

Medical-surgical training practice quality for the Nursing professional performance

Qualidade da prática do treinamento médico-cirúrgico para o desempenho profissional da Enfermagem

Calidad de la práctica formativa en médico-quirúrgico para el desempeño profesional de Enfermería

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ABSTRACT

Background: In Nursing science, the evolution of instruction performs is an essential pillar to assurance better skillful implementation. Demonstrating the quality of the practices is fundamental to make the particular changes, which aid to develop and encounter the requirements of students and teachers. **Objective:** To determine the quality of medical-surgical training practice for the professional performance of Nursing. **Methods:** Quantitative approach, with a descriptive scope and cross-sectional design, an instrument composed by 22 questions that focused six dimensions was used, with a reliability of Cronbach's alpha of 0.99, on the survey directed to the students a simple random sample was used, and for teachers, a non-probabilistic sample was convenience. **Results:** The quality of the training practices from the perception of the students is good with 83.1% in relation to the accompaniment and help received by teachers. Likewise, teachers consider that the quality of the practices is good, according to the support received by the university, and the fulfillment of their responsibilities. **Conclusions:** The quality of the training performs within the surgical area is considered decent, both for those who obtain the practice and for those who teach it. Thus, certain factors are contemplated, such as the support of trainers and aid provided by the university.

Keywords: nursing, medical-surgical, clinical practices, students.

RESUMO

Enquadramento: Na ciência da Enfermagem, a evolução do desempenho da instrução é um pilar essencial para garantir uma melhor execução hábil. Demonstrar a qualidade das práticas é fundamental para realizar as mudanças particulares, que auxiliam no desenvolvimento e atendimento das demandas de alunos e professores. **Objetivo:** Determinar a qualidade da prática do treinamento médico-cirúrgico para o desempenho profissional da Enfermagem. **Métodos:** Abordagem quantitativa, de âmbito descritivo e delineamento transversal, foi utilizado um instrumento composto por 22 questões que enfocavam seis dimensões, com uma confiabilidade de alfa de Cronbach de 0,99, na pesquisa dirigida aos alunos foi utilizada uma amostra aleatória simples, e para os professores, uma amostra não probabilística foi de conveniência. **Resultados:** A qualidade das práticas formativas na percepção dos alunos é boa com 83,1% em relação ao acompanhamento e ajuda recebida pelos professores. Da mesma forma, os professores consideram que a qualidade das práticas é boa, de acordo com o apoio recebido pela universidade e o cumprimento das suas responsabilidades. **Conclusões:** A qualidade da formação realizada na área cirúrgica é considerada decente, tanto para quem obtém a prática como para quem a ensina. Assim, alguns fatores são contemplados, como o apoio de treinadores e auxílios fornecidos pela universidade.

Palabras clave: enfermagem, médico-cirúrgica, clínica, estudantes.

RESUMEN

Fundamento: En la ciencia de la Enfermería, la evolución de las funciones de instrucción es un pilar esencial para garantizar una mejor ejecución hábil. Demostrar la calidad de las prácticas es fundamental para realizar los cambios particulares, que ayuden a desarrollarse y atender los requerimientos de estudiantes y docentes. **Objetivo:** Determinar la calidad de la práctica formativa médico-quirúrgica para el desempeño profesional de Enfermería. **Métodos:** Enfoque cuantitativo, con alcance descriptivo y diseño transversal, se utilizó un instrumento compuesto por 22 preguntas que enfocaba seis dimensiones, con una confiabilidad del alfa de Cronbach de 0.99, en la encuesta dirigida a los estudiantes se utilizó una muestra aleatoria simple, y para los docentes, una muestra no probabilística fue por conveniencia. **Resultados:** La calidad de las prácticas formativas desde la percepción de los estudiantes es buena con un 83,1% en relación al acompañamiento y ayuda recibida por parte de los docentes. Asimismo, los docentes consideran que la calidad de las prácticas es buena, de acuerdo al apoyo recibido por parte de la universidad, y al cumplimiento de sus responsabilidades. **Conclusiones:** La calidad de la formación que se realiza dentro del área quirúrgica se considera decente, tanto para quienes obtienen la práctica como para quienes la imparten. Así, se contemplan determinados factores, como el apoyo de formadores y las ayudas que aporta la universidad.

Palavras-chave: enfermagem, médico-quirúrgico, práticas clínicas, estudantes.

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This study confirms that quality of training practices in the nursing educational field are a fundamental pillar for good professional performance.

