

Research Article

Nursing Students and Nurse Tutors: The Influence of The Relationship on The Perception of The Tutorial Role and On the Final Outcomes of The Internship

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Abstract

Introduction: Professionalizing internship in nursing education is an experience that can deeply impact the educational path of future nurses, both emotionally and cognitively. It is based on the relationship between the student and the clinical tutor, who can act as a facilitator in the on-the-field learning process throughout their training as a future professional.

Objective: To assess the impact of the relationship with the clinical tutor on the student's learning and evaluation at the end of the internship by investigating the experiences, expectations, and opinions of the students, newly graduated nurses, and tutors.

Methods: It has been conducted a cross-sectional design using a validated questionnaire (I-NSPIC, Italian Nursing Students' Perceptions of Instructor Caring) administered to a sample of 248 nursing

students and newly graduated nurses from a university in northern Italy.

Results: The student's perceptions of the clinical tutor's behavior suggest that these behaviors can have a positive impact not only on the final evaluation but also on the perceived performance, and in particular, behaviors aimed at flexibility and respect create an effective learning environment where the meanings of life can be appreciated. It has also been demonstrated that the final evaluation achieved at the end of the internship can be influenced by the relationship established between students and clinical nursing tutors.

Conclusion: The relationship established between the clinical tutor and the student can affect the perception of the performance achieved at the end of the internship and the satisfaction of the student's learning expectations. Therefore, a clinical tutor who is able to create ideal learning conditions, (i.e. able to convey confidence, availability, and support), plays a fundamental role in the educational program of a nursing student.

Keywords: Internship; Nurs instructor; Nurs student; Nurs tutor; Perception; Relationship

Introduction

The role of the clinical nurse tutor, depending on the context, has taken on several meanings over time. Currently, it is possible to find this role within university contexts where the tutor guides, assists, and supports the student in the internship process, helping the student to put theory into practice. According to the Canadian Nurse Association (CNA), mentoring involves a voluntary, mutually beneficial and usually Long-term professional relationship. In this relationship, one person is an experienced and knowledgeable leader (mentor) who supports the maturation of a less-experienced person (mentee) with leadership potential [1]. In Nursing degree programs, the clinical nurse tutor represents a key role for the student. During the internship, the student is placed within clinical settings supervised by an experienced nurse. The main objective concerns the acquisition of practical skills, the gradual achievement of practice and clinical decision-making, the building of appropriate interprofessional and interpersonal relationships, and the ability to develop one's own critical thinking. The outcome of this process is significantly influenced by the experience itself and by the nurse tutors [2]. Italian Law No. 341/90 officially introduced the tutoring role, and it declared that each university had to offer tutoring service aimed at guiding and assisting students during their academic career; more recently, and in the field of the Health Professions, the Ministerial Decree of February 19th, 2009 stated that training and internship activities had to be carried out under the surveillance of tutors specially trained and coordinated by a teacher belonging to the specific professional profile, holding a Master's or a Postgraduate Degree of the respective professional category [3]. The most important tutoring roles are the didactic nurse tutor and the internship nurse tutor (clinical nurse tutor). The former encourages, organizes and coordinates the entire academic career of the student, and holds pedagogical and organizational responsibilities; the latter introduces the student to the internship setting, teaches practical

