close to one and SRMR at 0.08 or lower, supported the goodness of the model. (Hu & Bentler, 1999.)

Cronbach's alpha coefficients for the total FSPR Scale were consistent with those previously obtained for the Finnish version of the scale (Suikkala, Koskinen, et al., 2021; Suikkala, Leino-Kilpi, & Katajisto, 2020; Suikkala, Timonen, et al., 2021), indicating acceptable reliability of the scale (Tavakol & Dennick, 2011). Deletion of any item would not have resulted in an increase in Cronbach's alpha. The scale has acceptable Cronbach's alpha scores, the factor loadings were mostly acceptable (>0.40), and the factors had acceptable eigenvalue sizes (>1), indicating that the FSPR Scale can be used with caution to measure the nursing student–patient relationship in clinical placements in hospital settings in different cultures.

The thirteen-item FSPR scale involves an important aspect in the clinical learning environment context and can be useful in measuring student–patient relationships during clinical education with an aim to promote achievement of person-centred care competence (Suikkala et al., 2018; Suikkala, Koskinen, et al., 2021). Within the FSPR Scale, caring relationship (Factor 1) is based on person-centredness and dignity, which are needed in facilitating the health and well-being of patients by engaging them to manage their own care within different cultural contexts. The scale contains items related to equality and reciprocity in the relationship, sensitivity to patients' diverse needs

and preferences, dialogue on student–patient interaction, patient advocacy as well as patient encouragement in self-management (Suikkala & Leino-Kilpi, 2005), which are essential in any relationships with patients.

Learning relationship (Factor 2) emphasizes partnership with patients who can offer valuable perspectives to enrich and facilitate nursing students' clinical learning and assessment, which empowers both students and patients (Suikkala et al., 2018; Upvall & Luzincourt, 2019). The items of learning relationship are related to patients' personal experiences related to their own situation; more specifically, their opinions about care, information about their health status, advice on how to provide their care, as well as feedback to students (Suikkala, 2007; Suikkala & Leino-Kilpi, 2005). These provide information about patients' participation in student learning and assessment and thus highlight their significant role in clinical education.

It is notable that at the time when the FSPR scale was developed and thereafter, research on student–patient relationship involving pivotal aspects of both caring and learning has been scarce (Suikkala et al., 2018; Suikkala & Leino-Kilpi, 2001). Even the FSPR scale, the CNPI scale (Cossette et al., 2005, 2006) and the NIC_CA scale (Allande-Cussó et al., 2021), of which the NIC_CA scale is also adapted for use with Registered Nurses (Allande-Cussó, Fernández-García, Gómez-Salgado, & Porcel-Gálvez, 2022), have elements of