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It is one of the few studies in Ecuador discussing that the medical-surgical area requires professionals who work there have practical skills, which are acquired in training practices in that area.

INTRODUCTION

Nursing is a science that is founded on practice, therefore, training practices are not contemplated only as the performance of different activities in the clinical area, they cover both the academic knowledge learned during academic preparation, as well as the application of knowledge. The implementation of training practices gives students the skill of being in contact with patients in different clinical scenes (Gerbotto, Sáenz, Gattari, & Daro, 2019).

Talking about quality, it emphasizes on the awareness of the individual that receives a facility. If we analyze the quality within the didactic field, a reference is made to the inputs used for instruction, the procedures applied by teachers to teach and the outcomes gotten through student assessment (Vera-Millalén, 2018). It should be notable that one of the fundamental necessities for quality student learning is that they have an active role on it. In addition, to acquire the knowledge imparted by their teachers, they are proficient to apply critical thinking and to control autonomous behaviors when they are in real settings (Martínez, Solano, García-Carpintero, & Manso, 2018).

The medical-surgical area shelters a wide range of patients from different ages (except pregnancy women), as well as a number of processes, diseases and situations. Especially, this unit handles severe and chronic diseases, patients who need surgical interventions, and patients transferred from the intensive care facilities. This is a complex area and, it is essential that the nurses own vast knowledge, technical skills and critical thinking, for effective problems resolution that can occur. (Romo, 2012).

Performance at work refers to the actions done by workers in their job. It is necessary to mention that the performance shown by each worker not only has to do with their theoretical knowledge and practical skills, but also embraces other influences such as aptitudes and attitudes, and the environment in which they develop (Quintana & Tarqui, 2019).

An important point used to measure the quality of the guidance practices of students in university stage, is the resultant work performance that they perform in their professional life, since it is influenced by the training they study in their undergraduate period. That is why, it is considered significant to monitor graduates where their didactic approaches and the quality of the training received during their learning period are assessed (Cabanillas, 2018).

The performance of instruction practices from the first periods is essential for the growth and strengthening of the skills of the learners of the Nursing Career, the introduction to the practical scenario and interaction with patients allows to combine both factors. Being present in hospital areas, students acquire both positive and negative involvements, which help them to adopt attitudes and models to emulate or reject (Bueno, Brito, & Delgado, 2018).

An essential aspect for the appropriate performance of learners in the clinical area is teaching by teachers, which is why it is emphasized that the primary factor is to obtain quality training practices lies on the theoretical level of the teacher (Escobar & Quenoran, 2022). That is why the Nursing Career, covers significant fields such as schooling and health, the selection of teachers must be demanding, and based on particular academic value.

On the other hand, a study done in Spain demonstrates that training practices in the surgical area bring good outcomes, since 73.5% of the students who contributed in the study defined that they had obtained the essential bases for their future job implementation; all this because their practice was developed in an ideal atmosphere and with their tutors involved. It is remarkable to note that in some cases it was not feasible to perform practices in specific surgical fields, due to the risk that is presented in the methods that the learners contribute in (Ochoa, Gallegos, & Atuna, 2019).

Talking precisely about training practices in the medical-surgical field, it should be contemplated that the surgery room is considered an area that produces prodigious learning occasions, the unification of the teaching guide is a significant source of acquiring and guidance for learners in the surgical field. It is important to indicate that in research done in Mexico, 60% of the participating learners perceive the activities carried out within this area as good and timely and 40% as bad; however, it can be cataloged that learning over these areas is optimistic (Nebot, 2017).

A study carried out on students from a university in Colombia, occasioned in that 90.3% of the participants specify that the training practices received are high quality, in relation to the conditions in which they established, the physical space, the acting occasions they had and the environment (Escobar et al., 2021). Similarly, in another university, 1% of the students who contributed in the research indicated that the formative practice is deficient, followed by 7% that qualified it as regular, 56% as good quality and 36% that the perceived as excellent quality (Cortes-Escalante & Julio-Peterson, 2020). Something essential to emphasize is that the students mostly relate the quality of the schooling practices with the guidance they receive from their tutors.

When mentioning the training practice in Ecuador, a study carried out in a university shows that 71.9% of participants ponder it necessary to reinforce the chairs of the professional field. Furthermore, 61.3% noticed that the learning they obtained during the theoretical training was more academic than practical. In the study, it is suggested to intensify the

practical area, which will help to connect the theoretical field with the performance of techniques and improve skills (Escobar, & Quenorán, 2022).

