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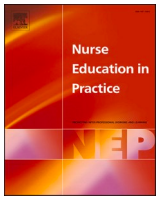

A European evaluation of the patients' role in clinical education: A six-country cross sectional study

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ABSTRACT

Aim: The aim of this study was to analyse the patients' role in clinical education in terms of facilitative student-patient relationship in Finland, Germany, Iceland, Ireland, Lithuania and Spain and factors promoting a more facilitative relationship in clinical education.
Background: Nursing students' bedside learning is reliant on patients and the establishment of a person-centred approach develops from the relationships with patients.
Design: A multi-country, cross-sectional design was implemented.
Methods: Survey data were collected from graduating nursing students and patients between May 2018 and March 2019. The survey consisted of a 13-item facilitative sub-scale of the Student-Patient Relationship Scale as the main outcome measure, which was identical for both populations. In addition, background factors were surveyed with single questions and other scales. Associations between facilitative relationship and background factors were studied with linear models.
Results: Altogether, 1796 students and 1327 patients answered the survey. Overall, both students and patients regarded their relationship as facilitative, but students' (median 4.23, 95% confidence interval 4.15–4.23) evaluations were higher than patients' (median 3.75, 95% confidence interval 3.69–3.77). The students' and

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patients' evaluations differed from each other significantly in all other countries except in Ireland and Lithuania. Corresponding associations for both populations were found in terms of the country and students' cultural confidence.
Conclusions: Results signal favourable grounds for students' bedside learning and patient participation in clinical education with the potential to foster a person-centred approach.

1. Introduction

Nurse-patient relationships are crucial in the establishment of a person-centred approach to care (Pratt et al., 2020). Therefore, patient participation in nursing education is advocated to strengthen relationships already between students and patients (Delli Poggi et al., 2021; Rowland et al., 2019; World Health Organization, 2018). Several supportive arguments exist. Firstly, patients' active involvement in service development and its evaluation are already a healthcare priority internationally (Biddle et al., 2021; Rowland et al., 2019). Secondly, patient organizations advocate patients' rights and responsibility to be involved in shaping health policy and research, health care practice and the education of health professionals (European Patients' Forum, 2020). Thirdly, from the individual patient's perspective, many regard participation in education as a health promotive, empowering experience and an opportunity to shape future professionals' competence, thus benefiting both students and patients. However, active patient participation in the education of nursing and other health professionals is still not embedded in clinical education. (Bleakley and Bligh, 2008; Rowland et al., 2019; Suikkala et al., 2018.).

1.1. Background

Patients have always been a part of nursing students' learning with the variety of ways ranging from theoretical case studies and narratives, standardized or simulated patients to authentic bedside learning (Bleakley and Bligh, 2008; Rowland et al., 2019). In students' clinical education, the bedside learning—covering also community and ambulatory settings—offers opportunities to intertwine student learning and patient care together. Thus, it aligns with the constructionist learning theories and competence-based education (Delli Poggi et al., 2021; Manninen, 2014; Rowland et al., 2019). Furthermore, engaging with patients is seen as a prerequisite for becoming a competent and compassionate professional (Andersson et al., 2020), although interpersonal processes with patients can be complex (Pratt et al., 2020). In encounters with patients, students can either create a mechanistic relationship focusing on their own learning needs, an authoritative relationship based on the students' assumptions on what's best for the patient, or a facilitative relationship focusing on the common good for both parties (Suikkala and Leino-Kilpi, 2005). Primarily, facilitative relationships highlight the person-centred approach. In these relationships, students pay attention to the patients' individual needs and support them to achieve autonomy through encouragement and advocacy. Patients, for their part, participate in the students' learning in an active manner as experts of experience by sharing knowledge and advice as well as providing feedback on the students' performance. (Delli Poggi et al., 2021; Suikkala et al., 2018.).

As for nursing students, *individual, educational* and *competence factors* are associated with the student-patient relationship. Individual factors, such as the older age of the students (Suikkala et al., 2020b) contribute to facilitative relationships, whereas younger students may need support in patient encounters (Johansson and Mårtensson, 2019; Suikkala et al., 2020b). No associations have been found between having a previous degree in health care or related work experience and facilitative relationships (Suikkala et al., 2020b). Suggestively, students' personal interest in the certain nursing field may have an influence on students' relationships with the given patients but not necessarily contribute to facilitative relationships (McKenzie and Brown, 2014; Suikkala et al., 2020b).

