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MONITORING PHARMACOLOGY APPLIED TO NURSING: AN EXPERIENCE REPORT

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Abstract: Academic monitoring in universities follows Law No. 9394/96, which establishes the practice as an activity that has the role of assisting students' studies in undergraduate subjects. It helps with teaching, research and extension activities, but also develops the student-monitor's teaching knowledge and skills. The aim of this study is to report on the experience of a tutor in the subject of Pharmacology Applied to Nursing at a state public university. It consists of a descriptive study of the existence report type, considering the experience from March to July 2023. The monitoring activities included writing a summary, discussing guiding questions and clinical cases. The topic that required the most questions was medication calculations. There were difficulties related to the availability of a fixed room and the compatibility of the timetable with all the students enrolled in the subject. It is therefore considered that academic monitoring has a positive impact on the student monitor, as it enables the development of skills related to teaching, such as communication and techniques for transmitting knowledge, stimulating creativity, organization and proactivity. It also has a positive impact on the student of the subject, providing a complementary opportunity to the content and classroom activities.

Keywords: Teaching, Academic Institutions, Monitoring, Nursing, Experience Report.

INTRODUCTION

Education in Brazil has undergone many changes and transformations since the arrival of the Jesuits until the Federal Constitution of 1988, which guaranteed education as a social right. In addition, Law No. 9.394, of December 20, 1996, established the guidelines and bases of national education. In this law, the education process is divided into levels, with higher education being the highest level of education in the country (BRASIL, 1996).

Among higher education institutions, universities, according to the Federal Constitution, obey the principle of inseparability between teaching, research and extension, known as the university tripod, among which teaching stands out as a pillar of great importance in higher education, including within it the academic monitoring programs, set out in article 84 of Law No. 9.394/1996 (BRASIL, 1996).

The beginnings of monitoring activities date back to the Middle Ages, when in the 12th and 13th centuries, some of the free masters implemented different forms of school management, who almost always had a "*proscholus*", the Latin name given to the people who helped them with schooling at that time (FRISON, 2016).

According to Dantas (2014), tutoring emerged in Brazilian education, influenced by the Lancaster method, which aimed to teach a greater number of students using few resources, in a short time and with quality, using the most advanced student in the class, who received separate guidance from the teacher and then replicated it for the others.

In the academic context, Friedlander (1984) goes further and envisages pedagogical gains for both the student monitor and the student being monitored, by establishing the objectives of monitoring as helping with teaching, research and community outreach activities, but also developing teaching knowledge and skills in the student-monitor.

In fact, monitoring activities help to stimulate students' interest in teaching, offering them the opportunity to deepen their knowledge and strengthen relations between teachers and students in teaching and learning activities (GONÇALVES *et al*, 2021).

The existence of academic tutoring is mutually beneficial, as it allows student tutors to review content with greater insight and becomes a tool to help other students learn. In view of the above, the aim of this research is

to report on the experience of monitoring the subject of Clinical Pharmacology Applied to Nursing in the Bachelor of Nursing course at the State University of Ceará (UECE).

METHODOLOGY

STUDY DESIGN

This is a descriptive study of the experience report type, based on the academic experience of monitoring the curricular component of undergraduate nursing called Clinical Pharmacology Applied to Nursing. This type of article deals with a specific experience that can significantly enrich a particular area of activity. It should be written in a contextualized and objective way, with the aim of promoting the exchange and generation of ideas. Its aim is to share an experience, instigate discussion and facilitate reflection (MUSSI *et al.*, 2021).

The meetings took place weekly, on a day and at a time set in advance, with the aim of developing revision activities and clarifying doubts about the content taught in the classroom by the subject's head teacher. These meetings lasted a maximum of one hour and thirty minutes.

Considering that this is a cross-sectional study, and for the purposes of describing this experience, we considered the period from March to July 2023.

STUDY SITE

The activities carried out during the monitoring period took place at the State University of Ceará, on the Itaperi campus, in the city of Fortaleza, as well as remotely using the free video call tool in a virtual room accessible only to students enrolled in the subject entitled Clinical Pharmacology Applied to Nursing.

PARTICIPANTS

The monitoring activities were offered to all students duly enrolled in the subject of Clinical Pharmacology Applied to Nursing, in the 2023.1 academic semester, in this case the subject in question is offered in the fifth semester of the undergraduate course in Nursing. It also involved guidance from the subject's main lecturer.

ETHICAL ASPECTS

This study was developed through the experience of students who acted as monitors for the curricular component called Clinical Pharmacology Applied to Nursing. Therefore, it describes the practice experienced, the challenges involved in the proposed activities, as well as the strategies used to complement the content taught in the classroom by the teacher. In this way, no information was produced that could identify people, without the need for submission to an Ethics Committee.

RESULTS AND DISCUSSION

The curriculum matrix of the undergraduate nursing course at the public higher education institution where the monitoring experience took place divides the study of pharmacology into two curricular components, called General Pharmacology and Clinical Pharmacology Applied to Nursing, offered to fourth and fifth semester students, respectively. It should be noted that the latter focuses on the study of important drug classes, relating them to nursing practice.

When it comes to pharmacology, it's important to note that it is a science that studies the interactions that take place between a living organism and drugs that affect its functioning. Pharmacological therapy is one of the most widely used resources when an individual is affected by a disease, and has a multi-professional action that involves the participation of doctors, pharmacists and nursing professionals (PONTES; MARQUES; PAULA, 2023).

