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The educational environment of the undergraduate nursing course from the student perspective

O ambiente educacional do curso de graduação em enfermagem na perspectiva dos estudantes

El ambiente educativo del curso de graduación en enfermería desde la perspectiva de los estudiantes

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ABSTRACT

Objective: Evaluate the educational environment of the School of Nursing at the University of São Paulo from the student perspective. **Method:** Quantitative approach with exploratory design. The 176 students who participated in the study answered questions ona Likert scale from 1 to 5 to evaluate the educational environment. The data underwent an exploratory factor analysis and inferential statistical tests, while the reliability of the instrument was verified by Cronbach's Alpha. **Results:** The dimensionality analysis established four factors: support for hands-on learning, with a mean score of 3.64; attitudes during learning, mean score of 2.92; learning atmosphere, mean 3.58; and learning weaknesses,mean 3.04. **Conclusion:** The most favorable factor of the environment was support for learning. The attitudinal competencies received lower scores, suggesting the need to strengthen these aspects during the undergraduate course.

DESCRIPTORS

Nursing Education; Higher Education; Undergraduate Programs in Nursing; Learning; Educational Evaluation.

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INTRODUCTION

During the formation, students progressively establish a particular relationship with the school and create spaces of relationships based on experiences with their peers. In this way students can experience and reflect on new learning possibilities that are not confined to the classroom, especially when they realize that they belong to the school and their ideas are recognized by their peers and teachers.

The purpose of higher education is to promote multi-dimensional development, guidingstudents toward autonomy and encouraging them to adapt to constant change in their professional and personal lives. This is directly related to the educational environment, showing itsrelevance in the teaching-learning process.

The educational environmentpresupposes support for students and actions that encourage social interaction and interpersonal relationships, both inside and outside institution, and offering feedback to students[1]. It is defined as a set of factors that influence learning, such as the physical and material structure, interpersonal relationships, teaching methodology, and ethical and social dimensions. This influence transcends the teaching-learning process while integrating constituent elements to favor the formation of critical and reflective professionals, recognizing students as active subjects with experiences that cannot be ignored[2].

It is essential to evaluate the educational environment, because of itsimpact on the teaching-learning process, and therefore on the quality of the work developed by undergraduates and graduates[3]. Given its importance, it is essential to analyze educational environment variables by means of a systematized evaluation in order to identify the origin of actual or potential problems.

Some practical evaluation aspectsof the educational environment in the health undergraduate courses should be respected in order to integrate good educational practices, such as the peculiarities of each educational context, with different aspects to be measured, the need for specific assessment for each training area in health, and the psychometric validation of the instruments used[4].

Considering the significantinfluence of the educational environment in the teaching-learning process, this study aimed to evaluate the educational environment of the School of Nursing at the University of São Paulo (EEUSP) from the student perspective.

METHOD

This wasa quantitative study with an exploratory design carried outat EEUSP, which offers undergraduate, graduate, and university extension coursestotrain nurses, teachers, researchers, and specialists in all areas of Nursing.

The Bachelor's Degree in Nursing takesfour years, being divided into eight semesters, and is offered full-time with 37 required courses offered by four departments: Medical-Surgical Nursing, Vocational Guidance, Community & Maternal-Infant Health, and Psychiatric Nursing. It also dependson the participation of other departments ofthe university.

Starting in2010, the course adopted a new Political and Pedagogical Project whose central theme is nursing care;itis organized into three cycles: the cycle of needs; the cycle of care; and the cycle of professional practice. These cycles are linked to integrative axes and organized into semesters. The relationship between theory and practice is emphasized in order to enable students to achievegreater integration of knowledge through practical activities under faculty mentorship. "The political and pedagogical proposal of the Course focuses on the nurse's critical and reflective training"[a].

The study population consisted of the estimated 320 undergraduate students from EEUSP who were approached during the first half of December 2012 in the classrooms after authorization from the teachers responsible for the course, and also on the premises of the School, in order to provide an opportunity for all undergraduates to participate. Given the opportunity, all necessary guidelines regarding the objectives and the voluntary nature of the survey were followed. Those who agreed to participate received the data collection instrument and two copies of a Written Consent Form. A total of 176 (55%) students participated in the study by answering the questionnaire.

The data collection tool useda Likert scale developedby Messas[2] about the concept sand constituent elements of the educational environment. This instrument was submitted to a semantic and content validation performed by 12 experts using the Delphi Technique for consensus. In addition to the needed adjustments, the authors chose to exclude from the instrument the items related to evaluating the physical and material structure because, although they are important constituent elements of the educational environment, other instruments are used for this purpose.

The questionnaire was composed of 47 items evaluating the educational environmentusinga 5-point Likert scale with the following responses:Strongly Disagree, Disagree,Neither Agree Nor Disagree, Agree, and Strongly Agree.