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skills, evaluates the acquisition of practical and relational skills, as well as the student's level of autonomy and difficulties, help the student to reflect and recognize the role, and supervises and monitors the student in order to provide safety [4]. The clinical nurse represents an essential reference point during the internship process, so much so that this role is defined as a "role model" who can influence the student's attitude through demonstrations, expectations and support [5]. Therefore, Nursing degree programs must rely on the availability of highly experienced clinical nurses in order to train the students and offer them positive workplace models [6]. The relationship between the clinical tutor and the student can influence the outcome of the internship; students who built a good relationship with their tutors are more likely to recognize the patients' needs and develop more organizational, communication and critical skills [7]. This relationship is based on mutual tolerance and respect, where the tutor shows experience and provides constructive feedbacks [8]. Students with a higher perceived self-efficacy are those whose clinical tutors corrected their mistakes without belittling them [9]; on the other hand, when these aspects are lacking, it becomes really difficult for the student to be effective at work [10-11]. The specific characteristics of the tutor-student relationship are theoretical knowledge, motivation and mutual trust, and the sense of belonging [12] that allows the student to feel free to ask questions and seek information [13]. The process of learning during the internship is positively influenced by orientation, communication and acceptance [14]. It is negatively influenced by a difficult context, ongoing conflicts between the tutor and the student, the clinical tutor's lack of motivation, the lack of time for providing feedback and for getting to know each other, and when multiple students are assigned to a single tutor [15]. The support-oriented style of tutoring seems to be the most appreciated one; students claim that the clinical tutors who supported them the most were those who were calm, open to dialogue, polite and benevolent [16]. The ability to transform ordinary clinical activities in learning opportunities seems to encourage the students as well [17]. The didactic behaviors most reported by students as important include answering carefully, emphasizing what is important and stimulating reasoning through questions; the tutors' behaviors that impacted students the most were showing enthusiasm [18], provide observation opportunities and higher quality answers, demonstrate interest in the student's progress [19], show genuine interest for patients [20], communication skills, pedagogical skills and career motivation [21]. Clinical tutors who are empathetic, respectful and competent are more likely to foster a positive learning environment so that students feel encouraged to pursue their professional career [22]. Regardless of the educational context, tutors should question their own actions and beliefs as these affect the relationship with the student [23]. To conclude, it seems that the relationship between the student and the clinical tutor would significantly influence the student's learning opportunities during the internship [24]. The current study examines the point of view of a group of Nursing students from a University in Northern Italy; the objectives of the study largely reflect the students' expectations on their clinical tutors and on their practical experiences and it shows the variables that can influence the outcomes and therefore the internship final evaluation.

Objective: The aim of this study was to understand the influence of the relationship established between clinical nurse tutors and Nursing students on both the perception of the tutorial role and the final outcomes of the internship.

Materials and Methods

Ethical implications

Participation was voluntary; the participants, all Nursing students, were informed that the information provided was strictly confidential and used solely for research purposes and that no personal information would be used to identify the contributors (in compliance with EU regulation no. 2016/679, that was issued on 27th April 2016, published in the Official Journal of the European Union on 4th May 2016, came into force in 25th May and became effective from 25th May). Completion and submission of the questionnaire indicated consent to participate in the study.

Study design

Observational study carried out between March and May 2021.

Sample and selection criteria

The study involved a convenience sample formed by 248 people composed by 2nd and 3rd year Nursing students ($n = 169$) as well as newly graduated nurses ($n = 33$) from a University in Northern Italy. The representativeness of the sample can be assumed for the sample of 169 students (56% of total population between 2nd and 3rd year student = 302) but not for the newly graduated nurses due to the relatively low number of respondents in the total population; 1st year students were excluded from the analysis as they did not complete an internship with a clinical tutor yet, which was the only selection requirement of the study.

Instrument, characteristics and methods of distribution

Participants were invited to voluntarily take part in the study and they were sent an e-mail that redirected to a questionnaire created using Google Drive®. An explicit mention to the legislation on data protection and privacy was made, specifying that: 1) the research project did not involve intrusive or invasive methods for data collection; 2) the research project did not involve collection or dissemination of sensitive data, that could lead to tracing and identification of the authors, therefore guaranteeing absolute anonymity. The instrument is made up of several parts with different response methods. After the initial introduction part, there are questions about gender, age, year of study, age of the clinical tutor, wards/Units of the last internship, final evaluation of the internship, and location of the University (two possible answers). For these questions, there were three answer types: binary answers (e.g. gender), short answers (e.g. age), and multiple choice answers (e.g. tutor's age range). This part was followed by the 31 items of the Italian version of the NSPIC ("Nursing Student's Perception of Instructor Caring") questionnaire [25], originally written in English [26], which uses a 6-point Likert scale, from 1 to 6 (from "strongly disagree to strongly agree"); two examples of items are "he/she cares about me as a person" and "he/she makes himself available to me".

