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Contributions of academic monitoring of the subject of morfofuncional and integrated practices in the medicine course: An experience report

Contribuições da monitoria acadêmica na disciplina morfofuncional e práticas integradas no curso de medicina: Um relato de experiência

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ABSTRACT

The Morphofunctional discipline combined with Integrated Practices within the Medicine course involves modalities composed of anatomy, cell biology, physiology, histology, histopathology, laboratory practices, addressing the main morphological, anatomical and functional aspects of cells, tissues, organs and systems of the human body. The Monitoring Project in Human Anatomy plays a very important role in the consolidation of knowledge and in the development of greater interest in the area among the monitored students, by allowing greater contact with practical environments, as well as with the experience of students in more advanced periods of the course. The monitoring activities take place in the morphofunctional laboratory and in the Integrated Projects (IP), which have a large collection of synthetic pieces that bear a great resemblance to cadavers, projectors, microscopes, incubators and storage places for biological elements. Therefore, the present study corresponds to an experience report on the activities developed by monitoring within the discipline of Morphofunctional and Integrated Practices. The objective of this work is to report how the modality of monitoring works in a Private University in the interior of the State of São Paulo, exposing the mutual contributions that such activity exerts, both for the students entering the course and for the monitors. In this way, the activities carried out during this helped the participating students to become more interested in

the content of the discipline, understand the importance of anatomy and other areas for the medical career, in addition to developing a human, critical and reflective professional, with general skills established in health, decision making, communication and leadership.

Key words: Medical students, Tutoring, Anatomy, Medical school.

1 INTRODUCTION

The discipline of Morphofunctional and Integrated Practices is part of the curriculum of medical courses and is considered the basis of knowledge of the body, being fundamental for good professional practice (CAVALCANTE, 2022).

The monitoring programs of higher education institutions (HEIs) are one of the ways, among many others, that students can benefit from to expand their training and experience during the medical course. Thus, tutoring is an opportunity offered by undergraduate students, opening up a range of options for the monitor, from dedication to research, the opportunity to teach, review subjects, to management positions in health institutions (Ministry of Education, 1996).

Still on the monitoring program, it aims to integrate the monitors into the practice of teaching activities, allowing to accompany teachers in face-to-face or laboratory activities and to make a greater connection between theory and practice to students entering the course. Therefore, it improves the teaching process and encourages monitors to clarify doubts, practice and review the topics covered, including increasing their confidence in their professional skills and abilities, in addition to being a support for those who are starting their academic career (PEDROSA et al, 2022).

As a teaching support activity, the academic monitoring program directly encompasses students, monitors and teachers, with the aim of leading the development of the discipline and promoting the learning of the participating students. In addition to improving the quality of teaching and deepening knowledge of specific subjects, it also helps monitors and students in their global formation and autonomy, activities that will be of paramount importance for their academic, professional, and personal development (NASCIMENTO et al., 2021).

In relation to teaching, academic monitoring can be seen as an activity integrated with research and university extension, constituting an expansion of academic training, since monitors have the opportunity to deepen their knowledge, improve theoretical and practical skills, and discuss the doubts of students enrolled in the discipline (ANDRADE, 2018; NGO, 2019).

In terms of the monitors' personal gains, they occur to the extent that there is a need to transform, many times, something abstract into something tangible and less obscure, so participation in the program gives monitors the opportunity to practice teaching skills, as well as to increase their knowledge in areas of future interest, ensuring future work in social activities (ASSIS, 2006).

The academic monitoring project is in line with an active teaching methodology, integrating students at different academic levels in order to promote mutual learning. It is known that the process of knowledge according to William Glasser's Learning Pyramid has a hierarchy, in which the base of the pyramid is represented by teaching, making this the most productive modality in the field of learning, also adding knowledge to those in which teaching is directed (PEREIRA, 2020). Thus, in order to promote better transfer of information, the monitors are faced with the need to create didactic, synthetic and innovative ways to facilitate such a process, which is equivalent to the apex of human knowledge capacity according to Bloom's taxonomy (FERRAZ, 2010).