This instrument was also used to collect information on the respondents: age, gender, course semester at the time of datacollection, and year of enrolling in the course. These results are presented descriptively.

Messas[2] points out that six items of the instrument were extracted in full from the instrument of Mira et al. (2011)[5], which are items 3, 5, 18, 19, 28, and 32.

Initially, the responses Strongly Disagree and Disagree, and Agree and Strongly Agree, were combined; thus, the results are presented atthree levels of agreement.

In a preliminary evaluation of the internal structure of the instrument, since the number of participants did not reached the critical limit of 200 cases for carrying out exploratory factor analyses[6], the relevance of grouping the items of the instrument into factors was tested.

[a] Extracted from EEUSP site. Available at: http://www.ee.usp.br/site/Index.php/paginas/mostrar/119/51

The results from parallel analyses[7] demonstrated the feasibility of extracting up to five factors, so factorial analyses were performed by the exploratory structural equation modeling(ESEM)[8] using the software Mplus 7. The solutions were tested with the WLSMV estimator with a geomin oblique rotation. Five solutions and four factors were tested; the four factors (CFI=0.91; RMSEA=0.04 [IC 90%=0.035 to 0.049; Pclose=0.978]; SRMR=0.06) were the most suitable for the empirical data and were more interpretable and more consistent[6,9-10].

The criteria adopted for maintaining items in the factor were as follows: theoretical reasonableness or degree of interpretability of the groupings; significant load factor equal to or greater than 0.30, which excluded five items on the instrument (18, 24, 27, 30, and 44); and item-total correlation index (r_{it}) equal to or greater than 0.30, particularly in those cases where deleting the item contributed to anincrease in theinternal consistency of the factor, which resulted in the deletion of four items (3, 33, 34, and 43). In factor 4, although the index $r_{it}$was below 0.30 for items 15 and 35, their exclusion did not contribute to increasing the factor's consistency, so that is why they were kept. Items 29, 16, 27, and 7, whose saturations were negative, were inverted for calculating the factor scores and for the internal consistency indexes.

From the point of view of internal consistency of the factors, and because it wasan exploratory study, we adopted the recommendation of the value of 0.60 for the Cronbach's alpha index as the tolerable lower limit[6].

The descriptive analysis of the factors showed that the higher the score, the greater the congruity with the content expressed by the factor.

Some tests were used to check the existence of associations between the descriptive variables forthe students and the scores obtained in the factors. In particular, we investigated the differences in the variables year of entry and current semester, since the new Political and Pedagogical Project of EEUSP was started in 2010.

The t-test was used for the comparison of average scores and gender, while Pearson's correlation was used for age. Analysis of variance (ANOVA) was used to check for the existence of significant differences in the averages of the factors on the basis of the current semester and year of entry of the participants.

In an attempt to better understand the differences found, *post hoc* analyses were carried out by multiple comparisons of Tukey's honest significant differences (HSD), due to the homoscedastic pattern of the variables, or the Dunnett's T3 test, due to the heteroscedastic pattern[5,11].

The research project was approved by the Research Ethics Committee under protocol 39250 of June 19, 2012, CAAE 01273012.2.0000.5392 and by the EEUSP Research Commission.

RESULTS

Most of the students were female (91.2%), between 18 and 44 years old (M=22.12, SD=3.31, with most being under 25 [90.5%]). The students had entered EEUSP between 2008 and 2012, with the following distribution: 2.3% in 2008, 28.7% in 2009, 20.5% in 2010, 18.7% in 2011, and 29.8 in 2012. The distribution by current semester was: 29.3% in second semester, 19.8% in fourth, 22.2% in sixth, and 28.7% in eighth.

The analyses of dimensionality and scale precision resulted in the grouping of the items into four factors: 1. Support for hands-on learning; 2. Attitudes during learning; 3. Learning atmosphere; and 4. Learning weaknesses. The factors are listed below with the respective items, load factors (LF), item-total correlations (r_{it}), and percentage frequency of the level of agreement (D=Disagreement, NDNA=Neither disagreement nor agreement, A=Agreement) per item.

Factor 1. Support for hands-on learning with a Cronbach's Alpha of 0.68 grouped five items related to the monitoring and supervision of students in practical training (Table 1).

Table 1 - Distribution of Factor 1 items. Support for hands-on learning per load factor and relative frequency of agreement - São Paulo, São Paulo, Brazil, 2013

No.	Item	LF	r_{it}	D	NDNA	A
6	I feel confident about the supervision of the teachers.	0.65	0.53	13.8	18.9	67.4
5	I have been encouraged to participate in work dynamics in the fields of practice.	0.64	0.45	6.3	13.7	80.0
9	The fields have provided conditions for carrying out the activities planned.	0.45	0.45	15.2	16.9	68.0
1	Teachers were present whenever I needed them.	0.42	0.42	24.4	20.3	55.2
22	I feel confident about the supervision of the nurses.	0.31	0.34	10.7	31.8	56.8

Factor 2.Attitudes during learning, Cronbach's Alpha of 0.76, was made up of eight items, six of whichreferred directly to human relations and ethical aspects. The other two wererelated to performance evaluation and mentoring for students (Table 2).