Procedure

We sent out 300 questionnaires and received 258 (86.0%) fully completed ones in return; 10 questionnaires were examined and then deleted because of ceiling/floor effect, as all the answers represented outliers [27]. Eventually, 248 questionnaires (82.7%) were valid, and they were chosen to represent the survey sample. Lastly, answer to each item was marked as mandatory in order to try to delete incomplete questionnaire from the outset.

Data analysis strategy

All data were first recorded by Microsoft Excel® and then they were imported into a SPSS database; the IBM SPSS® statistical software, Statistics Version 28.0 software package (IBM Corp. 2021) was used for all statistical analysis. Subsequently, frequencies, measures of central tendency and dispersion (mean and 95% C.I., median, standard deviation and variance) on the dependent variables, I-NSPIC scale and its factors, were calculated. In order to confirm the correlation between the variables and the sample adequacy, the *Bartlett test* and the *KMO test* were performed; although the data do not respect the normality assumption tests, they still meet the requirement for performing the EFA. To explore the structure of the instrument and assess its factorial composition, an Exploratory Factorial Analysis (EFA) was conducted. For the assessment of the internal consistency of the items, the Cronbach alpha (*Cronbach's α coefficient*) was calculated. To define the distribution's shape, the indexes of skewness and kurtosis and the related S.E. were calculated. To determine the normal distribution the one sample *Kolmogorov-Smirnov test* with *significance correction of Lilliefors* was used; cause the data weren't normally distributed the non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples* was chosen in order to compare the variables: professions, sample age ranges, internship Wards/Units and age range of the tutor, with the variable evaluation. In order to verify the existence of a reciprocal relationship between the perceived performance (the I-NSPIC scale and its factors) and the final evaluation of the internship, the *RHO-Spearman* correlation coefficient was calculated; finally, results of $p < 0.05$ were considered significant.

Results

Instrument's descriptive analysis and psychometric characteristics.

Table 1 shows measures of central tendency and dispersion. For what regards the psychometric characteristics of the I-NSPIC scale, after estimating the reliability of the correlation between the variables (I-NSPIC index *KMO* .942, *Bartlett's test of sphericity* $\chi^2 = 5837.926$, $df = 465$, $p < 0.01$) and after reverse scoring for 12 items (after checking the corrected item total correlation) for the subsequent calculation of the overall mean, an exploratory factor analysis (EFA) was then conducted to assess the factorial composition with oblimin rotation with principal components analysis (PCA) (the correlation between the variables was assumed according to the original scale [25] as confirmed by the excellent factor loading [28], which highlighted the presence of four factors explaining 68.9% of the variance and with factor loading $>.400$.

		Statistic	S.E.
I-NSPIC	Mean	3.673	.04003
	95% C.I. for Mean	Lower Bound	3.593
		Upper Bound	3.751
	Median	3.807	
	Standard deviation	.630	
	Skewness	-.775	.155
	Kurtosis	2.796	.308
NOTE: S.E. = Standard Error			

Table 1: Descriptive statistics.

As showed in (Table 2), the *Cronbach's α* coefficient was excellent ($\alpha = .96$), as well as the individual factors (FT1, supportive learning environment, 16 items, $\alpha = .97$; FT2, respectful sharing, 7 items, $\alpha = .83$; FT3, acceptance of life's meanings, 3 items, $\alpha = .91$; FT4, control vs. flexibility, 5 items, $\alpha = .81$). The visual inspection of the histograms, of the QQ plots, and box plots showed that the data weren't normally distributed. On the mean summary item, it was highlighted that (see Table 1), $M = 3.67$ (C.I. 95% upper bound 3.752, lower bound 3.594) $MED = 3.81$, $St. Dev. = .630$ and a general skewness = $-.775$ ($SE = .155$) and kurtosis = 2.796 ($SE = .308$); the *Kolmogorov-Smirnov test* $p < 0.01$; the non-normal distribution of the data was therefore confirmed.