Regarding *educational factors*, overall, students' positive experiences with patients strengthens the students' motivation towards a career in nursing (Johansson and Mårtensson, 2019). Many features of a quality clinical learning environment support the establishment and continuation of student-patient relationships. These features include the time spent with and the nature of the patient contacts (Andersson et al., 2020; Johansson and Mårtensson, 2019; Suikkala et al., 2020b), person-centred role-models (Mersin et al., 2019), culturally conscious conditions (Ekebergh et al., 2018; Wiechula et al., 2016) as well as students' opportunities for diverse learning experiences, increased independence and sense of being a member of a care team (Loewen et al., 2017).

As far as *competence factors* are concerned, the association between limited competence and difficulties in student-patient relationships have been recognized. Interpersonal competence rather than clinical competence (Andersson et al., 2020; Suikkala et al., 2018) has been seen as a determinant for establishing a relationship with the patient (Wiechula et al., 2016). In caring for increasingly diverse patient populations, students may also feel uncertain or unable to respond to individual patient needs due to lack of knowledge, skills and experience related to clinical (Stubin, 2020), ethical (Bremer and Holmberg, 2020; McKenzie and Brown, 2014) or cultural competence (Mersin et al., 2019).

As for patients, *individual* and *hospitalization-related factors* are associated with the student-patient relationships. Facilitative relationships have been found to be more common among patients with a university-level education, long-term illness and personal experience of being a family care giver (Suikkala et al., 2009), whereas the opposite seems to be evident among older patients (Suikkala et al., 2021). For patients, a poor health status and cultural and linguistic diversity may have an impeding effect on student-patient relationship (Bremer and Holmberg, 2020; Johansson and Mårtensson, 2019; McKenzie and Brown, 2014). On the other hand, patients experiencing illness for the first time can create productive relationships with students (Rowland et al., 2019).

Regarding *hospitalization-related factors*, patients' experience with previous hospitalizations seems to be associated with a facilitative relationship (Suikkala et al., 2009), but in the case of elective patients the association is not so straightforward (Suikkala et al., 2009, 2021). In acute care settings, the focus can be on task-oriented practices thus affecting the relationships with patients due to increased attempts at efficiency and shorter lengths of stays (Pratt et al., 2020).

To summarize, the establishment of fruitful student-patient relationship is desirable as it has the potential to result in several advantages. Several factors play a role in the facilitation of the student-patient relationship in clinical education, but key factors are unclear. Generally, the development of clinical education in times of decreasing placements is needed not only from the nursing education perspective, but also from health care sector and students' point of view, as unsuccessful clinical placements also have economic consequences on all parties (Foo et al., 2017).

The aim of this study is to analyse the patients' role in clinical education in terms of facilitative student-patient relationship in six European countries and factors promoting more facilitative relationships in clinical education. The research questions were:

1. How do patients' roles manifest in terms of facilitative student-patient relationships in clinical education in six European countries?
2. What factors promote a more facilitative relationship in clinical education, if any?

2. Methods

2.1. Study design

A multi-country cross-sectional design was implemented. Survey data were collected from graduating nursing students (hereafter: students) and patients and were complemented with documentary material, such as legislation and strategic papers about the patients' role in nursing education in Finland, Germany, Iceland, Ireland, Lithuania and Spain. This independent sub-study was based on an extensive dataset created in a larger European research project entitled Professional Competence in Nursing (ProCompNurse).

2.2. Setting

In Europe, nursing education follows European Union directives. Clinical education is determined to be at least one half of the minimum duration of the whole degree programme and should happen in direct contact with clients, patients and/or the community (Directive, 2005/36/EC; Directive, 2013/55/EU). Variation exists regarding the different types and duration of clinical placements, supervision, feedback and assessment models (Visiers-Jiménez et al., 2021). Nevertheless, students' encounters with patients play a great part of studies in all countries. So far, the main focus in clinical education in terms of national regulations and recommendations has been on ensuring the patient's consent for care by a student and on working competently within the student's scope of practice as well as the student's adherence to confidentiality (Supplementary Material).

Aside from clinical education, in the studied countries generally, patient participation in nursing education varies. Overall, the value of collaboration with patients in students' learning is positively recognized but seldom explicitly acknowledged, for instance in the official documentation. In addition, patients' formal and/or long-lasting roles and/or appointments in degree programmes are lacking. However, initiatives have been taken to involve patients in delivering occasional teaching or to be involved in practical or simulation-based sessions and assessments (Supplementary Material).

2.3. Participants

Students were eligible for the study if they: (1) were studying on a nursing degree programme; and (2) if they were close to graduation. As it is the main instrument of the ProCompNurse project, the Nurse Competence Scale (NCS, Meretoja et al., 2004) was used in determining the sample size, which was at minimum 156 respondents per country (Kajander-Unkuri et al., 2021); this was a challenge for countries with a small overall population size. Overall, the achieved sample was 1796 students, with a 49% response rate (Table 1).