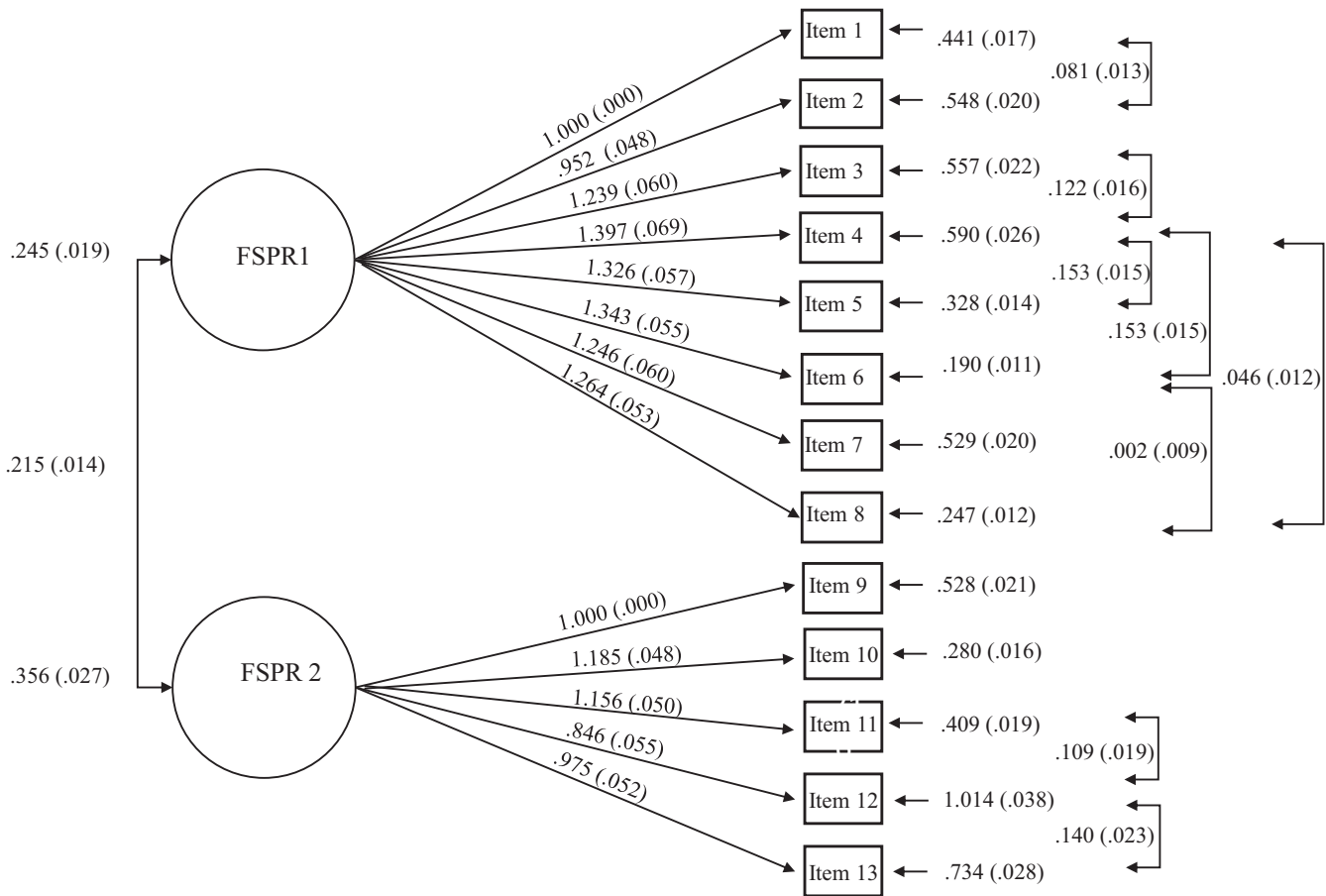


FIGURE 2 Modified model. FSPR, Facilitative Student-Patient Relationship Scale

TABLE 3 Goodness-of-fit indices for the modified model. Error covariances added

Data	χ^2	<i>p</i>	Df	CFI	TLI	AIC	BIC	SRMR	RMSEA	<i>p</i> ≤ 0.05
All countries	.444	<.001	57	0.957	0.940	48,121	48,380	0.047	0.065	<.001

Abbreviations: AIC, Akaike information criterion; BIC, Bayesian information criterion; CFI, comparative fit index; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual; TLI, Tucker–Lewis index.

therapeutic relationship; the SPR scale, unlike two other scales, emphasizes patient initiative in a relationship where the patient and student, through dialogue, co-produce knowledge that benefits both the patient and the student (Suikkala et al., 2018; Suikkala & Leino-Kilpi, 2005). Moreover, the previous literature and patient organizations emphasize that patients' voice is important in shaping the education of nurses. Therefore, it is important to strengthen patients' opportunities to participate in improving the quality of nursing care through engaging in relationships with nursing students during their clinical practicum. (Delli Poggi et al., 2021; European Patients Forum, 2020; Suikkala et al., 2018, Suikkala, Leino-Kilpi, Katajisto, & Koskinen, 2020.) Based on the results of this study, the FSPR scale, as a self-assessment tool used by nursing students, is appropriate for assessing the nursing student–patient relationship in clinical practicum in hospital settings. The FSPR scale with the identified subscales, that is caring relationship and learning relationship, plays an important role in developing clinical learning and supervision of students with the aim of advancing models of clinical education that

support students to become person-centred, empathic professionals. The FSPR scale is short and with the Likert-type answer options, it takes only little time to complete, which makes it useful for clinical and research purposes. Moreover, the FSPR scale may be used to reflect on the relationship between nursing students and patients in clinical education, support patients' role as experts of experience and guide development of the clinical learning environment. The FSPR scale has been developed to measure the nursing student–patient relationship, but with slight adaptations, the scale could be tested and used to measure the student–patient relationship of other healthcare students (Suikkala, Timonen, et al., 2021).

