Critical incidents in the teaching-learning process of a nursing course through the perception of students and faculty

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The teaching-learning process is complex and leaves many question marks, mainly when one thinks about quality. Therefore, this study aims at identifying factors that interfere positively or negatively in the teaching-learning process, through the perspective of students and faculty of the Nursing course at the Universidade Norte do Paraná- UNOPAR. This descriptive study with a qualitative approach was carried out through the critical incidents technique. Thirty-six faculty and 140 students participated. Data analysis revealed that the students mentioned 435 critical incidents related to the category faculty behavior, being 317 negative references and 118 positive. According to the faculty members’ reports, the category interaction with the group produced 58 references, being 10 positive and 48 negative. An adequate teaching-learning process requires good faculty-student and student-student relationships, favoring good interaction and efficient learning.

Descriptors: teaching; learning; communication; nursing

Incidentes críticos del proceso enseñanza-aprendizaje del curso de pregrado en enfermería según la percepción de alumnos y docentes

El proceso de enseñanza-aprendizaje es complejo y presenta varias incógnitas, principalmente cuando se piensa en la calidad. Así, el objetivo de este estudio fue de identificar los factores que interfieren positiva o negativamente en el proceso enseñanza-aprendizaje, según la visión de alumnos y profesores del curso de pregrado de Enfermería de la Universidad Norte del Paraná - UNOPAR. Fue llevado a cabo un estudio descriptivo con aproximación cualitativa, a través de la “técnica de incidentes críticos”. Formaron parte de este estudio 36 profesores y 140 alumnos. Después del análisis de los datos, se observó que los alumnos relataron 435 incidentes críticos relacionados a la categoría conducta del profesor, siendo 317 referencias negativas y 118 positivas. Con relación a los relatos de los profesores, se verificó que la categoría interacción con el grupo presentó 58 referencias, siendo 10 positivas y 48 negativas. Por lo tanto, para que el proceso de enseñanza-aprendizaje ocurra de forma adecuada, necesita de una buena relación entre profesor-alumno y alumno-alumno, favoreciendo de esa manera una buena interacción y un aprendizaje eficiente.

Descriptors: enseñanza; aprendizaje; comunicación; enfermería

Incidentes críticos do processo ensino-aprendizagem do curso de graduação em enfermagem, segundo a percepção de alunos e docentes

O processo ensino-aprendizagem é complexo e apresenta várias incógnitas, principalmente quando se pensa em qualidade. Sendo assim, o objetivo deste estudo foi identificar os fatores que interferem positiva ou negativamente no processo ensino-aprendizagem, segundo a visão de alunos e professores do curso de graduação em Enfermagem da Universidade Norte do Paraná - UNOPAR. Trata-se de estudo descriptivo com abordagem qualitativa através da técnica de incidentes críticos. Fizeram parte do estudo 36 professores e 140 alunos. Após a análise dos dados observou-se que os alunos relataram 435 incidentes críticos relacionados à categoria conduta do professor, sendo 317 referências negativas e 118 positivas. Em relação aos relatos dos professores, verificou-se que a categoria interação com o grupo apresentou 58 referências, sendo 10 positivas e 48 negativas. Portanto, o processo ensino-aprendizagem, para ocorrer de forma adequada, necessita de bom relacionamento professor-aluno e aluno-aluno, favorecendo a boa interação e aprendizado eficiente.

Descriptors: ensino; aprendizagem; comunicação; enfermagem

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INITIAL CONSIDERATIONS

The teaching-learning process and communication have always been closely related, as there is no way of talking about the teaching-learning process without talking about communication and vice-versa. In order to teach, we need communication, whether verbally or non-verbally. The teaching-learning process is based on the exchange of knowledge and experiences among the subjects involved, and communication is an indispensable element for this exchange to occur.

As nurses and faculty members in a nursing course, we have often been confronted with nursing students who mentioned learning difficulties, deriving from problems to understand the contents, either because they did not have basic knowledge, did not agree with the teacher's didactics or presented difficulties to relate with the teacher. Therefore, the real meaning of the teaching-learning process needs to be described.

In principle, the word teaching may seem simple, as everybody, whether (s)he is a trained educator or an amateur, teaches something to somebody throughout his/her life. Each time a mother explains to her child how to cross the street, or when one person explains to another how to reach a certain destination, (s)he is also teaching.

A large number of people teach, without obtaining a degree or taking courses in didactics, without knowing how, the most incredible things, such as the ability to speak a language and, together with that, the mysteries of the world's composition and architecture\(^1\).