Factor 3. Learning atmosphere, Cronbach's Alpha 0.84, was the biggest factor with 15 items about the School environment showing instructional variables and, above all, more subjective attributes transmitted in interactions between individuals (Table 3).

Factor 4 - Learning weaknesses – with Cronbach's Alpha of 0.69, had 10 items related to vocational education and training strategies that, except for two items, represented unfavorable aspects of the teaching-learning process (Table 4).

Table 5 presents the descriptive data and dispersion forthe four factors.

Table 2 - Distribution of Factor 2 items. Attitudes during learning per load factor and relative frequency of agreement - São Paulo, São Paulo, Brazil, 2013

No.	Item	LF	r_{it}	D	NDNA	A
4	I have witnessed the occurrence of situations that disregard ethical aspects of professional practice.	0.65	0.55	29.6	18.3	52.0
23	I notice unethical actions by some teachers.	0.58	0.54	31.8	18.2	50.0
2	I have not always been received very well by the nursing staff in the fields of practice.	0.49	0.36	49.7	8.0	42.3
8	Teachers do not listen to the students.	0.45	0.52	47.4	32.0	20.6
12	Teachers get irritated with the behavior of students.	0.44	0.49	32.0	32.6	35.5
29	The opinion of the students is considered in order to improve the teaching process.	-0.43	0.53	25.7	22.3	52.0
13	Student performance evaluation does not occur continuously.	0.40	0.35	35.4	24.0	40.6
16	Mentoring offers the support that students need.	-0.35	0.39	20.0	24.6	55.4

Table 3 - Distribution of Factor 3 items. Learning atmosphere per load factor and relative frequency of agreement.São Paulo, São Paulo, Brazil, 2013

No.	Item	LF	r_{it}	D	NDNA	A
42	The learning environment is stimulating.	0.77	0.64	22.8	34.9	42.3
37	This course is meeting my expectations.	0.70	0.57	17.2	19.0	63.8
41	The people of this School are caring.	0.69	0.56	12.6	33.1	54.3
46	This school is welcoming.	0.66	0.52	9.2	22.9	68.0
47	Teachers help me find learning opportunities.	0.63	0.58	6.3	28.0	65.7
36	The reflections promoted in the course have been important in my training.	0.61	0.48	5.2	14.9	79.9
32	The knowledge acquired in previous semesters has facilitated my development in the current semester.	0.60	0.41	4.5	10.9	84.6
40	I have been able to discuss the ethical and legal aspects related to the professional practice.	0.56	0.50	18.2	32.0	49.7
25	The course has provided gradual developmentof my professional identity.	0.53	0.51	2.3	8.5	89.3
39	I have good interactions with the teachers.	0.53	0.45	6.8	24.1	69.0
38	I feel comfortable giving my views during the theoretical and practical classes.	0.52	0.46	25.2	20.6	54.2
11	The classes are held in a pleasant atmosphere.	0.40	0.36	25.3	31.0	43.7
31	Teachers and students respect one another.	0.40	0.48	9.1	19.4	71.4
28	The information given by the School's employees isconfusing.	-0.33	0.37	41.5	26.1	32.4
10	I have good contact with classmates from other semesters.	0.32	0.31	23.6	17.8	58.7

Table 4 - Distribution of Factor 4 items. Learning weaknesses per load factor and relative frequency of agreement - São Paulo, São Paulo, Brazil, 2013

No.	Item	LF	r_{it}	D	NDNA	A
20	The content of the courses has been comprehendedby memorization.	0.56	0.39	15.9	33.0	51.1
45	I don't feel I have leisure time due to fatigue.	0.51	0.34	21.1	16.6	62.2
26	Sometimes I need to carry out activities for which I do not feel prepared.	0.44	0.33	14.7	17.6	67.6
19	I would like to have more access to the School's labs.	0.44	0.30	4.0	13.6	82.4
15	Many classes are taught exclusively with slide presentation.	0.43	0.28	9.2	6.3	84.5
35	I am not able to make friends in this School.	0.41	0.29	90.0	4.0	5.2
7	The objectives proposed for my professional training are clear.	-0.39	0.40	12.7	15.6	71.7
14	Sometimes I don't understand why they are teaching certain subjects or techniques.	0.39	0.41	29.5	11.4	59.1
17	I still don't know what the nurse's role is.	0.38	0.42	85.7	8.0	6.3
21	Initiative and decision-making are not encouraged by the teachers.	0.37	0.33	63.0	21.0	16.0