5.1 | Limitations

The data were collected from independent samples of graduating nursing students in hospital settings in six European countries with corresponding clinical education EU requirements (Directive, 2005/36/

EC; Directive, 2013/55/EU). As the data from individual countries is limited and the role of the patient differs between the countries enrolled (Biddle et al., 2021; Rosengren et al., 2021), further country-specific validation testing of the FSPR Scale with more representative samples and at different stages of students' education is paramount in relation to the language and cultural context and the organization of education and healthcare system in each country. The variation in the cultural context and the organization of education and health care in each country in terms of differences in models and realization of clinical education (Koskinen et al., 2022; Suikkala et al., 2018; Visiers-Jiménez et al., 2021) and patient participation in health care (Biddle et al., 2021; Dent & Majda Pahor, 2015; Molina-Mula & Gallo-Estrada, 2020; Rosengren et al., 2021) might be related to how patients' participation in their care and decision-making is advanced and how patients are understood and involved in students' clinical education as appreciated partners (McCarron et al., 2019). Moreover, variation in the focus of learning, for example working independently and assuming responsibility for one patient or a few patients, or clinical leadership at unit level in the last clinical placement before graduation, needs to be taken into consideration when interpreting the results (Scammell et al., 2020). It must also be taken into account that one limitation is that in this study, the criterion validation was not assessed in terms of predictive and concurrent validity.

5.2 | Future research

In future studies, there is a need to assess the criterion validity of the FSPR Scale. Moreover, studies using rigorous research methods and cross-cultural comparative studies are needed in order to better understand the student–patient relationship in the ever-changing clinical practicum context across European countries. Increasing numbers of patients receiving nursing care in primary health care settings in community and home-based care create a growing need for the use of these settings as clinical practice placements instead of hospital settings, which were the focus of this study. Therefore, future research should include testing of the instrument in other contexts, such as primary healthcare clinical placements.

6 | CONCLUSIONS

The FSRP Scale measures the facilitative relationship between the nursing student and the patient and thus provides important information on students' own views of the relationship which includes both caring and learning perspectives. Therefore, the FSPR Scale can be regarded as a promising self-assessment tool for nursing students to reflect on their relationship with patients. The use of the validated FSPR Scale has implications for clinical learning and assessment of nursing students, thus helping nursing students, preceptors and nurse educators to recognize patients as valued partners in clinical education and practice. In the countries involved, the validated instrument for assessing the nursing student–patient relationship

during clinical practicum supports shifting the educational focus from the student–preceptor relationship to the student–patient relationship and thus, promotes the adoption of person-centred orientation as a foundation of patient care and student learning. The use of the scale provides valuable information about the still untapped expertise of patients in contributing to students' clinical learning, and thus increases our understanding of patients' core role in students' clinical learning. It also offers a more comprehensive understanding of the quality of the clinical learning environment in clinical placements.

AUTHOR CONTRIBUTIONS

AS, SK, IB-A, PF-L, DL, HL-K, GM, HS and JK meet the following 4 authorship criteria: (i) Substantial contributions to the conception or design of the work; or the acquisition, analysis or interpretation of data for the work; and (ii) drafting the work or revising it critically for important intellectual content; and (iii) final approval of the version to be published; and (iv) agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All authors have approved the content before submission.

ACKNOWLEDGEMENTS

The authors thank all graduating nursing students who willingly gave their time to participate in this study and the contact persons in all partner organizations for their contribution to this research. The authors would also like to thank Ms Anna Vuolteenaho for editing the English language.

FUNDING INFORMATION

This study was funded by the Academy of Finland (Decision 28.4.2017; no. 310145 for the period 9/2017–12/2021). The Academy of Finland had no involvement in the conduct of the research or preparation of the article.

CONFLICT OF INTEREST

No conflict of interest has been declared by the author(s).

DATA AVAILABILITY STATEMENT

Research data are not shared.

ETHICS STATEMENT

None.

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How to cite this article: Suikkala, A., Koskinen, S., Brasaité-Abromé, I., Fuster-Linares, P., Lehwaldt, D., Leino-Kilpi, H., Meyer, G., Sveinsdóttir, H., Katajisto, J., & the ProCompNurse Consortium (2023). Psychometric testing of the facilitative student-patient relationship scale within six EUROPEAN countries. *Nursing Open*, 10, 2319–2328. <https://doi.org/10.1002/nop2.1485>