Overall I-NSPIC $\alpha = .960$	Factors' components			
	I-NSPIC FT1 Supportive learning environment $\alpha = .971$	I-NSPIC FT2 Respectful sharing $\alpha = .830$	I-NSPIC FT3 Acceptance of life's meanings $\alpha = .909$	I-NSPIC FT4 Control vs. flexibility $\alpha = .814$
I-NSPIC_10 - FT1	.939			
I-NSPIC_9 - FT1	.919			
I-NSPIC_14 - FT1	.919			
I-NSPIC_2 - FT1	.850			
I-NSPIC_4 - FT1	.847			
I-NSPIC_5 - FT1	.838			
I-NSPIC_8 - FT1	.823			
I-NSPIC_21 - FT1	.822			
I-NSPIC_15 - FT1	.800			
I-NSPIC_3 - FT1	.758			
I-NSPIC_19 - FT1	.737			
I-NSPIC_17 - FT1	.721			
I-NSPIC_18 - FT1	.707			
I-NSPIC_1 - FT1	.663			
I-NSPIC_16 - FT1	.640			
I-NSPIC_13 - FT1	.573			
I-NSPIC_30 - RS - FT2		.836		
I-NSPIC_31 - RS - FT2		.571		
I-NSPIC_12 - RS - FT2		.556		
I-NSPIC_20 - RS - FT2		.541		

I-NSPIC_23_RS - FT2		.477		
I-NSPIC_6_RS - FT2		.451		
I-NSPIC_22_RS - FT2		.424		
I-NSPIC_29 - FT3			.696	
I-NSPIC_27 - FT3			.644	
I-NSPIC_28-FT3			.560	
I-NSPIC_26_RS - FT4				.829
I-NSPIC_11_RS - FT4				.624
I-NSPIC_25_RS - FT4				.593
I-NSPIC_24_RS - FT4				.485
I-NSPIC_7_RS - FT4				.409
NOTE: FT = Factor; RS = Reserved Score item				

Table 2: EFA model matrix.

Sample characteristics

Table 3 shows the sample's gender and profession and the measures of central tendency/dispersion both on the I-NSPIC scale and on the final evaluations taking the profession into account. The sample involves 2nd year ($n = 110$; 44.4%) and 3rd year ($n = 98$; 39.5%) students and newly graduated nurses ($n = 40$; 16.1%) of a University of Northern Italy. There is a significant gap as regards the gender: the majority of the sample is represented by the female gender ($n = 202$; 81.5%) while the minority by the male gender ($n = 46$; 18.5%), that however reflects the proportion of students enrolled in the course (male/female ratio = 1/5). No analyses based on gender were performed due to the evident discrepancy in terms of frequencies. Regarding the mean score on the I-NSPIC, 2nd students report the highest values (3rd year students: $M = 3.65$, $St. Dev = .636$; 2nd year students $M = 3.77$, $St. Dev = .571$; newly graduated nurses: $M = 3.44$, $St. Dev = .713$); the non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* shows no significant differences ($\chi^2(2;248)=4.296$, $p=.117$). For what concerns the internship final evaluations, specifying that the highest grade "30 cum laude" corresponds to "31", 3rd year students got the highest means (3rd year students: $M = 29.40$, $St. Dev = 1.739$; 2nd year students $M = 29.11$, $St. Dev = 1.814$; newly graduated nurses: $M = 29.65$, $St. Dev = 1.718$) and also in this case the non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* shows no significant differences ($\chi^2(2;248)=4.444$, $p=.108$).