Patients were eligible for the study if they were: (1) $\geq$ 18 years of age; (2) able to provide informed consent; (3) able to answer the available language version of the survey; and (4) in well enough condition. Overall, the achieved sample was 1327 patients, with a 75% response rate (Table 1).

Convenience sampling was used for both populations. Data collection took place between May 2018 and March 2019 in several educational institutions (n = 45) and mainly university level hospitals (n = 34) (Table 1). Patients were recruited in the units where the students were taking their clinical placements; however, matching pairs of patients and students was not possible because students practicing in the units were not necessarily the same who had been answered the student survey.

2.4. Measurement

Structured self-report surveys were applied in both populations and the main outcome measure to study patients' role—The Student-Patient Relationship Scale (SPR scale)—was identical. The SPR scale has been developed and tested to be used simultaneously with nursing students and patients (Suikkala et al., 2021). Originally, the SPR scale concerned three types of relationships, but in this study, a 13-item subscale reflecting the facilitative relationship was used, with five-point Likert-scales (1 =fully disagree, 5 =fully agree) (Table 2); the higher the score, the more facilitative relationship. Previously, the internal consistency (α) of the facilitative subscale has been acceptable ranking from 0.80 to 0.82 for patients and from 0.79 to 0.80 for students (Suikkala et al., 2021, 2020a). In the current study, the internal consistency was higher (patients α 0.88, students α 0.89). As for the patient survey, in addition to the SPR scale, it consisted of background factors such as individual and hospitalization-related factors asked using single questions (Table 3).

As for the student survey, in addition to the SPR scale, it consisted of background factors such as individual, educational and competence factors asked using either single questions or other scales. *Individual background factors* were surveyed with single questions about age, gender, level of previous education, previous health care degree, health care work experience and its duration and perception of the value of nursing in society. *Educational background factors* were charted with single questions about nursing as the first study choice and turnover intentions regarding nursing studies as well as with Clinical Learning Environment and Supervision (CLES) scale (Saarikoski and Leino-Kilpi, 2002). The CLES is an internationally valid scale (Visiers-Jiménez et al., 2021) examining the quality of the clinical learning environment with

Table 2
Facilitative subscale of the Student-Patient Relationship Scale (©Suikkala 2007).

Item content
Focused on the common good
Directed by patient's wishes
Knowing each other personally
Conversation on confidential matters
Conversation on patient's emotions
Student listens to the patient
Student acts as an advocate for patient
Student encourages patient
Patient is expert of own situation
Patient expresses opinions about one's care to student
Patient provides information about one's disease to student
Patient gives advice to student
Patient gives feedback to student

Table 1
Realization of the data collection in each country.

	Finland		Germany		Iceland		Ireland		Lithuania		Spain	
	Students	Patients	Students	Patients	Students	Patients	Students	Patients	Students	Patients	Students	Patients
Organizations *n*	12	7	14	8	2	1	6	5	6	6	5	7
Respondents *n*	514	270	304	135	64	137	399	299	272	263	243	223
Response rate %	37	54	55	88	55	94	88	90	58	88	36	64

Table 3
Background factors of the patients.