Hence, the act of teaching is a communication act *par excellence*, an act of sharing knowledge, ideas, feelings, beliefs or values characteristic of a social group's culture. For thousands of years, teaching has been considered the main system to preserve a group's cultural heritage, transmitting it to new members and inserting them into common life\(^2\). However, we know that learning does not happen through copying or memorizing certain contents, but through the individual's past experiences. Learning is the process through which behavior is modified as a result of experience. It is not restricted to the assimilation of contents and techniques, but also includes feelings and emotions\(^3\-4\).

In general, teaching designates the activity of teachers, and the concept of teaching refers to teacher-student, with learning as its end product\(^5\).

However, learning is neither based on teachers' pedagogical skills, nor on their specialized knowledge about the subject, nor on their curricular planning, use of audiovisual resources, preferences and expositions, nor on a large collection of books, although each of these items can be used on certain occasions. Instead, learning is based on the quality of attitudes in the personal relation between the teacher (facilitator) and the learner (student)\(^6\). Thus, this study aimed to:

- Identify factors interfering positively or negatively in the teaching-learning process, according to students and faculty members in an undergraduate nursing course.

METHODOLOGY

We carried out a descriptive study and adopted a qualitative approach to factors interfering in the teaching-learning process of faculty and students at the University of North Paraná - UNOPAR, registered between 1998 and 2002. The sample consisted of 36 faculty members and 140 students in the 2\(^{nd}\), 3\(^{rd}\) and 4\(^{th}\) year of the undergraduate nursing course at UNOPAR, and who demonstrated their availability and interest to participate in the study, after being informed about its objectives. Students were selected through convenience sampling. The number of students and faculty was established through the qualitative research principle, which determines that the research ends when data repetition occurs. First-year students were excluded because they had been taking the Nursing course only for a short time.

We used the critical incident technique, defined as "a set of procedures to collect direct observations of human behavior, so as to facilitate their potential use to solve practical problems and develop broad psychological principles, also outlining procedures for collecting observed incidents that present a special meaning and for finding systematically defined criteria" \(^7\).

Incident is "any human activity that is sufficiently complete in itself to allow for inferences and provisions about the person performing the act. In order to be critical, an incident must occur in a situation where the proposition or intent of the act seems reasonably clear to the observed, and where its consequences are sufficiently defined, so as to leave little doubt about its effects," \(^7\).
Some authors have used the critical incident technique to identify the difficulties and problems of patients submitted to sealed internal radiotherapy. The results found that the problems and difficulties observed and reported by these women were mainly related to the impositions inherent in treatment, and that the nurse’s role was important in planning nurse scare in sealed internal radiotherapy, based on the understanding of the problems and difficulties experienced by women submitted to this treatment (8).

Data were obtained through the critical incident technique. We used two instruments, one to obtain data from students and another to collect data from faculty members. The instruments consisted of two parts: the first contained questions related to subjects’ characteristics, while the second basically consisted of two guiding questions, which allowed us to identify positive and negative aspects related to the teaching-learning process in the undergraduate nursing course, according to course student and faculty members’ perceptions.

Interviews were held at the study room of the nursing Coordination, respecting students and teachers’ availability, interest and privacy.

After guaranteeing anonymity, in compliance with guidelines and regulatory standards for research involving human beings (Resolution 196/96), interviews took place. First, participants received questions about their characteristics. Then, they were asked in two questions to talk about situations occurred during classroom, training or laboratory activity. The meaning of incidents and the definition of the term critical were explained.

The researcher had to give some examples of incidents for the sake of better understanding, taking care not to refer to examples related to the activity under study. Besides standards guiding any research, in the case of critical incidents, certain care needs to be taken, such as: clearly explaining the meaning of critical incidents; clarifying the connotation of the term critical; giving one or two examples that are not directly related to the developed activity and explicitly stating the criteria that made us consider the reported episodes as critical incidents (9).

Data analysis complied with four criteria: reading and listing of reports; identification of elements involved in the critical incident (situation, behavior and consequence); grouping of reports and categorization (10).

First, we read the interviews and extracted the critical incidents inherent in the teaching-learning process, containing positive and negative references, in line with nursing students and teachers’ perspectives. Then, we carried out a second reading, searching for confused or unclear reports (7), Thus, eight reports were excluded because they were not considered to be critical incidents.