Table 4 shows the sample's age ranges, and it is made up of four groups: ≤ 20 years ($n = 43$; 17.3%), $> 20-22$ years ($n = 114$; 46.0%), $> 22- 24$ years ($n = 52$; 21.0%) and > 24 years ($n = 39$; 15.7%). The students and the newly graduated nurses of the sample attend/ have attended the same University in Northern Italy composed by two campus: both scores of the first one ($n = 185$; 93.4 %) and the second one ($n = 13$; 6.6 %) will be considered in aggregate form due the

	Students 2nd year	Students 3rd year	N.G. nurses	Total
Female	84	85	33	202 (81.5%)
Male	26	13	7	46 (18.5%)
Total	110 (44.4%)	98 (39.5%)	40 (16.1%)	248 (100.0%)
I-NSPIC mean	3.77	3.65	3.44	3.67
I-NSPIC St.Dev.	.571	.636	.713	.630
Mean evaluation	29.11	29.40	29.65	29.31
St.Dev. evaluation	1.814	1.739	1.718	1.774
NOTE: St.Dev. = Standard Deviation; N.G. Newly graduated				

Table 3: Sample gender and profession and central tendency/dispersion measures.

extreme homologation of their internships, which are always carried out in the same hospital and with the same tutor nurses. As regards the overall mean scores of the I-NSPIC by age group, students and newly graduated nurses belonging to the age group $>20-22$ reported higher overall means (≤ 20 years: $M = 3.69$, $St. Dev = .443$; $> 22-24$ years: $M = 3.73$, $St. Dev = .685$; $>22-24$ years: $M = 3.52$, $St. Dev = .892$; >24 years: $M = 3.697$, $St. Dev = .606$); the non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* shows no significant differences ($\chi^2(3;248)=4.743$, $p=.192$). The evaluation mean is uniform (≤ 20 years: $M = 29.21$, $St. Dev = 1.684$; $>22-24$ years: $M = 29.36$, $St. Dev = 1.494$; $>22-24$ years: $M = 29.27$, $St. Dev = 2.285$; >24 years: $M = 29.33$, $St. Dev = 1.910$); the non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* highlights no significant differences ($\chi^2(3;248)=.820$, $p=.845$).

	N	%	I-NSPIC Mean	I-NSPIC St.Dev	Evaluation Mean	Evaluation St.Dev
≤ 20 years	43	17.3%	3.69	.443	29.21	1.684
$>20-22$ years	114	46.0%	3.73	.685	29.36	1.494
$> 22-24$ years	52	21.0%	3.52	.643	29.27	1.285
>24 years	39	15.7%	3.70	.606	29.33	1.910
Total	248	100.0%	3.67	.630	29.31	1.774
NOTE: St.Dev. = Standard Deviation						

Table 4: Sample age ranges.

Students were asked in which Units/Wards the last internship took place (Table 5) and it turned out that Long-term care Units reported the highest frequencies ($n = 86$; 34.7%) followed by Clinical/Medical Units ($n = 82$; 33.1%); the rest of the sample is equally divided between Surgery Units and Operating theatre ($n = 40$; 16.1%) and Emergency & critical care Units ($n = 40$; 16.1%). Long-term care Units shows the highest overall mean scores on the I-NSPIC (Surgery and Operating Theatre: $M = 3.61$, $St. Dev = .637$; Emergency & critical care: $M = 3.50$, $St. Dev = .654$; Clinical/Medical Units: $M = 3.70$, $St. Dev = .696$; Long-term care $M = 3.75$, $St. Dev = .536$). The non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* highlights no significant differences ($\chi^2(3;248)=3.223$, $p=.359$). Data obtained from the comparison between the internship Units and the final evaluations show that the area with the best

evaluations is the Clinical/Medical area ($M = 29.76$, $St. Dev = 1.117$), then the Emergency & critical care Units ($M = 29.45$, $St. Dev = 2.342$); followed by Surgery and Operating theater ($M = 29.10$, $St. Dev = 1.932$) and Long-term care Units ($M = 28.92$, $St. Dev = 1.829$), which have the lowest means. The non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* highlights significant differences ($\chi^2(3;248)=16.223$, $p < .01$); the pairwise comparison shows the significance between Long-term care and Clinical/Medical Units ($p < .01$), and Emergency & critical care Units ($p < .01$).