Background factor	All n = 1327	Finland n = 270	Germany n = 135	Iceland n = 137	Ireland n = 299	Lithuania n = 263	Spain n = 223	*p*
Individual factors								
Age, years *md (Q1, Q3)*	63 (50, 72)	63 (52, 71)	61.5 (51, 71)	67 (55, 76)	65 (52, 75)	55 (39, 68)	66 (53, 73)	≤ .001
Gender *n* (%)	704	127	75 (56.0)	64 (46.7)	159	176 (67.7)	103	≤
Female	(53.7)	(47.4)	59 (44.0)	73 (53.3)	(54.3)	84 (32.3)	(47.0)	.001
Male	607	141			134		116	
	(46.3)	(52.6)			(45.7)		(53.0)	
Education level *n* (%)	403	75 (29.9)	42 (37.2)	43 (38.4)	127	13 (5.0)	103	≤
No formal education / Comprehensive education (or prior)	(32.5)	64 (25.5)	40 (35.4)	35 (31.2)	(43.0)	108 (41.2)	(49.8)	.001
Upper secondary education (general and vocational)	375	92 (36.6)	18 (15.9)	19 (17.0)	85 (28.8)	105 (40.1)	43 (20.8)	
Bachelor education or equivalent	(30.2)	20 (8.0)	13 (11.5)	15 (13.4)	74 (25.1)	36 (13.7)	50 (24.1)	
Master education or higher (doctoral education)	358				9 (3.1)		11 (5.3)	
	(28.9)							
	104 (8.4)							
Family caregiver *n* (%)	305	22 (8.2)	38 (28.4)	31 (23.7)	85 (28.9)	53 (20.2)	76 (34.6)	≤
Yes	(23.3)	246	96 (71.6)	100	209	209 (79.8)	144	.001
No	1004	(91.8)		(76.3)	(71.1)		(65.4)	
	(76.7)							
Health care professional in family *n* (%)	429	82 (31.2)	47 (35.1)	71 (51.8)	89 (30.1)	61 (25.5)	79 (35.9)	≤
Yes	(33.3)	181	87 (64.9)	66 (48.2)	207	178 (74.5)	141	.001
No	860	(68.8)			(69.9)		(64.1)	
	(66.7)							
Valuation of nursing in society *n* (%)	922	218	74 (61.2)	108	188	207 (79.3)	127	≤
Agree	(72.0)	(81.3)	47 (38.8)	(80.6)	(63.5)	54 (20.7)	(63.5)	.001
Disagree	358	50 (18.7)		26 (19.4)	108		73 (36.5)	
	(28.0)				(36.5)			
Health status *n* (%)	55 (4.2)	3 (1.1)	5 (3.8)	13 (9.7)	12 (4.1)	3 (1.1)	19 (8.7)	≤
Very poor	339	50 (18.9)	28 (21.0)	47 (35.1)	85 (28.7)	40 (15.2)	89 (40.6)	.001
Poor	(25.9)	150	66 (49.6)	49 (36.6)	99 (33.4)	134 (51.0)	66 (30.1)	
Average	564	(56.6)	32 (24.1)	22 (16.4)	81 (27.4)	78 (29.7)	38 (17.4)	
Good	(43.0)	57 (21.5)	2 (1.5)	3 (2.2)	19 (6.4)	8 (3.0)	7 (3.2)	
Very good	308	5 (1.9)						
	(23.5)							
	44 (3.4)							
Long-term illness *n* (%)	802	217	94 (72.9)	84 (65.6)	132	127 (48.7)	148	≤
Yes	(62.2)	(81.6)	35 (27.1)	44 (34.4)	(45.7)	134 (51.3)	(68.2)	.001
No	448	49 (18.4)			157		69 (31.8)	
	(37.8)				(54.3)			
Hospitalization-related factors								
Admission reason *n* (%)	561	157	75 (64.1)	38 (31.7)	54 (19.4)	138 (64.8)	99 (52.9)	≤
Elective	(49.3)	(70.4)	42 (35.9)	82 (68.3)	225	75 (35.2)	88 (47.1)	.001
Acute / unplanned	578	66 (29.6)			(80.6)			
	(50.7)							
First time in hospital *n* (%)	184	15 (5.9)	11 (8.2)	8 (6.0)	40 (13.6)	44 (17.1)	66 (30.8)	≤
Yes	(14.3)	241	124 (91.8)	126	254	213 (82.9)	148	.001
No	1106	(94.1)		(94.0)	(86.4)		(69.2)	
	(85.7)							
Hospital stay, days *md (Q1, Q3)*	5 (3, 10)	2.5 (1, 7)	9 (5, 24.5)	6 (3, 10.5)	7 (5, 14)	3 (2, 5)	6.5 (4, 12)	≤ .001
Confidence in caring patients with different cultural backgrounds *mean (SD), 0–100*	80.3 (20.0)	72.7 (20.2)	79.3 (18.5)	83.1 (18.9)	82.3 (19.6)	84.8 (17.9)	79.2 (21.9)	≤ .001
Satisfaction with care *n* (%)	1197	250	118 (88.7)	116	275	239 (91.2)	199	0.24
Satisfied	(91.4)	(93.6)	15 (11.3)	(87.2)	(92.9)	23 (8.8)	(90.9)	
Dissatisfied	113 (8.6)	17 (6.4)		17 (12.8)	21 (7.1)		20 (9.1)	

34 five-point Likert-scaled items (1 =fully disagree, 5 =fully agree); the higher the mean score, the higher the quality of the learning environment (Saarikoski and Leino-Kilpi, 2002). *Competence background factors* were asked with single questions about confidence in caring according to ethical principles (hereafter ethical confidence) and confidence in caring for patients with different cultural backgrounds (hereafter cultural confidence) as well as using the original form of the Nurse Competence Scale. The generic 73-item NCS measures professional competence with Visual Analogue Scales (VAS, 0–100) and is commonly used and validated across the world, also with nursing students (e.g., Suikkala et al., 2020b). The competence level can be interpreted as low (0−25), quite good (>25–50), good (>50–75) or very good (>75–100) (Flinkman et al., 2017).

A back translation was used for both surveys to translate them into national languages (Waltz et al., 2017). Pilot surveys were conducted in each country to evaluate the understandability and usability of the instruments.