Table 5 - Distribution of the scores by factor - São Paulo, São Paulo, Brazil, 2013

Factors	N	M	SD	Standard Error	Confidence Interval 95%		Amplitude	
					Bottom	Top	Min.	Max.
F1	176	3.64	0.60	0.05	3.54	3.72	2.20	5.00
F2	176	2.92	0.69	0.52	2.81	3.01	1.25	4.38
F3	176	3.58	0.51	0.04	3.49	3.65	1.93	4.93
F4	176	3.04	0.49	0.04	2.97	3.12	1.40	4.50

We noticed that the highest score went to Factor 1, Support for hands-on learning, and the lowest was Factor 2, Attitudes during learning.

There was no significant difference in any of the factors when comparing the factor scores by gender.

A positive and significant relationship ($p<0.01$) was found between the age of the participants and the score on Factor 2, Attitudes during learning ($r=0.29$), which means that the greater the age, the greater the probability of the participants agreeing on the items of this factor.

The ANOVA results indicated significant differences in the levels of all the scores when the comparing variable was the current semester: Factor 1 [F (3.166)=5.166, $p\leq0.01$]; Factor 2 [F (3.166)=22.014, $p\leq0.01$]; Factor 3 [F (3.166)=4.348, $p\leq0.01$], and Factor 4 [F (3.166)=4.243, $p\leq0.01$].

Tukey's HSD test formed two subgroups for Factor 1, Support for hands-on learning; the sixth semester group had significantly lower averages compared to the other groups.

In Factor 2, Attitudes during learning, the second semester group had significantly lower averages compared to the other groups. The sixth semester group obtained the highest scores in this factor, differing significantly from the other groups.

In Factor 3, Learning atmosphere, the sixth semester group had significantly lower averages compared to the other groups. The eighth semester group obtained the highest scores in this factor, differing significantly from the other groups.

Finally, in Factor 4, Learning weaknesses, the eighth semester group had significantly lower averages compared to the other groups while the sixth semester group obtained the highest scores in this factor, differing significantly from the other groups.

Forthe variable year of entry, the ANOVA results indicated significant differences in scores on three factors: Factor 2 [F (4.166)=17.889, $p\leq0.001$]; Factor 3 [F (4.166)=2.813, $p\leq0.05$]; and Factor 4 [F (4.166)=2.376, $p\leq0.05$]. Factor 1, Support for hands-on learning, did not differ significantly in any group [F (4.166)=2.168, $p\leq0.07$].

The results for Factor 2, Attitudes during learning were as follows: freshmen in 2008 (M=3.59) had no significant difference with others; freshmen in 2009 (M=3.04) had significantly lower scores compared to the 2010 freshmen (M=3.46); freshmen in 2010 (M=3.46) had significantly higher averages compared to the 2009 freshmen (M=3.04), 2011 (M=2.79), and 2012 (M=2.46); freshmen in 2011 (M=2.79) had significantly lower scores compared to the 2010 freshmen (M=3.46); freshmen in 2012 (M=2.46) had significantly lower averages compared to students who entered in 2009 (M=3.04) and 2010 (M=3.46).

For Factor 3, Learning atmosphere, the 2009 freshmen (M=3.76) had significantly higher scores compared to the 2010 freshmen (M=3.44). This difference, although significant, did not produce a division of students into subgroups on Tukey's test. There were no other significant differences between the other groups.

In Factor 4, Learning weaknesses, the 2010 freshmen (M=3.21) had significantly higher scores compared to the 2009 freshmen (M=2.90). This difference, although significant, did not produce a division of students into subgroups on Tukey's test. There were no other significant differences between the other groups.

DISCUSSION

The study results showed that regarding factors 1 and 3, Support for hands-on learning and Learning atmosphere the scores were higher when compared to factors 2 and 4, Attitudes during learning and Learning weaknesses. Sincethe four factors relate to the educational environment construct, it is understood that these are interdependent processes and they will therefore be discussed in an integrated and coordinated manner.

Teaching in the health area, including nursing, has unique characteristics, especially sinceit develops in conjunction with health services and therefore with the users of these services and their needs. Thus, health education takes place not only in classroomsthroughinteractions between teachers and students and the use of different teaching strategies, but also in scenarios of professional practice in each area, in interactions with teachers, students, and professionals of the services, and also with the users assisted. Both forms of education are necessary and complement each other, providing better learning opportunities for students[12].

The scenarios of practice are essential for healthcare students because they can provide experience inprofessional practice, observation of models, practices in action, and interactions with teams of professionals and the users assisted[13]. This experience affects what is learned in classrooms and the response of students because it creates opportunities for reflection on all that is observed and developed by the students in these spaces[14].