The role of the professional nurse is to provide care in the process of recovering the physiological state of individuals who need to undergo pharmacological therapy, for example. To this end, it is necessary for this professional to build a network of knowledge throughout their training with the intention of stimulating critical and reflective thinking by understanding the physiological and pathological processes to meet human needs, as well as therapeutic alternatives for the recovery of health and/or reduction of suffering (GROLI *et al.*, 2019).

From this perspective, the teaching of pharmacology encompasses broad and sometimes complex content for students to understand. In this context, the monitor presents itself as a strategy to support the learning process.

Higher education does not only have the function of merely passing on theoretical and scientific knowledge. It is also responsible for making the learning process active, mediated and self-regulated, seeking to invest in strategies and practices that enable better results, as is the case with academic monitoring (GONÇALVES, 2021).

During the monitoring period, the activities were carried out in face-to-face meetings and sometimes remotely. The schedule was shared with two other monitors, who were chosen through a selection process carried out by the course coordinator, as well as by analyzing the candidate's performance as a graduate of the pharmacology subject. The monitors were granted a scholarship from a different source of public funds, for a period of 10 months, and had to work 12 hours a week.

In order to carry out the monitoring activities, under the supervision of the subject's head teacher, the monitors prepared summaries of the content worked on in class, highlighting the most relevant and complex content, as well as discussing guiding questions. This strategy required the monitors to spend a lot of time studying in depth.

According to Lima and Santos (2023), learning strategies include cognitive strategies related to the individual's executive functions, such as reading, taking notes, summarizing, asking questions, among others. These strategies are methods used intentionally to learn a subject or perform a certain activity, and can be adapted according to the type of activity or environment, with the intention of intensifying the effectiveness of learning (VEIGA-SIMÃO, FRISON, MACHADO, 2015).

It can be seen that the ability to construct knowledge and information can be improved through different strategies, and summarizing appears in different situations, with the purpose of showing information in a selected and compact way. When information is selected and systematized, it is used productively to construct meaning (VEIGA-SIMÃO, FRISON, MACHADO, 2015).

Another strategy used during monitoring was the discussion of clinical cases, with the aim of helping students understand the applicability of pharmacological concepts and bases in a wide variety of situations, as well as stimulating the assimilation of theoretical content with practice, favoring the construction of clinical reasoning.

In the clinical case study, the student needs to actively participate in solving problems, enabling a discussion of the knowledge acquired in theory, allowing it to be transmitted into practice. In this way, this strategy acts as a facilitating factor in the teaching and learning process (PAIVA *et al.*, 2016). Santos *et al.* (2019) complements this by stating that this study format prepares undergraduates for real clinical situations, even more so when a study points out that almost 80% of trained nurses consider that the pharmacology course taken was not sufficient for professional practice (SANTANA, 2006).

It is also worth noting that during the monitoring period, it was observed that the topic that generated the greatest demand for doubts

was related to the content on medication calculation. This finding corroborates the results of the study by Nascimento *et al* (2016), which indicate that most nursing students reported feeling insecure (41.1%) and unsafe (20.5%) when calculating the medication to be administered.

It's also important to note that the students who asked the most questions were female, and most of them sought help when they weren't attending the tutoring sessions in person. On average, students enrolled in the subject took part in four meetings before the first summative assessment prepared and applied by the lecturer.

The students' attendance at the tutoring meetings, with the beginning of the semester being the period with the highest participation, led the subject lecturer to establish an extra score for the participants' attendance at the tutoring activities. This strategy had been discussed at a planning meeting between monitors and the subject's lecturer.

In the study by Souza and Oliveira (2023), this same strategy was used to promote the adherence of those being monitored to the activities, adding half a point to the final average of the subject upon participation in at least 75% of the monitoring program.

Also with a view to broadening contact with students and facilitating communication, a group was created on a free instant messaging application, including all those involved in the subject and monitoring activities.

However, there were difficulties in carrying out the monitoring activities, such as the availability of a classroom or fixed infrastructure for carrying out the planned actions, since despite monitoring being an institutionalized strategy at the university in question, there are no physical spaces set aside exclusively for this practice. In addition, most of the material resources used were paid for by the monitors themselves.

Another limiting factor was the incompatibility of schedules with some of the students, since monitoring is an extracurricular activity,

making it impossible for all the students in the class to take part. For this reason, it was decided to hold remote meetings on some occasions, as proposed by Souza and Oliveira (2023).

However, among the opportunities and challenges experienced, we can cite the findings of Menezes (2010), who considers that monitors seek to consolidate knowledge in the area, value more the teaching functions of being an information provider and facilitator, acquire greater mastery of teaching techniques and *online* tools, and associate the experience of being a monitor with better academic performance. They also agree with Natário and Santos (2010), who state that participation in tutoring by students in the health area is essential in presenting the possibility of a teaching career and, above all, in providing clarification for those who are already interested.

FINAL CONSIDERATIONS

Academic tutoring has a positive impact on student tutors, as it enables them to develop skills related to teaching, such as communication and techniques for transmitting knowledge, stimulating creativity, organization and proactivity. On the other hand, we also believe that the student of the discipline benefits, as it provides a complementary opportunity to the content and classroom activities, whether through the preparation of a thematic summary, discussion of guiding questions or study of clinical cases.

In addition, academic monitoring offers reciprocal cooperation between students and teaching staff, given the proximity to both, as well as facilitating communication, which enriches and enables a better university experience.

Finally, we believe that higher education should enable human beings to develop in various aspects of life, ensuring social, emotional, cognitive and professional growth. Therefore, the experience of academic tutoring has provided personal gains that are as important as the professional and technical-pedagogical gains.

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