2.5. Data collection procedure

The recruitment of participants and data collection in each educational institution and hospital was organized with the contact person(s) named by the educational institutions and hospitals. National research teams collaborated with the contact person(s) to identify the students and patients meeting the inclusion criteria.

The students' data were collected using both electronic (REDCap; Harris et al., 2019) and paper-based formats. National research teams provided the contact persons with the survey link which they sent to all eligible participants via their student email addresses. Alternatively, paper-based surveys were distributed to students either by national

research teams or contact persons if chosen by the educational institution and returned in a sealed envelope.

Eligible patients—staying in the same units where the students took their clinical placements—were recruited by either the staff nurses, the supervisors or the researcher(s) who told the patients about the study, requested their consent and then, distributed the surveys. The patients returned the anonymous surveys in a sealed envelope.

2.6. Statistical analysis

The data analysis was conducted using the SAS software, Version 9.4 of the SAS System for Windows (SAS Institute Inc., Cary, NC, USA). Continuous variables were summarized with mean and standard deviation (SD) when the variable was normally distributed and with the median (md) and quartiles (Q1, Q3), otherwise. Categorical variables were reported with counts and percentages. Confidence intervals (95%) were calculated. A significance level of 0.05 (two-tailed) was used for all analyses.

Background variables for students/patients were compared between the countries with a one-way analysis of variance or Kruskal-Wallis test. If the result was significant, further pairwise comparison results were corrected either with the Tukey or Stell-Dwass method.

The mean value over 13 questions was calculated for the facilitative SPR; it was not normally distributed but a left skewed variable. Therefore, a 'mirror' distribution by subtraction (6 – mean SPR score) was made just to get a right-skewed distribution where a natural logarithm transformation was used to achieve normal distribution.

Univariate modelling for the students' facilitative SPR was started with a two-way analysis of variance or covariance for the country, age, length of work experience, total NCS, total CLES, ethical confidence and cultural confidence. All these analyses were done so that the country was included in the model. After this, multivariable modelling included all these background variables and non-significant variables were dropped from the model one by one.

In an additional analysis process, it was studied whether the effect of nursing as the first study choice, perception of the value of nursing in society and the turnover intentions regarding nursing studies differed between the countries using the same analysis methods, also including interaction in the model.

A similar modelling process was performed for the patients' facilitative SPR. For this the potential explanatory variables included: the perception of the value of nursing in society, health status, admission reason, a first stay in hospital, students' cultural confidence and satisfaction with care overall.

In addition to the multivariable modelling, Spearman's correlation coefficients (r_s) were also calculated for illustrative purposes to show the associations more clearly between the SPR mean scores and continuous variables.

Furthermore, a sub-group analysis was conducted to identify students who scored high or low in both facilitative relationship and professional competence and the factors associated with these groups. The following cut-off points were determined: if the mean SPR score was ≥ 4 and the mean total NCS was ≥ 75, this was then categorized as "high" and respectively, if the mean SPR score was < 4 and the mean total NCS was < 75, then this was categorized as "low". The facilitative SPR mean scores between patients and students were compared with a two-way analysis of variance, including the country, population (patient/student) and their interaction in the model.

In all analyses, only subjects with response and explanatory variables responded were included in the statistical modelling. The same concerned the correlation analyses, both values had to be present to be able to calculate a correlation. No imputations for missing values were performed.

2.7. Ethical considerations

Good scientific conduct was maintained throughout the study (All European Academies, 2017). The Ethics Committee of the University of Turku (Statement 62/2017, 11.12.2017) approved the whole research project, likewise ethical approval was sought and obtained nationally by the local teams. Moreover, all participating organizations granted data collection permissions. The copyright holders permitted the use and translations of the instruments.

In the recruitment process, the participants' autonomy and their right to withdraw from the study as well as participant confidentiality were emphasized and consent was requested according to the national and international standards at each local site. Careful attention was paid to ensure well-informed and unpressured recruitment of the patients by following the inclusion criteria for sufficiently healthy patients to avoid respondent burden (World Medical Association, 2013).

3. Results

3.1. Description of the participants

3.1.1. Patients

Concerning the *individual background factors* of the overall patient sample (n = 1327; Table 3), the median age was 63 years (Q1 50, Q3 72) and slightly over half were female (53.7%). Concerning the education level, patients with no formal education or a comprehensive school education (32.5%), upper secondary education (30.2%) and bachelor education (28.9%) had around one-third share each. Nearly a fourth of the patients acted as a family caregiver (23.3%) and about a third had a health care professional in the family (33.3%). Most patients (72.0%) felt that nursing was valued in society. Concerning their health status, 43.0% of the patients evaluated it as average and over quarter (26.9%) better than average. Having a long-term illness was reported by 62.2% of the patients.