In Brazilian higher education, the national curriculum guidelines established for nursing courses guide the curricular organization toward training that meets social health needs and ensures "theoretical and practical activi-

ties present from the beginning of the course, permeating the entire training of the Nurse in an integrated and interdisciplinary way"[15].

The practice scenarios, however, are complex because they are expressed in the reality of services, with all thetensions, contradictions, and unpredictability of situations arising from interactions between the subjects involved in the process. Because of this, it is necessary to ensure support for students bythe teachers and teams of health professionals involved, so that learning in these locations can reach its full potential in the students' professional development. In the environment studied, this support was confirmed by the students, especially with respect to supervision, revealing that the teachers were present and stimulated the students to participate in work dynamics in the field, andin turn ensured the conditions for the development of the actions proposed, bringing the students feelings of confidence. These findings reveal the attention of the School in ensuring the support that students need in practical scenarios.

The confidence felt by students under the supervision given by nurses corroborates theresults of another study[5], which also concluded that students felt that the nurses wereconfident in carrying out practical teaching.

The need for having greater understanding of student perceptions of the clinical learning environment was found in an Australian study[12] on bachelor's degree courses in the area of healthcare;the results showed that the climate of learning in practical teaching situations, called clinical learning in the study, is essential for the professional development of students. This requires continuous and ongoing communication between the students, teachers, and health professionals involved in the process.

Another study carried out with nursing students from nine countries inWestern Europe showed that the interactions of students and the relationships between the teachers, students, and nurses involved in practical teaching in the field favored the professional development of students. Furthermore, longer duration of the activities in the field makes it possible to build more individualized student-teacher-nurse relationships that arefocused on the needs of undergraduate students, which also allows them to develop ties with users and get to know the organizational structure of the services[16].

This brings up the fact that individual differences may arise in this academic environment in various forms, behaviors, attitudes, interests, and opinions, and it should be pointed out that a positive relationship between teachers and students has a strong correlation with student achievement[17-18].

Stimulation of student initiative and decisions by teachers, consideration by teachers of students' opinions, and the confidence that students feel aboutpresenting their views are essential factors when there is a political and pedagogical project focused on meaningful learning, as it assumes active students. These factors also become fundamental tolearning because they grow out of real situations or thosethat approach reality, enabling integration between cycles, between disciplines, and between the biopsychosocial dimensions, and because they prepare students towork in groups[19].

Student-teacher interactionsare important for training, along with the availability of teachers to listen to students.

Teachersareone of the most important subjects,are present in the relationships of students, and can help them in some situations by having an open and listening perspective, as well as by building democratic and warm interpersonal relationships inside and outside classrooms. This suggests that teachers must have not only expertise in health care knowledge, but also a humanized attitude[20].

Similarly, the presence of teachers and their appreciation of what students say, do, and feel strengthen relationship and promotes bonds of trust[21], which is essential for learning.

From another point of view, relationships based on respect, dialogue, and discussion of the ethical and legal dimension, as that takes place in the School, refers to a process of ethical training, understood as an educational action based on the concreteness of the subjects and centered on the reality where they are located, inwhich behaviors are not imposed, but where dialogue, understanding, respect, freedom, and caring are strengthened. Because of this, the process should be related to ethical concepts and situations experienced by the subjects, otherwise the notions passed on become abstract and insufficient for the full exercise of ethical values[22].

In this study, the variables of the learning atmosphere wereevaluated, such as: the learning environment is considered pleasant and welcoming; relationships with teachers aregood, as expressed in good interactions with them, possibilities forreflection and discussion, and the respect established between teachers and students. However, the students also emphasize the need to improve the instruction providedby technical and administrative professionals.

Good relationships between students and teachers have beenhighlighted in some studies[12,23], which showed a direct linkbetween good relationships and students' professional development.

One important characteristic of the learning atmosphere is providing students with contact with tools and strategies that help them deal with ethical problems, exploring these activities both in the classroom and also during practical teaching in the field, as evidenced in a study with college nursing students in Australia[24].

Similarly, the use of participatory methodologies inteaching and the adoptionof different strategies, such as games, to motivate student learning are facilitated by teacher-student relationships in innovative proposals and students' knowledge-building process, which requires mediation skills on the part of teachers[23].

Nursing education, however, still relies on traditional education with centrality of teachers and prevalence of expository and demonstration methodologies with a focus on memorization and technical skills. There is little coordination between

the different curricular components, and teacher training is needed to develop innovative teaching proposals[25].

Recognition of the importance of teacher training for the development of innovative curriculum proposals was also identified in a study in a Brazilian public university in the state of São Paulo[26], which highlighted that there are differences in the results achieved depending on the diversity of teacher education. The study also showed that students value innovative proposals in education, such as integrating the different areas of nursing knowledge.