Figure 1 – William Glasser's Learning Pyramid

Fonte: Glasser, 1960.

2 OBJECTIVE

To report the experience of the student-monitors in Medicine at a Private University in the interior of the State of São Paulo about the challenges and contributions experienced during the academic monitoring activities of the discipline Morphofunctional and Integrated Practices.

3 METHODOLOGY

The present study is an experience report, developed by the academics who authored this project. The report refers to the activities carried out in the academic monitoring of the discipline Morphofunctional and Integrated Practices, a component of the curriculum of the Medicine Course of the aforementioned institution of a Private University in the interior of the State of São Paulo. It is worth mentioning that the monitoring program was composed of eight medical students, from the second to the fourth year, classified through a selection process, but despite this, only the present authors made themselves available to write this report.

The program is dedicated only to the first year of graduation of the current year's freshmen, through theoretical and practical classes, expository and active methodologies, as well as the availability of monitors to discuss academic doubts. Such activities take place in the laboratories of human anatomy and integrated practices, in order to assist them in this first contact with the academic field of Medicine.

The monitoring activities were carried out twice a week, once in the anatomy laboratory and once in the integrated practices laboratory. The present study is based on the first semester of 2023 and was attended by all 66 students entering this year.

The monitoring activities were planned and articulated between monitors and professors of the module, with their supervision in the conduct of the activities.

The topics discussed by the monitor are organized according to the teaching plan, taking into account the bibliography adopted in the current module, namely: cardiovascular, muscular, respiratory, joint, skeletal, digestive, urinary, reproductive and nervous systems. In order to contemplate the aforementioned modalities of each system, such as anatomy, histology, physiology, among others. The management of materials, sessions and topics was under the guidance of the professors responsible for the course.

4 RESULTS AND DISCUSSION

It is important to highlight that during the monitoring, active methodologies were used, such as TBL (*Team Based Learning*) and scavenger hunts to conduct the activities, which constitute a tool to provide problematized learning, placing students at the center of the training process itself, enabling the critical and reflective development of knowledge.

The main activity developed throughout the monitoring period was to assist the students after classes of the professors of the discipline both in the anatomy laboratories and in Integrated

Practices. After the content, the students followed the study scripts previously provided by the professors, using the pieces, slides and books available in the laboratory.

In the anatomy laboratory, students had synthetic pieces for studying the parts of the human body, as well as microscopes and histological slides. In view of this, the monitors assisted in the search for the items present in the scripts and helped with doubts about any questions on the part of the students.

In relation to the Integrated Practices laboratory, the scope of action was similar, but the materials used were different. The teachers explained the theory and the respective experiments that should be done, in return the students had the task of carrying them out according to the script and explanations provided. The monitors had the role of supervising the experiments, since some involved materials of certain risk, such as sharps and biologicals, as well as assisting in doubts according to demand.

In addition to monitoring the development of activities during the class day, the monitors were responsible for developing training activities for students for the subject assessments. Such training was based on two forms: through TBL and through scavenger hunts using parts and slides from the laboratories. TBL is a dynamic and active methodology based on group learning activities. In this case, the questions were prepared by the monitors based on the current module in *PowerPoint*, shown to the students to answer after discussing among themselves the best option and after all groups answered the chosen alternative, the monitors made the correction and explanation due. On the other hand, the scavenger hunts consisted of stations, where the students had to answer in a limited time correctly which structure or histological aspect was pointed out by arrows or pins.

Also in relation to the use of PowerPoint*, the monitors prepared classes that were taught remotely or face-to-face, with the aim of assisting* students in learning.

As reported at the beginning, the monitoring was carried out in an academic center that uses active methodology as the basis of teaching, and it has tutoring sessions as one of its disciplines. These are based on discussions between students supervised by the tutor-teacher, in which theoretical and practical knowledge about medicine is required that is also seen in the laboratories of Morphofunctional and Integrated Practices and, therefore, integrates. In addition, they stimulate, from the beginning of the course, critical thinking, defense of arguments, proactivity and have the student himself at the center of learning.