As for the *hospitalization-related background factors*, the admission reasons were almost even: 49.3% had elective and 50.7% had acute or otherwise unplanned reasons. Most (85.7%) had been in hospital before and at the time of responding the median hospital stay had been five days (Q1 3, Q3 10). The patients evaluated the students' cultural confidence as 80.3 on the 0–100 scale (SD 20.0) and most (91.4%) were satisfied with the care overall. Patients differed between the countries in all studied background factors (all $p \leq .001$), except for the satisfaction with care ($p = 0.24$).

3.1.2. Graduating nursing students

As for the *individual background factors* of the overall student sample (n = 1796), the median age was 23 years (Q1 22, Q3 26) and most (n = 1563, 88.0%) were females. The students' level of previous education was most often that of upper secondary school (n = 1168, 66.3%). Nearly a fifth (n = 349, 19.6%) of the students had a previous degree in health care, 60.7% (n = 1079) had previous health care work experience and the median length of this work experience was 18 months (Q1 7, Q3 36). About the same number of students either to some extent agreed (n = 590, 37.7%) or disagreed (n = 620, 39.7%) that nursing is valued in society.

Concerning the *educational background factors*, nursing had been the first study choice for 70.9% (n = 1262) of the students. About a fourth of the students reported that they had turnover intentions regarding nursing studies either fairly (n = 254, 15.4%) or very often (n = 167, 10.2%). The students' overall evaluation on the quality of the clinical learning environment (CLES total score; n = 1614) was 4.0 on the 1–5 scale (SD 0.7) indicating good quality clinical learning environment.

Concerning the *competence background factors*, the students' overall professional competence (NCS total score, n = 1686) was rated at 62.2 on the 0–100 scale (SD 14.9) indicating a good competence level. The students' ethical confidence (n = 1644) was rated at 77.6 on the 0–100

scale (SD 16.5) and their cultural confidence (n = 1644) was rated at 74.1 on the 0–100 scale (SD 20.4).

Students differed between the countries in all studied background factors (all $p \leq .001$).

3.1.3. Evaluations of the facilitative relationship

Concerning the patients, the facilitative SPR total median score was 3.75 (95% Cl 3.69–3.77). The difference between the countries was statistically significant at $p \leq .001$; the highest median score was for Ireland (md 4.31, 95% Cl 4.23–4.39) and the lowest for Iceland (md 3.31, 95% Cl 3.08–3.54) (Table 4).

For the students, the facilitative SPR total median score was 4.23 (95% Cl 4.15–4.23). The difference between the countries was statistically significant ($p \leq .001$); the highest median score was for Ireland (md 4.39, 95% Cl 4.31–4.46) and the lowest was for Lithuania (md 3.92, 95% Cl 3.85–4.00) (Table 4).

For the comparison between the patients' and students' evaluations of the facilitative relationship, overall, the students in every country had a higher total median SPR scores than the patients did. Thus, the students evaluated the relationship as more facilitative than the patients did. Within countries (Table 4), the difference was statistically significant in every country (all $p \leq .001$), except Ireland ($p = 0.106$) and Lithuania ($p = 0.635$) where the patients' and the students' evaluations aligned.

3.1.4. Factors promoting a more facilitative relationship

For the patients, a higher evaluation of the students' cultural confidence was positively correlated to a more facilitative relationship ($p \leq .001$, $r_s = 0.30$). This was also a significant factor ($p \leq .001$) in the final model in addition to the country ($p \leq .001$) and satisfaction with care overall ($p = 0.004$).

For the students, higher overall professional competence ($r_s = 0.28$), more positive evaluations of the clinical learning environment ($r_s = 0.23$) and higher ethical confidence ($r_s = 0.19$) were positively correlated with a more facilitative relationship (all $p \leq .001$). These were also significant factors ($p \leq .001$, $p \leq .001$, $p = 0.003$, respectively) in the final model in addition to country ($p \leq .001$) and the cultural confidence by country interaction ($p = 0.022$). The latter indicated that the association between cultural confidence and facilitative relationships varied significantly between countries so that in Finland (r_s 0.22, $p \leq .001$) and Spain (r_s 0.28, $p \leq .001$) the association was significantly positive but in other countries the association was not significant.

The analysis was continued with those students with high or low scores for both facilitative relationships and professional competence and associated factors. Overall, 34.8% (n = 253) of the students belonged to the high scoring category. Countries differed from each other regarding the proportion of students in the high category ($p \leq .001$). Iceland had the greatest proportion of the students in the high category (63.2%) whereas Lithuania had the lowest (7.7%) (Table 5). Other factors being positively associated with the high category were older age ($p \leq .001$), having work experience ($p = 0.005$) and more of it ($p \leq .001$) as well as greater ethical confidence ($p \leq .001$) and cultural confidence ($p \leq .001$) and giving a more positive evaluation of the clinical learning environment ($p \leq .001$). (Table 5).