In addition to teacher training, a Brazilian study[27] on the use of participatory strategies in teaching nursing administration pointed out that to adopt these strategiesin the teaching-learning process, it is necessary to consider factors such as time, motivation, dedication, communication, and above all changes in teachers' work process.

The use of active methodologies in teaching nursing care in Brazil occurs mostlyin isolated activities incoursesor other teaching and assistance activities. In general, innovative experiences are motivated by individuals and not by institutions. Support is lacking in the spheres of organization, teaching, and assistance inthe implementation of active methodologies. It is therefore necessary to assess the graduates of consolidated curriculum coursesoninnovative methodologies to understand the impact of this type of training onprofessional practice[28].

The adoption of active methodologies appears to be one weakness inthe educational environment in theSchool being evaluated because, in general, teaching strategies are based on memorization and transmission of knowledge, which may explain students' lack of understanding regarding the content covered for their professional training and the lack of clarity of the nurse's role.

The teaching-learning process needs to break paradigms in order to break free oftraditional training and make learning meaningful. This intention is reinforced in the nurse training profile defined in the National Curriculum Guidelines, professionals who are generalist, humanist, critical, and reflective, with scientific and intellectual rigor based on ethical principles, while gaining the knowledge required in the following skills and competencies: attention to health, decision making, communication, leadership, administration and management, and continuing education[15].

Currently, the movement towardthis new construction of knowledge is counter-hegemonic, since teaching and health care practices remain fragmented and rooted in the traditional model. Furthermore, the change is paradigmatic, with an explicit need to incorporate new technologies that address the integrity, diversity, globalization, and uncertainty of the daily work reality of health professionals[19].

The teaching-learning process, due to its complexity and scope, involves a number of factors that are decisive for the formation of qualified professionals. The role of educational institutions is to provide academics with a constellation of knowledge and skills that is consistent with their role when they enter the labor market. Institutions alsohave a responsibility to awaken teachers to the importance of interacting with students, so as to be not onlytransmitters of knowledge, but also facilitators and active cooperators in preparing students for their work[29].

For the educational environment to favor the teaching-learning process, it is necessary that educational institutions provide adequate conditions for the integration of students and teachers into scenarios of practice by establishing relationship bonds that can be incorporated into active methodologies in order to transcend the restructuring of the . This can be the first step, since it proposes a new policy. Still, it is essential to prepare both teachers and students, because in some situations students arealso resistant to new teaching strategies.

We noticed in this assessment some aspects that include the principles of meaningful learning and active methodology, when teachersprovide studentswith learning opportunities, thus taking on a role of facilitators in the process. In this sense, this study suggests that EEUSP has been making progress in these attributes.

In this study, students who arenow in their sixth semester, which means that they arestudents who entered the School under regular curriculum development, correspond to the first class under the new Political and Pedagogical Project. Although it was not the intention to compare the curricula, it is interesting to note that it is precisely onthese two variables that these students stood out from the other groups, suggesting arelationship between the change in the curriculum proposal and the development of the educational environment from the perspective of students, who are the subjects sensitive to the changes and curricular restructuring.

CONCLUSION

The knowledge generated in this study, for which no research was found in the Brazilian literature on Nursing, offers to other higher education institutions a new alternative for evaluating their educational environment, which has such a large influence on the results of the teaching-learning process.

The most favorable factor of the environment from the students' perspective was Support for learning. The elements that make up the educational environment are in line with the Political and Pedagogical Project, such as: valuing students' opinions so as to improve the teaching process; promotion oflearning opportunities by teachers; students' confidence inthe supervision of their teachers; encouragement for students to participate in the work dynamics in the fields of practice; and interactions between teachers and students.

With regard to teaching strategies, however, the support offered to students demonstrated that there is still progress to be made with regard to the active methodologies, such as is called for in the pedagogical project, because lectures using slides are still a predominant part of learning, resulting in memorization.

Vocational training has developed gradually and students know the role of the nurse, are aware of the objectives proposed for their professional training, andindicate that the course meets their expectations. Still, some students do not understand why they are learning certain subjects or techniques, which refers to the range of knowledge that the profession requires for the formation of a generalist nurse.

Attitudinal competencies received lower scores, suggesting a need to strengthen these aspects in the undergraduate courses, although there is respect for students and discussion ofethical problems that arise.

Finally, we emphasize that the instrument weused should be applied again, since the number of respondents in this study was lower than recommended for checking consistency and internal structure and for doinga confirmatory factor analysis, which can be pointed out as a limitation of this study. This instrument was incorporated into the rating system of the Political and Pedagogical Project of EEUSP and was included in a new research project that will expand the study sites and population, which will allow reevaluation of its psychometric properties.