The implementation of the nursing staff within the surgical field includes a diversity of actions, which are focused on three stages, the first stage is the pre-operative stage in which the staff is in charge of the physical and psychological preparation of the patient for the surgery. It can be implemented both in the emergency field and in the hospital, applying the pre-operative and patient safety protocols. In the intra-operative period, they are in charge of the comfort and safety of the patient, furthermore nurses coordinate the personnel in the operating room and performing scrub and circulating nurse activities (Smeltzer, Bare, Hinkle, & Cheever, 2016).

Similarly, in the post-operative period the nursing staff carry out actions linked to the stage in which the patient is, consequently in the immediate post-operative period they center on the post-anesthetic retrieval of the patient, preserving hemodynamic and hydro electrolytic stability and pursuing physical welfare; in the immediate post-operative period, the patient remains in the hospital and focuses under medicine treatment, diet, and physical activity. On the other hand, in the immediate post-operative period, interventions emphasize on education about medication, diet, and exercise (Romo, 2012).

In relation to the above-mentioned, the present study is carried out to acquire significant information and with the objective of determine the quality of the medical-surgical training practice for the professional performance of Nursing.

METHODS

The methodology applied for the analysis of the research includes a quantitative approach, with a descriptive scope and a cross-sectional non-experimental proposal (Pérez, Pérez, & Seca, 2020). A test was taken on students and professors of the Nursing Career of the Technical University of Ambato (UTA), about the quality of training practices in the medical-surgical area.

Population and sample

The population in this study is 193 students, members of the sixth and seventh semester of the Nursing Career at Technical university of Ambato and six teachers who impart practice in the medical-surgical area. The sample of students estimated by means of the Sierra Bravo method (5% margin of error, 95% reliability and 50% probability of occurrence and non-occurrence), was 130 students; and the survey for teachers, was applied to the entire population (Valera, López de Uralde, & Plaza, 2022).

Sample Techniques

Students

The probabilistic sample selected through the application of simple random sample, in which the members encounter the inclusion and exclusion criteria.

Inclusion Criteria

Sixth and seventh semester students who have taken Surgical Nursing Subject.

Students who agree to participate in the study and signed the consent form.

Exclusion Criteria

Sixth and seventh semester students who have not taken Surgical Nursing Subject.

Students who disagree to participate in the study and did not sign the consent form.

Professors

Having a small population of teachers, a non-probabilistic sample was carried out for suitability due to the characteristics. Thus, the survey was applied to teachers, as long as they gather the inclusion and exclusion criteria.

Inclusion criteria

Professors who instruct training practices of the Surgical Nursing subject.

Professors who agree to participate in the study and signed the consent form.

Exclusion criteria

Professors who do not instruct training practices of the Surgical Nursing subject.

Professors who disagree to participate in the study and did not sign the consent form.

Instrument

Students

The data collection was carried out through the application of an adapted survey by Díaz (2013). The adapted questionnaire was revised and authenticated by three professors from the Nursing Career at Technical University of Ambato (UTA). It involves 22 questions, which were gathered into six dimensions for the corresponding analysis: the first refers to the introduction to practice by the instructor, the second, the promotion of learning, the third, the facilities to receive the practice, the fourth to the application of clinical situations and PAEs (Nursing Care Plans), the fifth on the behavior of the educator, and a sixth that refers to the influence of the teacher of the subject in practice. The questions had multiple options according to the Likert-type scale related to frequency: Very frequently, Frequently, Occasionally, Rarely, Never. The instrument has a Cronbach's alpha of 0.99, which illustrates that it has exceptional reliability.

Professors

The survey applied to the teachers was assessed and validated by 3 teachers of the Nursing Career of the Technical University of Ambato (UTA), that consists of 11 interrogations, which were gathered into three dimensions for the respective analysis; The first is related to the facilities provided by the university for the practice, the second to the fulfillment of responsibilities, and the third to the fulfillment of objectives and expectations with the students. The questions had response options according to the Likert-type scale related to frequency, the response options were: Very frequently, Frequently, Occasionally, Rarely, Never. The instrument has a Cronbach's alpha of 0.98, which shows that it has exceptional reliability.

Data Analysis Technique.

Data Analysis Technique was carried out throughout the statistical program SPSS (Statistical Package for Social Sciences), which allowed perform the analysis easily, fast and avoid errors (Pérez, Pérez, & Seca, 2020).