After exhaustive analysis, the critical incidents were categorized in terms of similarities, considering aspects related to the teaching-learning process and defined as the following categories: teacher behavior as perceived by students, totaling 435 reports; and interaction with the group as perceived by teachers, including 58 reports.

RESULTS AND DISCUSSION

We collected 435 reports referring to teachers’ behavior according to students, 118 (27.1%) with positive and 317 (72.9%) with negative references. Teacher behavior aspects were grouped as follows: teacher hinders student’s creativity - 133 negative references; teacher does not take the student’s learning moment into consideration, interrupting this process - 73 negative references; teacher’s attitude - 43 positive and 89 negative references; teacher encourages student during the learning process - 36 positive references; teacher is considered to be an ideal example of professional due to his/her actions - 39 positive references; didactics imposed by teacher in classroom hinders student’s learning - 20 negative references.

Teachers should stimulate students’ critical-creative capacity and, in this role, promote liberty and challenge reason (11).

However, when the teacher hinders the student’s creativity, this causes negative criticism against the teacher, as confirmed by the following report:

"...I was in training at a hospitalization unit and the teacher had given me a patient who needed to be washed in bed; then she asked me to arrange the material while she went to see the other students, when I was preparing the material the nurse asked me to do the procedure quickly, because the patient was going to get a tomography and transport would come and pick him up soon; I tried to warn the teacher but she told me to wait so, as there was no tray available to take the material, I used the lid of a recipient as a tray and took the material to the room, when I was almost finishing to wash the patient, the teacher arrived and became very angry. She told me I couldn’t have started the..."
washing without her and how could one imagine using a lid as a tray, she ordered me to stop washing the patient and arrange a tray to continue, she didn’t let me explain anything....."

However, we can identify in this report that, despite the student’s indignation, he does not know the scientific principles of certain techniques, as he considers using a lid as a tray to be a correct procedure, without worrying about the purpose each material should be used for and its implications for patients.

When the teacher does not take the student’s learning moment into consideration, interrupting this process, (s)he receives a negative reference, as shown by the following report:

"... my group had to present a seminar, each student had to do one part, as I was responsible for typing, therefore, I ended up knowing everyone’s part; I had studied a lot but, when I have to talk in public, I get desperate. On the day of the seminar, when I started the presentation, I put up a slide as a table and, because I remained silent for a couple of seconds, the teacher started to ask questions without stopping, I became desperate and I couldn’t answer, then she asked me to sit down, she criticized me to the extent of insinuating that I wasn’t capable and started to tell all of my contents and I left the room to cry....."

Although the student felt harmed by how the teacher dealt with the student, we observe in the above testimony that the group did not work together, as the student referred to group work, although that was not what happened. Each student carried out a specific part of the research, and the fact that this student typed everything does not mean that she understood the entire contents. Group work should not be seen as an activity to be realized by more than one person, in which each will do his part individually and then add that to the other participants’ contributions.

Group/team work "presupposes sharing ideas and feelings, dialogue and conflict coping"(12). Teachers’ attitudes as mentioned in the report above caused feelings of indignation and learning difficulties in students. If students are not respected and fully considered as human beings, they may present difficulties to see themselves and relate to other persons differently. Hence, students cannot be required to respect others, for example, when they are not respected or did not learn to value respect, as we can only offer to other people what we have ourselves(13).

In other reports, students indicate that the teacher’s attitude can exert positive or negative effects on students, such as:

"...we were having a theoretical class with a particular teacher, and two colleagues were talking, the teacher, who was already irritated by the fact that they had questioned her about some names on her slide and which she could not answer, took the attitude of expulsing them, this created dissatisfaction in the class, as the students’ talk was not related to criticism against the teacher..."

"...we were at the nursing lab to learn how to do a physical exam, there were some colleagues who were already auxiliaries and they started to use technical names that we didn’t know, and to criticize when I asked, the teacher called their attention and said that she would treat everybody at the lab as if nobody knew anything and that anybody who had the courage to criticize the others would have to explain the entire class contents and, if they didn’t manage, they would be punished, I found that a very good attitude, because she didn’t allow those who knew more humiliate those who didn’t..."

The first statement reveals a negative reference, in view of disrespect between the two groups (students and teacher). Respect is necessary with a view to an adequate and efficient teaching-learning process, that is, students need to respect the teacher and carry out the proposed activities, and the teacher needs to respect the students and understand their moment of learning, elaborating methods to encourage this process and respecting them as individuals under formation. In the second testimony, on the other hand, the student considered the teacher’s attitude as positive, by equaling all students to the same knowledge level. However, this impairs and even demotivates students with larger theoretical foundations. Teachers should act as mediators in the teaching-learning process, providing students with learning methods that, in this case, benefit both sides. However, each teacher is unique in his/her way of setting up teaching strategies that will exercise a positive or negative influence on student’s knowledge acquisition in the classroom(14).