RESUMO

Objetivo: Avaliar o ambiente educacional da Escola de Enfermagem da Universidade de São Paulo, na perspectiva do estudante. **Método:** Abordagem quantitativa com desenho exploratório. Participaram do estudo, 176 estudantes que responderam a uma escala Likert, com graduação de 1 a 5 para avaliação do ambiente educacional. Os dados foram submetidos à análise fatorial exploratória e testes estatísticos inferenciais; a confiabilidade do instrumento foi constatada pelo Alpha de Cronbach. **Resultados:** A análise de dimensionalidade estabeleceu quatro fatores: Suporte à aprendizagem prática, com média de escore 3,64; Atitudes durante a aprendizagem, escore médio 2,92; Clima de aprendizagem, média 3,58 e Fragilidades da aprendizagem com 3,04. **Conclusão:** O fator mais favorável do ambiente foi o Suporte à aprendizagem. As competências atitudinais atingiram escores mais baixos, sugerindo a necessidade de fortalecer esses aspectos durante a graduação.

DESCRITORES

Educação em Enfermagem; Educação Superior; Programas de Graduação em Enfermagem; Aprendizagem; Avaliação Educacional.

RESUMEN

Objetivo: Evaluar el ambiente educativo de la Escuela de Enfermería de la Universidad de São Paulo, en la perspectiva del estudiante. **Método:** Enfoque cuantitativo con diseño exploratorio. Participaron del estudio 176 estudiantes que respondieron a una escala Likert, con graduación 1 a 5 para evaluar el ambiente educacional. Los datos fueron sometidos a análisis factorial exploratorio y pruebas estadísticas inferenciales; la confiabilidad del instrumento fue verificada por el alfa de Cronbach. **Resultados:** El análisis de la dimensión estableció cuatro factores: Soporte al aprendizaje práctico, con una puntuación media de 3,64; Actitudes durante el aprendizaje, la puntuación media de 2,92; Clima de aprendizaje, medias 3,58 y fragilidades de aprendizaje 3,04. **Conclusión:** El factor más favorable fue del ambiente fue el Soporte para el aprendizaje. Competencias actitudinales alcanzaron puntuaciones más bajas, lo que sugiere la necesidad de fortalecer estos aspectos durante la graduación.

DESCRIPTORES

Educación en Enfermería; Educación Superior; Programas de Graduación en Enfermería; Aprendizaje; Evaluación Educacional.

REFERENCES

1. Guerreiro-Casanova D, Polydoro S. Integração ao ensino superior: relações ao longo do primeiro ano de graduação. PsicolEnsino Form [Internet]. 2010 [citado 2012 dez. 10];1(2): 85-96. Disponível em: http://pepsic.bvsalud.org/pdf/pef/v1n2/v1n2a08.pdf
2. Messas JT. Análise do ambiente educacional: construção e validação de um instrumento de avaliação para graduação em enfermagem [dissertação]. São Paulo: Escola de Enfermagem,Universidade de São Paulo; 2013.
3. Riquelme Pérez A, Fuentes G, Jeria A, Méndez I, Aranís C, Larios G, et al. Ambiente educacional y calidad de la docência enlaescuela de medicina. ARS Med (Santiago) [Internet] 2007 [citado 2012 dez. 10];15(15). Disponibleen: http://escuela.med.puc.cl/publ/arsmedica/ArsMedica15/Ambiente.html.
4. Soemantri D, Roff S, McAleer S. Student perceptions' of educational environment in the midst of curriculum change. Med J Indones. 2008;17(1):57-63.
5. Mira VL, Araujo VGL, Minami LF, Tronchin DMR, Lima AFC, Otrento E, et al. Avaliação do ensino prático desenvolvido em um hospital universitário na perspectiva de graduandos em Enfermagem.RevEletrEnf [Internet]. 2011 [citado 2013 fev 11];13(3):483-92. Disponível em: www.revistas.ufg.br/index.php/fen/article/viewFile/11121/10650
6. Hair JF, Anderson RE, Tathan RL. Análise multivariada de dados. 5ª ed. Porto Alegre: Bookman; 2005.
7. Horn JL. A rationale and technique for estimating the number of factors in factor analysis. Psychometrika. 1965;30(1):179-85.
8. Aparuhov T, Muthen B. Exploratory structural equation modeling: structural equation modeling. Multidiscip J. 2009;16(3):397-438.
9. Kline RB. Principles and practice of structural equation modeling. 3thed. New York: Guilford Press; 2011.
10. Muthén LK, Muthén BO. Mplus user's guide. Los Angeles: Muthén&Muthén; 2001.
11. Dancey CP, Reidy J.Estatística sem matemática para psicologia usando o SPSS para Windows. 3ª ed. Porto Alegre: Artmed; 2006.

12. Brow T, Williams B, McKenna L, Palermo C, McCall L, Roller L, et al. Practice education learning environments: the mismatch between perceived and preferred expectations of undergraduate health science students. Nurse EducToday. 2011; 31(8):e22-8.