Ethic aspects

The current research complied with the ethical aspects cited in the Declaration of Helsinki, implying that, the rights of the participants were respected at all stages. Compliance with the biotic principles of beneficence, autonomy, non-maleficence and justice was also pursued. In addition, consent forms were applied to each participant, in order to achieve their authorization for free and voluntary involvement in the research (Miranda & Villasis, 2019).

RESULTS

Students' analysis and interpretation

Table 1 shows that out of 130 participants, 80% are between 21 and 23 years old, 13.1% are between 24 and 26 years old, 3.8% are over 26 years old, and 3.1% are between 18 and 20 years old. With the prevalence of females with 83.8% unlike men who correspond to 16.2%. Additionally, 74.6% denote that they take practice for 2-3 hours a week, 23.1% 4-5 hours and 2.3% one hour. Similarly, 89.2% have taken the subject of Surgical Nursing once, 7.7% twice and 3.1% three times.

Table 1. General data of surveyed students.

		Frequency	Percentage
Age	18-20 years old	4	3,1
	21-23 years old	104	80
	24-26 years old	17	13,1
	26 years old and over	5	3,8
Sex	Female	109	83,8
	Male	21	16,2
Periods taken the subject	Once	116	89,2
	Twice	10	7,7
	Three times	4	3,1
Practice hours	1 hour	3	2,3
	2-3 hours	97	74,6
	4-5 hours	30	23,1

Source: Own elaboration with research data.

Table 2 presents the investigation of the dimensions considered in the study. Regarding the induction into practice by the educator, 73.1% of the students considered that it was good, 24.5% regular, and 1.5% poor. On the other hand, when analyzing the student learning impulse, it was gotten that the impulse is reflected good in 74.6%, 22.3% regular and 3.1% poor. Similarly, the practice facilities provided by the teacher were considered 71.3% good, 24.6% regular and 3.1% poor. Although, in the clinical cases and PAEs application within the practice area, 66.2% was good; 29.2% regular and 4.6% poor.

In addition, the teacher's attitude was considered in 83.8% as good, 12.3% regular and 3.8% poor. Finally, the impact of the teacher of the subject to the practice was taken into account, in which 85.4% of the students considered it good, 13.8 regular and 0.8% poor.

Table 2. Student Survey Dimension.

Dimensions	Statistic	Poor	Regular	Good
Induction into practice	Frequency	2	33	95
	Percentage (%)	1,5	25,4	73,1
Students Learning impulse	Frequency	4	29	97
	Percentage (%)	3,1	22,3	74,6
Practice facilities	Frequency	4	32	94
	Percentage (%)	3,1	24,6	71,3
Clinical cases and PAEs applications	Frequency	6	38	86
	Percentage (%)	4,6	29,2	66,2
Teachers' attitudes	Frequency	5	16	109
	Percentage (%)	3,8	12,3	83,8
Teachers subject support	Frequency	1	18	111
	Percentage (%)	0,8	13,8	85,4

Source: Own elaboration with research data.

Table 3 shows that out of 130 participants, 83.1% think that the quality of the training practices in Medical-Surgical as good, 14.6% as regular and 2.3 as poor. Therefore, it is showed that most of the members have a good observation of the instruction practices over this area.

Table 3. General level of the quality in formative practices according to students

		Poor	Regular	Good
General level	Frequency	3	19	108
	Percentage (%)	2,3	14,6	83,1

Source: Own elaboration with research data.

Table 4 demonstrates that out of 6 participating professors, 33.3% are between 36 and 40 years old and 66.7% are 41 years old and over, 66.7% are women and 33.3% men. In addition, 66.7% works in the field that imparts the subject and 33.3% do not

Table 4. General Data of surveyed professors

		Frequency	Percentage
Age	36-40 years	2	33,3
	41 years and over	4	66,7
Sex	Female	4	66,7
	Man	2	33,3
Works in the field that imparts the subject.	Yes	4	66,7
	No	2	33,3

Source: Own elaboration with research data.

Table 5 presents the examination of the scopes considered in the research, 100% of the participants consider that the

university facilities for the practice are good. In relation to the responsibility's accomplishment, objectives and expectations, 100% consider these dimensions as good.

Table 5. Dimensions considered in the professors' survey

Dimensions		Frequency	Percentage (%)
University facilities	Good	6	100%
Responsibility's accomplishment	Good	6	100%
Objectives and expectations accomplishment	Good	6	100%

Source: Own elaboration with research data.