Students consider other reports as beneficial to their learning, when the teacher understands students’ learning time and encourages them. Students believe that the knowledge they have can be accessed when teachers are at least patient enough to wait for them to guide their thinking, even without the teacher’s help, and manage to reach conclusions, even if partially correct(6), as shown by the following report:

"... it was the first time I was doing a urinary catheter on a woman, I was very nervous and afraid of making a mistake, the teacher perceived this and went with me to set up the material,
then she guided me and gently told me what was missing or giving me tips; then she went with me to talk to the patient and told the patient to relax, that I was a student but that I knew what I was doing; I started to open the packages of sterile material and the teacher helped me, when she perceived I was going to do something wrong she delicately took my arm and put me in the right direction, when I finished the procedure I knew I hadn’t done everything correctly, but the teacher called me and said that I had to take another look at the technique, but congratulated me, as I did my best to do everything right...”

This demonstrates that the teacher should facilitate the learning process, create opportunities for learning situations, provide for intense and adequate experiences, be capable of arousing the motivation in students to question and an inquiring attitude to seek solutions and base their intervention on reality(11).

Students expect teachers to be calm and comprehensive, to understand their mistakes because they are just beginning and to comment on their errors, particularly to avoid reoccurrence(15), as shown by the following report:

“...the teacher asked me to write a paper, that it should be scientific, but when I handed it in; she corrected it and it was full of observations, when I saw it, I thought, oh dear, the teacher hated it, but on the contrary, she said it was an excellent paper, that it just needed some modifications and that she would help me to get it published, I found her attitude very encouraging, as I didn’t believe my work could have this result...”

Educators need to put learners on the right track towards discovery and the practice of values through which education becomes meaningful and learners realize themselves, which occurs through the teaching-learning process(6).

We also found reports with positive references about seeing the teacher as the ideal example of professional due to his/her activities:

“...I was in training at a maternity hospital, suddenly the baby was born and was having a cardiorespiratory arrest, everybody got nervous, but my teacher started resanimation procedures and calmly asked for material and explained, when we didn’t know what it was, as if it were normal care; even the doctor became calm as a result of her attitude, the baby recovered and went to the nursery, and since that day I dream to be like her....”

In order to learn, students need to work cognitively to analyze and revise their knowledge, so as to make it really significant and lead to the highest possible competence level. The influence exerted by the teacher and his/her pedagogical intervention is what makes the student’s activity important(5). However, when the didactics imposed by some teachers does not motivate learning, students consider this as a negative reference for their learning, as shown below:

“...One teacher always gives class by reading texts, sitting down, and she never gives us the texts before, and when she hands out copies before it’s no use either, because she sits down and keeps reading, I don’t understand anything and, when me and my colleagues went to talk to her, she said that we were in college and that we had to seek our own knowledge...”

Monotonous, uninteresting classes and lack of feedback have been frequent complaints. Our students read little, write little, practice little and, however, they occupy two periods per day during four years as they are in a nursing course(16).

With respect to faculty members, we obtained 58 reports about the interaction with the group category, ten of which (20.8%) contained positive and 48 (79.2%) negative references. These revealed the following aspects: relationship difficulties among students - 40 negative references; some colleagues’ negative leadership of the group - 8 negative references; cooperation among students to help the others - 10 positive references.

The factor of relationship difficulties among students received a significant number of negative references according to teachers’ perceptions, implicitly revealed by the following report:

“...Students’ teaching-learning process is hindered by their difficulties to relate with one another, I remember two students who were going to make their Course Conclusion Monograph together, but they argued and the monograph was not handed in in time, the two split up and each of them had to find a new advisor and start from zero, this impaired their evaluation, and they didn’t learn because, together, they would have been able to do a much more elaborate job...”

Human beings were not created to live alone. They need to live with other human beings, but it should be taken into account that living together in a group is complex and difficult, as we are individual beings with our own opinions, beliefs and conflicts.