13. Capozzolo AA, Imbrizi JM, Liberman F, Mendes R. Experiência, produção de conhecimento e formação em saúde. Interface (Botucatu) [Internet]. 2013 [citado 2014 nov. 02];17(45):357-70. Disponível em: http://www.scielo.br/pdf/icse/v17n45/09.pdf

14. Kilminster S, Cottrel D, Grant J, Jolly B. AMEE Guide Nº 27: effective educational and clinical supervision.Med Teach. 2007;29(1):2-19.

15. Brasil. Ministério da Educação; Conselho Nacional de Educação. Câmara de Educação Superior. Resolução CNE/CES n. 3, de 07 de novembro de 2001. Institui as Diretrizes Curriculares Nacionais do curso de Graduação em Enfermagem. Diário Oficial da União. Brasília, 9 nov. 2001. Seção1, p. 37.

16. Warne T, Johansson UB, Papastavrou E, Tichelaar E, Tomietto M, Van den Bossche K, et al. An exploration of the clinical learning experience of nursing students in nine European countries. Nurse Educ.Today. 2010;30(8):809-15.

17. Howells K. An exploration of the role of gratitude in enhancing teacher and student relationships. Teach Teacher Educ. 2014;42(1):58-67.

18. Lee JS. The effects of the teacher: student relationship and academic press on student engagement and academic performance. Int J Educ Res. 2012;53:330-40.

19. Marin MJS, Limal EFG, Paviotti AB, Matsuyama DT, Silva LKD, Gonzalez C, et al. Aspectos das fortalezas e fragilidades no uso das Metodologias Ativas de Aprendizagem.RevBrasEducMed [Internet]. 2010 [citado 2013 jan. 22];34(1):13-20. Disponível em: http://www.scielo.br/pdf/rbem/v34n1/a03v34n1.pdf

20. Carneiro AD, Costa SFG, Pequeno MJP. Disseminação de valores éticos no ensino do cuidar em enfermagem: estudo fenomenológico. Texto Contexto Enferm [Internet]. 2009 [citado 2013 jan. 22];18(4):722-30. Disponível em: http://www.scielo.br/pdf/tce/v18n4/14.pdf

21. Semim GM, Souza MCBM, Corrêa AK. Professor como facilitador do processo ensino-aprendizagem: visão de estudante de enfermagem. RevGaúchaEnferm. 2009; 30(3):484-91.

22. Fernandes JD, Rosa DOS, Vieira TT, Sadigursky D. Dimensão ética do fazer cotidiano no processo de formação do enfermeiro. Rev Esc Enferm USP. 2008;42(2):396-403.

23. Spiers JA, Paul P, Jennings D, Weaver K. Strategies for engaging undergraduate nursing students in reading and using qualitative research. Qual Rep[Internet]. 2012 [cited 2014 Oct 22];17:1-22. Available from: http://www.nova.edu/ssss/QR/QR17/spiers.pdf

24. Kalaitzidis E, Schmitz K. A study of an ethics education topic for undergraduate nursing students. Nurse Educ Today. 2012;32(1):111-5.

25. Lazzari DD, Pedro ENR, Sanches MO, Jung W. Estratégias de ensino do cuidado em enfermagem: um olhar sobre as tendências pedagógicas. Rev Gaúcha Enferm. [Internet]. 2011 [citado 2014 nov. 02];32(4):688-94. Disponível em:http://www.scielo.br/pdf/rgenf/v32n4/v32n4a08.pdf

26. Paranhos VD, Mendes MMR. Competency-based curriculum and active methodologyperceptions of nursing students.Rev Latino Am Enfermagem [Internet]. 2010 [cited 2014 Nov 02];18(1):109-15. Available from: http://www.scielo.br/pdf/rlae/v18n1/17.pdf

27. Kalinowski CE, Massoquetti RMD, Peres AM, Larocca LM, Cunha ICKO, Gonçalves LS, et al. Metodologias participativas no ensino da administração em Enfermagem. Interface (Botucatu) [Internet]. 2013 [citado 2014 nov. 02];17(47):959-67. Disponível em: http://www.scielo.br/pdf/icse/v17n47/aop4413.pdf

28. Sobral FR, Campos CJG. The use of active methodology in nursing careand teaching in national productions: anintegrative review. Rev Esc Enferm USP [Internet]. 2012 [cited 2013 Nov 02];46(1):208-18.Available from: http://www.scielo.br/pdf/reeusp/v46n1/en_v46n1a28.pdf

29. Silva GA, Corrêa RJV, Rebeca Corrêa R, Silveira SCA, Paiva MA. Sentimentos vivenciados por graduandos em enfermagem durante o estágio supervisionado. RevEnferm UFPE [Internet]. 2011 [citado 2013 fev. 11];5(7):1647-55. Disponível em: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewFile/1772/pdf_612