	N	%	I-NSPIC mean	I-NSPIC St.Dev	Evaluation Mean	Evaluation St.Dev
Surgery and operating theatre	40	16.1%	3.61	.637	29.10	1.932
Emergency and critical care	40	16.1%	3.50	.654	29.45	2.342
Clinical/Medical Units	82	33.1%	3.70	.696	29.76	1.117
Long-term care	86	34.7%	3.75	.536	28.92	1.829
Total	248	100.0%	3.67	.630	29.31	1.774

NOTE: St.Dev. = Standard Deviation

Table 5: Internship Wards/Units.

Students were then asked which was the age range of their last nurse tutor (Table 6) and it emerged that about half of the sample ($n = 121$; 48.8%) is represented by tutors aged between 25 and 34 years old; 21.8% ($n = 54$) belong to the range 35-44 years, 13.3% ($n=33$) 45-54 years, 11.3% ($n = 28$) represent the range of youngest tutors (>25 years old) and the lowest band in terms of frequencies is represented by nurse tutors over 54 years old ($n = 12$; 4.8%). The overall mean scores on the I-NSPIC point out that the highest means are for tutors aged 25-34 (< 25 years: $M = 3.46$, $St. Dev = .639$; 25-34 years: $M = 3.80$, $St. Dev = .605$; 35-44 years: $M = 3.69$, $St. Dev = .500$; 45-54 years $M = 3.47$, $St. Dev = .701$; >54 years: $M = 3.39$, $St. Dev = .891$).

The non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* highlights statistical significance ($\chi^2(4;248)=10.464$, $p < .05$); the pairwise comparison of the groups demonstrates that the significance is entirely due to the comparison between tutors aged < 25 years old vs tutors aged 25-34 years old ($p < .01$), and both are the groups with the youngest tutors. With regards to the internship final evaluations, the highest average marks were assigned by the youngest tutors, while the lowest ones were assigned by tutors aged 35-44 (<25 years: $M = 29.64$, $St. Dev = 1.062$; 25-34 years: $M = 29.20$, $St. Dev = .605$; 35-44 years: $M = 29.28$, $St. Dev = 1.709$; 45-54 years $M = 29.45$, $St. Dev = 1.885$; >54 years: $M = 29.42$, $St. Dev = 1.564$). The non-parametric *Kruskall Wallis One-Way ANOVA test for k-samples comparison* doesn't highlight significant differences ($\chi^2(4;248)=.947$, $p = .918$).

Correlation analysis between I-NSPIC factors and internship evaluation

As for the reciprocal relationships between the internship final evaluation (Table 7) and the four factors of the I-NSPIC scale ("Favorable learning climate", "Respectful sharing", "Acceptance of life's meanings" and "Control vs. Flexibility"), only a weak positive correlation with the factor "Control vs. Flexibility" was found ($FT4$, $r(247) = .400$, $p < .01$). After stratifying the sample by course year,

	N	%	I-NSPIC mean	I-NSPIC St.Dev	Evaluation Mean	Evaluation St.Dev
< 25 years	28	11.3	3.46	.639	29.64	1.062
25 - 34 years	121	48.8	3.80	.605	29.20	1.926
35- 44 years	54	21.8	3.69	.500	29.28	1.709
45 - 54 years	33	13.3	3.47	.701	29.45	1.889
> 54 years	12	4.8	3.39	.891	29.42	1.564
Total	248	100.0	3.67	.630	29.31	1.774

NOTE: St.Dev. = Standard Deviation

Table 6: Tutors' age ranges.

internship area, and age of the clinical tutor, the evaluation of 2nd year students showed a significant and positive correlation with tutors who established a favorable learning climate ($r(109)=.413$, $p < .01$), while among 3rd year students there is only one significant and positive correlation with flexibility-oriented behaviors ($r(97)=.407$, $p < .01$). The evaluations of newly graduated nurses were found to be positively correlated with some aspects of the relationship with the clinical tutor, in particular with "Favorable learning climate" which has a discrete correlation ($r(39)=.479$, $p < .01$), as shown in (Table 7).