Another activity of the monitors was to contribute to the evolution and constant improvement of the discipline. Based on the close relationship between the monitors and

students, the main difficulties and successes of the class were exposed to the teachers, in order to improve the teaching methods. In addition, the monitoring activities contribute to the development of teaching skills and to the formation of critical and reflective thinking.

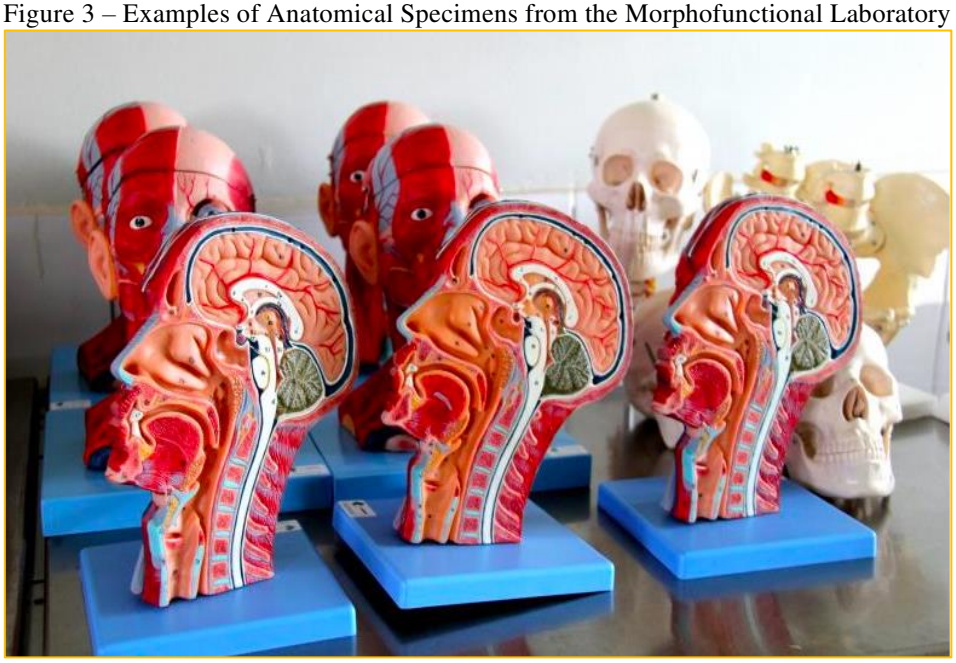
After explaining the activities developed, it is also necessary to make a critical reflection on the monitoring period, both the positive and negative points. Regarding the positives, there was a significant evolution throughout the process, especially in relation to the students' adherence to the activities. At first, few showed interest in the program and the monitors themselves, however, as time went by, students began to see the gains they could extract from the monitors, so the demand increased. In addition, it is important to highlight the beneficial aspects to the monitors, who needed constant improvement and theoretical-practical revisions, preparation of materials, clarification of doubts and use of better forms of explanation to contribute to the best possible understanding of the subject in question.

Regarding the challenges, the main one was to establish a bond of trust and reciprocity between monitors-students. There was no effective approximation and the teaching-learning process took a long time to happen, but over the period this distant link was resolved and there was an exchange of experiences among those involved.

