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Histology and Embryology Monitoring as an important teaching-learning pedagogical strategy

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Abstract

Academic monitoring emerges as an important pedagogical strategy to support students in addition to providing professional experiences to student monitors. In this context, the objective of this study was to compare the performance of students in the discipline of Histology and Special Embryology (HEE) after extra-class monitoring intervention. This subject was offered in the Pharmacy course at the Federal University of Sergipe (UFS) to a class of 52 students in 2022 (class 1), without the presence of a monitor, and to 48 students in 2023 with monitoring intervention (class 2). Both classes had the same theoretical and practical workload configuration, in addition to the same content involved and assessment activities. After obtaining the general media for each class, it was possible to verify that class 2 had a higher classification and a lower number of failures compared to class 1 ($p < 0.05$). Furthermore, it was possible to observe greater interest and proximity of the monitor to teaching activities. These results suggest that monitoring was essential to maximize the teaching-learning process of students, minimizing their retention in addition to constituting a powerful tool in training and encouraging student monitors to teach.

Keywords: Academic support services, tutorial, learning.

Introduction

In higher education, academic tutoring emerges as an important pedagogical strategy for academic support and boosts the student teaching-learning process (Barbosa, et al., 2014). Additionally, the possibility of experiencing teaching-learning situations can be fundamental for the construction of professional experiences of the student monitor, especially for those who wish to pursue a teaching career (Therrien, 1997).

In the Pharmacy course at the Federal University of Sergipe, the subject of Histology and Special Embryology (HEE) aims to present elements of Human Biology necessary for professional work in the health area. In this context, the monitor's role becomes essential to promote practical study and integration of theoretical knowledge discussed by the teacher trainer of this discipline. Therefore, this study aimed to compare the performance of Pharmacy students in the HEE discipline with and without extra-class monitoring intervention.

Methodology

In 2022, the HEE discipline was offered to 52 students in the second year of the UFS Pharmacy course (class 1), containing 40 hours of theoretical subject discussed in the classroom and 40 hours of practical classes in the laboratory, which covered content of Basic Histology (tissues: epithelial, glandular, connective, muscular and nervous) and Basic Embryology (fertilization up to the eighth week of embryonic development), without extra-class monitoring support. During this course, there were two assessment activities with a value of 100 points each and involved questions integrated between theory and practice of the topics covered. The final grade for the subject corresponded to a simple average between these two assessment activities, making it possible to calculate the overall average for the class. In 2023, the same subject was offered to 48 second-year students, from the same course (class 2), with the same theoretical and practical workload configuration as the previous year, in addition to the same content covered and assessment activities. However, this year a student from the Physiotherapy course was selected to act as monitor of this discipline with the following activities: monitoring and participation during practical classes in the laboratory, in-person assistance in the laboratory and virtual assistance in shifts outside the HEE discipline, use of atlases virtual courses, preparation of practical study guides for histology and embryology slides, development of quizzes, online games and other teaching-learning methodologies that encouraged the integration of theoretical and practical knowledge of this discipline. At the end of the course, the data obtained were submitted to statistical analysis using the GraphPad Prima 5 program, being expressed as mean ± standard deviation. The significance level adopted was 5%.

Results

During the course in class 2, it was possible to demonstrate greater interaction and understanding among students in relation to the subjects of Histology and Embryology covered in the classroom by the teacher compared to class 1. It was also possible to observe greater interest and proximity to the monitor teaching activities. Finally, after closing the course, as well as the assessment activities, class 1 had an overall average of 6.8 points, with 8 failures and class 2 had an average of 8.7 points and only 2 failures (table 1).

Discussion

Based on the results of this study, it was possible to demonstrate that monitoring contributed significantly to increasing knowledge gains and reducing the number of failures in the HEE discipline. Several hypotheses may have contributed to the satisfactory results in the group of students who had monitoring intervention, among which the following stand out: breaking the hierarchy and proximity of the monitor and other students due to the age group, dialects used and the condition itself. of learning that may have made the environment more conducive to learning (Gonçalves, 2021), maximizing learning by being a means of clarifying doubts, arousing students' interest in the subject studied (Matoso, 2014). According to (Masetto, 2003) the monitor contributes to student training, as it helps the teacher to capture the difficulties that students manifest in the course and discipline, as well as favoring student learning by encouraging class participation in the proposed activities and in practical laboratory activities.

On the other hand, it is essential to highlight the gain of personal and professional experience of the monitor who worked in this process. According to (Pessôa, 2007), it is notable to observe that monitoring allows the undergraduate student greater proximity and interest in the teaching career as they live directly with the daily practice of teaching, sharing pedagogical experiences that enable the construction of their linked personal and professional identity. to teaching.

Conclusion

From the study carried out, it was possible to conclude that academic support programs are fundamental for the progression of the teaching-learning process of students in higher education, minimizing their retention in addition to constituting a valuable tool in the training and stimulation of the student monitor. to teaching.

Limitations

It is necessary to increase the sample number.

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