Evaluation	FT1	FT2	FT3	FT4
	.307**	.320**	.218**	.400**

Note: FT1 = favorable learning climate, FT2 = respectful sharing, FT3 = acceptance of life's meanings, FT4 = control vs. flexibility; *Significant correlation <.05 (two tails); **Significant correlation <.01 (two tails); in bold correlation => .400

Table 7: RHO-Spearman correlation between evaluation and I-NSPIC factors.

Stratifying the sample by internship area (see Table 8), students in the Emergency and critical care Units have discrete positive significant correlations with "Favorable learning climate" ($r(39)=.461$, $p < .01$), "Respectful sharing" ($r(39)=.452$, $p < .01$) and especially with "Control vs. Flexibility" ($r(39)=.541$, $p < .01$). The situation is similar for students who completed their internship in Long-term care Units and whose evaluations are discretely and positively correlated with the factors "Favorable learning climate" ($r(85)=.453$, $p < .01$) and "Control vs. Flexibility" ($r(85)=.400$, $p < .01$).

Year of study	I-NSPIC	FT1	FT2	FT3	FT4
2 nd year students	-	.413**	.376**	-	.394**
3 rd year students	-	-	-	-	.407**
New graduates	.388*	.479**	-	.334*	.364*

Note: FT1 = favorable learning climate, FT2 = respectful sharing, FT3 = acceptance of life's meanings, FT4 = control vs. flexibility; *Significant correlation <.05 (two tails); **Significant correlation <.01 (two tails); in bold correlation => .400

Table 8: Correlation between evaluation and I-NSPIC factors stratified by professions.

Finally, after stratifying the sample by age of the clinical tutor (see Table 9), it was found that the correlation between the internship final evaluation and the relationship with the clinical tutor is much more evident among students guided by a senior tutor. The age group that presents the most significant correlation coefficients between the final

evaluations and the I-NSPIC and its factors is the one that includes nurse tutors aged 54 and over. The evaluations of senior tutors' students show a strong positive correlation with the factor "Respectful sharing" (FT2, $r(11)=.683, p=0.14$) and "Control vs. Flexibility" (FT4, $r(11)=.658, p=.020$), and an unexpected but extremely negative correlation with the I-NSPIC scale ($r(11)=-.675, p<.05$) and the factor "Acceptance of life's meanings" (FT3, $r(11)=-.714, p<.01$), whose interpretation will be given in the discussion section.

Internship Wards/Units	I-NSPIC	FT1	FT2	FT3	FT4
Surgery and operating theatre	-	-	-	-	.364*
Emergency and critical care	-	.461**	.452**	.345*	.541**
Clinical/Medical Units	-	-	-	-	-
Long-term care	.330**	.453**	.347**	.367**	.400

*Note: FT1 = favorable learning climate, FT2 = respectful sharing, FT3 = acceptance of life's meanings, FT4 = control vs. flexibility; *Significant correlation <.05 (two tails); **Significative correlation <.01 (two tails); in bold correlation => .400*

Table 9: Correlation between evaluation and I-NSPIC factors stratified by internship WardsUnits.

Discussion

The results of the observational study seem to highlight several similarities with what has been found in the literature. The sample appears to be strongly unbalanced by gender although it is coherent with the actual proportion of the Nursing student population and highly concentrated on the 20-22 age group; the vast majority of respondents also got a good/excellent final evaluation, which may suggest good relationships between students and tutors, as proved by the good responses on the NSPIC scale scores, that is in line with what was found in literature [7,8]. 2nd year students show the highest mean scores on the I-NSPIC scale, while newly graduated nurses have the better final internship evaluations. One of the most interesting data emerges from the analysis of the internship Units; it appears that students and newly graduated nurses who attended the most popular internship Unit (Long-term care Units) are those with the lowest average final evaluations (with significant differences if compared to both the Clinical/Medical Area and the Emergency Department), while it is the Clinical/Medical Area that has the highest average evaluations on the NSPIC. It could be likely that the pandemic period affected these aspects also because students may have faced unexpected situations from a learning point of view. The clinical tutor's age seems to influence the outcome of the internship; and it emerges that having a senior tutor and a junior tutor together in the same internship could provide a 360° view of the internship context [15]. In addition to this aspect, students (who were asked to answer with reference only to the tutor of their last internship) guided by a senior tutor reported the highest mean scores on the I-NSPIC, maybe because the tutor was perceived as a role model or as more competent, in line with current literature [6, 20]; conversely, senior tutors gave the lowest average evaluations compared to younger tutors, an aspect perhaps linked to the difficult time (in the midst of the COVID pandemic) that contributed to some environmental difficulties for the tutors themselves [15] as they were less experienced. The correlation analysis between the evaluation achieved at the end of the internship and the relationship established with the clinical tutor highlights that the student's performance during the internship is partly influenced by how the student perceives the