Figure 2 – Overview of the Morphofunctional Laboratory

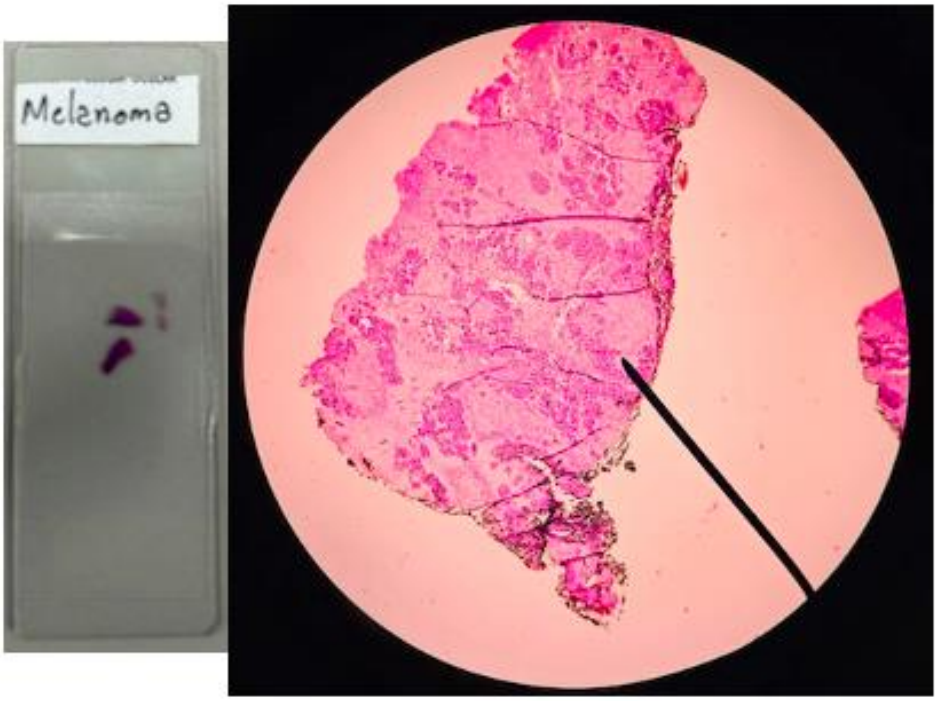
Source: authors' collection

Figure 3 – Examples of Anatomical Specimens from the Morphofunctional Laboratory



Source: authors' collection

Figure 4 – Examples of Melanoma Histological Slide and Microscopic Visualization in the Morphofunctional Laboratory



Source: authors' collection

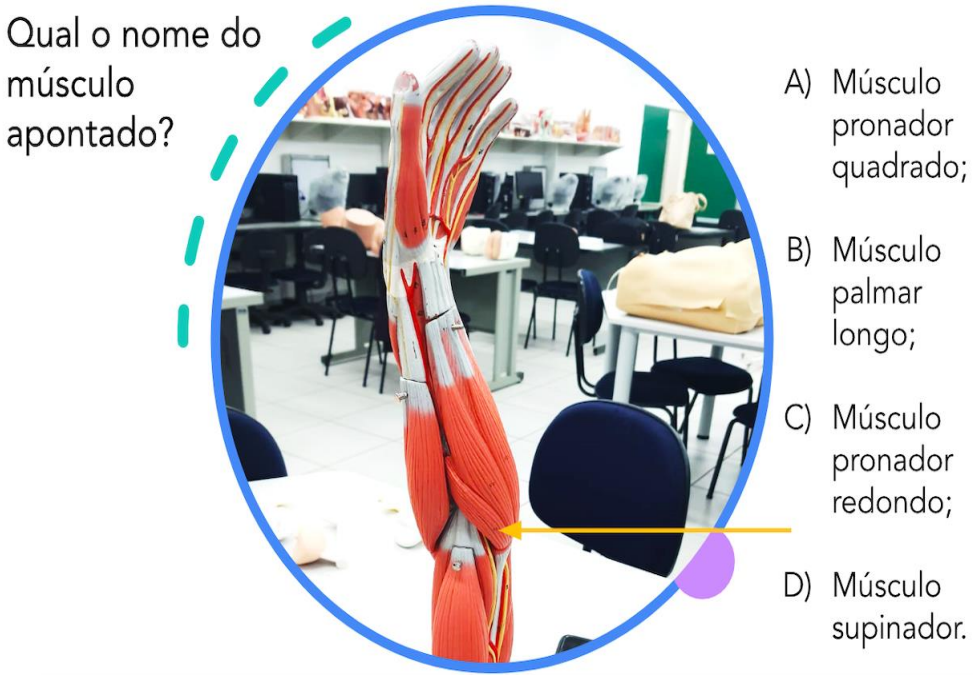
Figure 5 – Overview of the Integrated Practices Laboratory