Another fact contributing with negative references to the teaching-learning process are students with negative leadership of the group. This is clearly demonstrated by the following teacher’s testimony:

“...I have a group the University considers as a "problem", and this is the case because the group representative is a negative leader, that is, once I asked him to pass material to
his colleagues, so that they could write a paper, however, he not only didn’t pass the material to his colleagues, but he also said he couldn’t ask them to do that, as the explanation I had given was insufficient to write the paper; on the day they were supposed to hand in the paper, as nobody had done it, on his advice, I became furious, and this caused tumult among students. During the students’ arguments, I discovered that the fact that had caused the problem was that the representative had not passed the material, so I gave them a new deadline and I called this student for a conversation and he tried by all means to escape from responsibility for what happened, I perceive that these attitudes have been impairing teaching since, on that day, I almost didn’t manage to teach, because I had to make the students understand what had caused the problem...”

According to teachers, positive references were situations in which colleagues collaborate in the attempt to help the others, as described here:

“... there was one student who was going through very serious personal problems, and she wasn’t able to attend class, so she came and talk to me, explaining her situation and, while trying to talk, she started to cry compulsively; suddenly, a colleague of hers who was unaware of the situation and who wasn’t even that close came near and asked to take part in the conversation, she didn’t say no and, at that moment, the colleague asked me to let him help her, and I allowed it, not only did she manage to recover all of the contents she had lost during two months, but she also got one of the highest grades on the test, and all that happened thanks to a colleague’s solidarity....”

**FINAL CONSIDERATIONS**

Ever since the origins of education, educators and learners have sought the true essence of the teaching-learning process. In principle, the meaning of the term teaching-learning process seems simple but, actually, it is extremely complex, requiring a constant search for transformative learning, which should occur continuously and gradually transform the subjects involved.

During this study, we identified negative and positive aspects related to the teaching-learning process in the nursing course. In the students’ testimonies, the category of teacher’s behavior obtained a significant amount of negative references, which demonstrates that teachers face difficulties to deal with students’ lack of preparation and even immaturity during their nursing course. This is evidenced by the fact that students attribute a large part of their anguish and fears to teachers’ behavior.

The teacher-student relation should be seen as a key issue in a process where different persons, with unique experiences, get together to exchange knowledge in specific environments and at specific times. Students consider that the teaching-learning process in the classroom can be satisfactory when high-quality human relations occur. In this sense, they highlight teachers who pay attention, listen, are honest and respect other people.4

Students strongly emphasized that learning was impaired in situations when teachers hindered students’ creativity while performing a particular activity, evidenced by the teacher’s harsh and authoritarian attitudes.

We found a large number of reports related to the interruption of activities on the teacher’s orders: replacing one material by another to carry out activities; spilling a package of gauze on the floor; forgetting the logical sequence while placing a urinary catheter; forgetting to cut tape for fixing the catheter during venipuncture; when the teacher interrupts students during a seminar, asking them to return to their place; and in almost all situations in which the teacher stopped the activity and performed it in the student’s place, or called their attention in front of other people and did not allow them to continue realizing the activity.

Thus, teachers need to reflect on their attitudes, so as to value students as human beings under formation, to respect their life experience, understand the moment they are going through, with a view to effective learning.14

With respect to teachers’ perception of positive and negative aspects related to the teaching-learning process, a large number of negative references were attributed to relationship difficulties among students. Especially in the nursing course, interaction between people in a group is extremely important, as nursing students must be aware of the fact that, in order to perform their professional activities adequately, they will have to work in groups constantly, which requires good relationships.

Interaction provides conditions to exchange experiences and transform knowledge. Communication is a means for this interaction to take place. Teaching is an important part of this event when it allows students to participate in their own development.

Another category teachers mentioned with exclusively negative points was some students’ negative
leadership of the group. In general, in nursing as well as other areas, leadership is considered positively. Leaders frequently do not possess formal authority, but obtain their power through other means, such as influence for example. They guide followers who are willing to collaborate\(^{(17)}\). However, when this gift is used negatively, particularly in the teaching-learning process, it hinders and, hence, impairs the process.

However, students’ cooperation to help others was considered as a positive category, since a student’s learning is not only the teacher’s responsibility, but that of a whole group, involving families, teachers, society and students.

Teaching in the health area, and more specifically in undergraduate nursing courses, should provide for knowledge acquisition and behavioral changes, always keeping in mind the link between theory and practice\(^{(18)}\). Therefore, teachers need to reflect on their attitudes, so as to value students as human beings who are being formed, to respect their life experience and understand the moment they are going through, with a view to effective learning\(^{(14)}\).

REFERENCES