tutor's behaviors towards him/her, in line with what was found in literature [5-8]. The correlation analysis performed after stratifying the sample also showed that variables such as course year, care setting, and age of the clinical tutor can increase or weaken the correlation's strength [15]. The students' perceptions on the clinical tutor's behaviors suggest that these behaviors can positively affect not only the final evaluation, but also the perceived performance, and in particular behaviors aimed at flexibility and respect create an effective learning environment where the meanings of life can be appreciated as well. This aspect has been addressed in some ways in literature, and some studies highlighted the impact of the clinical tutor on the students' self-efficacy, which is perceived to be high when the tutor suggests ways to improve, identifies strengths and weaknesses, offers positive reinforcement and corrects without belittling [9], or when the tutor is willing to help [29]. If the student perceives the clinical tutor to be caring towards him/her and towards the patients, then the student also perceives a better self-efficacy, which promotes, for example, independent problem solving [6]. The only exception in the current study is represented by students with senior tutors; although senior tutors established a good relationship with the students, they also gave the lowest evaluations, as it was already found in the negative correlation with the I-NSPIC scale, a concept reinforced by the significant negative correlation with the factor "Acceptance of life's meaning". The sample stratification by course year, internship Unit and age of the clinical tutor shows that there are other factors that can affect the tutor-student relationship and therefore the perceived performance. This could be related to the students' need for a positive environment and constructive discussions with the tutor in order to develop several clinical skills. Nevertheless, students also learn through the organization of the context of their internship, which is why certain care settings show positive correlations between the perceived performance and the behaviors of the clinical tutor linked to the dimension of the favorable learning climate and the building of trust through caring, while those who do not express respectful sharing have a negative impact. It is no coincidence that meaningful learning takes place in a climate that facilitates mutual respect and shared expectations [13].

Conclusion

The professional role of the tutor in the educational path of every nursing student is of great importance because it can influence the learning process and consequently the outcome of the internship; the characteristics of the tutor and the tutorial style can affect the relationship with the student who, based on his/her own character and expectations, aims at establishing a positive relationship with the tutor in order to create learning opportunities. The findings demonstrated that most of the students had excellent perceptions on their clinical experience; however, there are some contradictions that leave space for further research in order to enhance the knowledge of the topic, and a multicenter research could be conducted in order to compare different study setting. This study, however, is subject to some limitations. The vast majority of students in our sample had excellent internship final evaluations; this may lead to think that the questionnaire was answered mostly by pupils with the greatest gratification and therefore motivation, without actually being able to compare the answers of students whose evaluations were less positive. Another limitation can be represented by both the small number of newly graduated nurses and senior clinical tutors in the respective samples; future research should include a sampling that can better homogenize the professional groups. The strengthening of organizational, relational and practical skills, the ability to plan the internship path with the student and

to evaluate the achievement of objectives along the way, the constant supervision of the clinical activities performed, together with emotional support aimed at the development of autonomy, and the ability to welcome in a team, seem to be the key to the establishment of a fruitful and functional tutorial relationship. The healthcare setting in its complexity presents many challenges for Nursing students; a good tutorial support is the best way to overcome them optimally.

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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