Table 5
Associated factors for those students scoring high or low in both facilitative relationship and professional competence.

Background factor	High		Low		p[b]
	n	% / md / mean	n	% / md / mean	
Country % (n = 728[a])	89	46.6	102	53.4	≤
Finland	37	23.1	123	76.9	**.001**
Germany	12	63.2	7	36.8	
Iceland	68	56.7	52	43.3	
Ireland	11	7.7	132	92.3	
Lithuania	36	37.9	59	62.1	
Spain					
Work experience % (n = 722[a])	166	38.9	261	61.1	**0.005**
Yes	85	28.8	210	71.2	
No					
Gender % (n = 722[a])	222	35.7	399	64.2	0.116
Female	28	27.7	73	72.3	
Male					
Age, years *md* (n = 724[a])	252	24.0	472	22.0	≤ **.001**
Length of work experince, months *md* (n = 716[a])	249	12.0	467	3.0	≤ **.001**
Ethical confidence *mean* (n = 726[a])	253	86.6	473	73.7	≤ **.001**
Cultural confidence *mean* (n = 726[a])	253	81.4	473	71.5	≤ **.001**
Quality of the clinical learning environment *mean* (n = 713[a])	247	4.1	466	3.8	≤ **.001**
Valuation of nursing in society *mean* (n = 683[a])	236	2.4	447	2.3	0.158

[a] Analysis includes only those students who scored either both low or both high.
[b] Chi-square test for categorical variables and Wilcoxon rank sum test for continuous variables.

4. Discussion

The aim of this study was to analyse the patients' role in clinical education in terms of facilitative student-patient relationship in six European countries and the factors promoting more facilitative relationships in clinical education. In the light of overall findings based on student-patient relationships, patients' role in clinical education is not yet as facilitative as it could be, although it has already been advocated for some time (e.g., Rowland et al., 2019; World Health Organization, 2018, European Patients' Forum, 2020). Still, students find that patients have a meaningful role in their clinical education, but for patients, their role was not meaningful to the same extent as it was for students. Partly, this finding aligns with earlier Finnish studies (Suikkala et al., 2021, 2020a), but certain previously unknown differences exist. Altogether, differences between the countries may have resulted from the varying role of patients in the health care system overall (Biddle et al., 2021), in nursing education as a whole (Supplementary Material) and specifically,

Table 4
Comparison of the patients' and the students' evaluations of the facilitative relationship in each country.

Population	Patients n = 1300			Students n = 1641			Comparison between populations within country p[a]
Country	n total / n SPR	Median	95% Cl	n total / n SPR	Median	95% Cl	
Finland	270 / 264	3.62	3.54–3.69	514 / 486	4.31	4.25–4.39	≤ **.001**
Germany	135 / 132	3.46	3.39–3.69	304 / 302	4.00	3.92–4.08	≤ **.001**
Iceland	137 / 127	3.31	3.08–3.54	64 / 48	4.31	4.15–4.46	≤ **.001**
Ireland	299 / 296	4.31	4.23–4.39	399 / 371	4.39	4.31–4.46	0.106
Lithuania	263 / 258	3.69	3.54–3.85	272 / 263	3.92	3.85–4.00	0.635
Spain	223 / 223	3.55	3.46–3.64	243 / 171	4.00	3.92–4.15	≤ **.001**

[a] Two-way analysis of variance

in the students' clinical education (Bleakley and Bligh, 2008; Suikkala et al., 2018). However, it is noteworthy that in Ireland and Lithuania, students' and patients' evaluations corresponded, representing both ends of the facilitative relationship continuum, relatively speaking, as in both countries the evaluations indicated a facilitative relationship. As there was not much difference between these countries concerning the patients' role in education overall and in nursing education otherwise, one potential explanation could relate to the nature of the final clinical placement, which is different in Ireland compared with the rest of the countries studied. In the last stage of their programme, Irish students become interns and employees of the hospitals providing care quite independently for 4–6 patients under distant guidance (Nursing Midwifery Board of Ireland, 2016). This can have some consequences for the relationship, pointing it towards a nurse-patient relationship and a different role for the patient. Moreover, the final clinical placements can have varying aims depending on the country. For instance, in Iceland, students predominantly focus on nursing management, thus having a different emphasis on the patient role. Overall, as greater patient participation in nursing education continues to be of importance in the training of future professionals (Rowland et al., 2019), further research, preferably experimental, is needed to determine effective solutions to strengthen patients' role in the clinical education of students.