Table 6 presents the general level of quality of medical-surgical preparation practice according to professors, which is measured 100% good.

Table 6. General level of Formative quality according to professors

		Good
General Level OF QUALITY	Frequency	6
	Percentage (%)	100

Source: Own elaboration with research data.

DISCUSSION

Previous research done in Ecuador suggested to strengthen of formative practices (71,9%), because students said that the academic formation is only theoretical (61,3%) (Escobar, & Quenorán, 2022).

Among the frequent opinion of students related to practices, they refer that educator do not allocate time to guide and the enough implication on formative areas (Celma-Vicente, López-Morales, & Cano, 2018). On the other hand, previous research done at Technical University of Ambato UTA, evidences that students consider the facilities that teachers offered as good (71,3%) and the impulse they got is also remarkable (74,6%).

Various reports showed that learners do not get respectful management within their training practices (52%) and state that as their level of knowledge is higher, good procedure reduces (Montesdeoca, Medina, & Hernández, 2019). Considering the opinion of the behavior of professors in practices, the research participants consider the study as good (83.8%).

In general, the research done evidences that the instruction practice within the surgical field was good at 83.1%. Likewise, a study performed in Colombia showed that 90.3% of the applicants considered that the training performs were of high quality, considering the opportunities for contribution and the atmosphere in which they developed (Escobar et al., 2021). Similarly, an investigation carried out in Mexico demonstrate that the participating students perceive the practices within the same area as good by 60% (Nebot, 2017). It could be perceived that in the three countries the training practices are good, however, a higher percentage is shown in Colombia.

Regarding internships in the clinical field, evidence was found at a universal level, in Spain it was demonstrated that learners (73.5%) contemplated that the internships were favorable for their future work implementation. In addition, they underlined that this was possible thanks to the assistance they got from their instructors and the physical area in which the practices were developed. (Ochoa, Gallegos, & Atuna, 2019). The above mentioned agrees with the results gotten in the present examination, since in relation to the aspiration that the students receive from the internship professors, 74.6% of the students consider as good.

Regarding the appreciation of professors about instruction practices, many picture the absence of knowledge about the objectives to be accomplished and the proficiencies to be reached with the learners (Celma-Vicente, López-Morales, & Cano, 2018). On the other hand, the professors surveyed state that 100% remain eager in the success of objectives and student learning. In addition, most consider that there is no satisfactory appreciation by the University (Celma-Vicente, López-Morales, & Cano, 2018). However, with respect to the professors participating in this research, 100% of the sample points out

that the university where they belong offers them with adequate facilities for the development of the practice.

Another fundamental point to emphasize is that inside the research, the insights of the learners (83.1%) and the professors (100%) agree, since the two sample groups consider that the training practices in the medical-surgical field are high quality. However, there are certain issues evidenced by the students, which must be strengthened so that the practices are entirely considered with good quality

CONCLUSIONS

There is no evidence of investigative research linked to the practices related to the subject in the Surgical field. However, according to the current research, it can be determined that the excellence of the training practices within the surgical area according to the students of the Technical University of Ambato UTA, is good, considering characteristics such as the contribution of the tutors, the impulse and aids that they provide during the learning process, and the attitude they perform while teaching.

A primary point to be noticed is that students consider that the knowledge taught by theoretical professors offers a great contribution to their performance in practice, for this reason it is emphasized that the theoretical field offers them with the scientific foundation for their application. However, there are certain aspects to increase such as the execution of resolution of clinical cases and the Nursing Care Process, and the real need to increase practice hours.

To conclude the quality of the training practices, it is important to have in mind the positions of both those who receive the practice and those who instruct it, the tutor teachers consider that the training practices are good, considering the support and facilities provided by the Technical University of Ambato UTA and the health establishments that allow undergraduates to be part. In addition, they self-assessed themselves optimally, linked to the fulfillment of concerns and objectives with the students.

Despite the fact that the teachers' perception is good, an important point to be considered is that professors who impart the subject practice should work within the same area, with the purpose of providing the corresponding facilities to assurance that the practice fulfills with the planned objectives improving the teaching-learning process.

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Task	% of contribution of each author	
	A1	A2
A. theoretical and conceptual foundations and problematization:	50%	50%
B. data research and statistical analysis:	40%	60%
C. elaboration of figures and tables:	50%	50%
D. drafting, reviewing and writing of the text:	60%	40%
E. selection of bibliographical references	50%	50%
F. Other (please indicate)	50%	50%

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