Source: authors' collection

Figure 6 – Students during classes in the Integrated Practices Laboratory

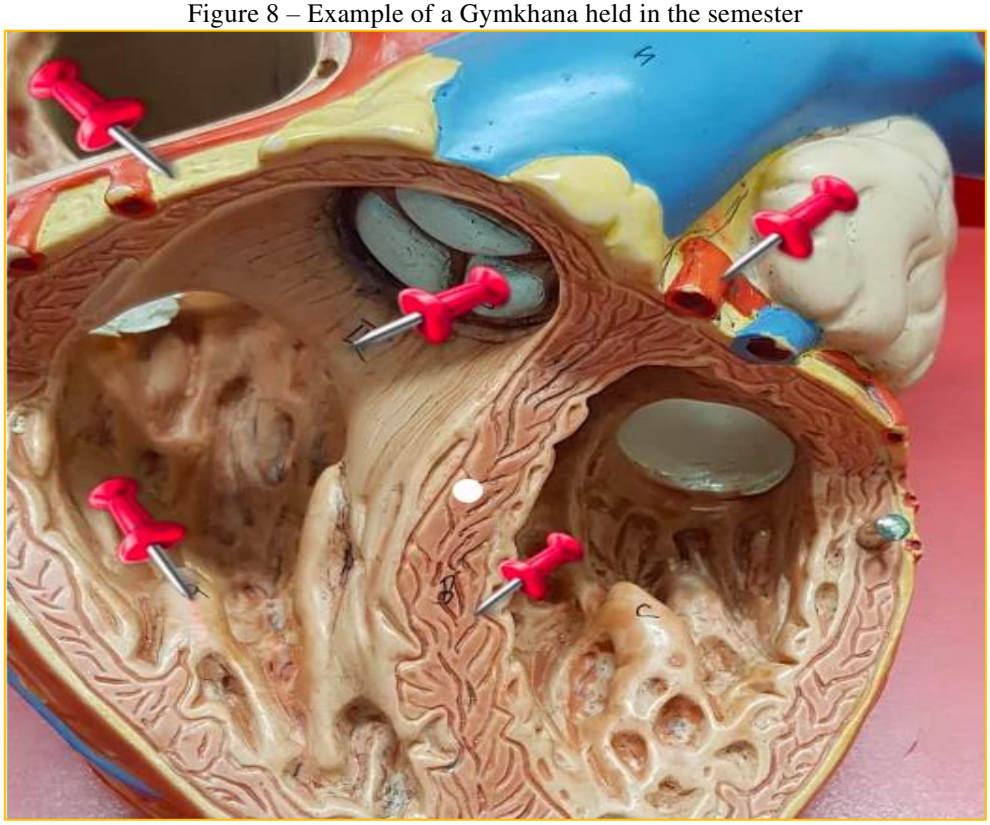
Source: authors' collection

Figure 7 – Example of LTB on the musculoskeletal system performed in the semester



Source: developed by the authors

Figure 8 – Example of a Gymkhana held in the semester



Source: authors' collection

5 FINAL THOUGHTS

From the first semester of 2023 in the monitoring program, great academic and personal gains could be observed. The tutoring provided an important opportunity for the monitors to develop, improve their learning and to be able to deal with and solve daily challenges. In addition, the monitoring represented an improvement in academic training, providing greater security and basis for professional practice.

Also highlighted again is the importance of the discipline Morphofunctional and Integrated Practices, it is one of the pillars of knowledge that every medical student needs to have in order to be able to correlate the parts of the human body with the diseases that affect it.

As mentioned above, the monitoring activities encountered challenges that required creativity and proactivity from the monitors to be faced, however the objectives of the program could be successfully achieved with the participating students.

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