For the students, competence and educational background factors were associated with the facilitative student-patient relationship. Firstly, a novel association on students' cultural confidence was found, which relates to the country aspect as well. In Finland and Spain—being somewhat opposites in terms of population ethnicity—the students' higher cultural confidence was associated with a more facilitative relationship, whereas this was not the case for other countries. As for Finland, similarly to Iceland, which is still a relatively ethnically homogeneous country, the finding reinforces arguments for continuing efforts in the development of multicultural nursing studies (Paric et al., 2021). This is especially the case in Finland because the cultural competence of Finnish students' has been reported to be only at moderate level (Repo et al., 2017). In Spain, students are used to facing multicultural environments due to the high number of immigrants (Instituto Nacional de Estadística, 2019) who are also present in health care settings. Learning in this context can lead to the development of cultural competence (García-Navarro and da Costa, 2017), but it is also necessary to increase teaching in cultural nursing to reduce negative attitudes (Ugarte Gurrutxaga et al., 2020).

As for the other associations, secondly, this study strengthens previous findings of associations between the facilitative students-patient relationships and certain background factors. For one thing, desired learning outcomes such as higher professional competence and confidence also result in reciprocal student-patient relationships (Manninen, 2014; Suikkala et al., 2020b). Still, a worrying fact is that a substantial proportion of students do not equally achieve both a high degree of competence and a facilitative relationship, which would be ideal for provision of patient care. As indicated, the country factor played a part, but a fuller explanation requires further research. Another thing is that clinical placements of high quality are a premise for more facilitative students-patient relationships (Pratt et al., 2020). Therefore, development activities targeted at improving clinical learning environments towards a more person-centred approach are still relevant.

For the patients, hospitalization-related background factors were associated with relationships suggesting that the actualized care situations determine the student-patient relationship the most. Firstly, the higher the patients rated the students' cultural confidence, the more facilitative they perceived the relationship. This finding is encouraging when knowing that cultural consideration is crucial in person-centred care (Mersin et al., 2019). In this respect, the nursing education studied in this paper seems to have succeeded in producing the desired outcomes. Secondly, the satisfaction with care was associated with the student-patient relationship, but the association was ambiguous. Nevertheless, a corresponding association has been found in studies about nurse-patient communication and satisfaction with care (Lotfi et al., 2019; Prip et al., 2018) and thus warrants further study.

As for the practice implications, clinical placements are encouraged to develop practices strengthening patient's role in clinical education, particularly in enabling patients to see their value in students' learning process, for instance in providing feedback (Björklund et al., 2021). Moreover, due to the similarities between the Irish internship as a form of final placement and placements in clinical education wards (e.g., Manninen, 2014), it can be considered whether placements emphasizing student-led care can result in a more facilitative role for patients in clinical education. Given the cultural influence in the student-patient relationship, cultural competence in nursing education needs to be ensured by means such as strengthening teachers' cultural competence and evidence-based teaching methods (Paric et al., 2021).

4.1. Limitations

Firstly, convenient samples result in ungeneralizable but exemplifying country findings which were consistent in supporting the validity of the findings (e.g., students' higher evaluations in each country). Furthermore, national samples differed from each other significantly in nearly all background variables. Consequently, strong conclusions about the found associations as well as generalities have to be avoided. Secondly, this study was focused on clinical placements carried out in hospital settings. Thus, the findings can be considered only in relation to this context. As care provision is moving increasingly to outpatient settings such as patients' homes and to be delivered via virtual channels, the student-patient relationship as well as patient's role as a whole needs to be studied also in these contexts. Thirdly, the students' and the patients' evaluations were not matched which is problematic when examining different sides of the same thing, such as a relationship, on different occasions. Thus, the findings represent an overall impression composed from independent samples. Moreover, it was possible that there were students from different years in the units at the same time and therefore the patients may not have been always fully aware of which students were the subject of the study. Fourthly, patients' role in clinical education was studied in terms of the student-patient relationship, producing one perspective to the subject matter. To get a comprehensive view, other perspectives are needed. Furthermore, SPR scales were used for the first time in an international comparison study. As there were no substantial number of missing values, particularly for patients, the scales were rather well-accepted by the participants and moreover, it was internally consistent.

5. Conclusions

The student-patient relationship is indicative regarding the patients' role in clinical education. As a favourable ground for patient's role in clinical education, student-patient relationships were found to be facilitative in the hospital settings in all countries studied. Graduating nursing students found that patients have a meaningful role in their clinical education, but for patients, their role was not meaningful to the same extent as it was for students. Various factors were found to be associated with both students' and patients' evaluations, but corresponding associations were found in terms of the country and students' cultural confidence which warrant further study. Patients' role in clinical education requires further research in other patient care contexts and contacts besides hospitals and physical face-to-face interactions.

CRediT authorship contribution statement

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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.

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